



October 14, 2019

Ms. Karen A. Cahill
Assistant Engineer, Division of Environmental Remediation
New York State Department of Environmental Conservation
615 Erie Boulevard West
Syracuse, NY 13204-2400

**Re: August 2019 Drinking Water Sampling Overview & Results
BAGS Landfill Site #709003 – Bainbridge, NY**

Dear Ms. Cahill:

At the request of NYSDEC, during August 2019 HDR conducted a drinking water sampling program of private residential & commercial property water supplies at parcels in the vicinity of the Town of Bainbridge BAGS Landfill (Site # 709003) in Chenango County, New York. Four locations north of the landfill in the Towns of Bainbridge and Guilford off of State Highway 8, and an additional three locations along Highway 8 south of the landfill, all within the Town of Bainbridge, were included in the sampling program. Maps showing the sampling locations are included under Attachment A in an Overview Map and as Figures 1 & 2. The sampling was conducted as part of work assignment #35 issued under HDR's standby engineering contract with NYSDEC. Prior identification of site specific contaminants of concern related to the BAGS Landfill indicated that this particular mobilization required sampling for 1,4-dioxane only in drinking water supplies in the vicinity of the landfill.

Drinking water sampling was conducted in accordance with HDR's Standby Engineering Contract Field Activities Plan (FAP) and Quality Assurance Plan (QAP). For all but one location, drinking water was supplied by standard steel-cased 6-inch diameter drilled wells. Although the exact depth and hydrogeologic setting for each well was unknown, based on their construction and surface appearance they are likely open-hole bedrock supply wells at least 100 ft in depth. Samples were collected from points along the distribution system associated with the wells, typically at pressure tanks or faucets / spigots near the tanks in basements / utility rooms at the various sampling locations. One groundwater spring was also sampled, both from the spring source and from a booster pump pressure tank valve at the end use location downstream from the source. A pair of representative photos from each address / sampling point are included in a photo log as Attachment B to the report. Where applicable, each system was purged for 10-15 minutes prior to sampling by running cold water in a sink, to insure that several pumping cycles / refills of the pressure tank occurred and that water collected for samples was representative of fresh aquifer

formation water. Details regarding the individual sampling locations / addresses are outlined below:

301 State Highway 8

Sample **BAGS_301_8_20190828** was collected from a utility sink in the basement of the residence at this location. The supply system consisted of a standard supply well outfitted with a submersible pump and pressure tank. No active in-line treatment systems were operating between the supply line from the well and the sample collection point.

307 State Highway 8

Sample **BAGS_307_8_A_20190828** was collected from a covered (tunnel) rock lined cistern at the groundwater spring source along the western edge of this property. Upwelling of water and sand boils in the bottom of the cistern were observed and this water was transmitted via gravity through a polyvinyl chloride (PVC) pipe out of the cistern access tunnel; the piping run continued (buried) to its end use at several residences associated with this address. The spring source sample was collected via stainless steel dip bucket directly from the upwelling water in the cistern.

An end use sample **BAGS_307_8_B_20190828** was also collected at this address from the gate valve connection at the bottom of a pressure tank associated with a booster pump at the last residence in the supply line from the spring. No treatment systems were observed in-line with the water supply system at this address.

259 State Highway 8

Sample **BAGS_259_8_20190828** was collected from a utility sink in the basement of the residence at this location. The supply system consisted of a standard supply well outfitted with a submersible pump and pressure tank. No active in-line treatment systems were operating between the supply line from the well and the sample collection point.

135 State Highway 8

Sample **BAGS_135_8_A_20190828** was collected from a gate valve connector in-line with water supplies servicing the boiler room at this commercial property. The supply system at this location consisted of a standard supply well outfitted with a submersible pump and pressure tank. Water conditioning treatment was present between the pressure tank and sample collection point but was valved off for the duration of purging the system and sample collection to insure that the collected sample was representative of the source well water.

Sample **BAGS_135_8_B_20190828** was also collected at this address (from a separate building on the property). The sample was collected from the faucet of a sink in the utility room of the vehicle / equipment service garage associated with the on-site commercial enterprise. The supply system consisted of a standard supply well outfitted with a submersible pump and pressure tank. This water system was serviced by a separate supply well from the one used to supply water to the boiler room building described above. No active in-line treatment systems were operating between the supply line from the well and the sample collection point.

272 Kelly Road

Sample **BAGS_272_KEL_20190828** was collected from the gate valve connection at the bottom of the pressure tank associated with a standard supply well system outfitted with a submersible pump and pressure tank. No treatment systems were observed in-line with the water supply system at this address.

Upon collection, all samples were preserved on ice in coolers designated for sample preservation and transport and submitted to Eurofins TestAmerica Laboratory service center in Syracuse, NY under chain of custody protocols for sample processing. Samples were subsequently analyzed by Eurofins TestAmerica and the sampling results are discussed below.

Results

Analysis of the 1,4-dioxane samples was provided by Eurofins TestAmerica, Edison. The drinking water samples were analyzed for EPA Method 8270D SIM (1,4-dioxane) in accordance with NYSDEC guidance. The proposed NYSDOH Drinking Water maximum contaminant limit (MCL) of 1 microgram/liter (ug/l), or 1 part per billion (ppb), applies to 1,4-dioxane. The laboratory analytical data package, including the Category B data deliverable, UDS Level 2 Report, and summary excel data tables, was previously provided electronically to NYSDEC. The Category B data deliverable is provided here again as Attachment C. The data usability summary report (DUSR) for the data, prepared by Environmental Data Services, Inc., is provided as Attachment D to this sampling report.

Based on the data evaluation, there were no rejected results and qualification of the data was not required. The validated electronic data deliverable (EDD) has been submitted to the NYSDEC for upload to the NYSDEC EQuIS database.

1,4-Dioxane concentrations were non-detect at 0.2 ug/l for all samples with the exception of **BAGS_307_8_B_20190828** where a detected concentration of 0.29 ug/l was reported. Although detected, the 1,4-dioxane concentration for this sample was below the

proposed NYSDOH Drinking Water MCL of 1 ug/l for this compound.

One field duplicate sample was collected; results revealed good reproducibility. One MS/MSD sample was analyzed. The MS/MSD as well as the surrogates and other laboratory QC met recovery limits and QC criteria. Method blanks were free of contaminants.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Melissa E. LaMacchia".

Melissa E. LaMacchia, PG
Associate | Senior Project Manager

Attachments

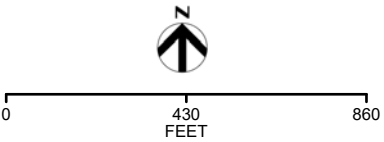
ATTACHMENT A – SAMPLING LOCATION FIGURES



- LEGEND
- BAGS Landfill Sample Points
 - Spring Water Supply (Piped Supply Lines)
 - Municipalities
 - Counties
 - Parcels

Service Layer Credits: World Topographic Map: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

BAGS LANDFILL







ATTACHMENT B – SAMPLING LOCATIONS PHOTO LOG



BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_301_8



Photo 2

Date: 08/28/2019

Description:

BAGS_301_8





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_307_8_A
Spring Entry



Photo 2

Date: 08/28/2019

Description:

BAGS_307_8_A
Source





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 3

Date: 08/28/2019

Description:

BAGS_307_8_A

Spring Entrance



Photo 4

Date: 08/28/2019

Description:

BAGS_307_8_A

Spring Channel





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 5

Date: 08/28/2019

Description:

BAGS_307_8_A
Spring Channel

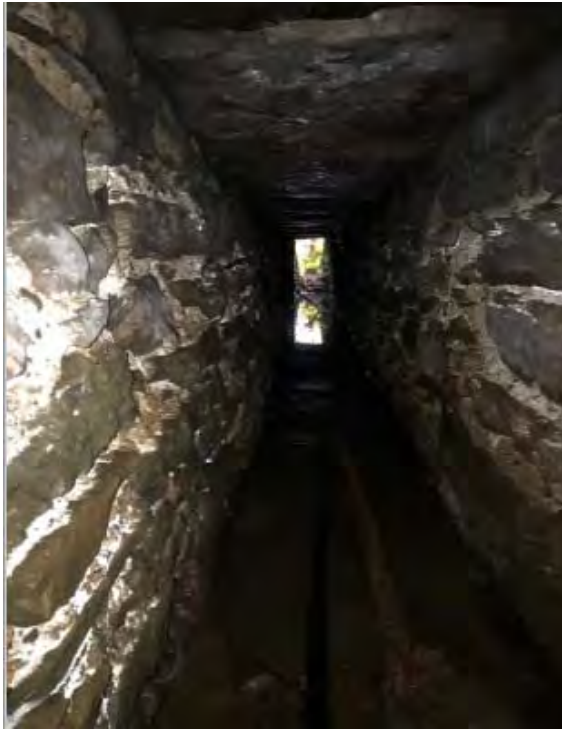


Photo 6

Date: 08/28/2019

Description:

BAGS_307_8_A
Spring Source



BAGS Sanitation Landfill Drinking Water Sampling Photo Log

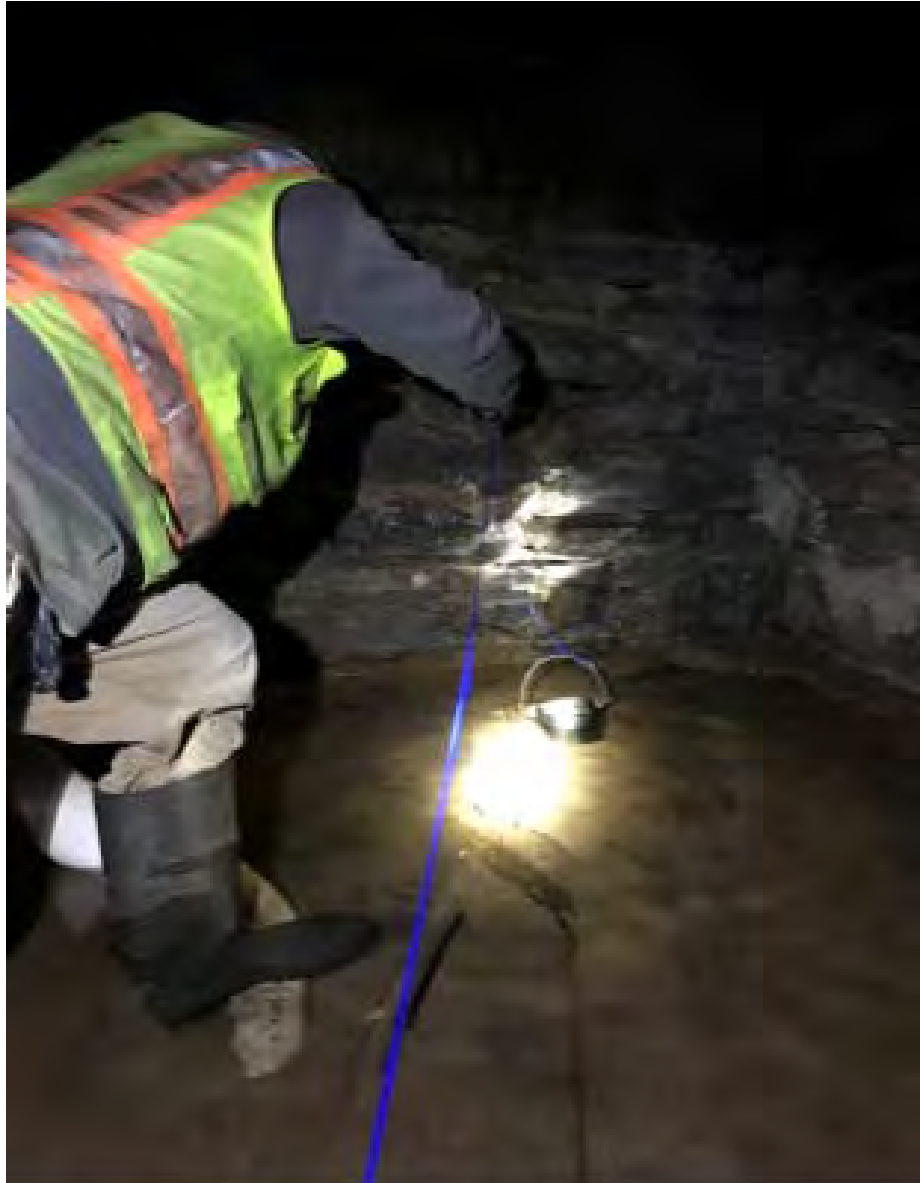
Photo 7

Date: 08/28/2019

Description:

BAGS_307_8_A

Spring Source





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_307_8_B

Sample Point



Photo 2

Date: 08/28/2019

Description:

BAGS_307_8_B

Water Clarity





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_259_8

Pump System



Photo 2

Date: 08/28/2019

Description:

BAGS_259_8

Well





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_135_8_A

Pump System



Photo 2

Date: 08/28/2019

Description:

BAGS_135_8_A

Well





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_135_8_B

Pump System



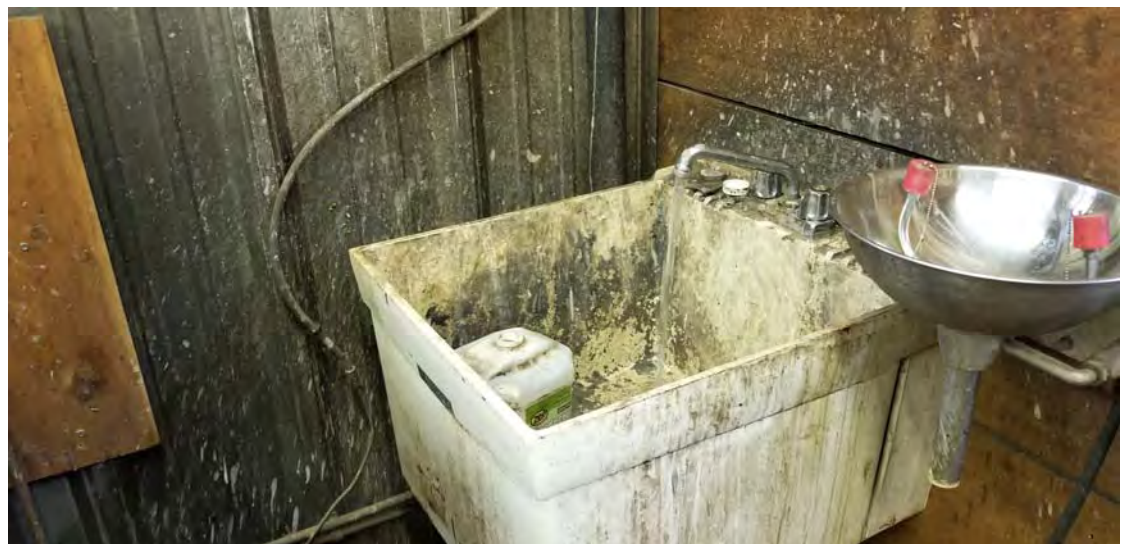
Photo 2

Date: 08/28/2019

Description:

BAGS_135_8_B

Purge





BAGS Sanitation Landfill Drinking Water Sampling Photo Log

Photo 1

Date: 08/28/2019

Description:

BAGS_272_KEL

Pump System



Photo 2

Date: 08/28/2019

Description:

BAGS_272_KEL

Well



ATTACHMENT C – CATEGORY B DATA DELIVERABLE

ANALYTICAL REPORT

Job Number: 320-53835-1

SDG Number: BAGS Landfill

Job Description: BAGS LF DW Samples

For:

HDR Inc

1 International Blvd, 10th Floor

Mahwah, NJ 07495

Attention: Ms. Melissa LaMacchia



Approved for release.
David R Alltucker
Project Manager I
9/16/2019 2:31 PM

David R Alltucker, Project Manager I
880 Riverside Parkway, West Sacramento, CA, 95605
(916)374-4383
david.alltucker@testamericainc.com
09/16/2019

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Job Narrative
320-53835-1

Receipt

The samples were received on 8/30/2019 8:13 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

Receipt Exceptions

One or more containers for the following sample was received broken or leaking: BAGS_301_8_20190828 (320-53835-1[MS]). 1/2 container received with cracked lid. Lid was taped in lab. No volume lost.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-53835-1	BAGS_301_8_20190828	Water	08/28/19 11:20	08/30/19 08:13	
320-53835-2	BAGS_307_8_A_20190828	Water	08/28/19 12:10	08/30/19 08:13	
320-53835-3	BAGS_307_8_B_20190828	Water	08/28/19 12:45	08/30/19 08:13	
320-53835-4	BAGS_259_8_20190828	Water	08/28/19 13:20	08/30/19 08:13	
320-53835-5	BAGS_135_8_A_20190828	Water	08/28/19 14:15	08/30/19 08:13	
320-53835-6	BAGS_135_8_B_20190828	Water	08/28/19 14:50	08/30/19 08:13	
320-53835-7	BAGS_272_KEL_20190828	Water	08/28/19 15:15	08/30/19 08:13	
320-53835-8	BAGS_999_9_20190828	Water	08/28/19 00:00	08/30/19 08:13	

Detection Summary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Client Sample ID: BAGS_301_8_20190828

Lab Sample ID: 320-53835-1

☐ No Detections.

Client Sample ID: BAGS_307_8_A_20190828

Lab Sample ID: 320-53835-2

☐ No Detections.

Client Sample ID: BAGS_307_8_B_20190828

Lab Sample ID: 320-53835-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.29		0.20	0.016	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: BAGS_259_8_20190828

Lab Sample ID: 320-53835-4

☐ No Detections.

Client Sample ID: BAGS_135_8_A_20190828

Lab Sample ID: 320-53835-5

☐ No Detections.

Client Sample ID: BAGS_135_8_B_20190828

Lab Sample ID: 320-53835-6

☐ No Detections.

Client Sample ID: BAGS_272_KEL_20190828

Lab Sample ID: 320-53835-7

☐ No Detections.

Client Sample ID: BAGS_999_9_20190828

Lab Sample ID: 320-53835-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Method Summary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Client Sample Results

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Client Sample ID: BAGS_301_8_20190828

Lab Sample ID: 320-53835-1

Date Collected: 08/28/19 11:20

Matrix: Water

Date Received: 08/30/19 08:13

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L	-	09/04/19 08:52	09/05/19 06:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	34		10 - 150				09/04/19 08:52	09/05/19 06:53	1

Client Sample ID: BAGS_307_8_A_20190828

Lab Sample ID: 320-53835-2

Date Collected: 08/28/19 12:10

Matrix: Water

Date Received: 08/30/19 08:13

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L	-	09/04/19 12:47	09/05/19 06:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	42		10 - 150				09/04/19 12:47	09/05/19 06:34	1

Client Sample ID: BAGS_307_8_B_20190828

Lab Sample ID: 320-53835-3

Date Collected: 08/28/19 12:45

Matrix: Water

Date Received: 08/30/19 08:13

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.29		0.20	0.016	ug/L	-	09/04/19 08:52	09/05/19 03:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	13		10 - 150				09/04/19 08:52	09/05/19 03:01	1

Client Sample ID: BAGS_259_8_20190828

Lab Sample ID: 320-53835-4

Date Collected: 08/28/19 13:20

Matrix: Water

Date Received: 08/30/19 08:13

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L	-	09/04/19 08:52	09/05/19 03:21	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	37		10 - 150				09/04/19 08:52	09/05/19 03:21	1

Client Sample ID: BAGS_135_8_A_20190828

Lab Sample ID: 320-53835-5

Date Collected: 08/28/19 14:15

Matrix: Water

Date Received: 08/30/19 08:13

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L	-	09/04/19 08:52	09/05/19 03:40	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	18		10 - 150				09/04/19 08:52	09/05/19 03:40	1

Client Sample ID: BAGS_135_8_B_20190828

Lab Sample ID: 320-53835-6

Date Collected: 08/28/19 14:50

Matrix: Water

Date Received: 08/30/19 08:13

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L	-	09/04/19 08:52	09/05/19 03:59	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Client Sample ID: BAGS_135_8_B_20190828

Date Collected: 08/28/19 14:50

Date Received: 08/30/19 08:13

Lab Sample ID: 320-53835-6

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8	32		10 - 150	09/04/19 08:52	09/05/19 03:59	1

Client Sample ID: BAGS_272_KEL_20190828

Date Collected: 08/28/19 15:15

Date Received: 08/30/19 08:13

Lab Sample ID: 320-53835-7

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L		09/04/19 08:52	09/05/19 04:19	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8	34		10 - 150				09/04/19 08:52	09/05/19 04:19	1

Client Sample ID: BAGS_999_9_20190828

Date Collected: 08/28/19 00:00

Date Received: 08/30/19 08:13

Lab Sample ID: 320-53835-8

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L		09/04/19 08:52	09/05/19 04:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	49		10 - 150				09/04/19 08:52	09/05/19 04:38	1

Isotope Dilution Summary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (10-150)
320-53835-1	BAGS_301_8_20190828	34
320-53835-1 MS	BAGS_301_8_20190828	41
320-53835-1 MSD	BAGS_301_8_20190828	25
320-53835-2	BAGS_307_8_A_20190828	42
320-53835-3	BAGS_307_8_B_20190828	13
320-53835-4	BAGS_259_8_20190828	37
320-53835-5	BAGS_135_8_A_20190828	18
320-53835-6	BAGS_135_8_B_20190828	32
320-53835-7	BAGS_272_KEL_20190828	34
320-53835-8	BAGS_999_9_20190828	49
MB 460-636859/1-A	Method Blank	31

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (10-200)
LCS 460-636859/2-A	Lab Control Sample	43
LCSD 460-636859/3-A	Lab Control Sample Dup	42

Surrogate Legend

DXE = 1,4-Dioxane-d8

QC Sample Results

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 460-636859/1-A
Matrix: Water
Analysis Batch: 637000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636859

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.016	ug/L		09/04/19 08:52	09/05/19 01:05	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		10 - 150				09/04/19 08:52	09/05/19 01:05	1

Lab Sample ID: LCS 460-636859/2-A
Matrix: Water
Analysis Batch: 637000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636859

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
1,4-Dioxane		1.60	1.51		ug/L		94	10 - 200	
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits						
1,4-Dioxane-d8	43		10 - 200						

Lab Sample ID: LCSD 460-636859/3-A
Matrix: Water
Analysis Batch: 637000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 636859

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD Limit
1,4-Dioxane		1.60	1.50		ug/L		94	10 - 200	1 50
Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits						
1,4-Dioxane-d8	42		10 - 200						

Lab Sample ID: 320-53835-1 MS
Matrix: Water
Analysis Batch: 637000

Client Sample ID: BAGS_301_8_20190828
Prep Type: Total/NA
Prep Batch: 636859

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	ND		1.60	1.41		ug/L		88	70 - 130
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8	41		10 - 150						

Lab Sample ID: 320-53835-1 MSD
Matrix: Water
Analysis Batch: 637000

Client Sample ID: BAGS_301_8_20190828
Prep Type: Total/NA
Prep Batch: 636859

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD Limit
1,4-Dioxane	ND		1.60	1.50		ug/L		94	70 - 130	6 20
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits							
1,4-Dioxane-d8	25		10 - 150							

Definitions/Glossary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

GC/MS Semi VOA

Prep Batch: 636859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-53835-1	BAGS_301_8_20190828	Total/NA	Water	3510C	
320-53835-2	BAGS_307_8_A_20190828	Total/NA	Water	3510C	
320-53835-3	BAGS_307_8_B_20190828	Total/NA	Water	3510C	
320-53835-4	BAGS_259_8_20190828	Total/NA	Water	3510C	
320-53835-5	BAGS_135_8_A_20190828	Total/NA	Water	3510C	
320-53835-6	BAGS_135_8_B_20190828	Total/NA	Water	3510C	
320-53835-7	BAGS_272_KEL_20190828	Total/NA	Water	3510C	
320-53835-8	BAGS_999_9_20190828	Total/NA	Water	3510C	
MB 460-636859/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-636859/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-636859/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
320-53835-1 MS	BAGS_301_8_20190828	Total/NA	Water	3510C	
320-53835-1 MSD	BAGS_301_8_20190828	Total/NA	Water	3510C	

Analysis Batch: 637000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-53835-1	BAGS_301_8_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-2	BAGS_307_8_A_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-3	BAGS_307_8_B_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-4	BAGS_259_8_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-5	BAGS_135_8_A_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-6	BAGS_135_8_B_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-7	BAGS_272_KEL_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-8	BAGS_999_9_20190828	Total/NA	Water	8270D SIM ID	636859
MB 460-636859/1-A	Method Blank	Total/NA	Water	8270D SIM ID	636859
LCS 460-636859/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	636859
LCSD 460-636859/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	636859
320-53835-1 MS	BAGS_301_8_20190828	Total/NA	Water	8270D SIM ID	636859
320-53835-1 MSD	BAGS_301_8_20190828	Total/NA	Water	8270D SIM ID	636859

Lab Chronicle

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Client Sample ID: BAGS_301_8_20190828

Lab Sample ID: 320-53835-1

Date Collected: 08/28/19 11:20

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 06:53	MME	TAL EDI

Client Sample ID: BAGS_307_8_A_20190828

Lab Sample ID: 320-53835-2

Date Collected: 08/28/19 12:10

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 12:47	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 06:34	MME	TAL EDI

Client Sample ID: BAGS_307_8_B_20190828

Lab Sample ID: 320-53835-3

Date Collected: 08/28/19 12:45

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 03:01	MME	TAL EDI

Client Sample ID: BAGS_259_8_20190828

Lab Sample ID: 320-53835-4

Date Collected: 08/28/19 13:20

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 03:21	MME	TAL EDI

Client Sample ID: BAGS_135_8_A_20190828

Lab Sample ID: 320-53835-5

Date Collected: 08/28/19 14:15

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 03:40	MME	TAL EDI

Client Sample ID: BAGS_135_8_B_20190828

Lab Sample ID: 320-53835-6

Date Collected: 08/28/19 14:50

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 03:59	MME	TAL EDI

Lab Chronicle

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Client Sample ID: BAGS_272_KEL_20190828

Lab Sample ID: 320-53835-7

Date Collected: 08/28/19 15:15

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 04:19	MME	TAL EDI

Client Sample ID: BAGS_999_9_20190828

Lab Sample ID: 320-53835-8

Date Collected: 08/28/19 00:00

Matrix: Water

Date Received: 08/30/19 08:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			636859	09/04/19 08:52	ZXB	TAL EDI
Total/NA	Analysis	8270D SIM ID		1	637000	09/05/19 04:38	MME	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: BAGS LF DW Samples

Job ID: 320-53835-1
SDG: BAGS Landfill

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-20

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-20
Connecticut	State Program	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
DE Haz. Subst. Cleanup Act (HSCA)	State Program	N/A	12-31-19
New Jersey	NELAP	12028	06-30-20
New Jersey	NELAP	12028	06-30-20
New York	NELAP	11452	04-01-20
New York	NELAP	11452	04-01-20
Pennsylvania	NELAP	68-00522	02-28-20
Pennsylvania	NELAP	68-00522	02-28-20
Rhode Island	State	LAO00132	12-30-19
Rhode Island	State Program	LAO00132	12-30-19
USDA	Federal	NJCA-003-08	05-03-21
USDA	US Federal Programs	P330-18-00135	05-03-21

8270D_SIM_MS_ID

Semivolatile Organic Compounds
(GC/MS SIM / Isotope Dilution)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 320-53835-1

SDG No.: BAGS Landfill

Matrix: Water

Level: Low

GC Column (1): Rtxi-5Sil M ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DXE #
BAGS_301_8_2019082	320-53835-1	34
BAGS_307_8_A_20190828	320-53835-2	42
BAGS_307_8_B_20190828	320-53835-3	13
BAGS_259_8_20190828	320-53835-4	37
BAGS_135_8_A_20190828	320-53835-5	18
BAGS_135_8_B_20190828	320-53835-6	32
BAGS_272_KEL_20190828	320-53835-7	34
BAGS_999_9_20190828	320-53835-8	49
	MB 460-636859/1-A	31
BAGS_301_8_20190828 MS	320-53835-1 MS	41
BAGS_301_8_20190828 MSD	320-53835-1 MSD	25

DXE = 1,4-Dioxane-d8

QC LIMITS
10-150

Column to be used to flag recovery values

FORM II 8270D SIM ID

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 320-53835-1

SDG No.: BAGS Landfill

Matrix: Water

Level: Low

GC Column (1): Rtxi-5Sil M ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DXE #
	LCS 460-636859/2-A	43
	LCSD 460-636859/3-A	42

DXE = 1,4-Dioxane-d8

QC LIMITS
10-200

Column to be used to flag recovery values

FORM II 8270D SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Matrix: Water Level: Low Lab File ID: C4726.D
Lab ID: LCS 460-636859/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	1.60	1.51	94	10-200	
1,4-Dioxane-d8	32.0	13.7	43	10-200	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Matrix: Water Level: Low Lab File ID: C4727.D
Lab ID: LCSD 460-636859/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,4-Dioxane	1.60	1.50	94	1	50	10-200	
1,4-Dioxane-d8	32.0	13.5	42			10-200	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Matrix: Water Level: Low Lab File ID: C4729.D
Lab ID: 320-53835-1 MS Client ID: BAGS_301_8_20190828 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	1.60	ND	1.41	88	70-130	
1,4-Dioxane-d8	32.0	11	13.1	41	10-150	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Matrix: Water Level: Low Lab File ID: C4730.D
 Lab ID: 320-53835-1 MSD Client ID: BAGS_301_8_20190828 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,4-Dioxane	1.60	1.50	94	6	20	70-130	
1,4-Dioxane-d8	32.0	7.86	25			10-150	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Lab File ID: <u>C4725.D</u>	Lab Sample ID: <u>MB 460-636859/1-A</u>
Matrix: <u>Water</u>	Date Extracted: <u>09/04/2019 08:52</u>
Instrument ID: <u>CBNAMS13</u>	Date Analyzed: <u>09/05/2019 01:05</u>
Level: (Low/Med) <u>Low</u>	

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 460-636859/2-A	C4726.D	09/05/2019 01:24
	LCSD 460-636859/3-A	C4727.D	09/05/2019 01:43
BAGS_301_8_20190828 MS	320-53835-1 MS	C4729.D	09/05/2019 02:22
BAGS_301_8_20190828 MSD	320-53835-1 MSD	C4730.D	09/05/2019 02:42
BAGS_307_8_B_20190828	320-53835-3	C4731.D	09/05/2019 03:01
BAGS_259_8_20190828	320-53835-4	C4732.D	09/05/2019 03:21
BAGS_135_8_A_20190828	320-53835-5	C4733.D	09/05/2019 03:40
BAGS_135_8_B_20190828	320-53835-6	C4734.D	09/05/2019 03:59
BAGS_272_KEL_20190828	320-53835-7	C4735.D	09/05/2019 04:19
BAGS_999_9_20190828	320-53835-8	C4736.D	09/05/2019 04:38
BAGS_307_8_A_20190828	320-53835-2	C4742.D	09/05/2019 06:34
BAGS_301_8_20190828	320-53835-1	C4743.D	09/05/2019 06:53

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Lab File ID: C28985.D DFTPP Injection Date: 05/11/2018
Instrument ID: CBNAMS13 DFTPP Injection Time: 12:33
Analysis Batch No.: 518314

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	42.1
68	Less than 2.0 % of mass 69	0.7 (1.8) 1
69	Mass 69 relative abundance	40.1
70	Less than 2.0 % of mass 69	0.2 (0.4) 1
127	40.0 - 60.0 % of mass 198	47.0
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.7
275	10.0 - 30.0 % of mass 198	26.5
365	Greater than 1.0 % of mass 198	3.4
441	Present but less than mass 443	15.2 (79.7) 3
442	Greater than 40.0 % of mass 198	94.8
443	17.0 - 23.0 % of mass 442	19.1 (20.1) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 460-518314/2	C28986.D	05/11/2018	12:48
	STD8 460-518314/3	C28987.D	05/11/2018	13:08
	STD7 460-518314/4	C28988.D	05/11/2018	13:27
	STD6 460-518314/5	C28989.D	05/11/2018	14:16
	STD4 460-518314/6	C28990.D	05/11/2018	14:35
	STD3 460-518314/7	C28991.D	05/11/2018	15:44
	STD2 460-518314/8	C28992.D	05/11/2018	16:02
	STD1 460-518314/9	C28993.D	05/11/2018	17:20

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Lab File ID: C4723.D DFTPP Injection Date: 09/05/2019
Instrument ID: CBNAMS13 DFTPP Injection Time: 00:30
Analysis Batch No.: 637000

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	41.0
68	Less than 2.0 % of mass 69	0.6 (1.5) 1
69	Mass 69 relative abundance	39.7
70	Less than 2.0 % of mass 69	0.3 (0.6) 1
127	40.0 - 60.0 % of mass 198	47.2
197	Less than 1.0 % of mass 198	0.7
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.9
275	10.0 - 30.0 % of mass 198	26.9
365	Greater than 1.0 % of mass 198	3.1
441	Present but less than mass 443	14.7 (81.8) 3
442	Greater than 40.0 % of mass 198	92.9
443	17.0 - 23.0 % of mass 442	17.9 (19.3) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-637000/2	C4724.D	09/05/2019	00:45
	MB 460-636859/1-A	C4725.D	09/05/2019	01:05
	LCS 460-636859/2-A	C4726.D	09/05/2019	01:24
	LCSD 460-636859/3-A	C4727.D	09/05/2019	01:43
BAGS_301_8_20190828 MS	320-53835-1 MS	C4729.D	09/05/2019	02:22
BAGS_301_8_20190828 MSD	320-53835-1 MSD	C4730.D	09/05/2019	02:42
BAGS_307_8_B_20190828	320-53835-3	C4731.D	09/05/2019	03:01
BAGS_259_8_20190828	320-53835-4	C4732.D	09/05/2019	03:21
BAGS_135_8_A_20190828	320-53835-5	C4733.D	09/05/2019	03:40
BAGS_135_8_B_20190828	320-53835-6	C4734.D	09/05/2019	03:59
BAGS_272_KEL_20190828	320-53835-7	C4735.D	09/05/2019	04:19
BAGS_999_9_20190828	320-53835-8	C4736.D	09/05/2019	04:38
BAGS_307_8_A_20190828	320-53835-2	C4742.D	09/05/2019	06:34
BAGS_301_8_20190828	320-53835-1	C4743.D	09/05/2019	06:53

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Sample No.: CCVIS 460-637000/2 Date Analyzed: 09/05/2019 00:45
 Instrument ID: CBNAMS13 GC Column: Rtxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): C4724.D Heated Purge: (Y/N) N
 Calibration ID: 68479

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		251368	5.58				
UPPER LIMIT		502736	6.08				
LOWER LIMIT		125684	5.08				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 460-636859/1-A		309604	5.58				
LCS 460-636859/2-A		306762	5.58				
LCSD 460-636859/3-A		311529	5.58				
320-53835-1 MS	BAGS_301_8_20190828 MS	295952	5.58				
320-53835-1 MSD	BAGS_301_8_20190828 MSD	344438	5.57				
320-53835-3	BAGS_307_8_B_20190828	216686	5.59				
320-53835-4	BAGS_259_8_20190828	309881	5.58				
320-53835-5	BAGS_135_8_A_20190828	215971	5.59				
320-53835-6	BAGS_135_8_B_20190828	324153	5.58				
320-53835-7	BAGS_272_KEL_20190828	305946	5.58				
320-53835-8	BAGS_999_9_20190828	297507	5.58				
320-53835-2	BAGS_307_8_A_20190828	280459	5.57				
320-53835-1	BAGS_301_8_20190828	306047	5.57				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_301_8_20190828</u>	Lab Sample ID: <u>320-53835-1</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4743.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 11:20</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 06:53</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	34		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4743.D
 Lims ID: 320-53835-A-1-C
 Client ID: BAGS_301_8_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 06:53:30 ALS Bottle#: 21 Worklist Smp#: 21
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-021
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: khlungprakhons

Date: 05-Sep-2019 18:24:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
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D 1	1,4-Dioxane-d8	96	2.776	2.778	0.000	0	816019	1.35	33.7
* 4	1,4-Dichlorobenzene-d4	152	5.569	5.580	-0.011	97	306047	0.2000	

Reagents:

SM_iso_d4istd_00005	Amount Added: 20.00	Units: uL	Run Reagent
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Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4743.D

Injection Date: 05-Sep-2019 06:53:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-1-C

Lab Sample ID: 460-53835-1

Worklist Smp#: 21

Client ID: BAGS_301_8_20190828

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

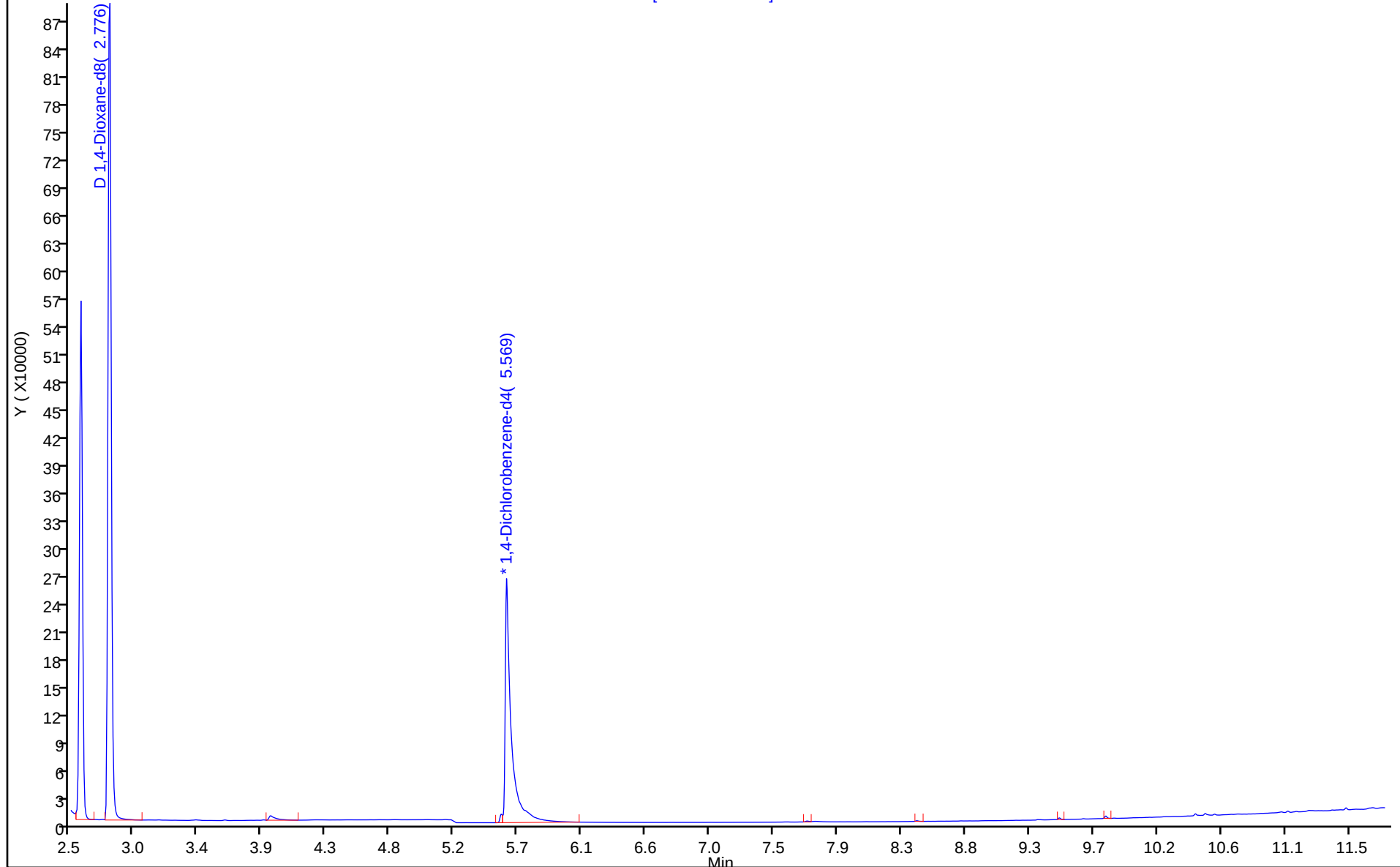
ALS Bottle#: 21

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

C4743[MS SCAN Chro]:Total



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4743.D

Injection Date: 05-Sep-2019 06:53:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-1-C

Lab Sample ID: 460-53835-1

Client ID: BAGS_301_8_20190828

Operator ID:

ALS Bottle#:

21

Worklist Smp#:

21

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

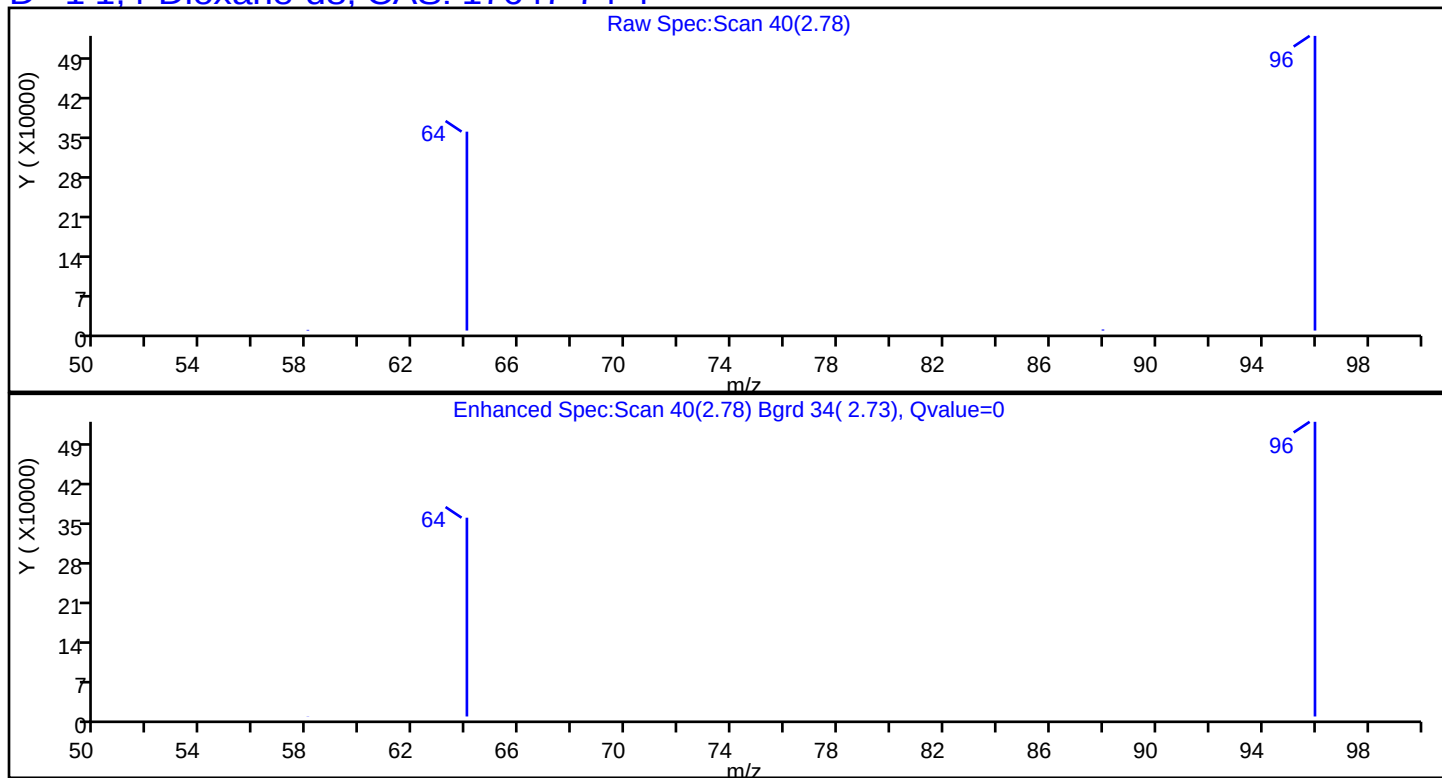
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4743.D

Injection Date: 05-Sep-2019 06:53:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-1-C

Lab Sample ID: 460-53835-1

Client ID: BAGS_301_8_20190828

Operator ID:

ALS Bottle#:

21

Worklist Smp#: 21

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

Method: 8270_Isotope

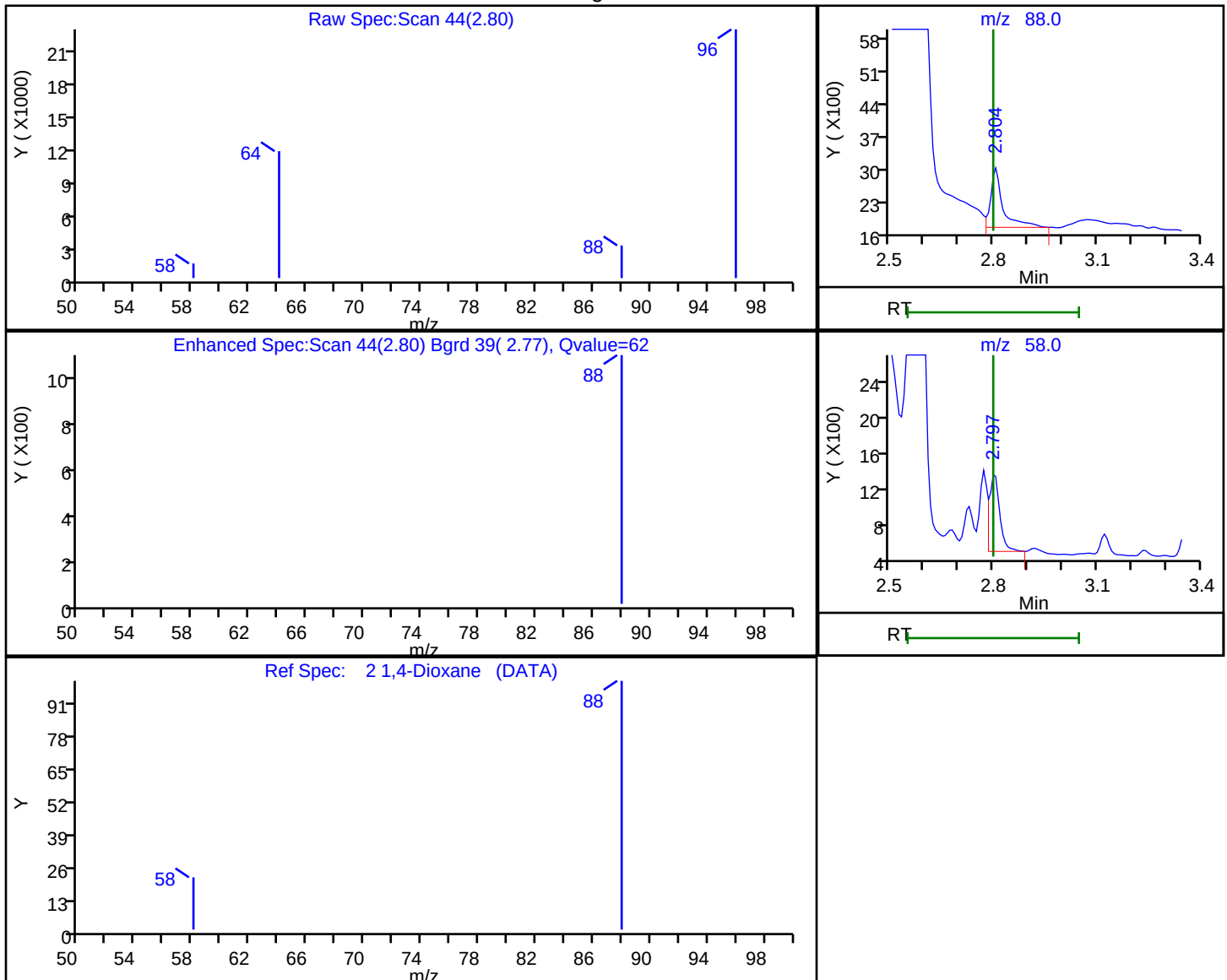
Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.80	88.00	3133	0.011861
2.80	58.00	1833	

Reviewer: khlungprakhons, 05-Sep-2019 18:24:27

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_307_8_A_20190828</u>	Lab Sample ID: <u>320-53835-2</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4742.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 12:10</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 12:47</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 06:34</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	42		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4742.D
 Lims ID: 320-53835-B-2-A
 Client ID: BAGS_307_8_A_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 06:34:30 ALS Bottle#: 20 Worklist Smp#: 20
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-020
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: khlungprakhons

Date: 05-Sep-2019 17:56:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
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D 1	1,4-Dioxane-d8	96	2.776	2.778	0.000	0	937419	1.69	42.3
* 4	1,4-Dichlorobenzene-d4	152	5.573	5.580	-0.007	98	280459	0.2000	

Reagents:

SM_iso_d4istd_00005	Amount Added: 20.00	Units: uL	Run Reagent
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Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4742.D

Injection Date: 05-Sep-2019 06:34:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-B-2-A

Lab Sample ID: 460-53835-2

Worklist Smp#: 20

Client ID: BAGS_307_8_A_20190828

Injection Vol: 5.0 ul

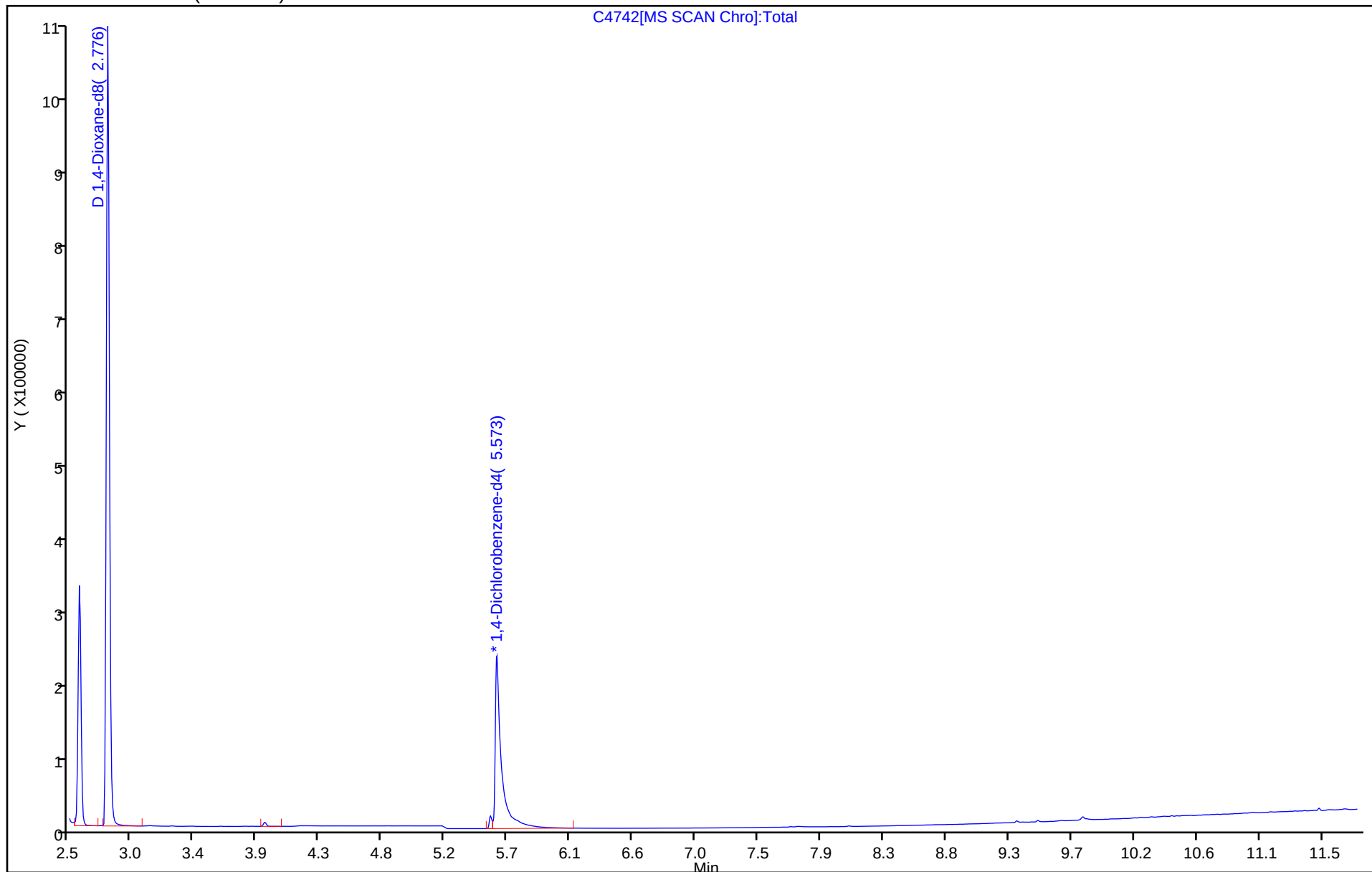
Dil. Factor: 1.0000

ALS Bottle#: 20

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4742.D

Injection Date: 05-Sep-2019 06:34:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-B-2-A

Lab Sample ID: 460-53835-2

Client ID: BAGS_307_8_A_20190828

Operator ID:

ALS Bottle#:

20

Worklist Smp#:

20

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

Limit Group:

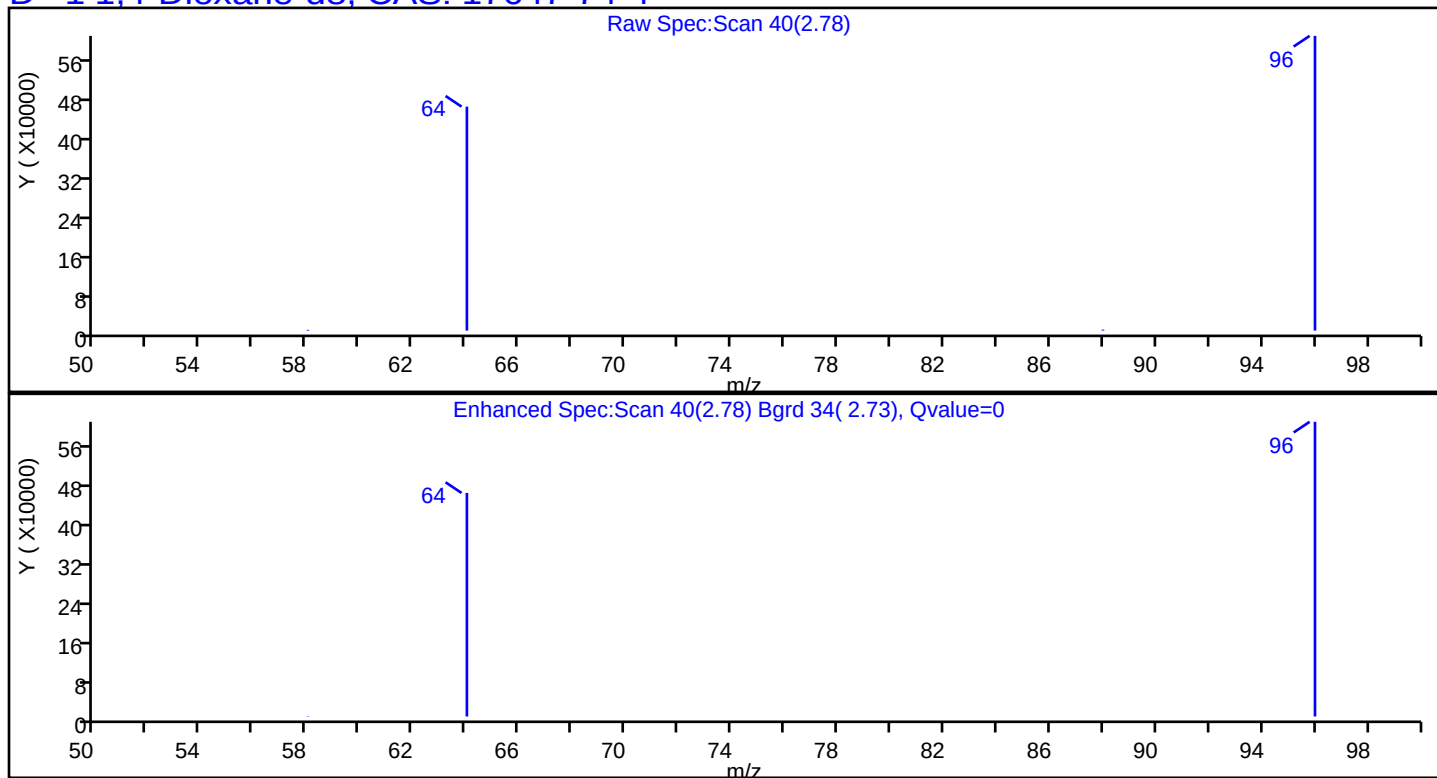
MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4742.D

Injection Date: 05-Sep-2019 06:34:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-B-2-A

Lab Sample ID: 460-53835-2

Client ID: BAGS_307_8_A_20190828

Operator ID:

ALS Bottle#:

20

Worklist Smp#: 20

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

Method: 8270_Isotope

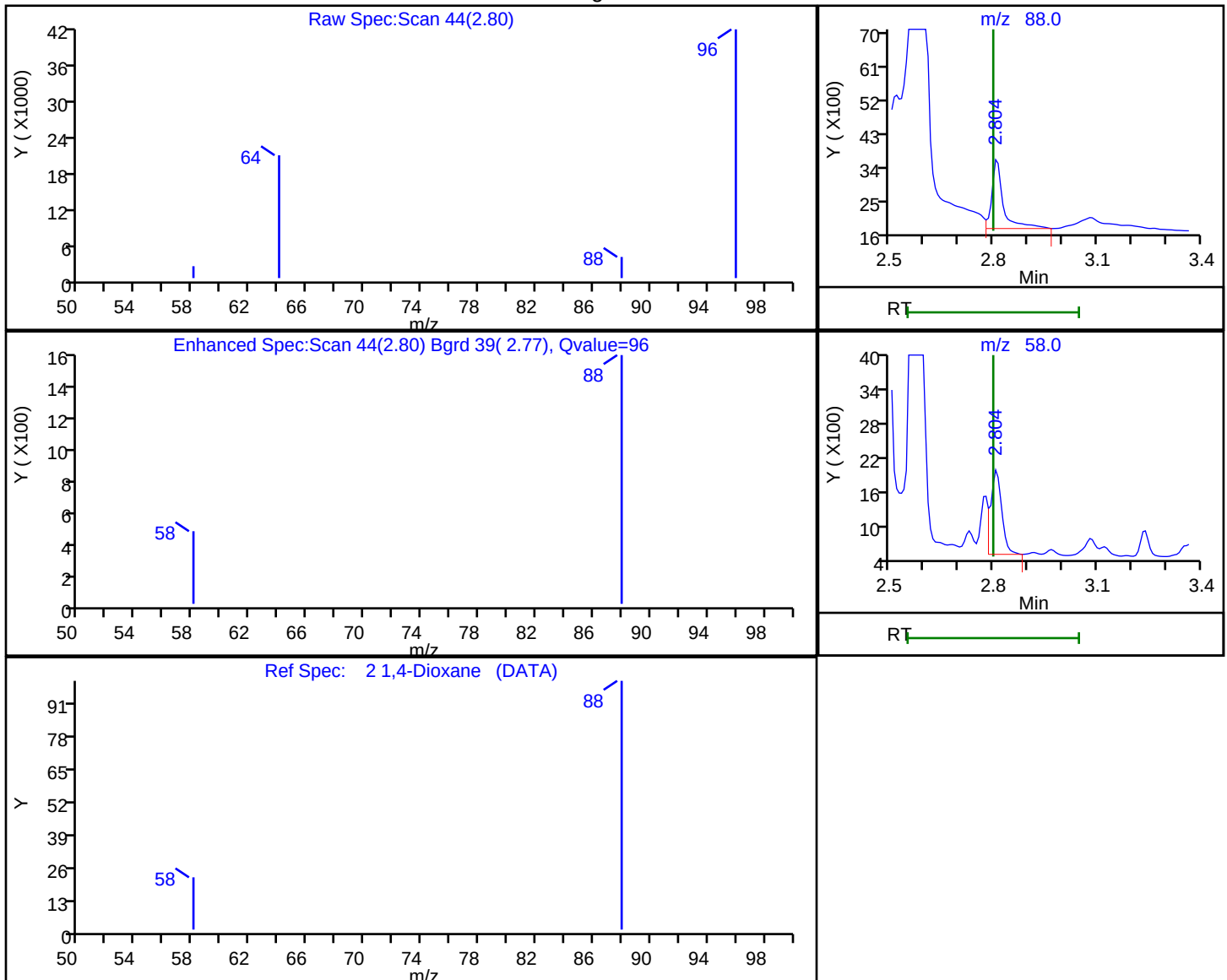
Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.80	88.00	4346	0.014323
2.80	58.00	3309	

Reviewer: nimerd, 05-Sep-2019 06:44:59

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_307_8_B_20190828</u>	Lab Sample ID: <u>320-53835-3</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4731.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 12:45</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 03:01</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.29		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	13		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4731.D
 Lims ID: 320-53835-A-3-A
 Client ID: BAGS_307_8_B_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 03:01:30 ALS Bottle#: 9 Worklist Smp#: 9
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-009
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 14:58:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
D 1 1,4-Dioxane-d8	96	2.776	2.778	0.000	0	215453	0.5031	12.6	
2 1,4-Dioxane	88	2.811	2.804	0.014	98	2515	0.0361		
* 4 1,4-Dichlorobenzene-d4	152	5.588	5.580	0.008	97	216686	0.2000		

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4731.D

Injection Date: 05-Sep-2019 03:01:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-3-A

Lab Sample ID: 460-53835-3

Worklist Smp#: 9

Client ID: BAGS_307_8_B_20190828

Injection Vol: 5.0 ul

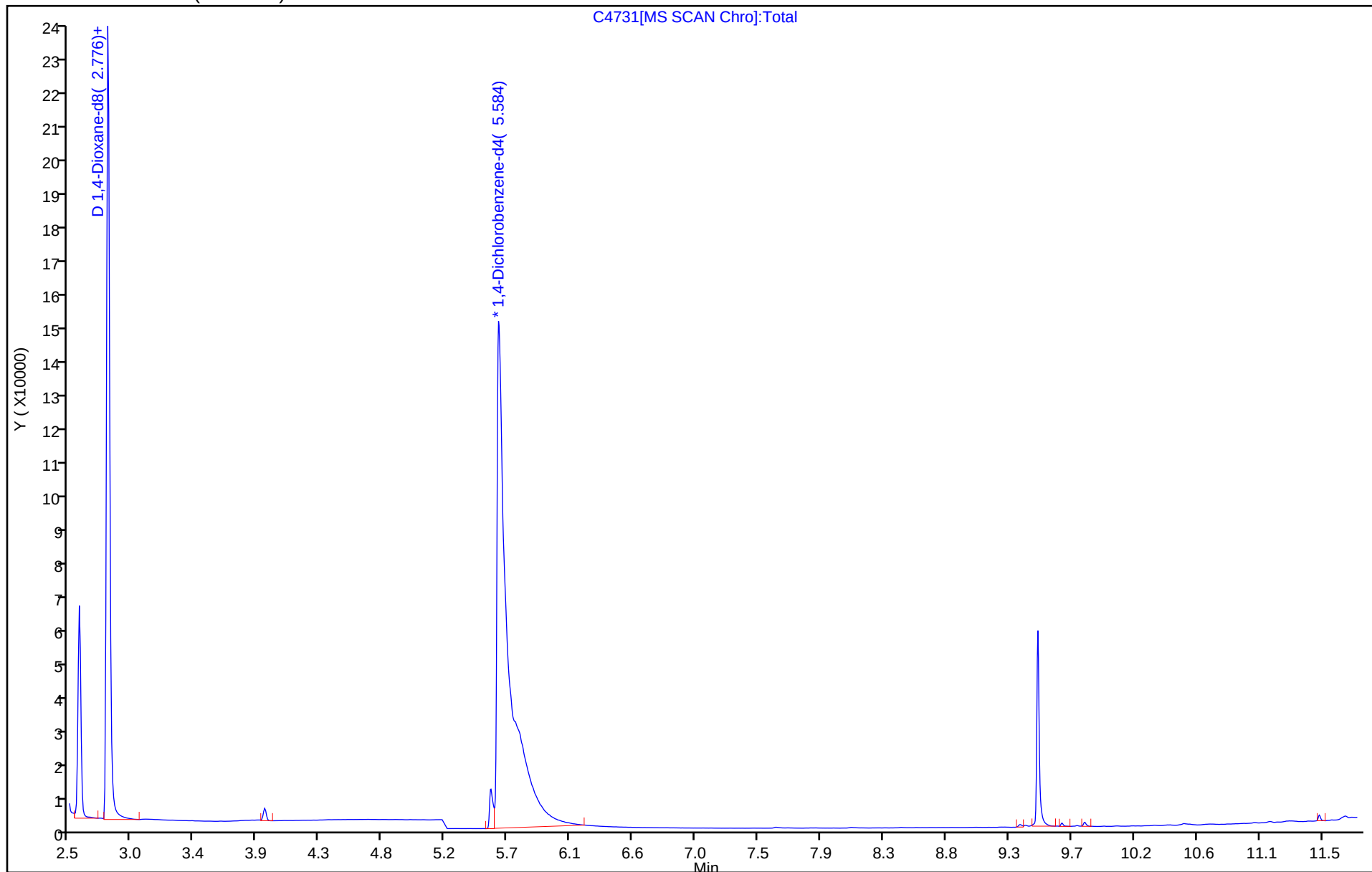
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4731.D

Injection Date: 05-Sep-2019 03:01:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-3-A

Lab Sample ID: 460-53835-3

Client ID: BAGS_307_8_B_20190828

Operator ID:

ALS Bottle#:

9

Worklist Smp#:

9

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

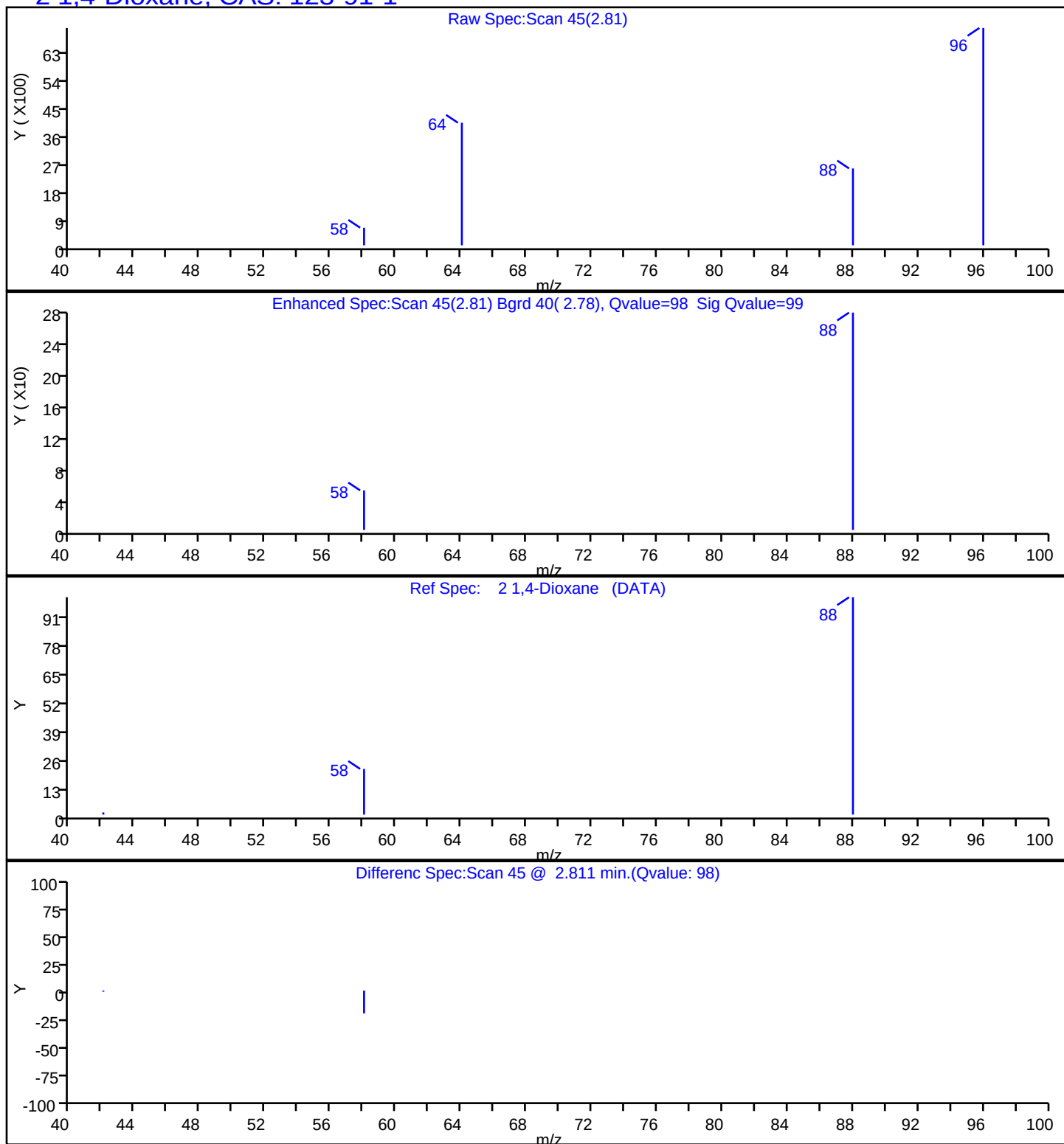
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4731.D

Injection Date: 05-Sep-2019 03:01:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-3-A

Lab Sample ID: 460-53835-3

Client ID: BAGS_307_8_B_20190828

Operator ID:

ALS Bottle#:

9

Worklist Smp#:

9

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

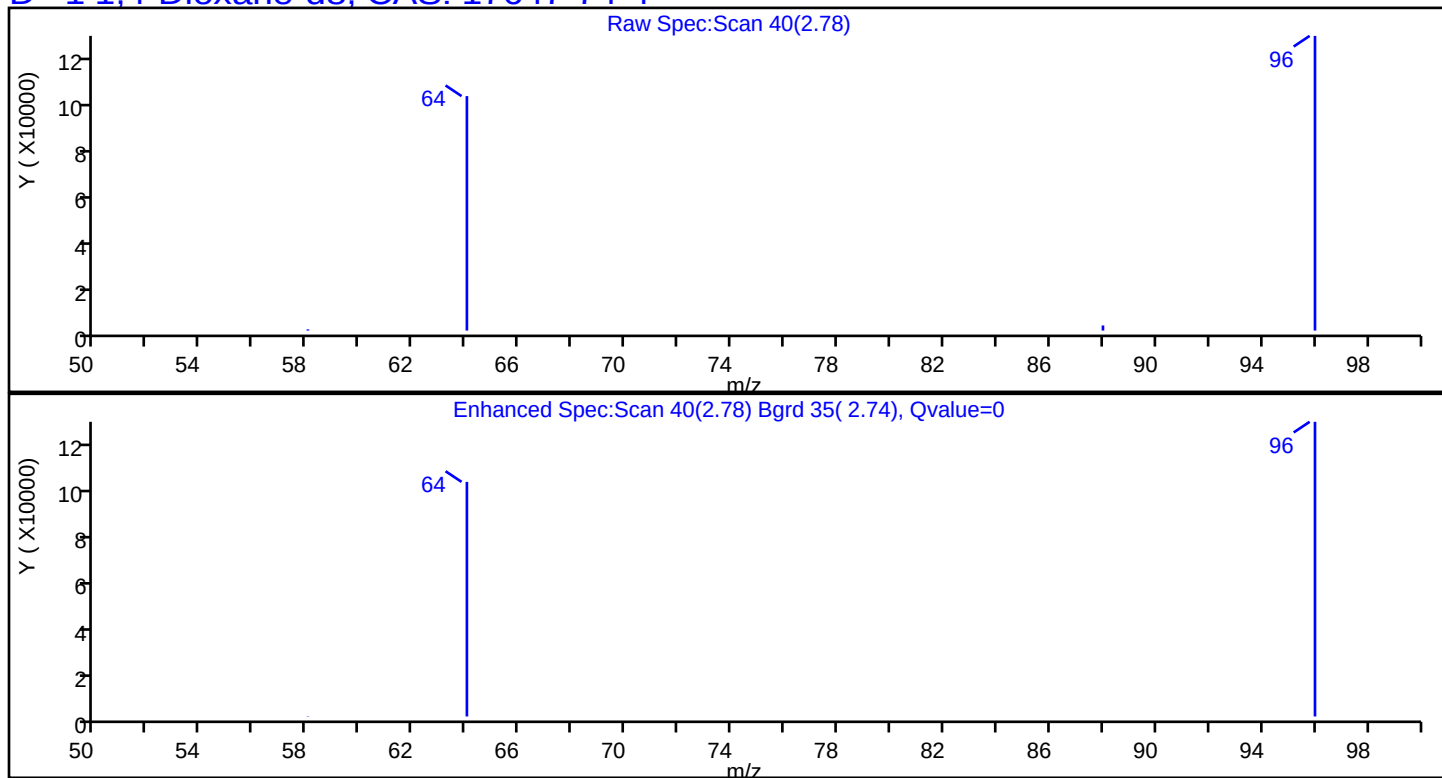
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_259_8_20190828</u>	Lab Sample ID: <u>320-53835-4</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4732.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 13:20</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 03:21</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	37		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4732.D
 Lims ID: 320-53835-A-4-A
 Client ID: BAGS_259_8_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 03:21:30 ALS Bottle#: 10 Worklist Smp#: 10
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-010
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 14:58:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
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D 1	1,4-Dioxane-d8	96	2.776	2.778	0.000	0	918469	1.50	37.5
* 4	1,4-Dichlorobenzene-d4	152	5.581	5.580	0.000	97	309881	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4732.D

Injection Date: 05-Sep-2019 03:21:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-4-A

Lab Sample ID: 460-53835-4

Worklist Smp#: 10

Client ID: BAGS_259_8_20190828

Injection Vol: 5.0 ul

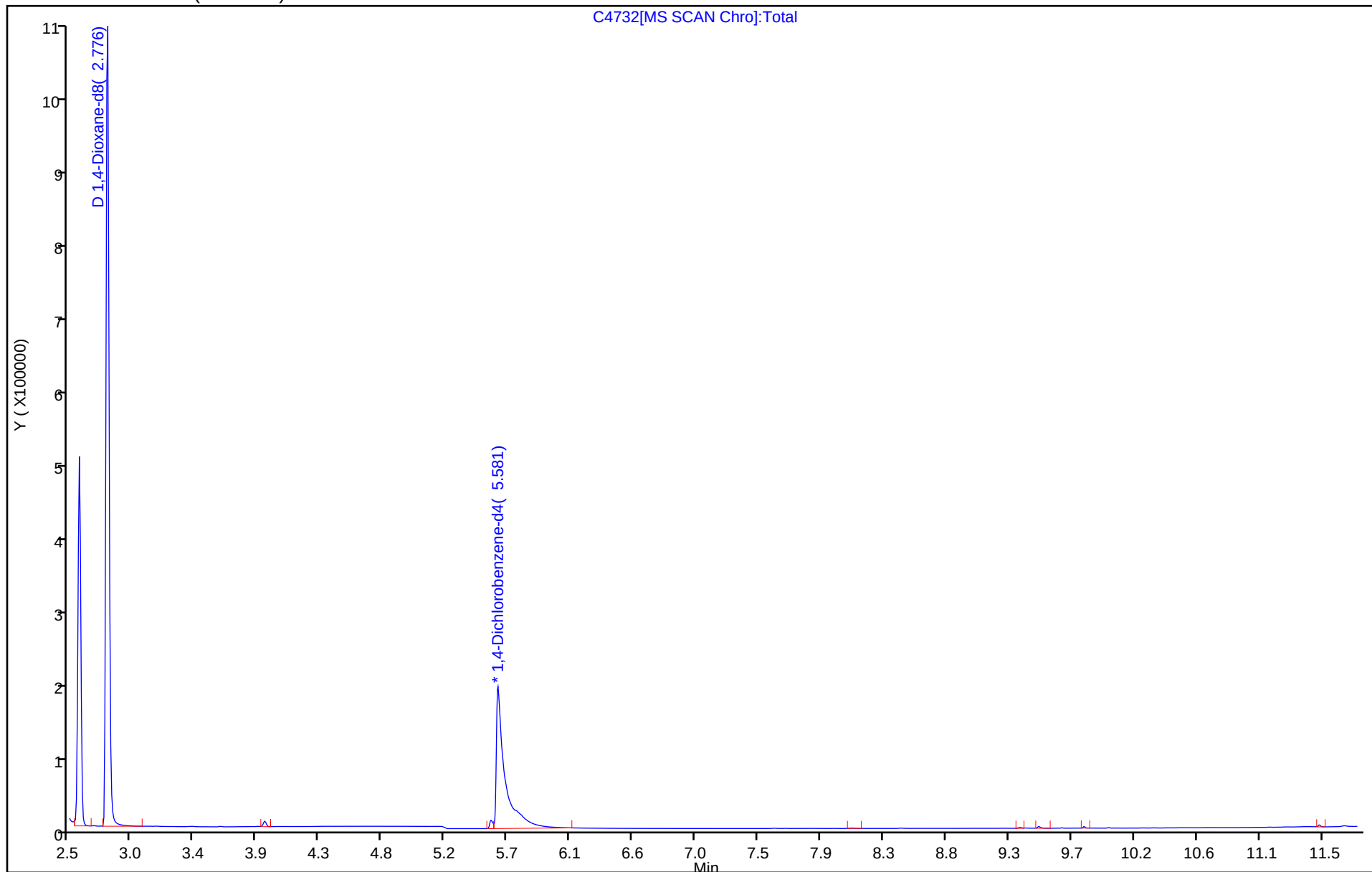
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4732.D

Injection Date: 05-Sep-2019 03:21:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-4-A

Lab Sample ID: 460-53835-4

Client ID: BAGS_259_8_20190828

Operator ID:

ALS Bottle#:

10

Worklist Smp#:

10

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

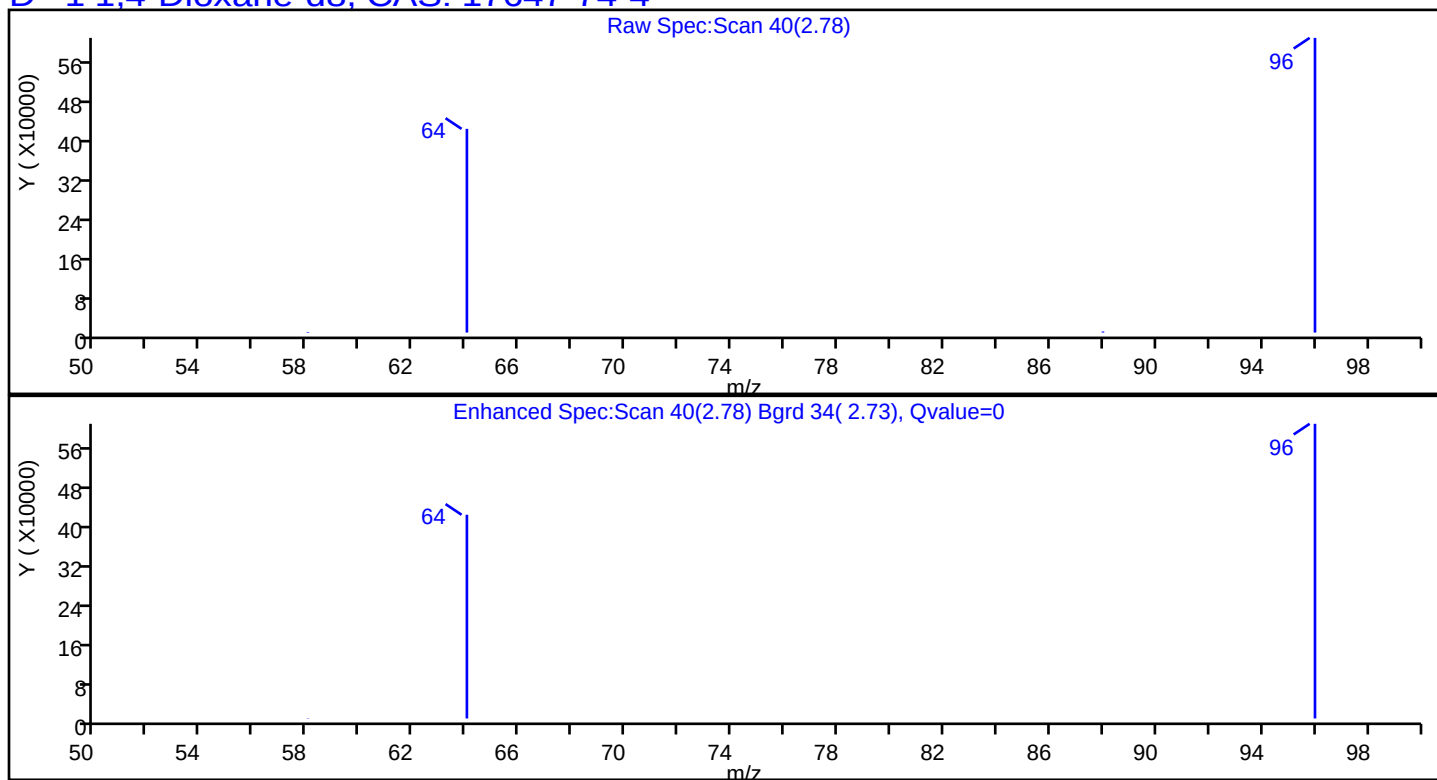
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4732.D

Injection Date: 05-Sep-2019 03:21:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-4-A

Lab Sample ID: 460-53835-4

Client ID: BAGS_259_8_20190828

Operator ID:

ALS Bottle#:

10

Worklist Smp#: 10

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

Method: 8270_Isotope

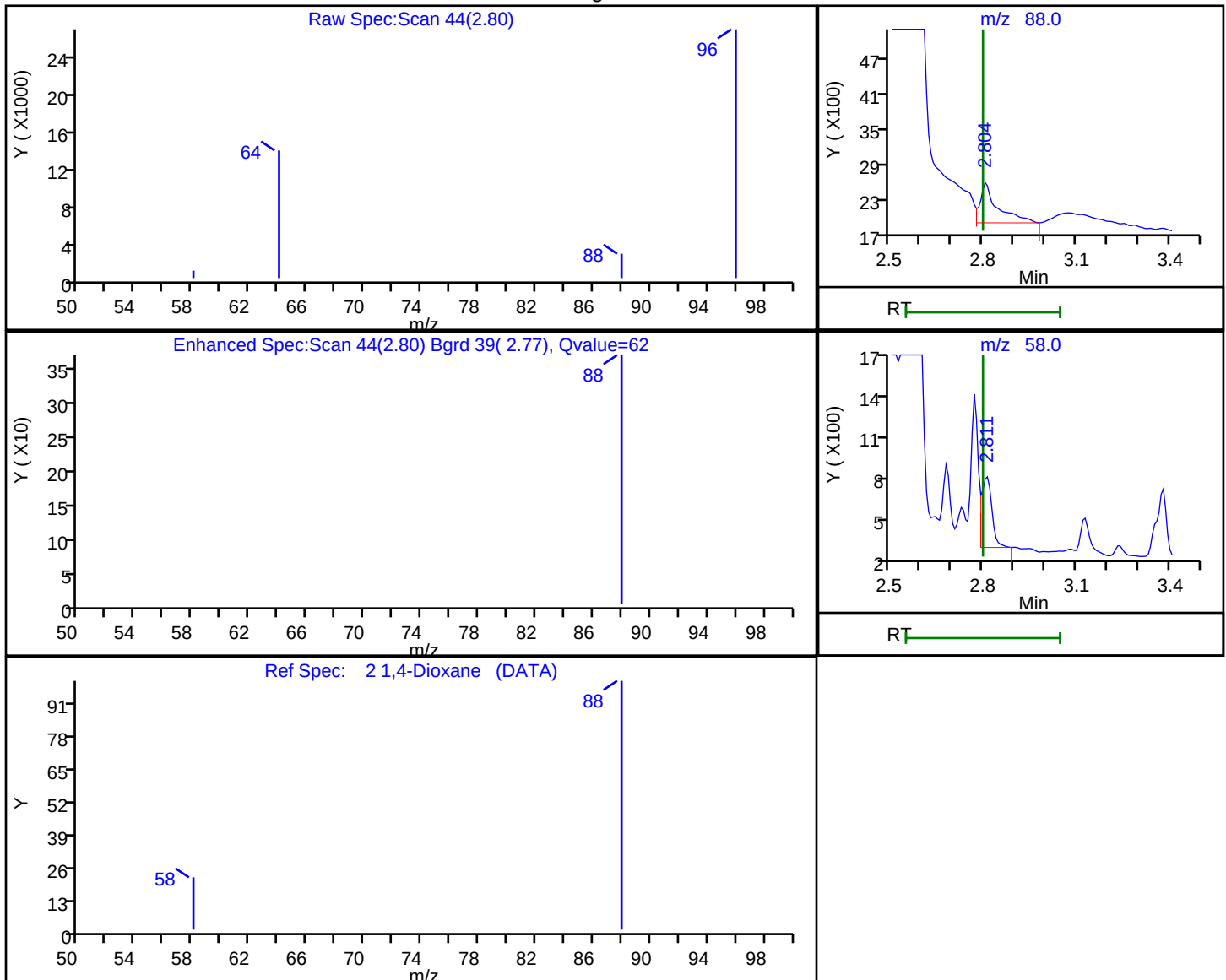
Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.80	88.00	2659	0.008944
2.81	58.00	1099	

Reviewer: maheseep, 05-Sep-2019 14:58:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_135_8_A_20190828</u>	Lab Sample ID: <u>320-53835-5</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4733.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 14:15</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 03:40</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	18		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4733.D
 Lims ID: 320-53835-A-5-A
 Client ID: BAGS_135_8_A_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 03:40:30 ALS Bottle#: 11 Worklist Smp#: 11
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-011
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 14:59:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
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D 1	1,4-Dioxane-d8	96	2.776	2.778	0.000	0	303244	0.7104	17.8
* 4	1,4-Dichlorobenzene-d4	152	5.588	5.580	0.008	98	215971	0.2000	

Reagents:

SM_iso_d4istd_00005	Amount Added: 20.00	Units: uL	Run Reagent
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Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4733.D

Injection Date: 05-Sep-2019 03:40:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-5-A

Lab Sample ID: 460-53835-5

Worklist Smp#: 11

Client ID: BAGS_135_8_A_20190828

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

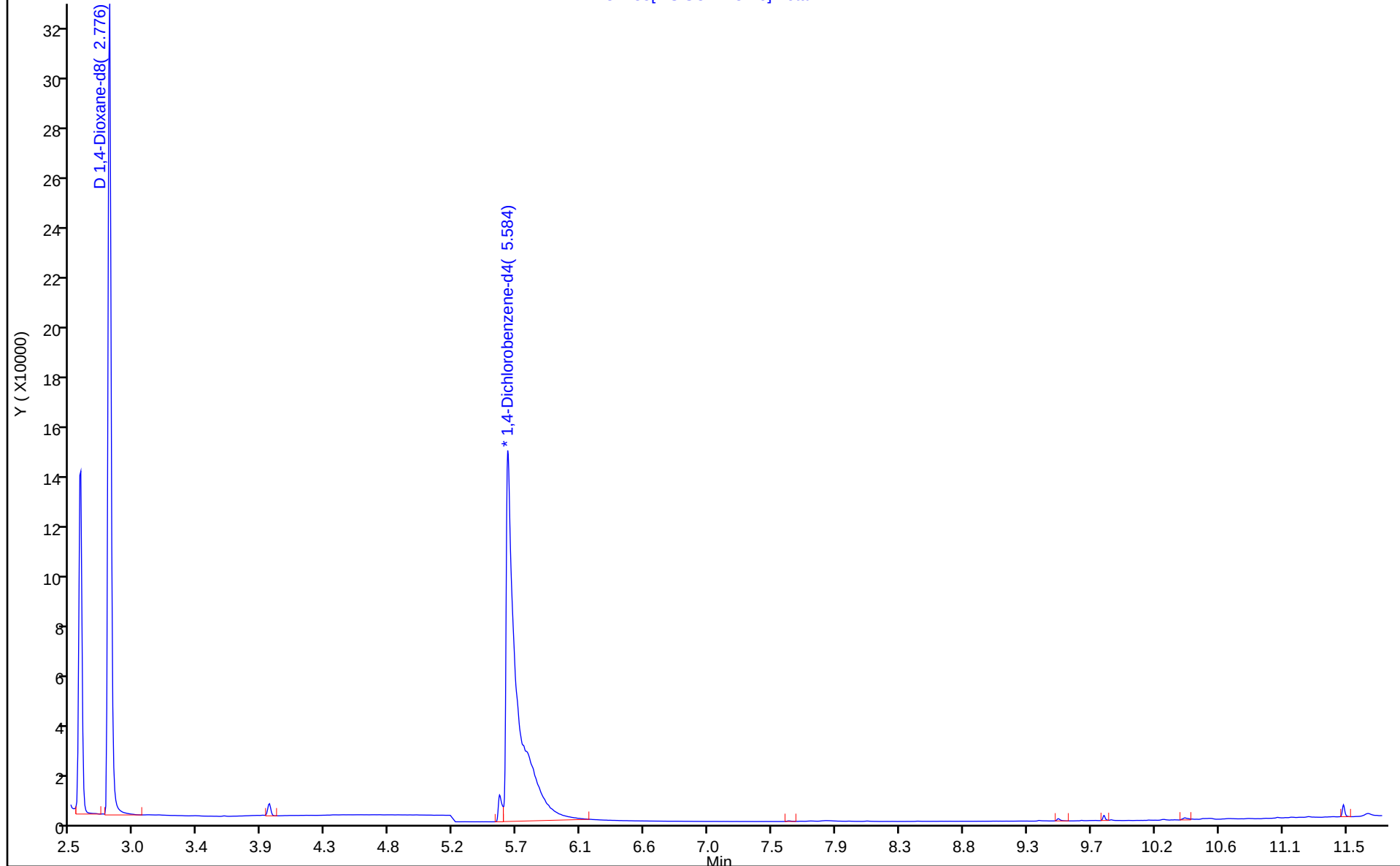
ALS Bottle#: 11

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

C4733[MS SCAN Chro]:Total



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4733.D

Injection Date: 05-Sep-2019 03:40:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-5-A

Lab Sample ID: 460-53835-5

Client ID: BAGS_135_8_A_20190828

Operator ID:

ALS Bottle#: 11 Worklist Smp#: 11

Injection Vol: 5.0 ul

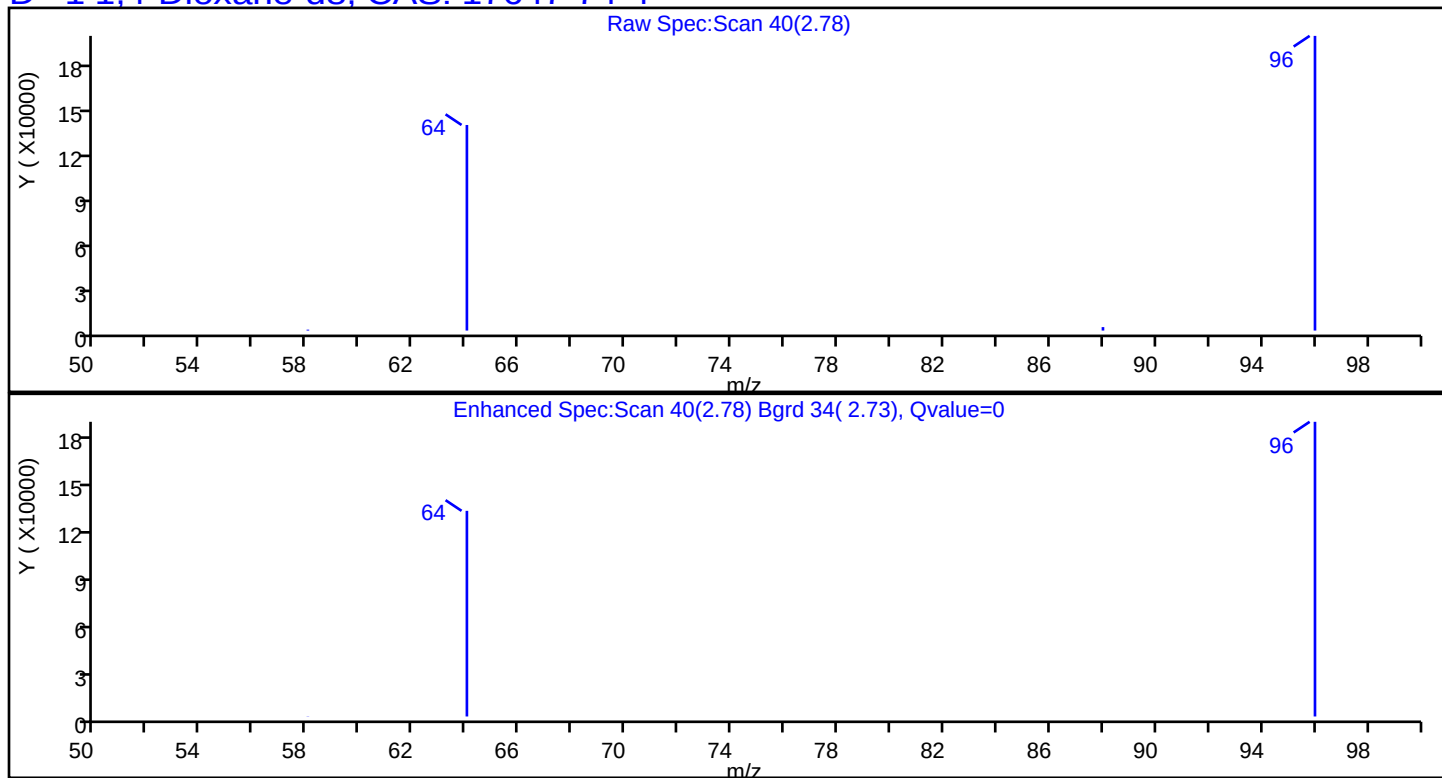
Dil. Factor: 1.0000

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4733.D

Injection Date: 05-Sep-2019 03:40:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-5-A

Lab Sample ID: 460-53835-5

Client ID: BAGS_135_8_A_20190828

Operator ID:

ALS Bottle#:

11

Worklist Smp#: 11

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

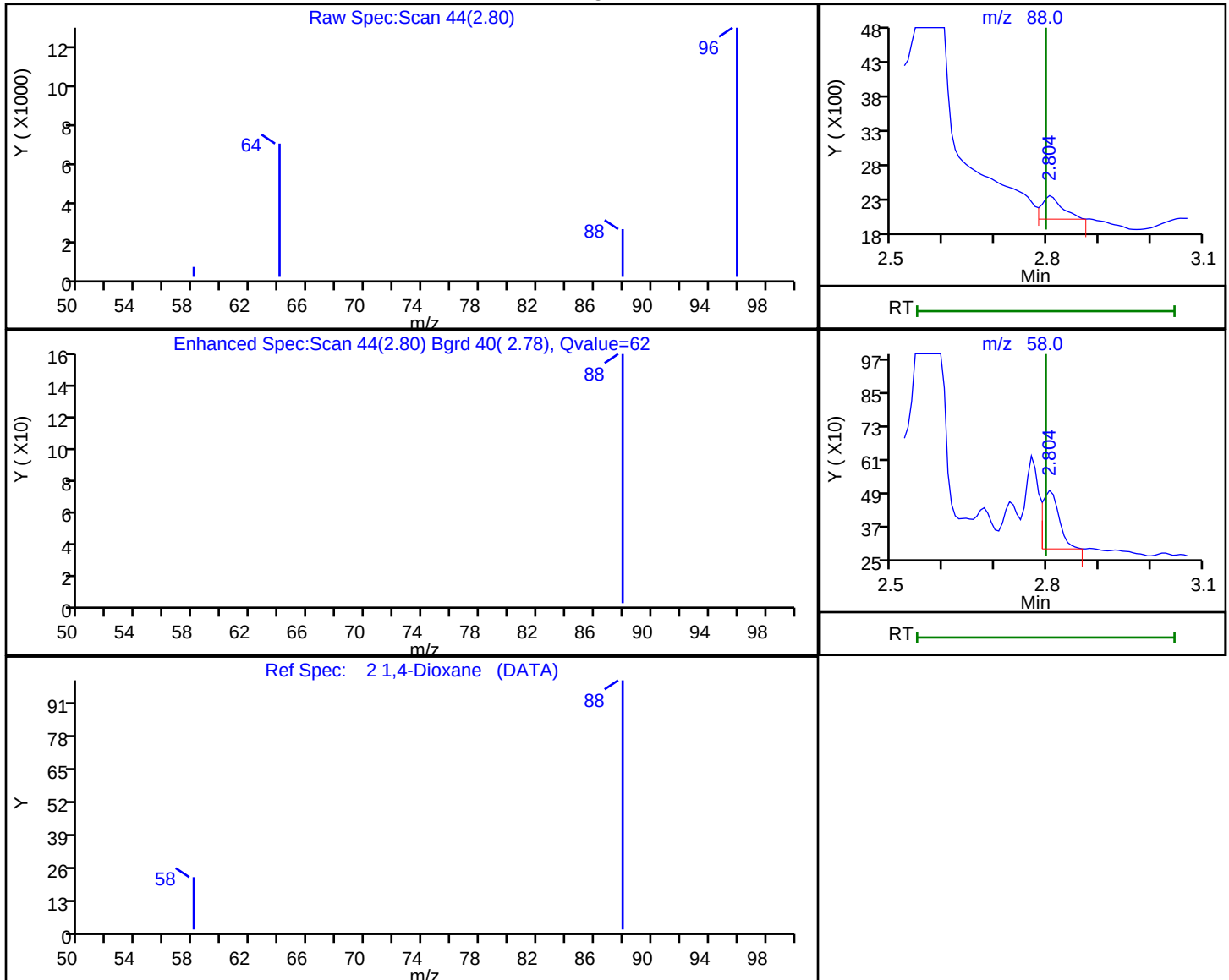
Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.80	88.00	903	0.009200
2.80	58.00	468	

Reviewer: maheseep, 05-Sep-2019 14:59:00

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_135_8_B_20190828</u>	Lab Sample ID: <u>320-53835-6</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4734.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 14:50</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 03:59</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	32		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4734.D
 Lims ID: 320-53835-A-6-A
 Client ID: BAGS_135_8_B_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 03:59:30 ALS Bottle#: 12 Worklist Smp#: 12
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-012
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 15:15:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
D 1 1,4-Dioxane-d8	96	2.776	2.778	0.000	0	807526	1.26	31.5	
* 4 1,4-Dichlorobenzene-d4	152	5.584	5.580	0.004	97	324153	0.2000		

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4734.D

Injection Date: 05-Sep-2019 03:59:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-6-A

Lab Sample ID: 460-53835-6

Worklist Smp#: 12

Client ID: BAGS_135_8_B_20190828

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

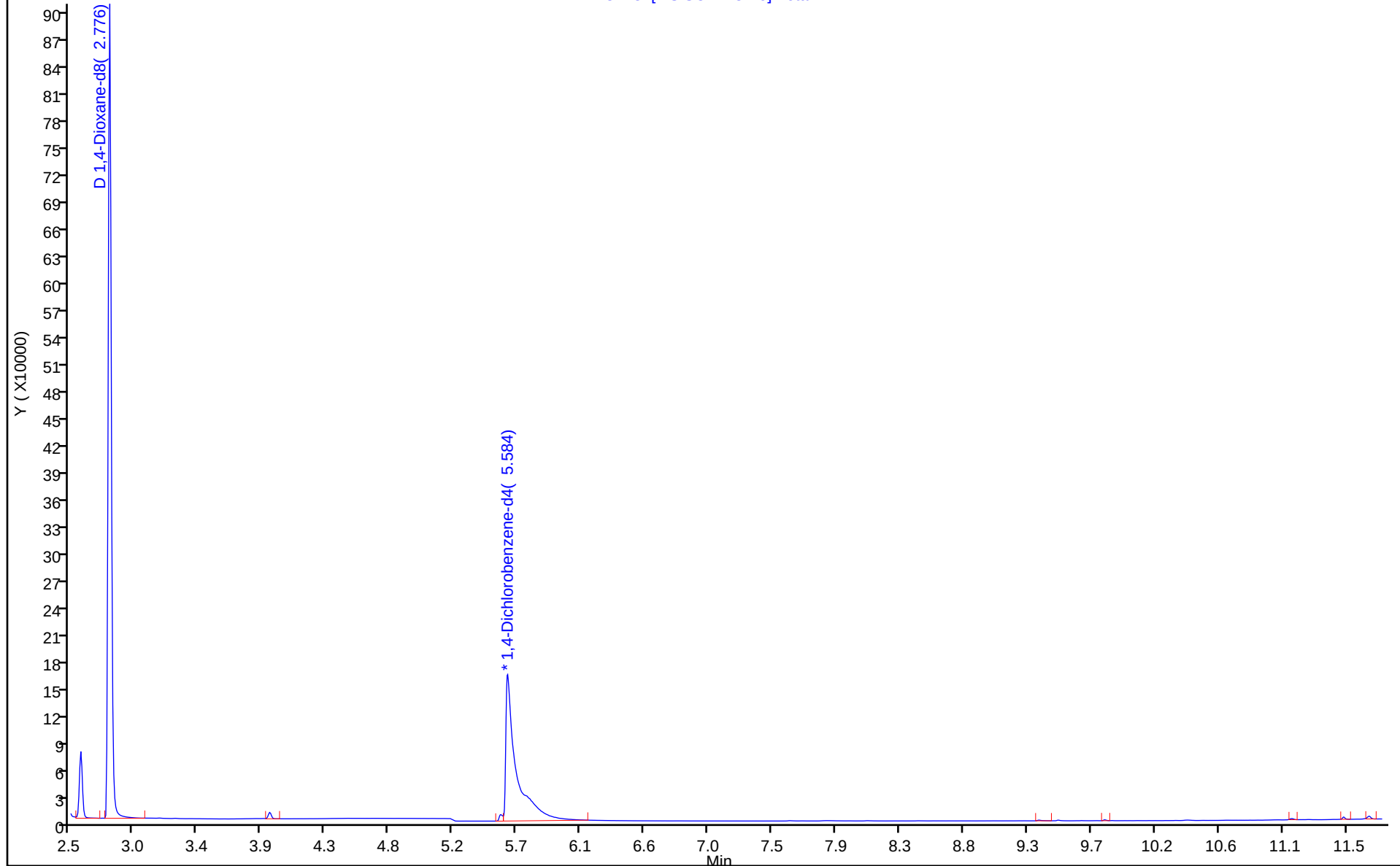
ALS Bottle#: 12

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

C4734[MS SCAN Chro]:Total



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4734.D

Injection Date: 05-Sep-2019 03:59:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-6-A

Lab Sample ID: 460-53835-6

Client ID: BAGS_135_8_B_20190828

Operator ID:

ALS Bottle#:

12

Worklist Smp#:

12

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

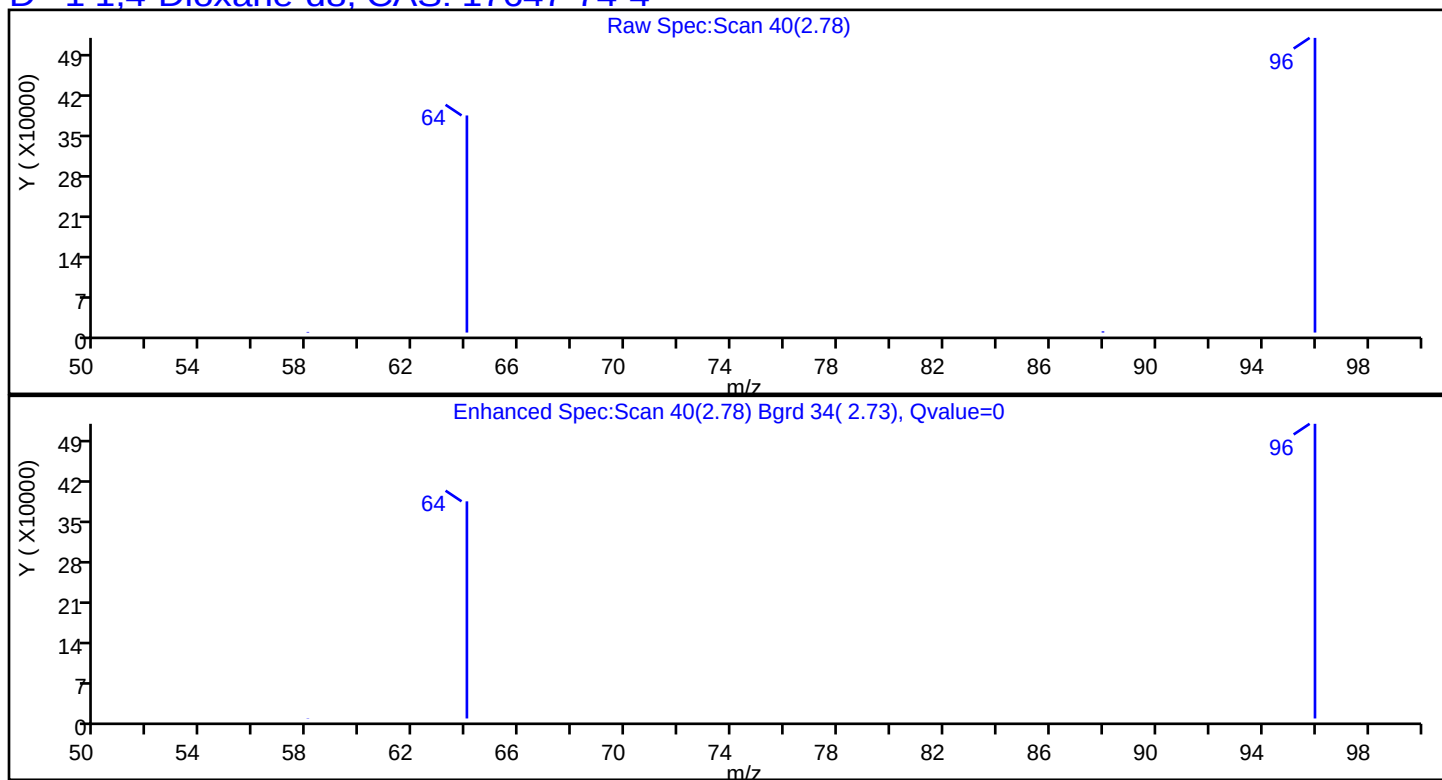
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4734.D

Injection Date: 05-Sep-2019 03:59:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-6-A

Lab Sample ID: 460-53835-6

Client ID: BAGS_135_8_B_20190828

Operator ID:

ALS Bottle#:

12

Worklist Smp#: 12

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

Limit Group:

MSS 8270 Isotope Dilution IS

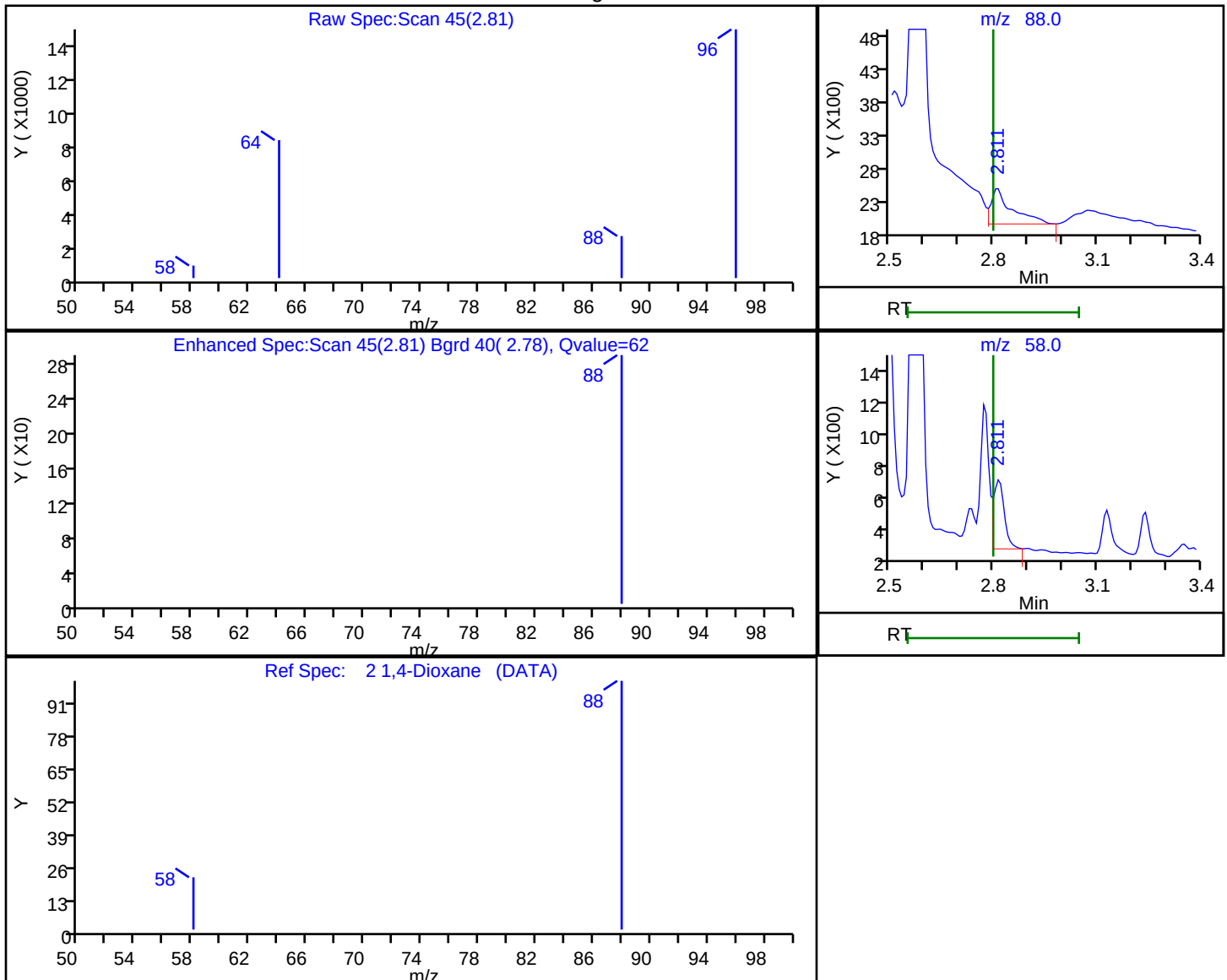
Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.81	88.00	2295	0.008780
2.81	58.00	867	

Reviewer: maheseep, 05-Sep-2019 15:15:39

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_272_KEL_20190828</u>	Lab Sample ID: <u>320-53835-7</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4735.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 15:15</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 04:19</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	34		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4735.D
 Lims ID: 320-53835-B-7-A
 Client ID: BAGS_272_KEL_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 04:19:30 ALS Bottle#: 13 Worklist Smp#: 13
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-013
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: khlungprakhons

Date: 05-Sep-2019 18:37:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
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D 1	1,4-Dioxane-d8	96	2.783	2.778	0.007	0	831005	1.37	34.4
* 4	1,4-Dichlorobenzene-d4	152	5.584	5.580	0.004	97	305946	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 05-Sep-2019 09:19:04

Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4735.D

Injection Date: 05-Sep-2019 04:19:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-B-7-A

Lab Sample ID: Client 460-637000/13-A

Worklist Smp#: 13

Client ID: BAGS_272_KEL_20190828

Injection Vol: 5.0 ul

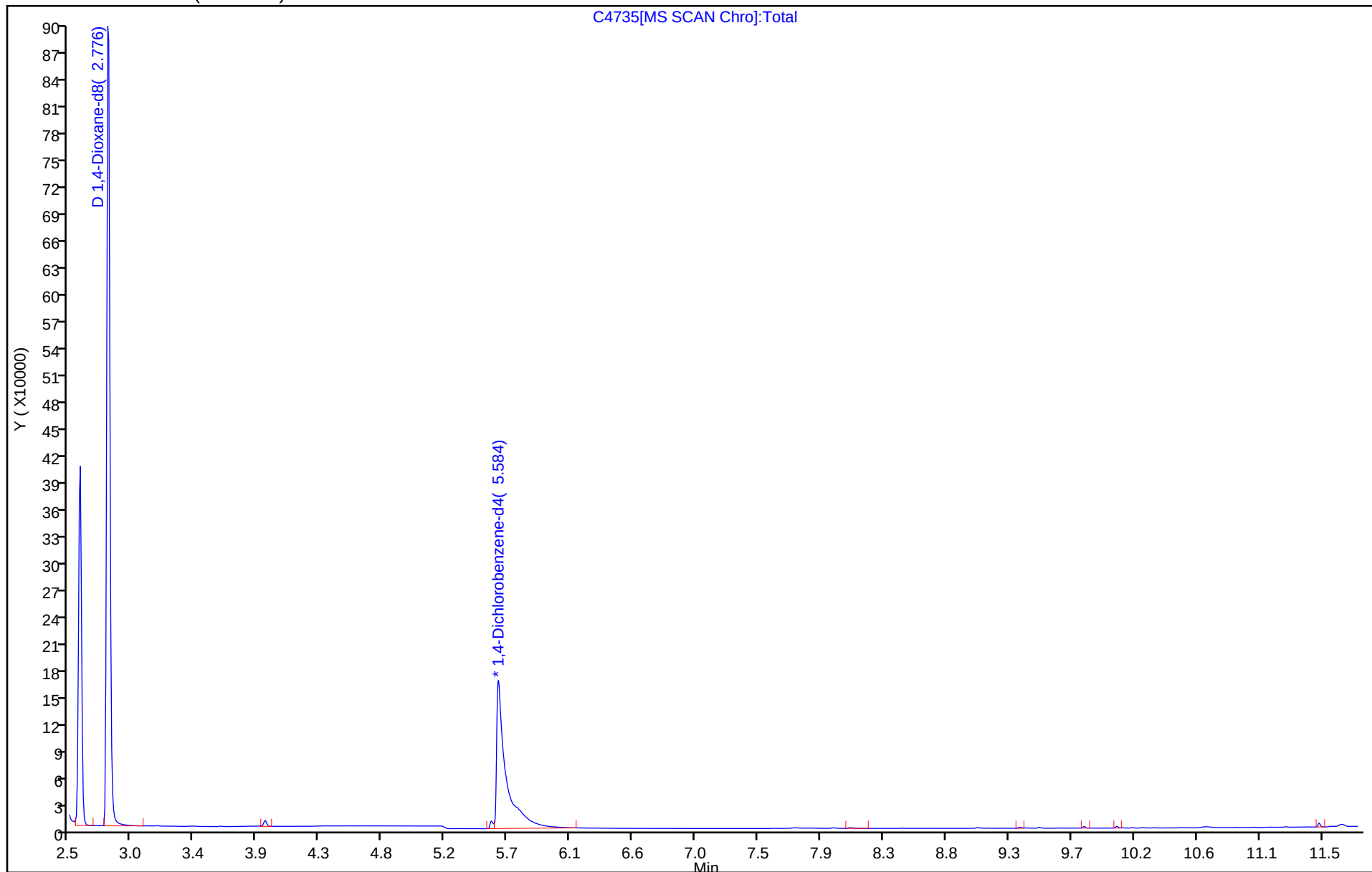
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4735.D

Injection Date: 05-Sep-2019 04:19:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-B-7-A

Lab Sample ID: Client 460-637000/13-A

Client ID: BAGS_272_KEL_20190828

Operator ID:

ALS Bottle#:

13

Worklist Smp#:

13

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

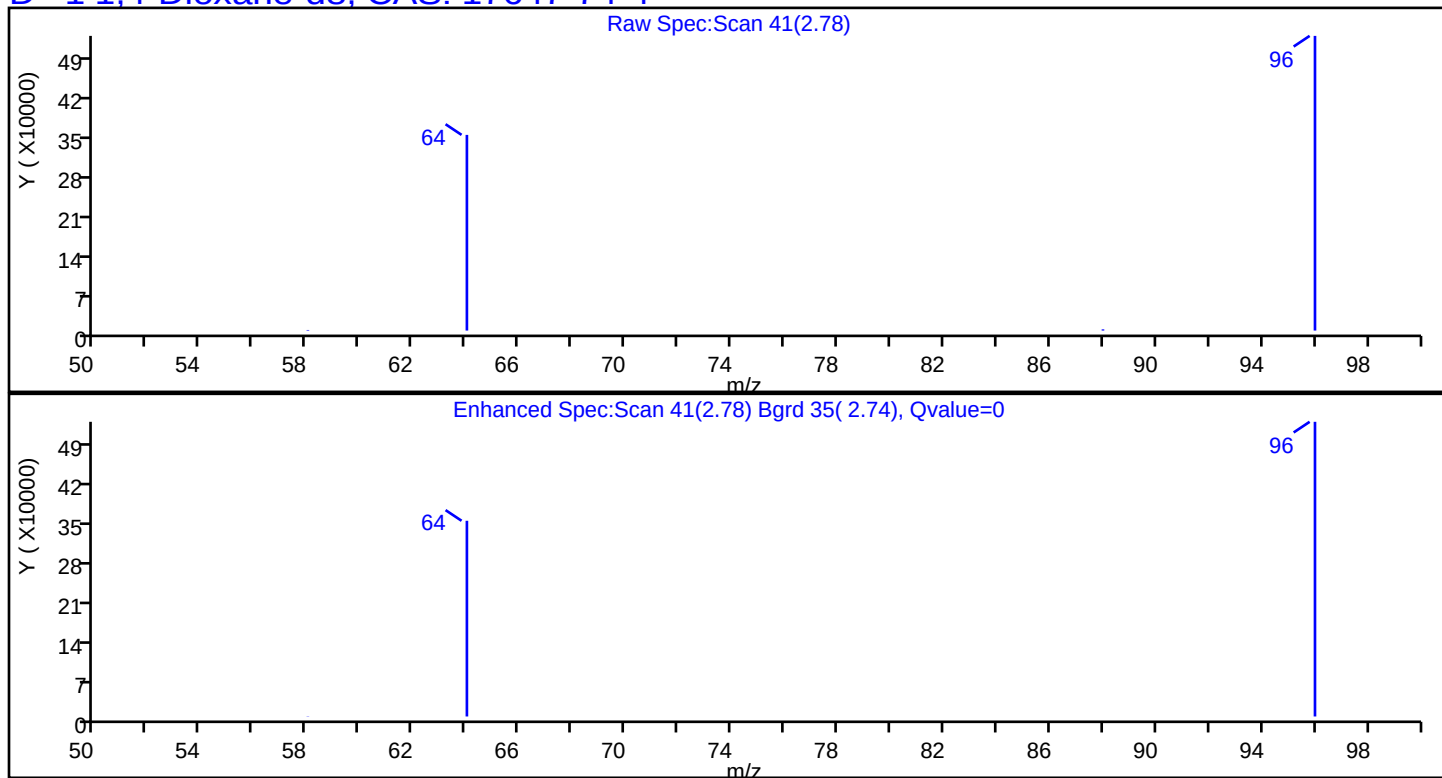
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4735.D

Injection Date: 05-Sep-2019 04:19:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-B-7-A

Lab Sample ID: Client 460-637000/13-A

Client ID: BAGS_272_KEL_20190828

Operator ID:

ALS Bottle#:

13

Worklist Smp#: 13

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

Limit Group:

MSS 8270 Isotope Dilution IS

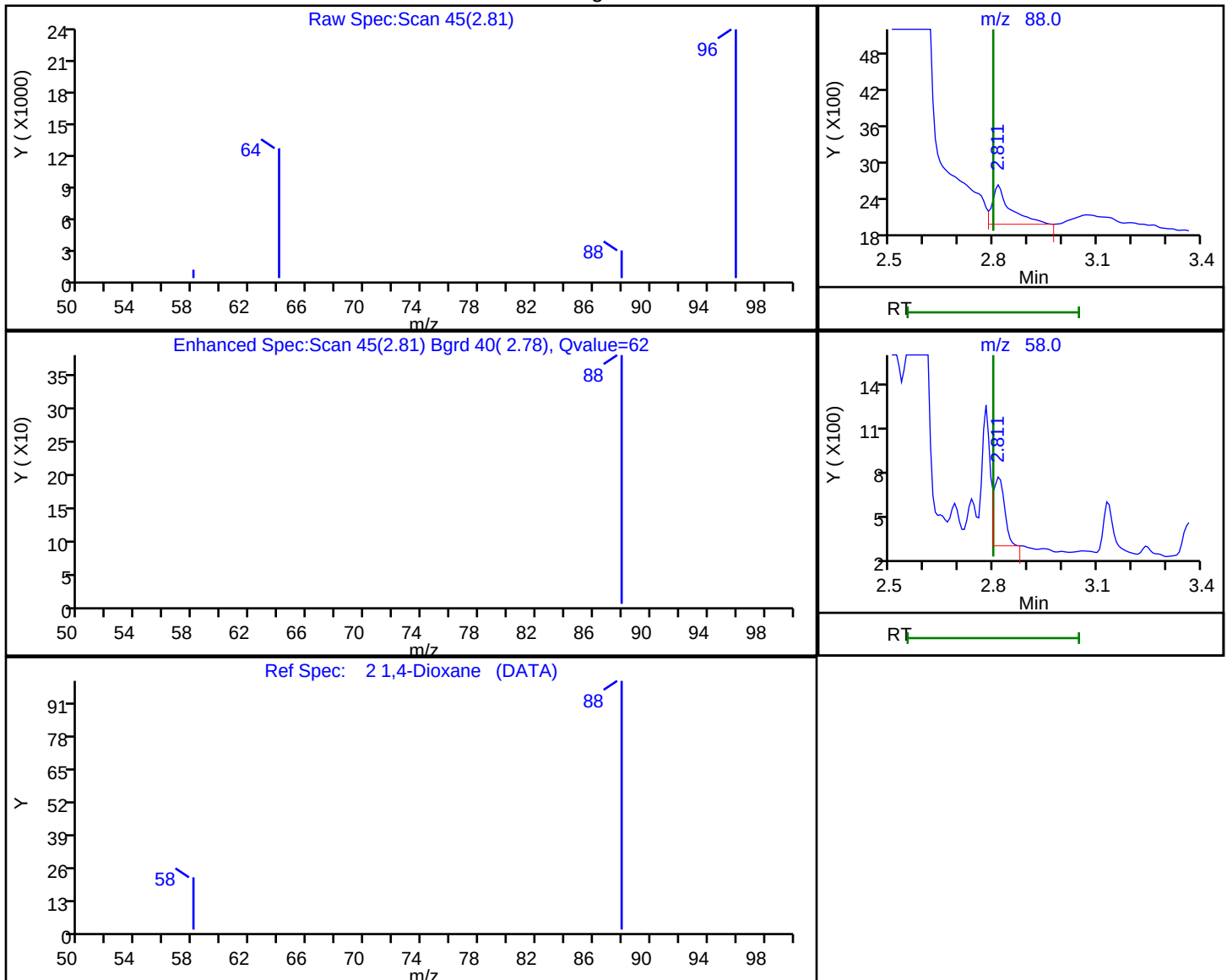
Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.81	88.00	2362	0.008781
2.81	58.00	974	

Reviewer: khlungprakhons, 05-Sep-2019 18:35:39

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Client Sample ID: BAGS_999_9_20190828 Lab Sample ID: 320-53835-8
Matrix: Water Lab File ID: C4736.D
Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 00:00
Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 04:38
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	49		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4736.D
 Lims ID: 320-53835-A-8-A
 Client ID: BAGS_999_9_20190828
 Sample Type: Client
 Inject. Date: 05-Sep-2019 04:38:30 ALS Bottle#: 14 Worklist Smp#: 14
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-014
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 15:54:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	%Rec	Flags
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D 1	1,4-Dioxane-d8	96	2.776	2.778	0.000	0	1147559	1.95	48.8
* 4	1,4-Dichlorobenzene-d4	152	5.581	5.580	0.001	97	297507	0.2000	

Reagents:

SM_iso_d4istd_00005	Amount Added: 20.00	Units: uL	Run Reagent
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Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4736.D

Injection Date: 05-Sep-2019 04:38:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-8-A

Lab Sample ID: 460-53835-8

Worklist Smp#: 14

Client ID: BAGS_999_9_20190828

Injection Vol: 5.0 ul

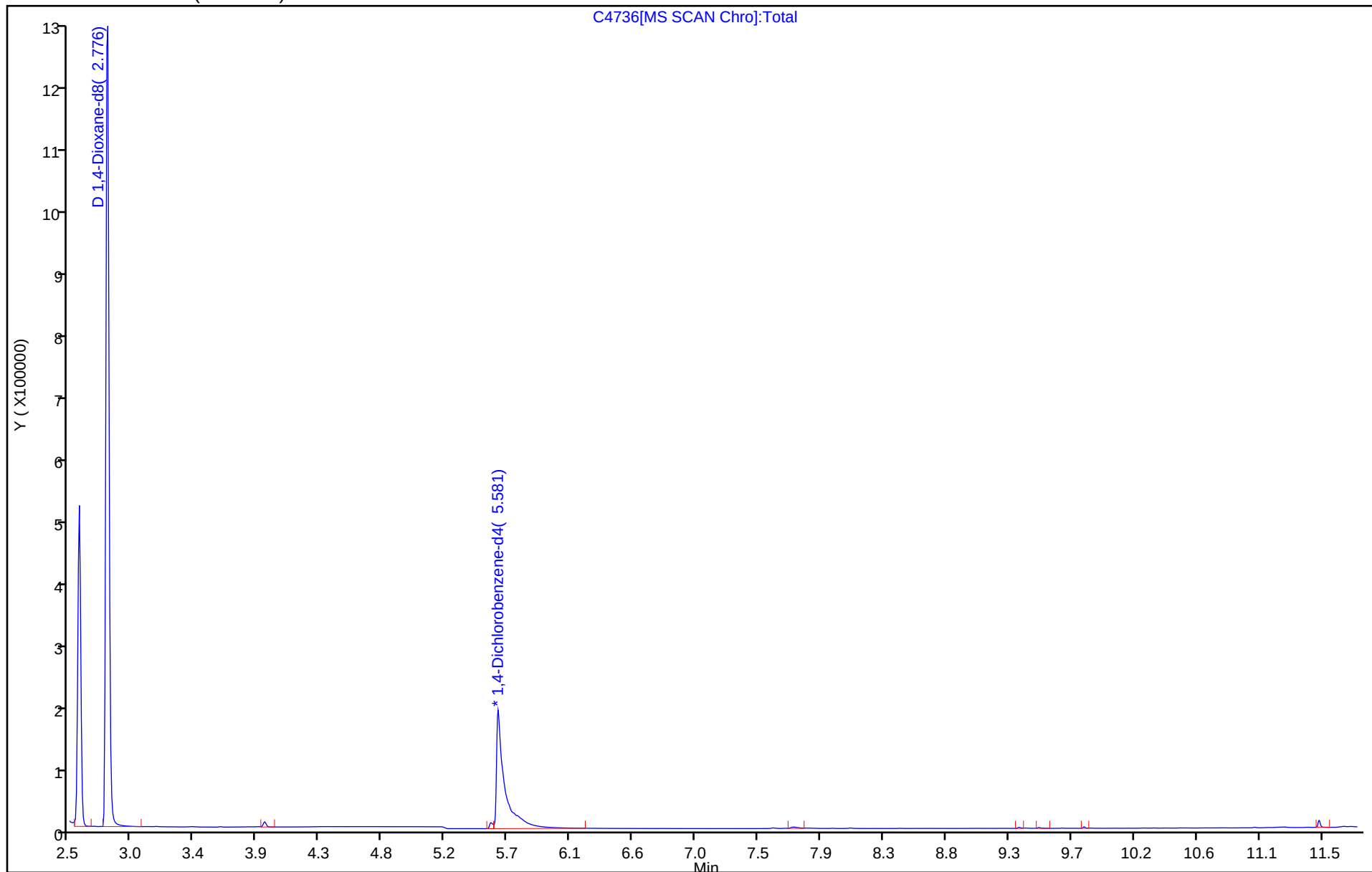
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4736.D

Injection Date: 05-Sep-2019 04:38:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-8-A

Lab Sample ID: 460-53835-8

Client ID: BAGS_999_9_20190828

Operator ID:

ALS Bottle#:

14

Worklist Smp#:

14

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

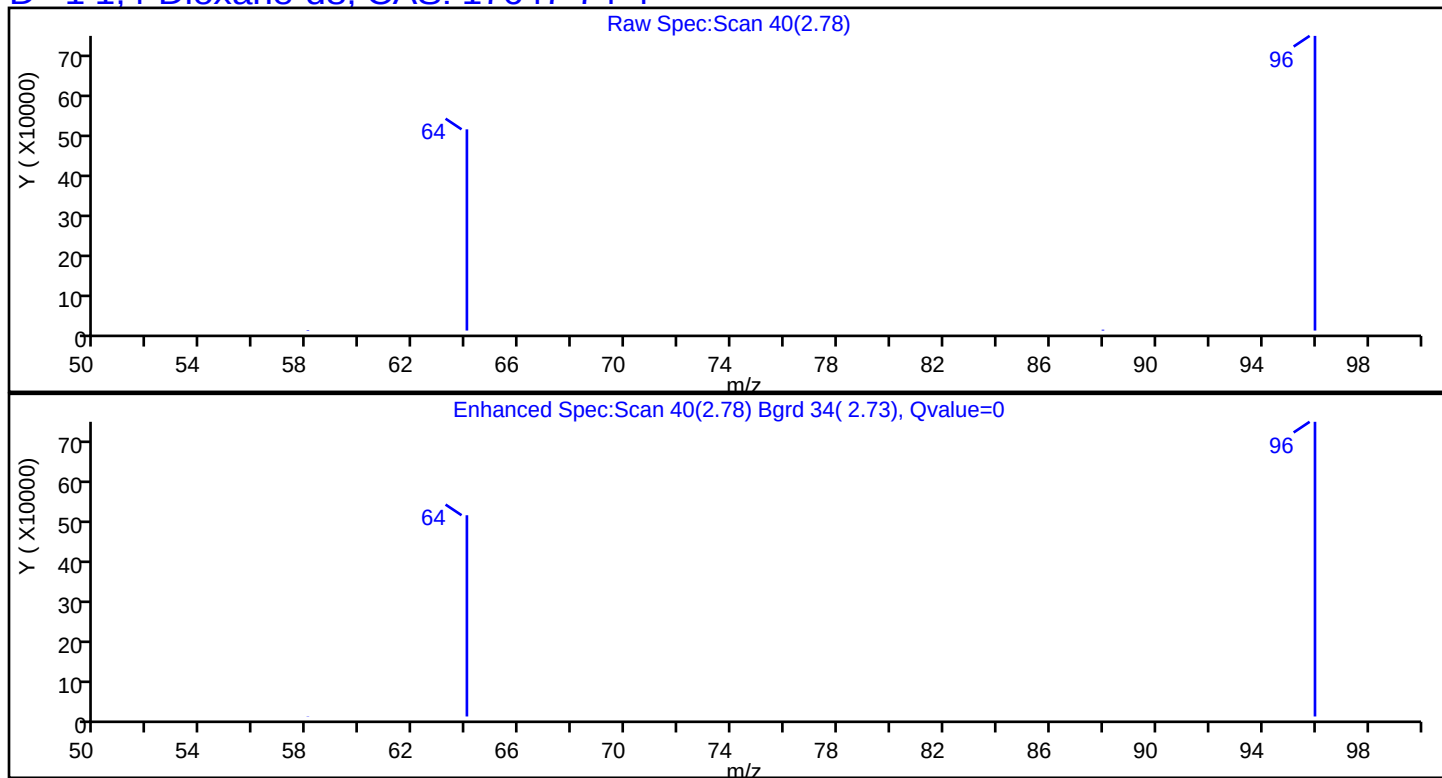
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4736.D

Injection Date: 05-Sep-2019 04:38:30

Instrument ID: CBNAMS13

Lims ID: 320-53835-A-8-A

Lab Sample ID: 460-53835-8

Client ID: BAGS_999_9_20190828

Operator ID:

ALS Bottle#:

14

Worklist Smp#: 14

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

Limit Group:

MSS 8270 Isotope Dilution IS

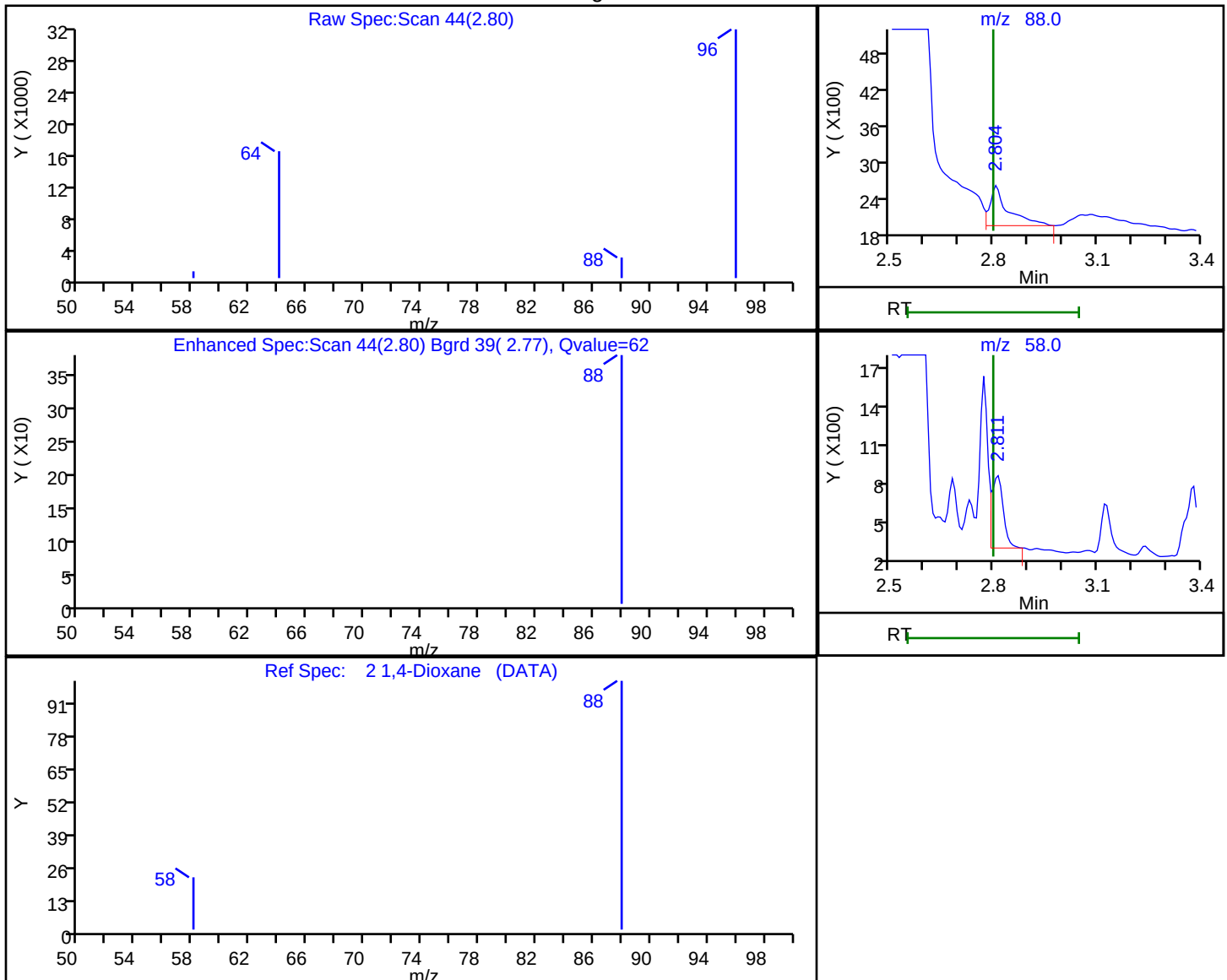
Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.80	88.00	2460	0.006623
2.81	58.00	1242	

Reviewer: maheseep, 05-Sep-2019 15:54:23

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1 Analy Batch No.: 518314

SDG No.: BAGS Landfill

Instrument ID: CBNAMS13 GC Column: Rtxi-5Sil M ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/11/2018 12:48 Calibration End Date: 05/11/2018 17:20 Calibration ID: 68479

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-518314/9	C28993.D
Level 2	STD2 460-518314/8	C28992.D
Level 3	STD3 460-518314/7	C28991.D
Level 4	STD4 460-518314/6	C28990.D
Level 5	ICIS 460-518314/2	C28986.D
Level 6	STD6 460-518314/5	C28989.D
Level 7	STD7 460-518314/4	C28988.D
Level 8	STD8 460-518314/3	C28987.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	1.4707 1.2114	1.4974 1.1835	1.3755 1.0062	1.3268	1.2864	AveID		1.2947				12.5		50.0			
1,4-Dioxane-d8	0.4001 0.3945	0.3939 0.3970	0.3865 0.3963	0.3964	0.3977	Ave		0.3953				1.0		50.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1 Analy Batch No.: 518314

SDG No.: BAGS Landfill

Instrument ID: CBNAMS13 GC Column: Rtxi-5Sil M ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/11/2018 12:48 Calibration End Date: 05/11/2018 17:20 Calibration ID: 68479

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-518314/9	C28993.D
Level 2	STD2 460-518314/8	C28992.D
Level 3	STD3 460-518314/7	C28991.D
Level 4	STD4 460-518314/6	C28990.D
Level 5	ICIS 460-518314/2	C28986.D
Level 6	STD6 460-518314/5	C28989.D
Level 7	STD7 460-518314/4	C28988.D
Level 8	STD8 460-518314/3	C28987.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dioxane		AveID	19118 779650	40300 1516533	88487 6531196	176553	413818	0.0200 1.00	0.0400 2.00	0.100 10.0	0.200	0.500
1,4-Dioxane-d8	DCBd 4	Ave	2599863 2574395	2691312 2562721	2573218 2596349	2661308	2573458	4.00 4.00	4.00 4.00	4.00 4.00	4.00	4.00

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28986.D
 Lims ID: icis
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 11-May-2018 12:48:30 ALS Bottle#: 9 Worklist Smp#: 2
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-002
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:25 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 11-May-2018 13:27:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.400	3.400	0.000	0	2573458	4.00	4.02	a
2 1,4-Dioxane	88	3.428	3.428	0.000	79	413818	0.5000	0.4968	
* 4 1,4-Dichlorobenzene-d4	152	5.952	5.952	0.000	98	323558	0.2000	0.2000	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

SM_ISOTOPL5_00001

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28986.D

Injection Date: 11-May-2018 12:48:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: icis

Worklist Smp#: 2

Client ID:

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

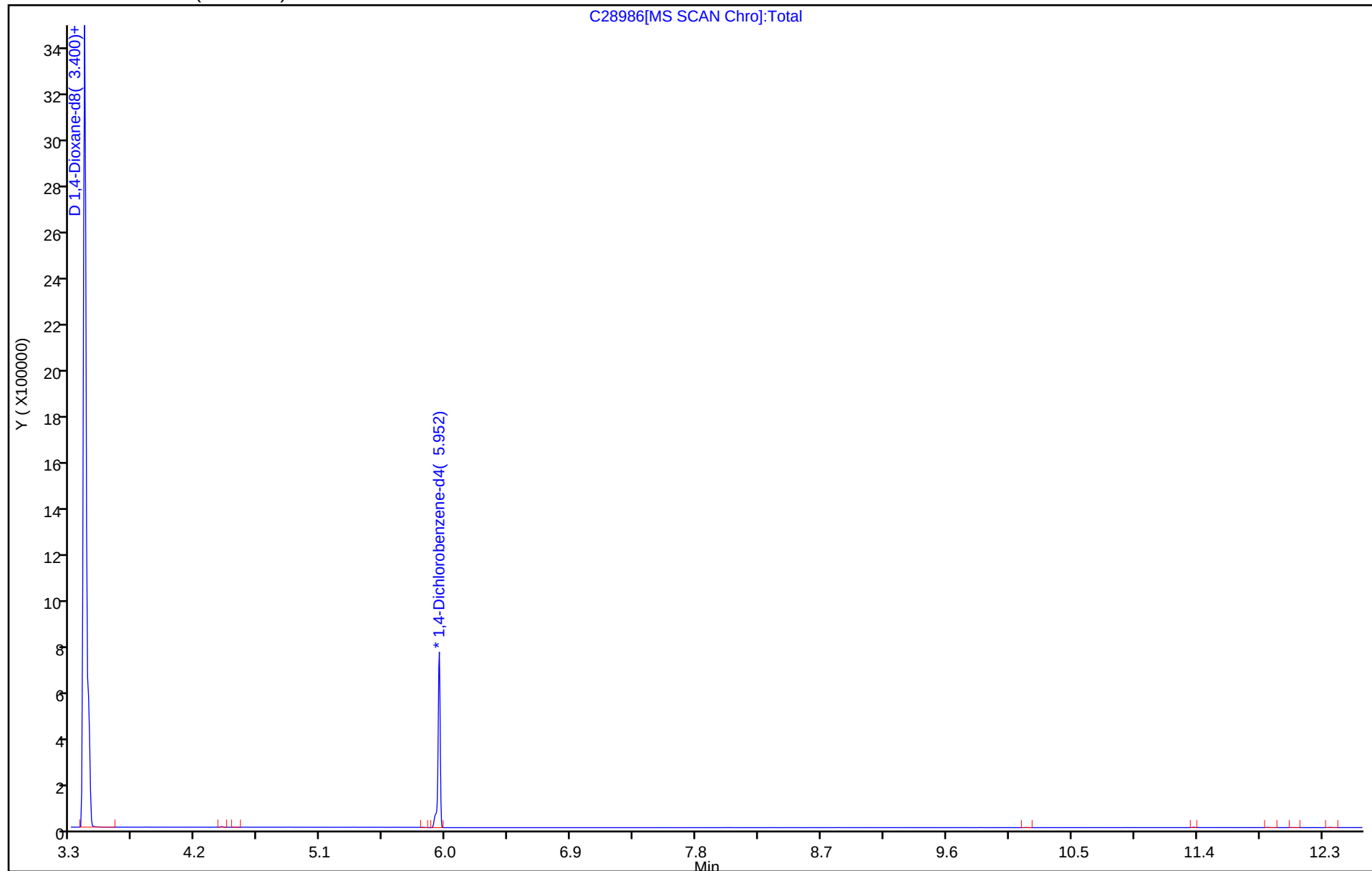
ALS Bottle#: 9

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

C28986[MS SCAN Chro]:Total



TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28986.D

Injection Date: 11-May-2018 12:48:30

Instrument ID: CBNAMS13

Lims ID: icis

Client ID:

Operator ID:

ALS Bottle#:

9

Worklist Smp#: 2

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

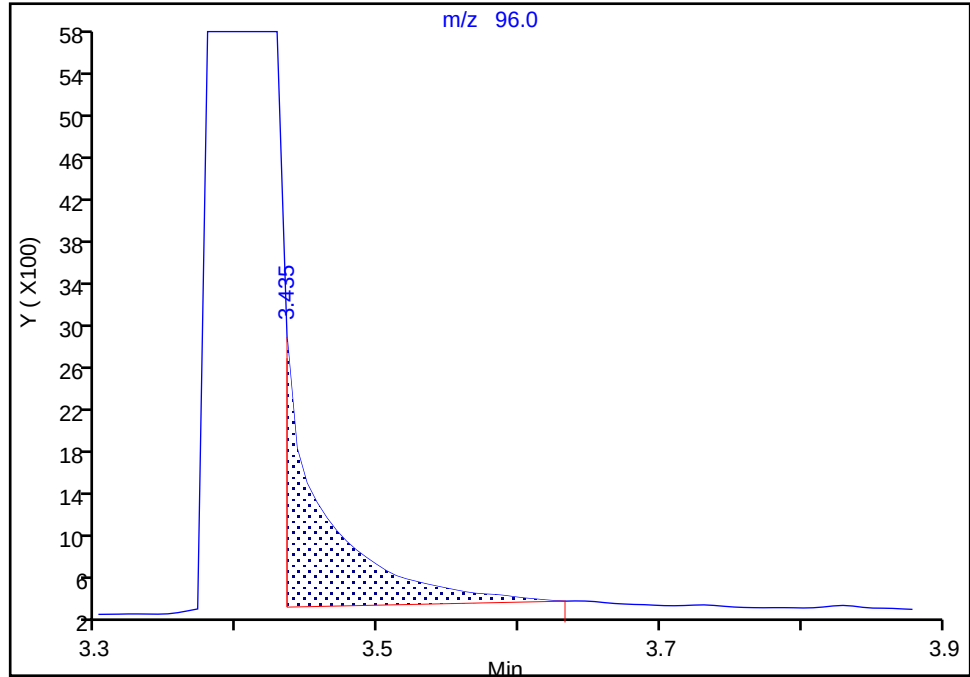
Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Signal: 1

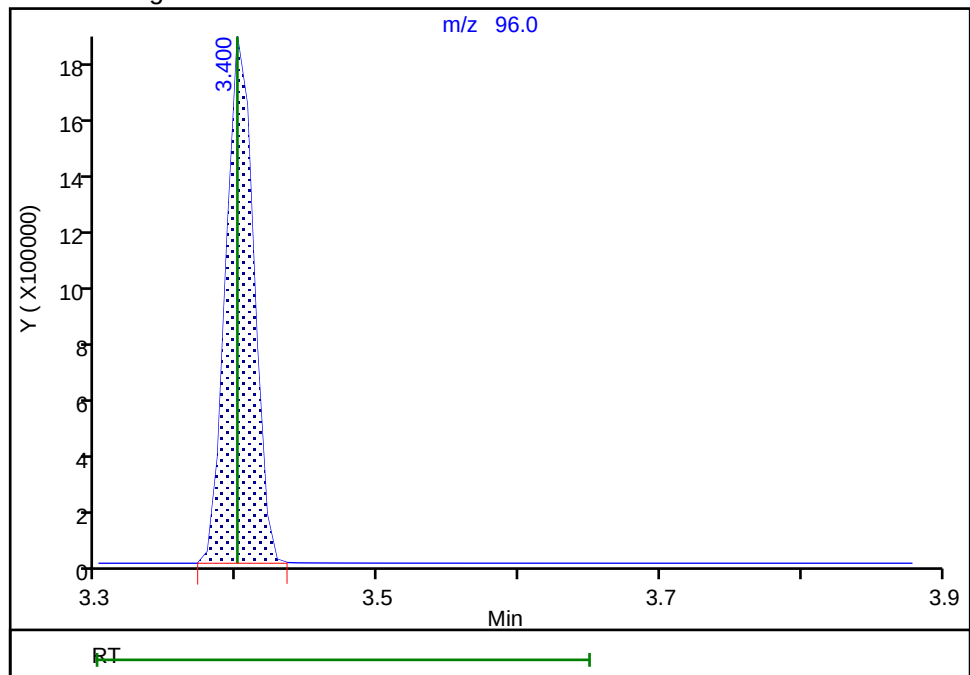
RT: 3.43
Area: 5015
Amount: 4.029831
Amount Units: ug/ml

Processing Integration Results



RT: 3.40
Area: 2573458
Amount: 4.024073
Amount Units: ug/ml

Manual Integration Results



Reviewer: johnstonm1, 11-May-2018 13:27:27

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28987.D
 Lims ID: STD8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 11-May-2018 13:08:30 ALS Bottle#: 10 Worklist Smp#: 3
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-003
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:25 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 11-May-2018 13:28:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.392	3.400	-0.008	0	2596349	4.00	4.01	a
2 1,4-Dioxane	88	3.421	3.428	-0.007	78	6531196	10.0	7.77	
* 4 1,4-Dichlorobenzene-d4	152	5.944	5.952	-0.008	97	327569	0.2000	0.2000	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

SM_ISOTOPL8_00001

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28987.D

Injection Date: 11-May-2018 13:08:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD8

Worklist Smp#: 3

Client ID:

Injection Vol: 5.0 ul

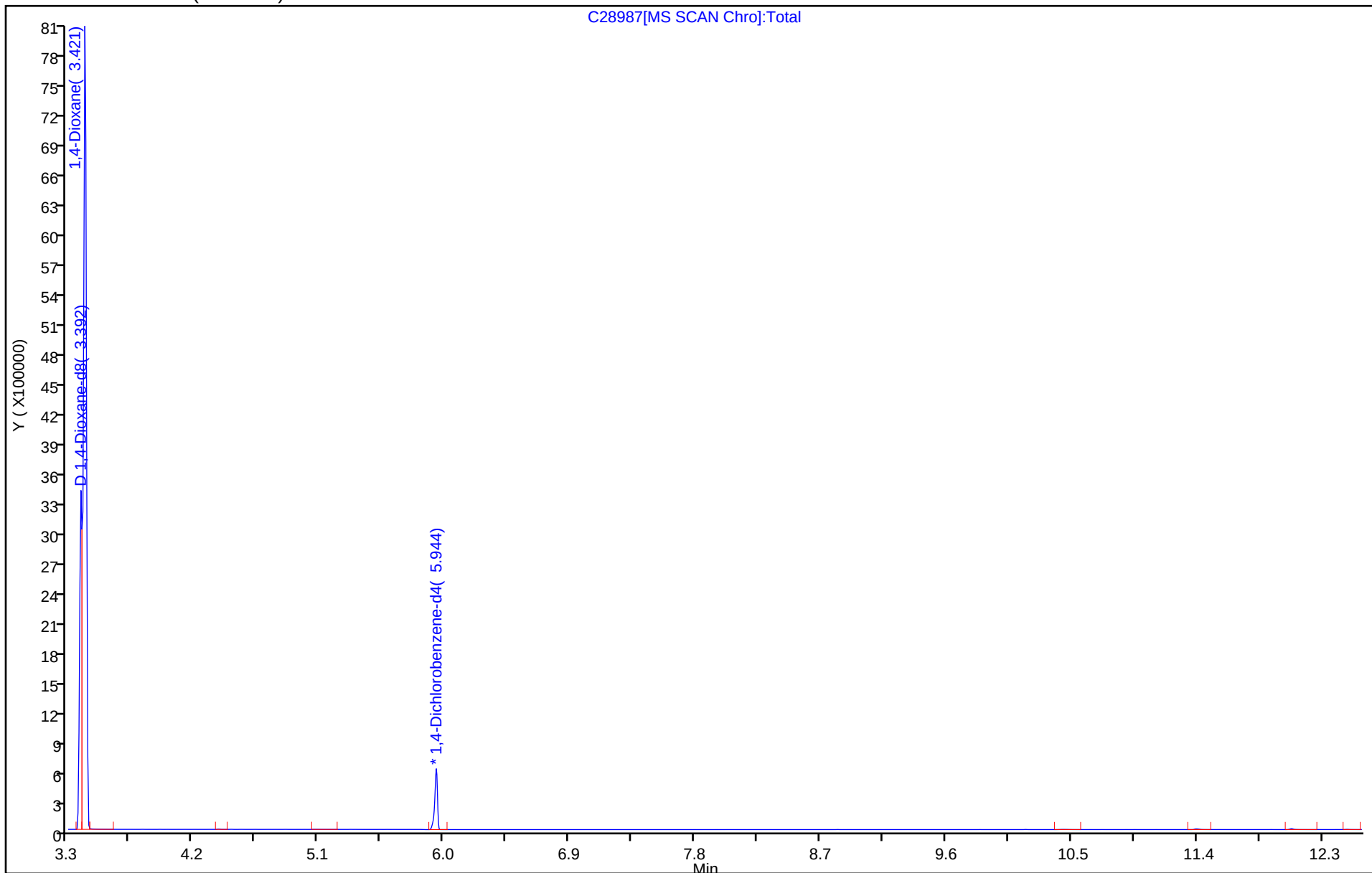
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28987.D

Injection Date: 11-May-2018 13:08:30

Instrument ID: CBNAMS13

Lims ID: STD8

Client ID:

Operator ID:

ALS Bottle#:

10

Worklist Smp#:

3

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

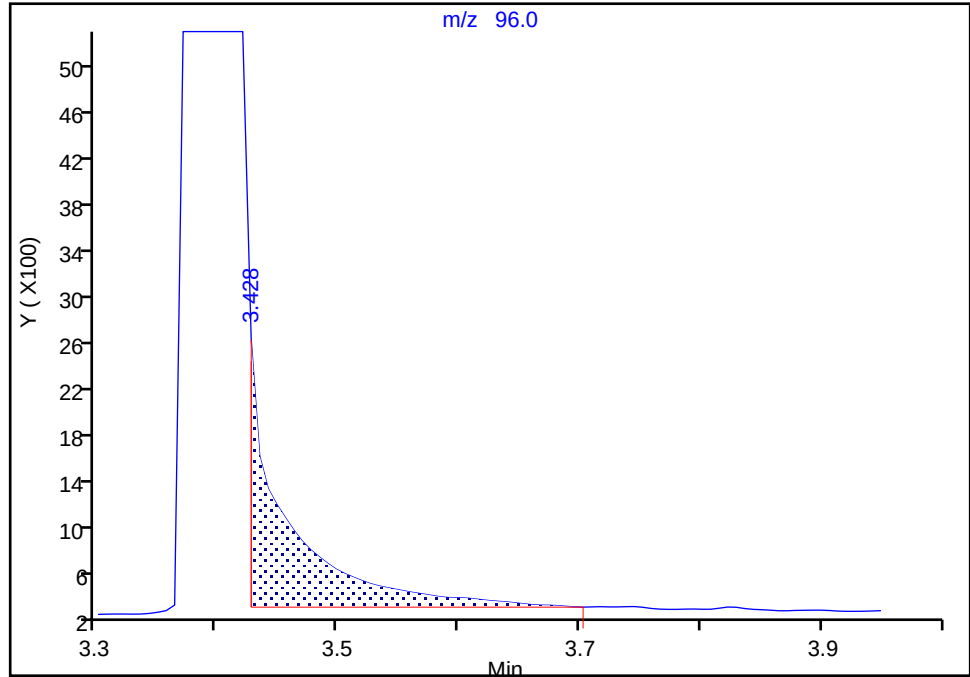
MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Signal: 1

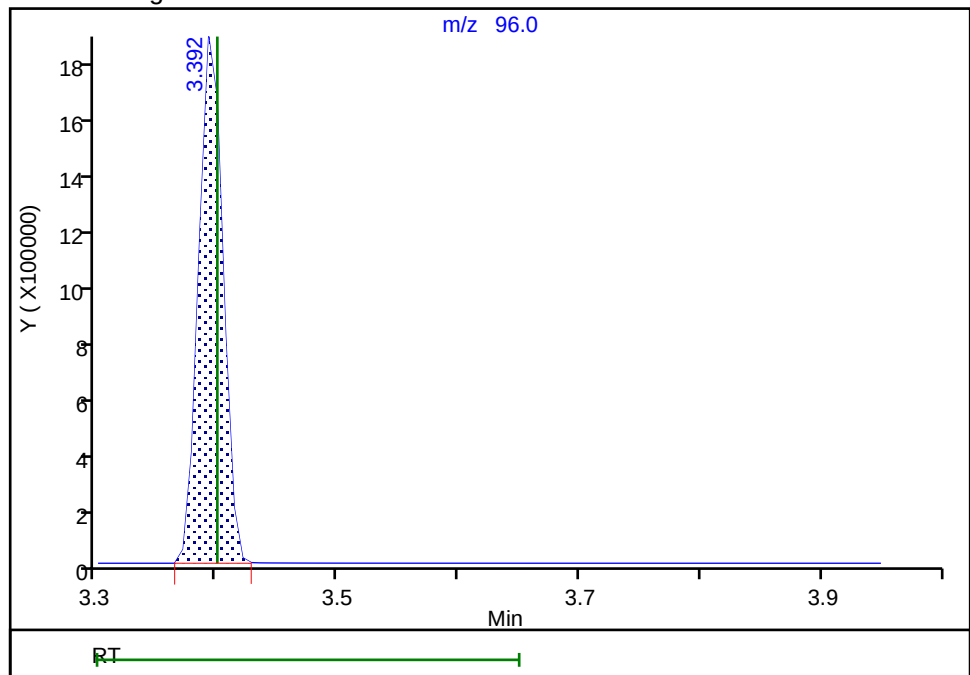
RT: 3.43
Area: 5002
Amount: 0.015330
Amount Units: ug/ml

Processing Integration Results



RT: 3.39
Area: 2596349
Amount: 4.010155
Amount Units: ug/ml

Manual Integration Results



Reviewer: johnstonm1, 11-May-2018 13:27:45

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28988.D
 Lims ID: STD7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 11-May-2018 13:27:30 ALS Bottle#: 11 Worklist Smp#: 4
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-004
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:26 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 14-May-2018 08:54:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.400	3.400	0.000	0	2562721	4.00	4.02	
2 1,4-Dioxane	88	3.428	3.428	0.000	79	1516533	2.00	1.83	
* 4 1,4-Dichlorobenzene-d4	152	5.948	5.952	-0.004	99	322762	0.2000	0.2000	

Reagents:

SM_ISOTOPL7_00001

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28988.D

Injection Date: 11-May-2018 13:27:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD7

Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

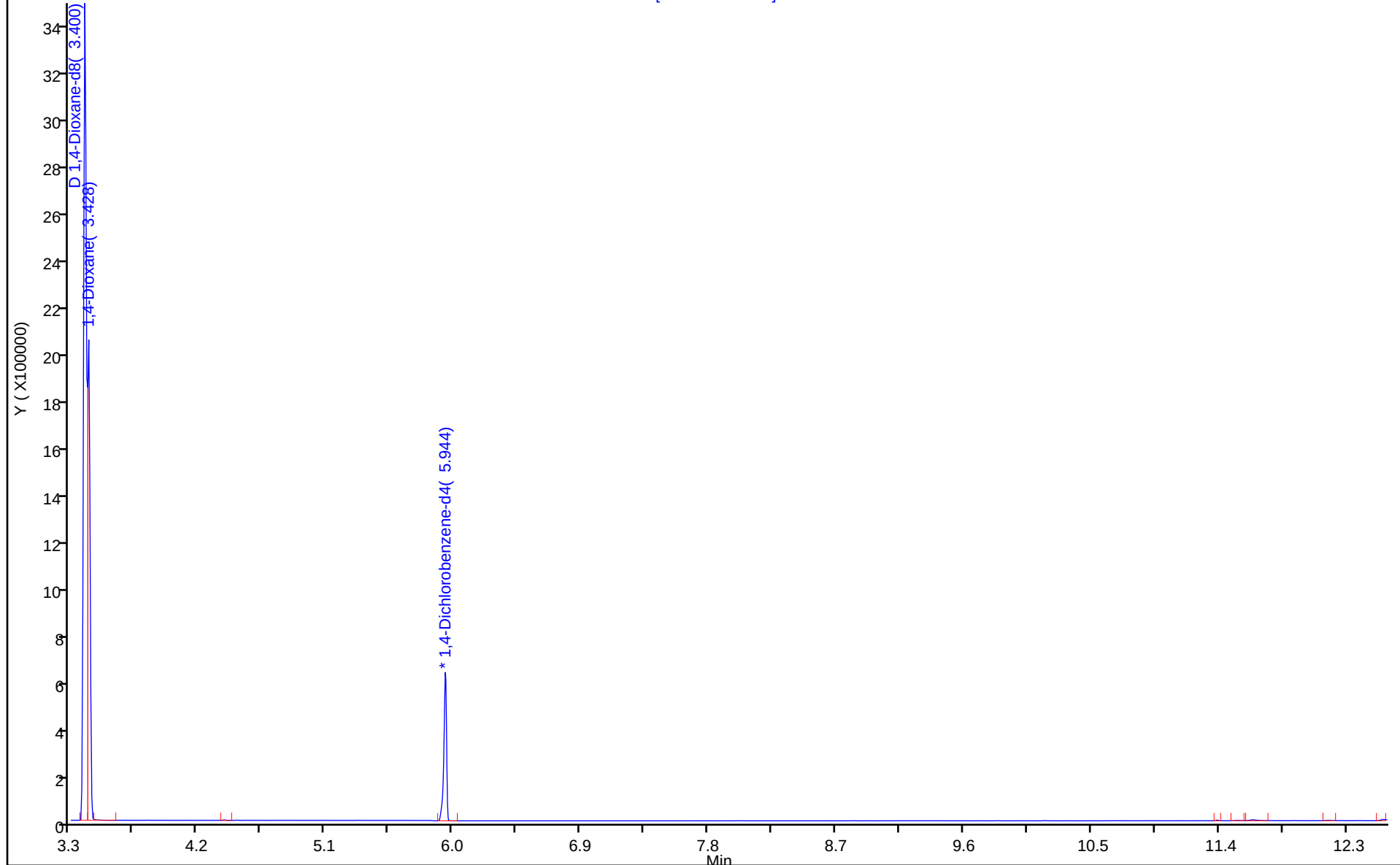
ALS Bottle#: 11

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

C28988[MS SCAN Chro]:Total



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28989.D
 Lims ID: STD6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 11-May-2018 14:16:30 ALS Bottle#: 12 Worklist Smp#: 5
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-005
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:27 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 14-May-2018 08:54:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.400	3.400	0.000	0	2574395	4.00	3.99	
2 1,4-Dioxane	88	3.428	3.428	0.000	82	779650	1.00	0.9356	
* 4 1,4-Dichlorobenzene-d4	152	5.948	5.952	-0.004	97	326300	0.2000	0.2000	

Reagents:

SM_ISOTOPL6_00001

Amount Added: 1.00

Units: mL

Report Date: 14-May-2018 12:12:27

Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28989.D

Injection Date: 11-May-2018 14:16:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD6

Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 ul

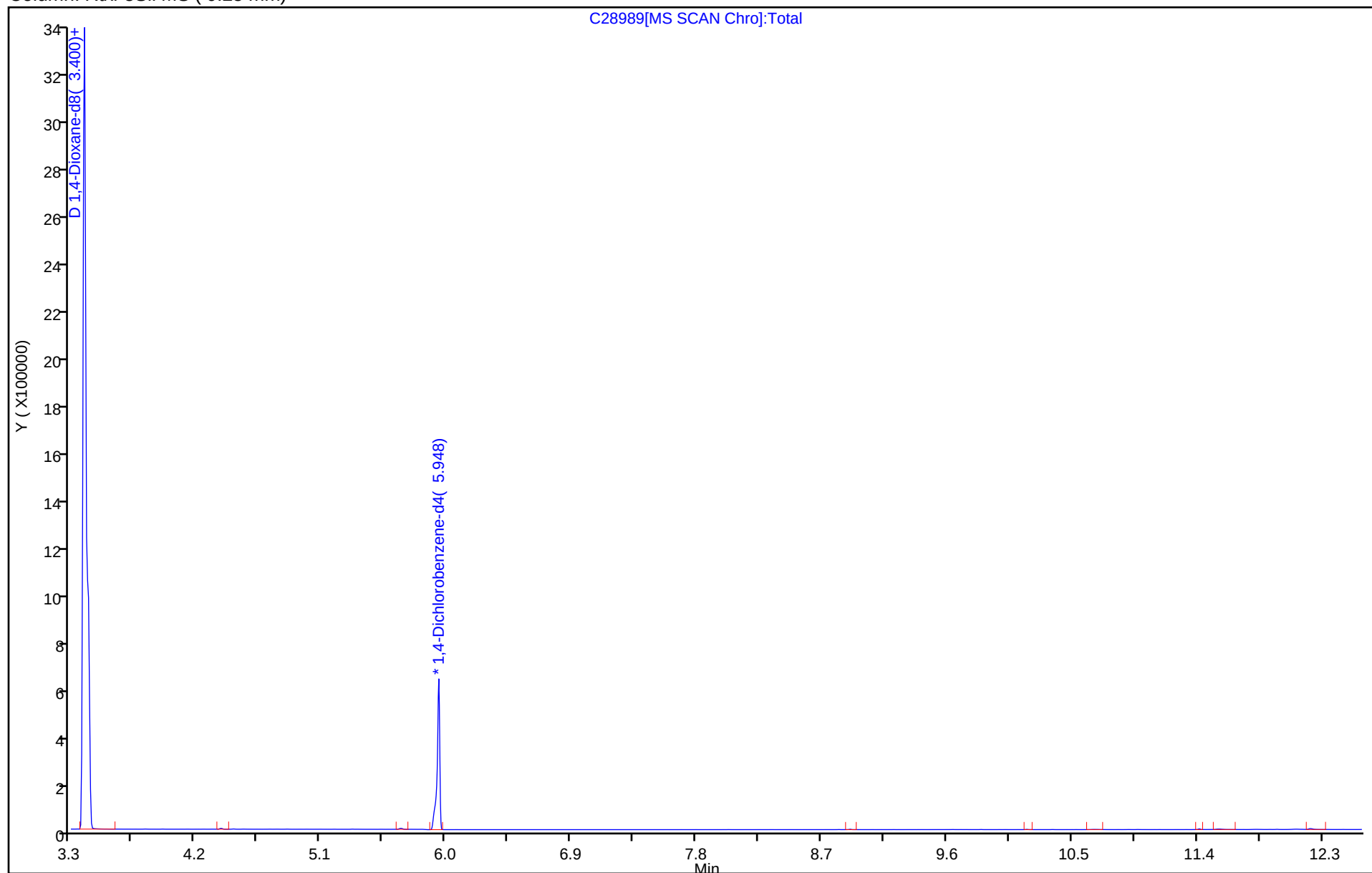
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28990.D
 Lims ID: STD4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 11-May-2018 14:35:30 ALS Bottle#: 13 Worklist Smp#: 6
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-006
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:28 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 14-May-2018 08:54:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.399	3.400	-0.001	0	2661308	4.00	4.01	
2 1,4-Dioxane	88	3.428	3.428	0.000	79	176553	0.2000	0.2050	
* 4 1,4-Dichlorobenzene-d4	152	5.944	5.952	-0.008	96	335668	0.2000	0.2000	

Reagents:

SM_ISOTOPL4_00001

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28990.D

Injection Date: 11-May-2018 14:35:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD4

Worklist Smp#: 6

Client ID:

Injection Vol: 5.0 ul

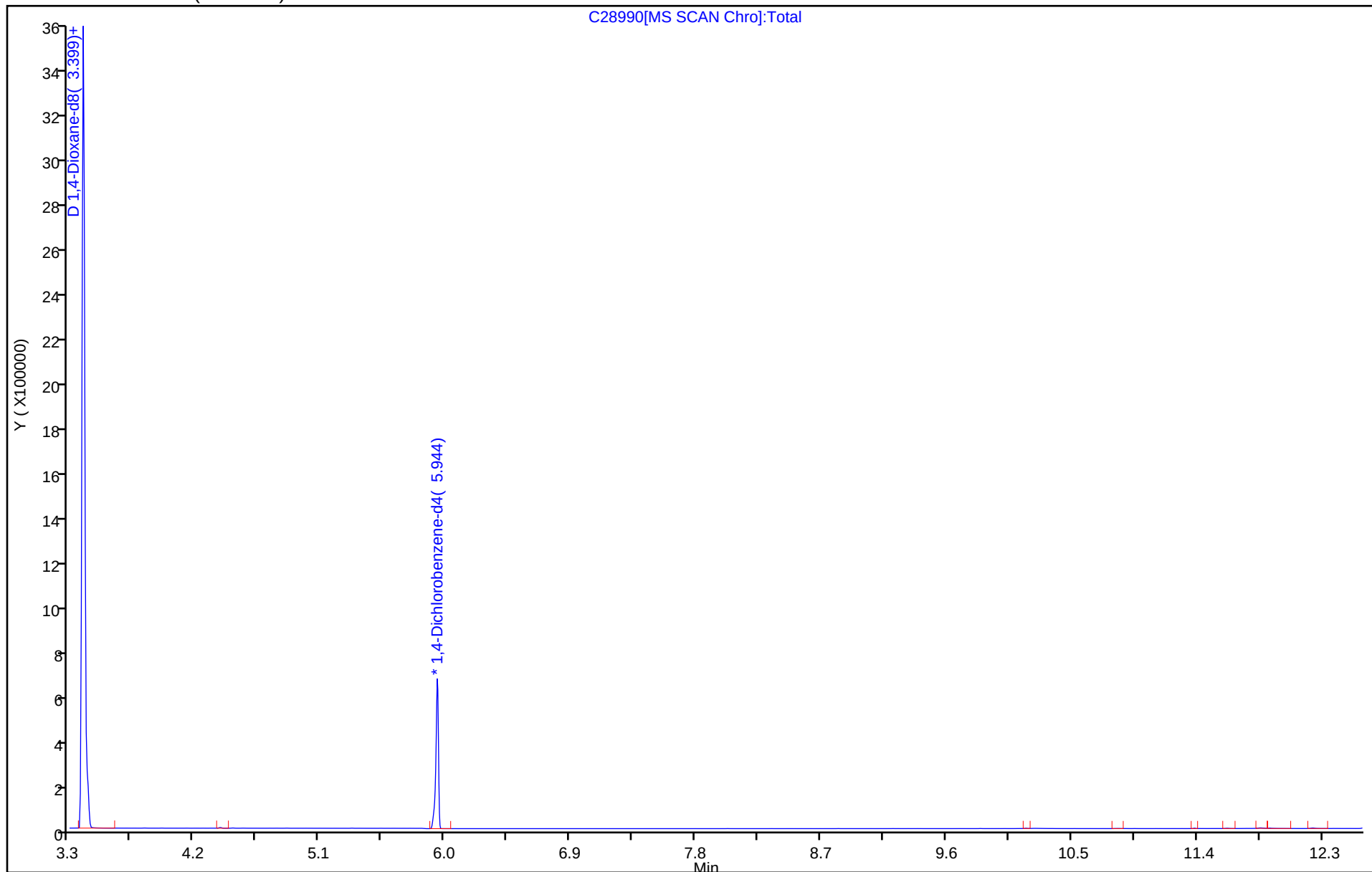
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28991.D
 Lims ID: STD3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 11-May-2018 15:44:30 ALS Bottle#: 14 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-007
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:28 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 14-May-2018 08:54:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.400	3.400	0.000	0	2573218	4.00	3.91	
2 1,4-Dioxane	88	3.428	3.428	0.000	81	88487	0.1000	0.1062	
* 4 1,4-Dichlorobenzene-d4	152	5.948	5.948	0.000	97	332866	0.2000	0.2000	

Reagents:

SM_ISOTOPL3_00001

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28991.D

Injection Date: 11-May-2018 15:44:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD3

Worklist Smp#: 7

Client ID:

Injection Vol: 5.0 ul

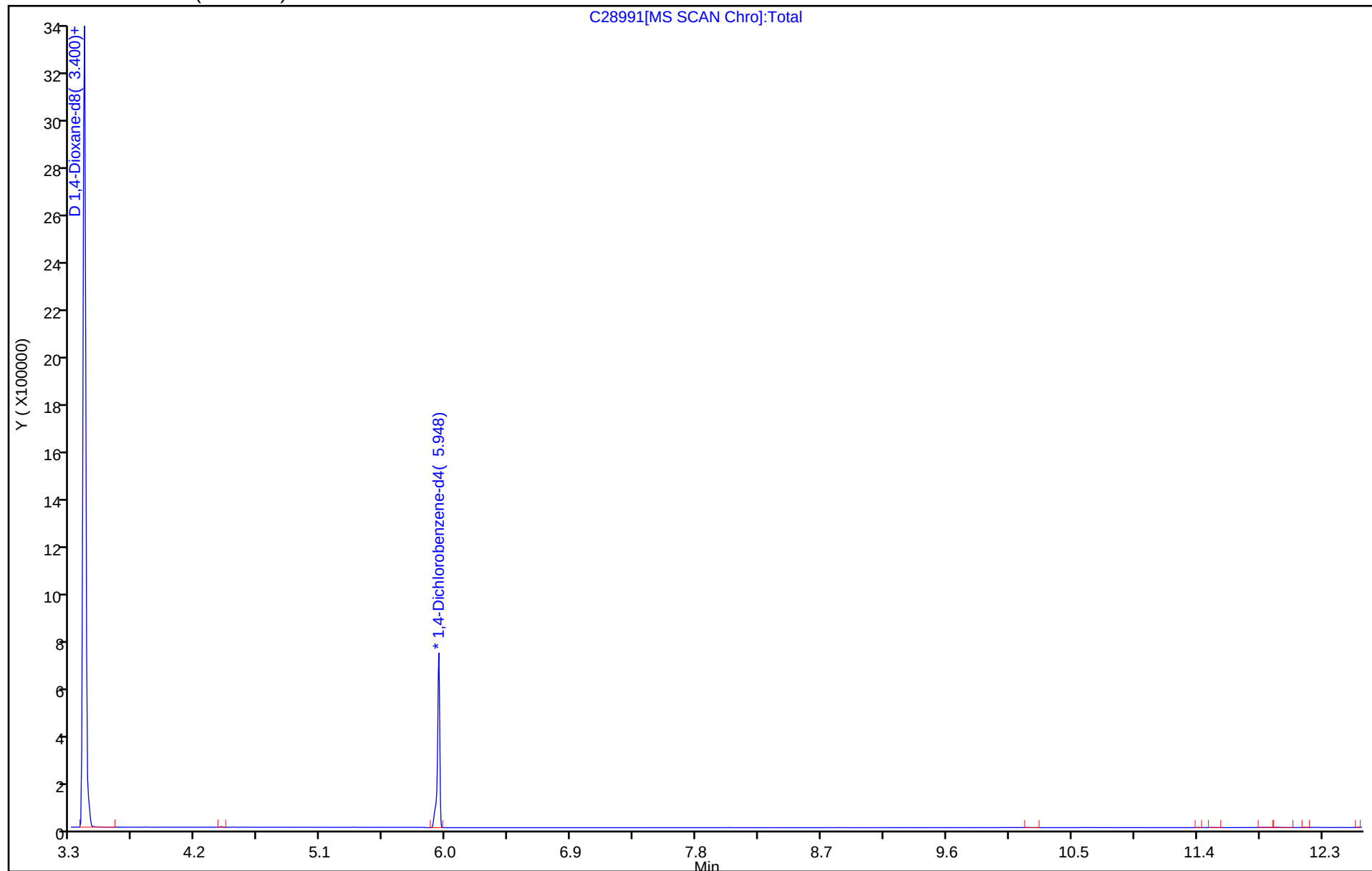
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28992.D
 Lims ID: STD2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 11-May-2018 16:02:30 ALS Bottle#: 15 Worklist Smp#: 8
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-008
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:29 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 14-May-2018 08:54:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.400	3.400	0.000	0	2691312	4.00	3.99	
2 1,4-Dioxane	88	3.435	3.428	0.007	85	40300	0.0400	0.0463	
* 4 1,4-Dichlorobenzene-d4	152	5.948	5.948	0.000	97	341640	0.2000	0.2000	

Reagents:

SM_ISOTOPL2_00001

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28992.D

Injection Date: 11-May-2018 16:02:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD2

Worklist Smp#: 8

Client ID:

Injection Vol: 5.0 ul

Dil. Factor: 1.0000

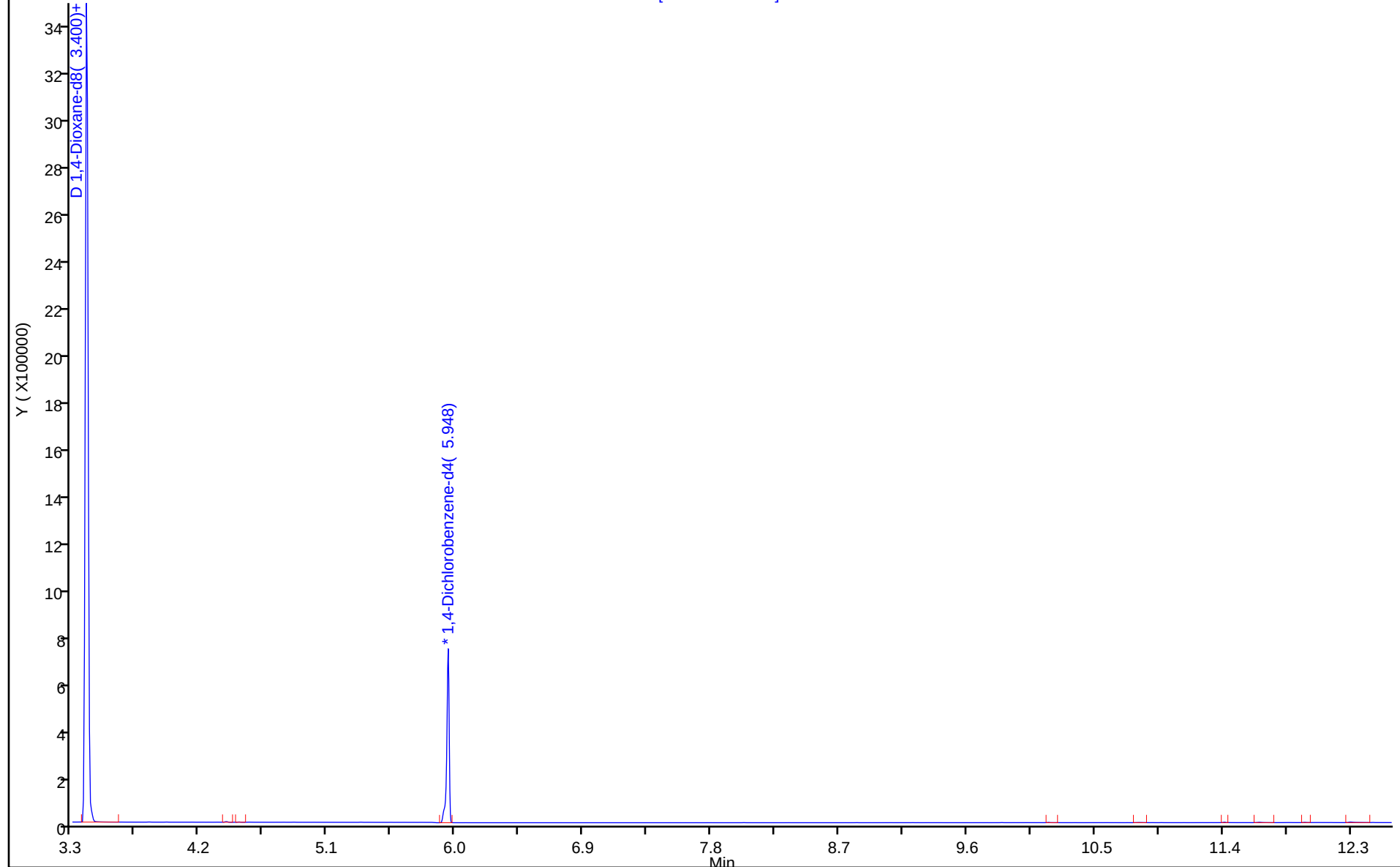
ALS Bottle#: 15

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

C28992[MS SCAN Chro]:Total



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Lims ID: STD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 11-May-2018 17:20:30 ALS Bottle#: 16 Worklist Smp#: 9
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0071845-009
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 14-May-2018 12:12:30 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: johnstonm1

Date: 14-May-2018 08:54:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	3.400	3.400	0.000	0	2599863	4.00	4.05	
2 1,4-Dioxane	88	3.428	3.428	0.000	87	19118	0.0200	0.0227	
* 4 1,4-Dichlorobenzene-d4	152	5.948	5.948	0.000	98	324883	0.2000	0.2000	

Reagents:

SM_ISOTOPL1_00001

Amount Added: 1.00

Units: mL

Report Date: 14-May-2018 12:12:30

Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D

Injection Date: 11-May-2018 17:20:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: STD1

Worklist Smp#: 9

Client ID:

Injection Vol: 5.0 ul

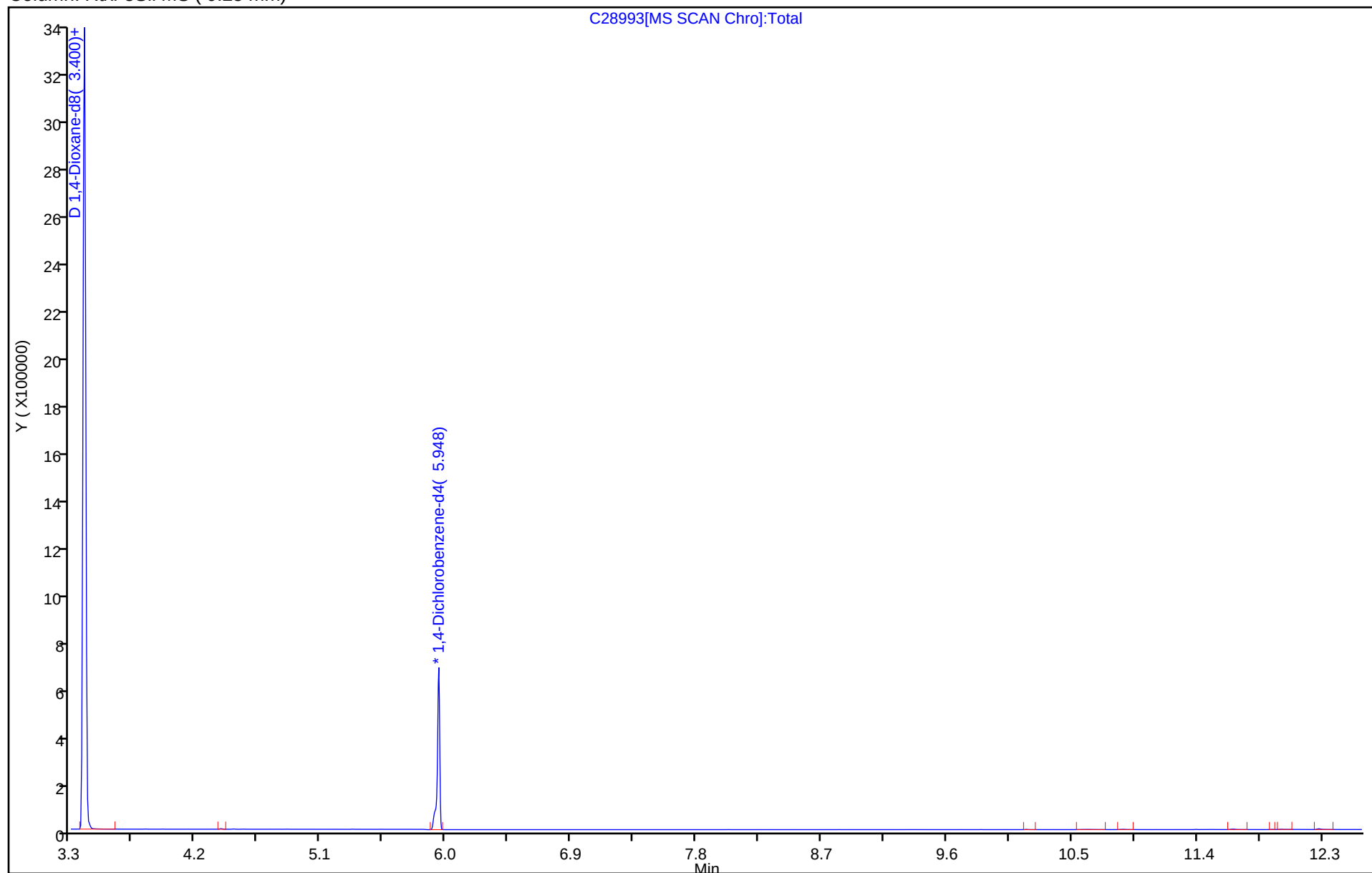
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Lab Sample ID: CCVIS 460-637000/2 Calibration Date: 09/05/2019 00:45
Instrument ID: CBNAMS13 Calib Start Date: 05/11/2018 12:48
GC Column: Rtxi-5Sil MS ID: 0.25 (mm) Calib End Date: 05/11/2018 17:20
Lab File ID: C4724.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.295	1.215		469	500	-6.2	50.0
1,4-Dioxane-d8	Ave	0.3953	0.4616		4670	4000	16.8	50.0

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4724.D
 Lims ID: ccvis
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 05-Sep-2019 00:45:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-002
 Operator ID: Instrument ID: CBNAMS13
 Sublist: chrom-8270_Isotope*sub1
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 13:20:04 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0332

First Level Reviewer: maheseep

Date: 05-Sep-2019 13:20:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	2.769	2.778	-0.007	0	2320772	4.00	4.67	
2 1,4-Dioxane	88	2.797	2.797	0.000	78	352402	0.5000	0.4691	
* 4 1,4-Dichlorobenzene-d4	152	5.580	5.580	0.000	97	251368	0.2000	0.2000	

Reagents:

SM_ISOTOPL5_00004

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4724.D

Injection Date: 05-Sep-2019 00:45:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: ccvis

Worklist Smp#: 2

Client ID:

Injection Vol: 5.0 ul

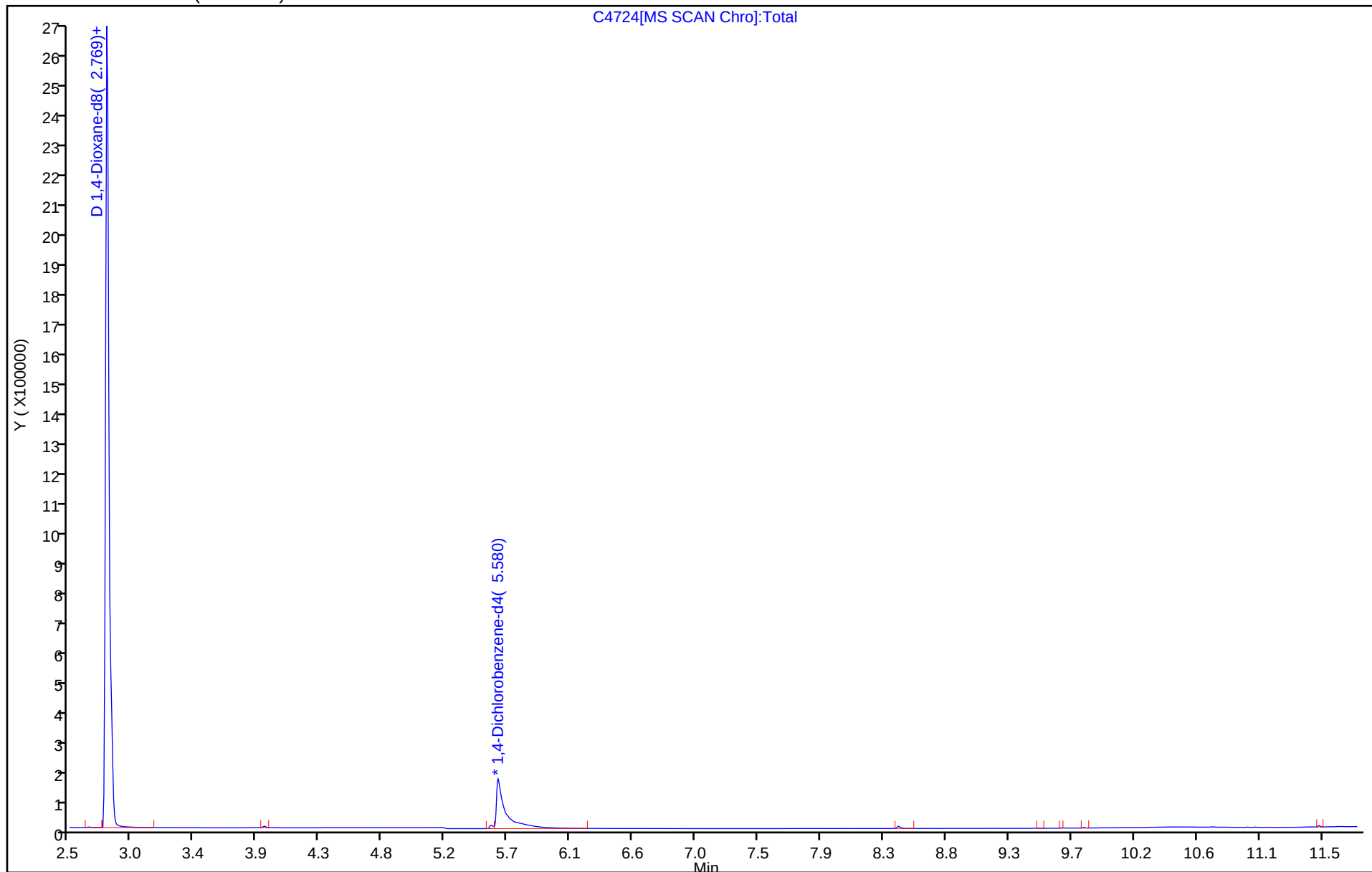
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28985.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 11-May-2018 12:33:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0071845-001
Operator ID: Instrument ID: CBNAMS13
Method: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\8270_Isotope.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 14-May-2018 12:12:23 Calib Date: 11-May-2018 17:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: XAWRK013

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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3 DFTPP

Reagents:

SMDFTP_CH_00024

Amount Added: 1.00

Units: mL

TestAmerica Edison

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28985.D

Injection Date: 11-May-2018 12:33:30

Instrument ID: CBNAMS13

Lims ID: DFTPP

Client ID:

Operator ID:

ALS Bottle#:

1

Worklist Smp#:

1

Injection Vol: 5.0 ul

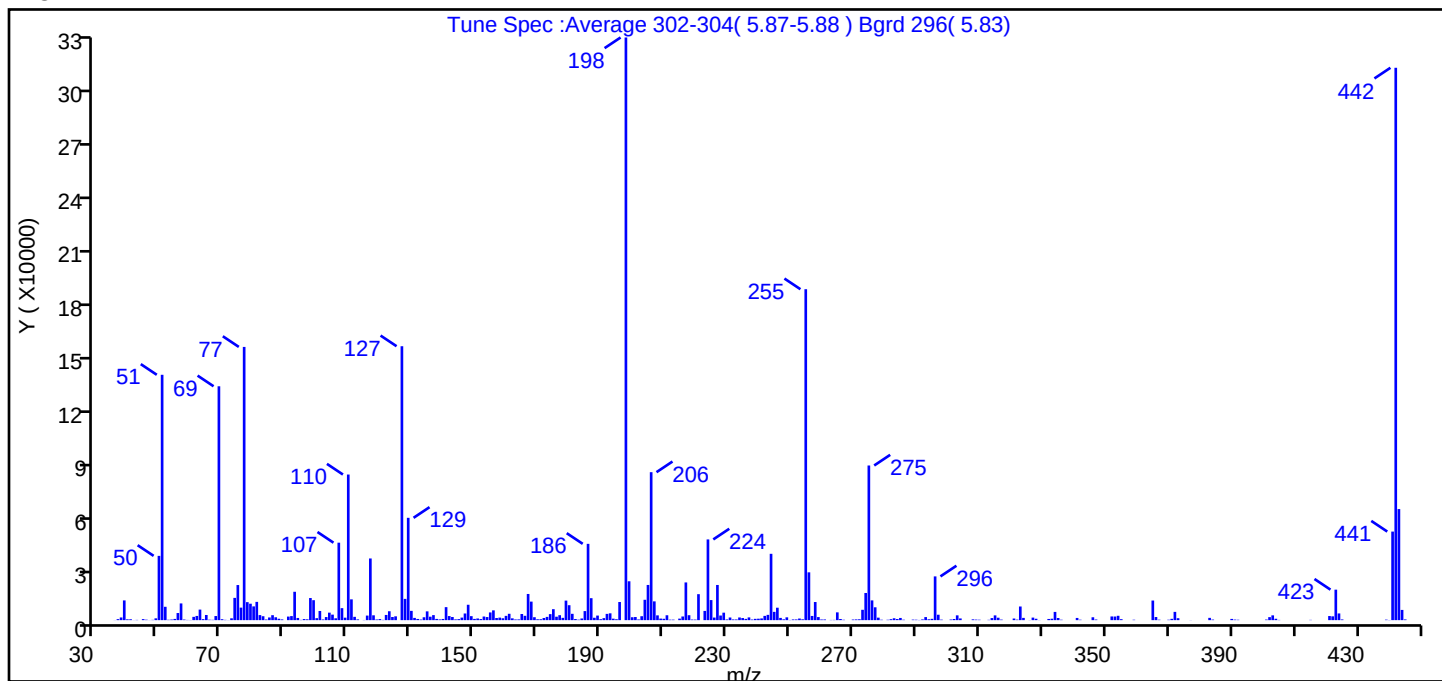
Dil. Factor: 1.0000

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Tune Method: DFTPP Method 8270

3 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	42.1
68	<2% of mass 69	0.7 (1.8)
69	Present	40.1
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	47.0
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.7
275	10-30% of mass 198	26.5
365	>1% of mass 198	3.4
441	Present but less than mass 443	15.2 (79.7)
442	>40% of mass 198	94.8
443	17-23% of mass 442	19.1 (20.1)

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28985.D\8270_Isotope.rsl\spectra.d
Injection Date: 11-May-2018 12:33:30
Spectrum: Tune Spec :Average 302-304(5.87-5.88) Bgrd 296(5.83)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	49	118.00	2662	199.00	21424	284.00	629
37.00	560	119.00	356	200.00	1603	285.00	1209
38.00	1472	120.00	579	201.00	1724	286.00	232
39.00	10876	121.00	155	202.00	387	289.00	295
40.00	455	122.00	2863	203.00	2164	290.00	241
41.00	481	123.00	4900	204.00	11226	291.00	106
42.00	39	124.00	1725	205.00	19392	292.00	398
43.00	136	125.00	2104	206.00	81552	293.00	1687
45.00	569	127.00	150976	207.00	10345	294.00	477
46.00	256	128.00	11721	208.00	2633	295.00	726
47.00	48	129.00	56400	209.00	858	296.00	24112
48.00	154	130.00	5115	210.00	754	297.00	2986
49.00	996	131.00	1239	211.00	2693	298.00	280
50.00	35424	132.00	659	212.00	261	301.00	344
51.00	135232	133.00	329	213.00	275	302.00	633
52.00	7359	134.00	1590	215.00	837	303.00	2643
53.00	210	135.00	4840	216.00	2019	304.00	933
54.00	335	136.00	1900	217.00	20784	308.00	434
55.00	677	137.00	2771	218.00	2720	309.00	311
56.00	3922	138.00	678	219.00	327	310.00	233
57.00	9214	139.00	389	220.00	311	313.00	174
58.00	331	140.00	654	221.00	14315	314.00	1138
59.00	120	141.00	7166	223.00	5085	315.00	2625
60.00	90	142.00	2254	224.00	44488	316.00	1335
61.00	1811	143.00	1719	225.00	11061	317.00	300
62.00	2317	144.00	426	226.00	1424	321.00	894
63.00	5816	145.00	563	227.00	19384	322.00	294
64.00	555	146.00	1400	228.00	2545	323.00	7522
65.00	2842	147.00	3667	229.00	4119	324.00	1244
66.00	251	148.00	8479	230.00	384	326.00	59
67.00	178	149.00	2193	231.00	1459	327.00	1399
68.00	2257	150.00	689	232.00	385	328.00	759
69.00	128904	151.00	917	233.00	373	329.00	56

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28985.D\8270_Isotope.rsl\spectra.d

Injection Date: 11-May-2018 12:33:30

Spectrum: Tune Spec :Average 302-304(5.87-5.88) Bgrd 296(5.83)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	507	152.00	605	234.00	1468	332.00	652
71.00	162	153.00	1996	235.00	1159	333.00	788
72.00	53	154.00	1704	236.00	695	334.00	4537
73.00	1010	155.00	4248	237.00	1514	335.00	1179
74.00	12272	156.00	5394	238.00	342	336.00	228
75.00	19344	157.00	1184	239.00	721	341.00	1210
76.00	6896	158.00	1388	240.00	795	342.00	233
77.00	150592	159.00	1030	241.00	946	346.00	1584
78.00	9919	160.00	2360	242.00	2348	347.00	356
79.00	9058	161.00	3502	243.00	2909	352.00	2034
80.00	7582	162.00	993	244.00	36560	353.00	1993
81.00	10071	163.00	375	245.00	4562	354.00	2402
82.00	2783	164.00	408	246.00	6853	355.00	538
83.00	2157	165.00	3389	247.00	1236	359.00	225
84.00	351	166.00	2398	248.00	451	365.00	10809
85.00	1479	167.00	14423	249.00	1549	366.00	1720
86.00	2732	168.00	10214	250.00	103	367.00	253
87.00	1579	169.00	1613	251.00	388	370.00	225
88.00	770	170.00	482	252.00	391	371.00	728
89.00	398	171.00	499	253.00	887	372.00	4559
91.00	1966	172.00	1186	254.00	465	373.00	1064
92.00	2232	173.00	1788	255.00	182400	377.00	50
93.00	15636	174.00	3316	256.00	26352	383.00	1257
94.00	1209	175.00	6051	257.00	2312	384.00	308
95.00	145	176.00	1886	258.00	9992	390.00	678
96.00	595	177.00	2731	259.00	1687	391.00	307
97.00	457	178.00	1265	260.00	360	392.00	218
98.00	12185	179.00	10767	261.00	375	401.00	324
99.00	10997	180.00	8233	263.00	112	402.00	1656
100.00	1090	181.00	3487	264.00	144	403.00	2639
101.00	5050	182.00	613	265.00	4290	404.00	756
102.00	377	183.00	260	266.00	632	405.00	123
103.00	1699	184.00	916	267.00	207	415.00	151
104.00	4132	185.00	4991	270.00	335	421.00	2267

Report Date: 14-May-2018 12:12:24

Chrom Revision: 2.2 11-May-2018 08:54:46

Data File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28985.D\8270_Isotope.rslt\spectra.d

Injection Date: 11-May-2018 12:33:30

Spectrum: Tune Spec :Average 302-304(5.87-5.88) Bgrd 296(5.83)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	3036	186.00	42056	271.00	409	422.00	2101
106.00	1022	187.00	12106	272.00	486	423.00	16800
107.00	42696	188.00	1318	273.00	5701	424.00	3696
108.00	6612	189.00	2517	274.00	14971	425.00	385
109.00	1360	190.00	518	275.00	85240	439.00	278
110.00	80256	191.00	1108	276.00	10891	440.00	84
111.00	11459	192.00	3454	277.00	7084	441.00	48816
112.00	1823	193.00	3761	278.00	1373	442.00	304448
113.00	420	194.00	809	279.00	229	443.00	61224
115.00	100	195.00	507	281.00	211	444.00	5633
116.00	2517	196.00	9992	282.00	541	445.00	392
117.00	33992	198.00	321152	283.00	1038		

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4723.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 05-Sep-2019 00:30:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 460-0097071-001
Misc. Info.: DFTPP
Operator ID: Instrument ID: CBNAMS13
Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
Limit Group: MSS 8270 Isotope Dilution IS
Last Update: 05-Sep-2019 00:53:10 Calib Date: 11-May-2018 17:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: eisam

Date: 05-Sep-2019 00:53:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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3 DFTPP

Reagents:

SMDFTP_CH_00028

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4723.D

Injection Date: 05-Sep-2019 00:30:30

Instrument ID: CBNAMS13

Lims ID: DFTPP

Client ID:

Operator ID:

ALS Bottle#: 1 Worklist Smp#: 1

Injection Vol: 5.0 ul

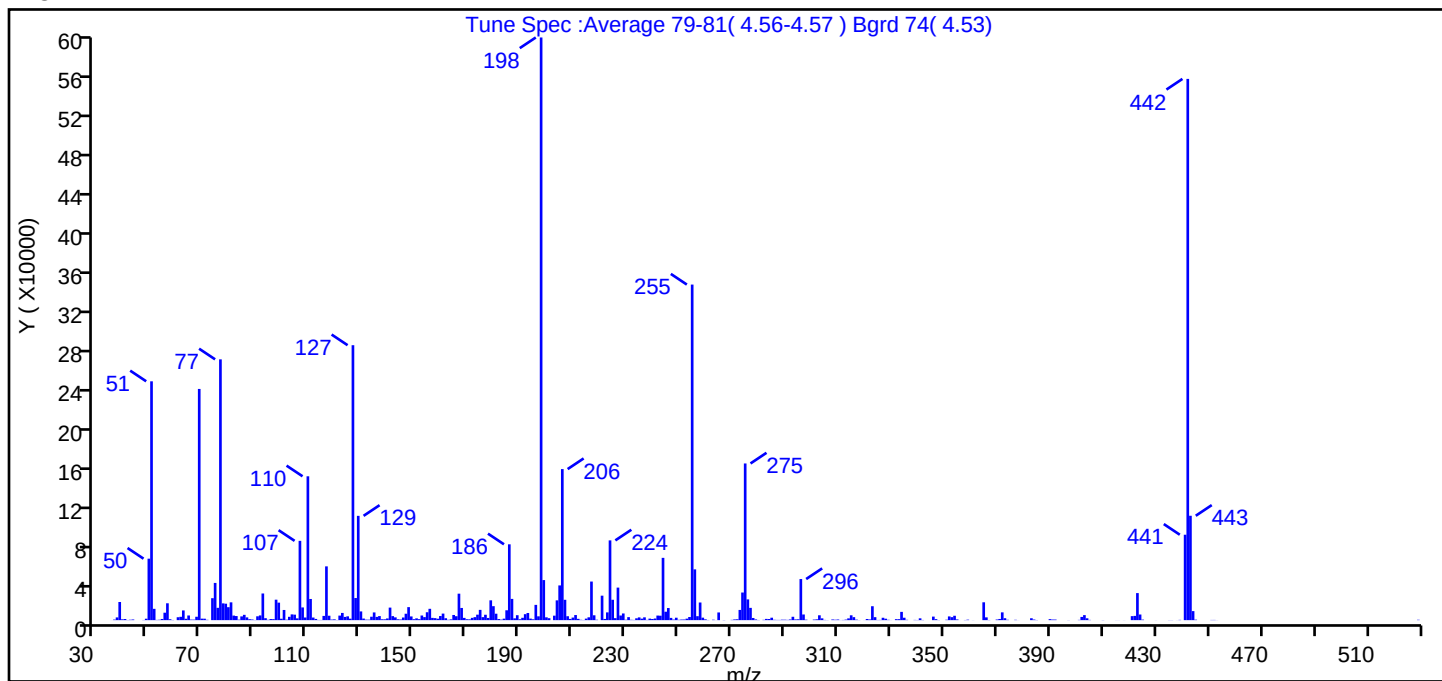
Dil. Factor: 1.0000

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Tune Method: DFTPP Method 8270

3 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	41.0
68	<2% of mass 69	0.6 (1.5)
69	Present	39.7
70	<2% of mass 69	0.3 (0.6)
127	40-60% of mass 198	47.2
197	<1% of mass 198	0.7
199	5-9% of mass 198	6.9
275	10-30% of mass 198	26.9
365	>1% of mass 198	3.1
441	Present but less than mass 443	14.7 (81.8)
442	>40% of mass 198	92.9
443	17-23% of mass 442	17.9 (19.3)

Data File: \\chromna\Edison\ChromData\CBNAMs13\20190904-97071.b\C4723.D\8270_Isotope.rsl\spectra.d
Injection Date: 05-Sep-2019 00:30:30
Spectrum: Tune Spec :Average 79-81(4.56-4.57) Bgrd 74(4.53)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 347

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	39	128.00	22616	216.00	2897	311.00	75
37.00	586	129.00	106680	217.00	39472	312.00	202
38.00	2797	130.00	8919	218.00	4958	313.00	565
39.00	18560	131.00	1616	219.00	410	314.00	1801
40.00	858	132.00	521	221.00	25032	315.00	4951
41.00	1141	133.00	495	222.00	1236	316.00	3044
42.00	173	134.00	3494	223.00	7934	317.00	537
43.00	408	135.00	7889	224.00	81576	318.00	111
44.00	673	136.00	3334	225.00	20832	320.00	54
48.00	174	137.00	4162	226.00	2027	321.00	1176
49.00	1459	138.00	897	227.00	33280	322.00	715
50.00	62864	139.00	861	228.00	4741	323.00	14237
51.00	244288	140.00	1733	229.00	6840	324.00	3036
52.00	11575	141.00	12829	230.00	421	325.00	199
53.00	261	142.00	4114	231.00	3070	326.00	257
54.00	410	143.00	2840	232.00	362	327.00	2437
55.00	1192	144.00	882	233.00	236	328.00	1462
56.00	7602	145.00	649	234.00	1872	329.00	353
57.00	17248	146.00	2690	235.00	2818	330.00	57
58.00	913	147.00	6556	236.00	1526	332.00	999
59.00	166	148.00	13306	237.00	2872	333.00	1002
61.00	2967	149.00	3786	238.00	265	334.00	8457
62.00	3411	150.00	973	239.00	1556	335.00	2470
63.00	9936	151.00	1818	240.00	1172	336.00	328
64.00	1414	152.00	998	241.00	1665	339.00	245
65.00	4773	153.00	4746	242.00	4675	340.00	164
66.00	567	154.00	3091	243.00	4538	341.00	1848
67.00	539	155.00	8062	244.00	63720	342.00	186
68.00	3466	156.00	11588	245.00	8617	346.00	3622
69.00	236480	157.00	2310	246.00	12382	347.00	1026
70.00	1532	158.00	2043	247.00	2305	348.00	133
71.00	1485	159.00	1460	248.00	581	351.00	427
72.00	325	160.00	4215	249.00	2480	352.00	3815

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4723.D\8270_Isotope.rslt\spectra.d

Injection Date: 05-Sep-2019 00:30:30

Spectrum: Tune Spec :Average 79-81(4.56-4.57) Bgrd 74(4.53)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 347

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	22464	161.00	6707	250.00	344	353.00	3049
75.00	38072	162.00	1945	251.00	618	354.00	4486
76.00	12595	163.00	350	252.00	661	355.00	725
77.00	266752	164.00	787	253.00	1529	356.00	22
78.00	17152	165.00	5288	254.00	3190	358.00	165
79.00	16808	166.00	4012	255.00	343232	359.00	492
80.00	13259	167.00	27080	256.00	51936	361.00	64
81.00	18208	168.00	12466	257.00	4048	365.00	18256
82.00	4652	169.00	2315	258.00	18048	366.00	2843
83.00	4186	170.00	918	259.00	2533	367.00	150
84.00	488	171.00	810	260.00	840	370.00	627
85.00	3832	172.00	2347	261.00	187	371.00	1200
86.00	5435	173.00	3052	263.00	450	372.00	7963
87.00	2810	174.00	5602	264.00	66	373.00	1966
88.00	980	175.00	10508	265.00	7867	374.00	362
89.00	654	176.00	3059	267.00	144	377.00	346
90.00	176	177.00	5509	270.00	289	378.00	51
91.00	3928	178.00	2237	271.00	733	383.00	1932
92.00	4821	179.00	20264	272.00	890	384.00	615
93.00	27264	180.00	14281	273.00	10447	385.00	156
94.00	1987	181.00	6576	274.00	28248	390.00	1032
95.00	337	182.00	1113	275.00	160256	391.00	618
96.00	1120	183.00	540	276.00	21216	392.00	593
97.00	1006	184.00	1521	277.00	12559	397.00	107
98.00	20920	185.00	10097	278.00	2222	401.00	283
99.00	17896	186.00	77560	279.00	731	402.00	3296
100.00	1432	187.00	21728	280.00	180	403.00	5140
101.00	10407	188.00	1832	282.00	328	404.00	1894
102.00	464	189.00	5043	283.00	1271	405.00	247
103.00	3409	190.00	917	284.00	1163	410.00	123
104.00	5888	191.00	2404	285.00	2497	415.00	60
105.00	5612	192.00	6095	286.00	377	416.00	53
106.00	1814	193.00	7296	287.00	240	418.00	54
107.00	81104	194.00	1556	288.00	239	421.00	4090

Report Date: 05-Sep-2019 00:53:11

Chrom Revision: 2.3 22-Aug-2019 12:55:36

Data File: \\chromna\Edison\ChromData\CBNAMs13\20190904-97071.b\C4723.D\8270_Isotope.rslt\spectra.d

Injection Date: 05-Sep-2019 00:30:30

Spectrum: Tune Spec :Average 79-81(4.56-4.57) Bgrd 74(4.53)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 347

m/z	Y	m/z	Y	m/z	Y	m/z	Y
108.00	12994	195.00	859	289.00	475	422.00	4346
109.00	2696	196.00	15613	290.00	450	423.00	27672
110.00	147136	197.00	3905	291.00	282	424.00	5766
111.00	21656	198.00	595968	292.00	678	425.00	521
112.00	2661	199.00	40968	293.00	3449	430.00	53
113.00	1236	200.00	2885	294.00	760	435.00	109
114.00	211	201.00	1980	295.00	868	436.00	106
115.00	206	203.00	4572	296.00	42040	438.00	52
116.00	4324	204.00	20248	297.00	5787	439.00	275
117.00	55008	205.00	35520	298.00	482	441.00	87368
118.00	4515	206.00	154496	299.00	8	442.00	553600
119.00	591	207.00	20816	301.00	586	443.00	106768
120.00	823	208.00	4009	302.00	821	444.00	9237
121.00	161	209.00	1240	303.00	4977	445.00	496
122.00	4639	210.00	2641	304.00	1832	451.00	208
123.00	7367	211.00	5223	305.00	234	452.00	228
124.00	3313	212.00	1331	306.00	114	453.00	67
125.00	3897	213.00	341	308.00	679	461.00	8
126.00	1489	214.00	175	309.00	436	529.00	380
127.00	281216	215.00	1557	310.00	658		

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Client Sample ID: _____ Lab Sample ID: MB 460-636859/1-A
 Matrix: Water Lab File ID: C4725.D
 Analysis Method: 8270D SIM ID Date Collected: _____
 Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
 Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 01:05
 Con. Extract Vol.: 2 (mL) Dilution Factor: 1
 Injection Volume: 5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	31		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4725.D
 Lims ID: MB 460-636859/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Sep-2019 01:05:30 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-003
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 13:20:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	2.783	2.778	0.007	0	769242	4.00	1.26	
* 4 1,4-Dichlorobenzene-d4	152	5.581	5.580	0.001	98	309604	0.2000	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 05-Sep-2019 09:14:50

Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4725.D

Injection Date: 05-Sep-2019 01:05:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: MB 460-636859/1-A

Worklist Smp#: 3

Client ID:

Injection Vol: 5.0 ul

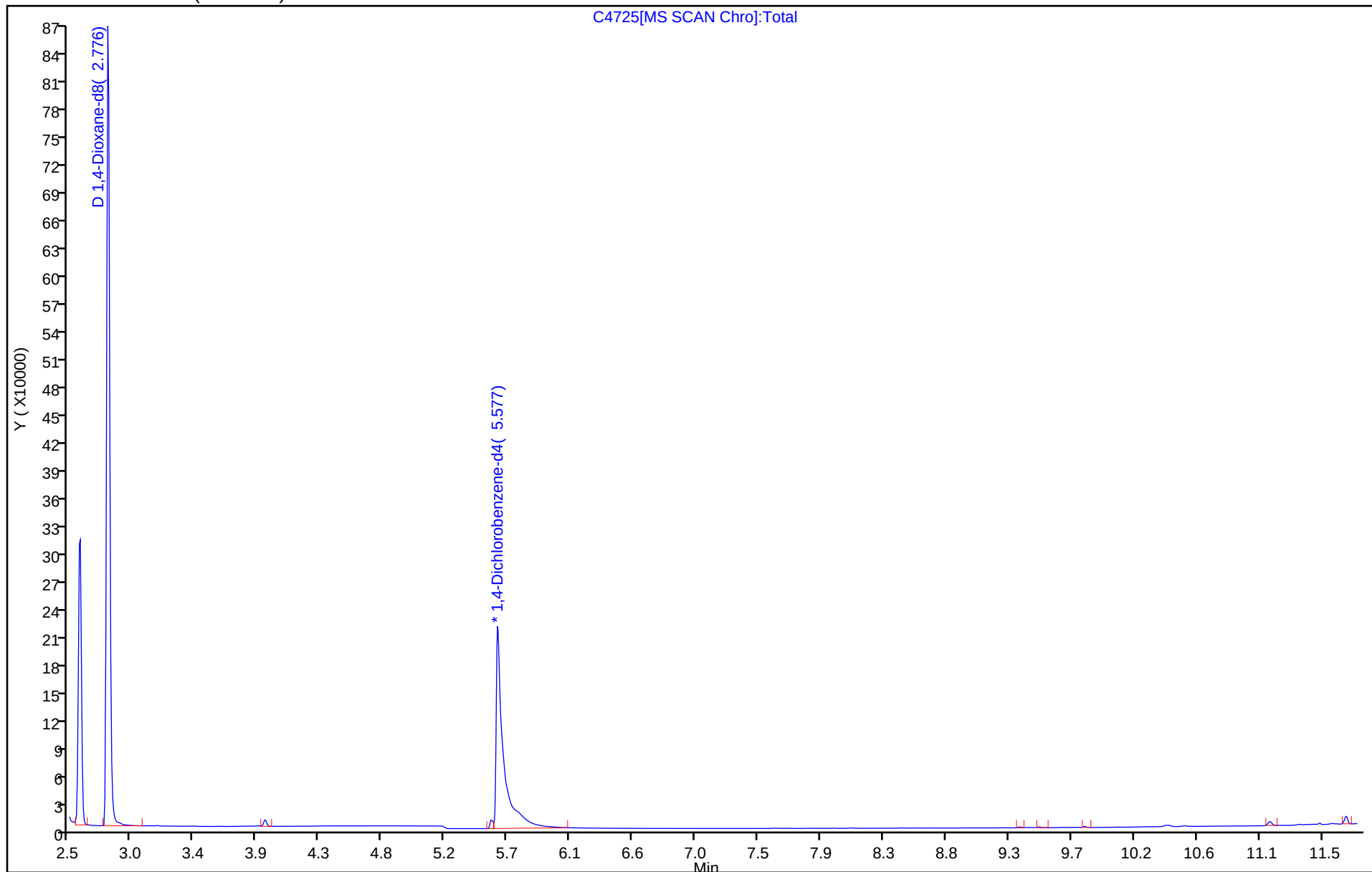
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4725.D

Injection Date: 05-Sep-2019 01:05:30

Instrument ID: CBNAMS13

Lims ID: MB 460-636859/1-A

Client ID:

Operator ID:

ALS Bottle#:

3

Worklist Smp#:

3

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

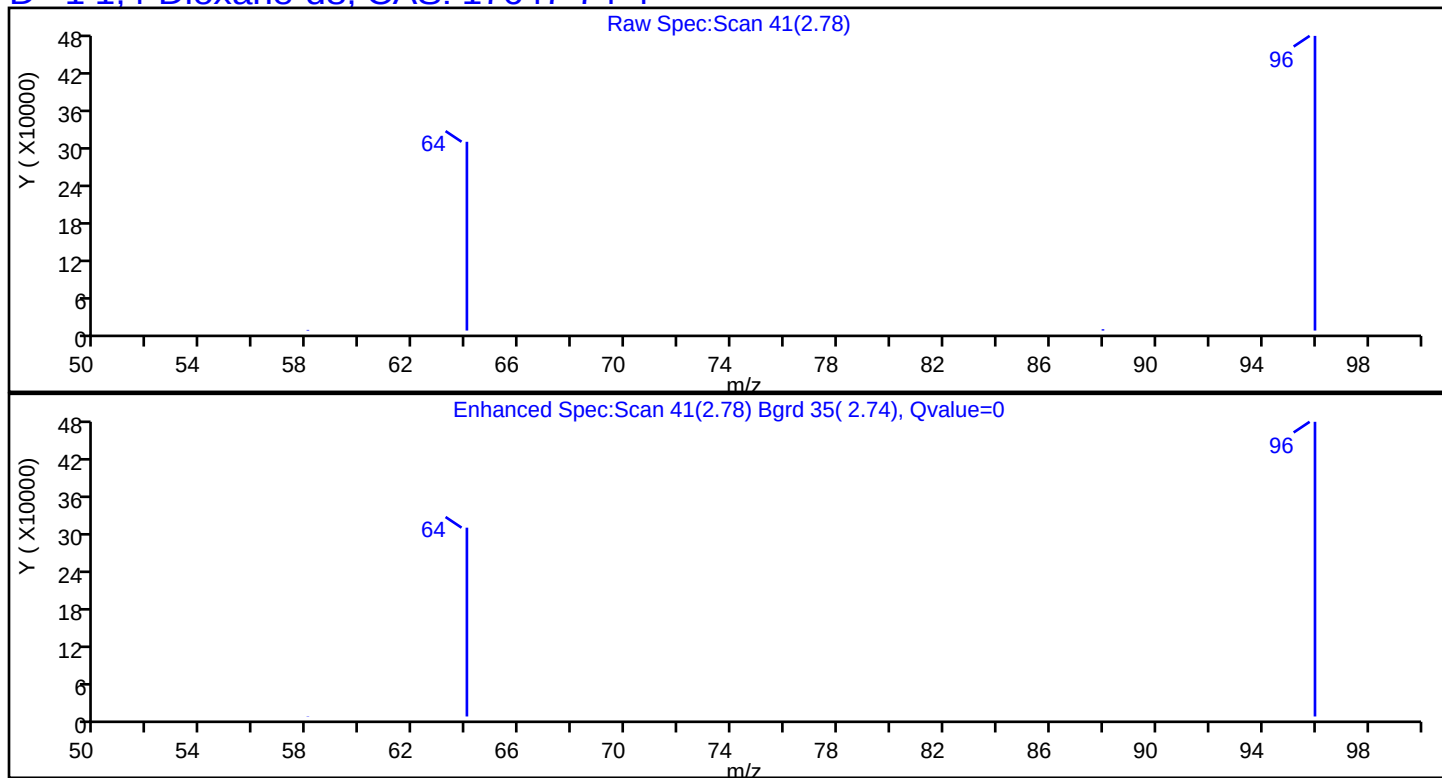
Limit Group:

MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4725.D

Injection Date: 05-Sep-2019 01:05:30

Instrument ID: CBNAMS13

Lims ID: MB 460-636859/1-A

Client ID:

Operator ID:

ALS Bottle#:

3

Worklist Smp#: 3

Injection Vol: 5.0 ul

Dil. Factor:

1.0000

Method: 8270_Isotope

Limit Group:

MSS 8270 Isotope Dilution IS

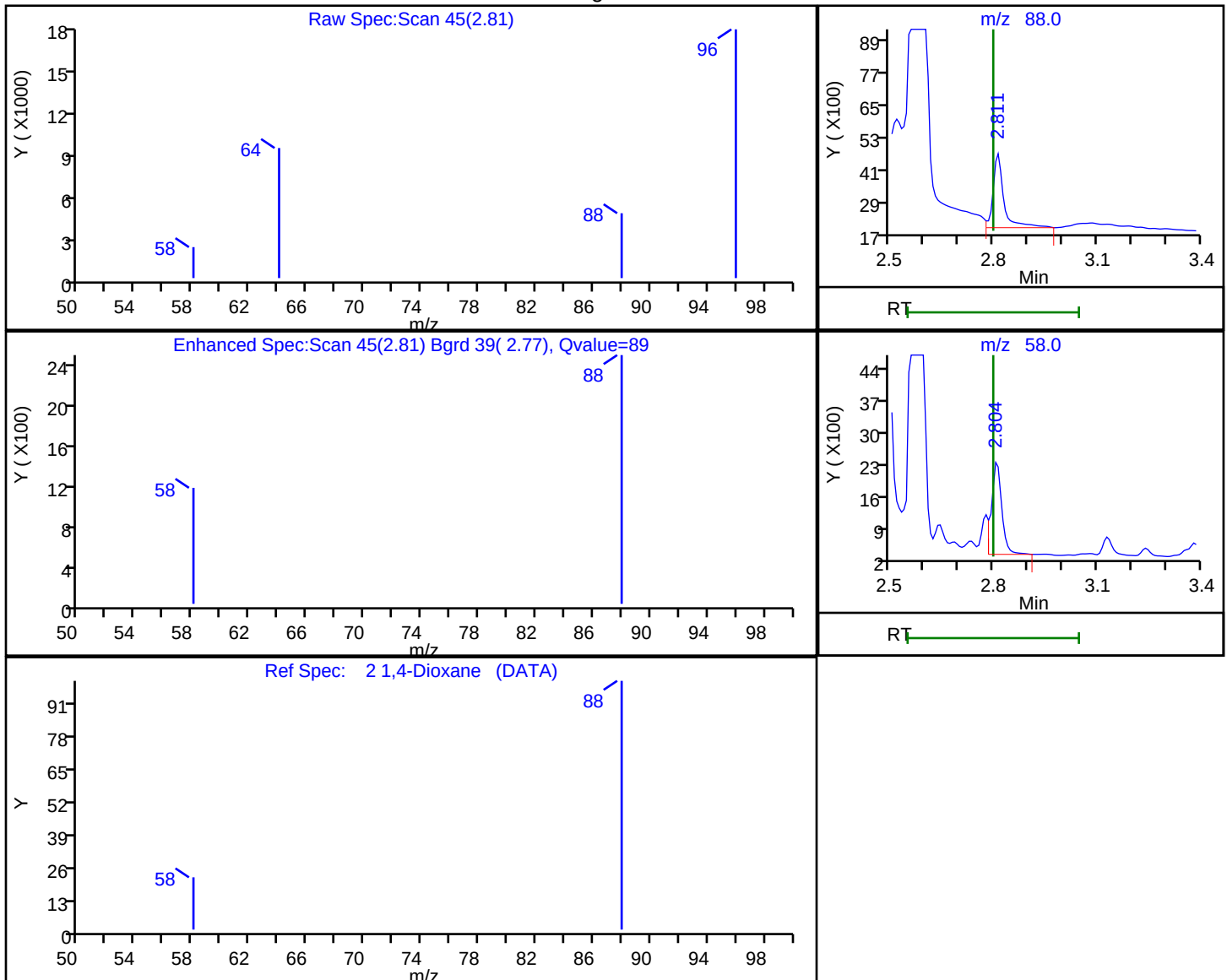
Column: Rtxi-5Sil MS (0.25 mm)

Detector

MS SCAN

2 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.81	88.00	5990	0.024057
2.80	58.00	4124	

Reviewer: maheseep, 05-Sep-2019 13:20:31

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Client Sample ID: _____ Lab Sample ID: LCS 460-636859/2-A
Matrix: Water Lab File ID: C4726.D
Analysis Method: 8270D SIM ID Date Collected: _____
Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 01:24
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.51		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	43		10-200

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4726.D
 Lims ID: LCS 460-636859/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Sep-2019 01:24:30 ALS Bottle#: 4 Worklist Smp#: 4
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-004
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 13:20:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	2.776	2.778	0.000	0	1040727	4.00	1.72	
2 1,4-Dioxane	88	2.804	2.804	0.007	79	63395	0.2000	0.1882	
* 4 1,4-Dichlorobenzene-d4	152	5.581	5.580	0.001	98	306762	0.2000	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 05-Sep-2019 09:15:09

Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4726.D

Injection Date: 05-Sep-2019 01:24:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: LCS 460-636859/2-A

Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 ul

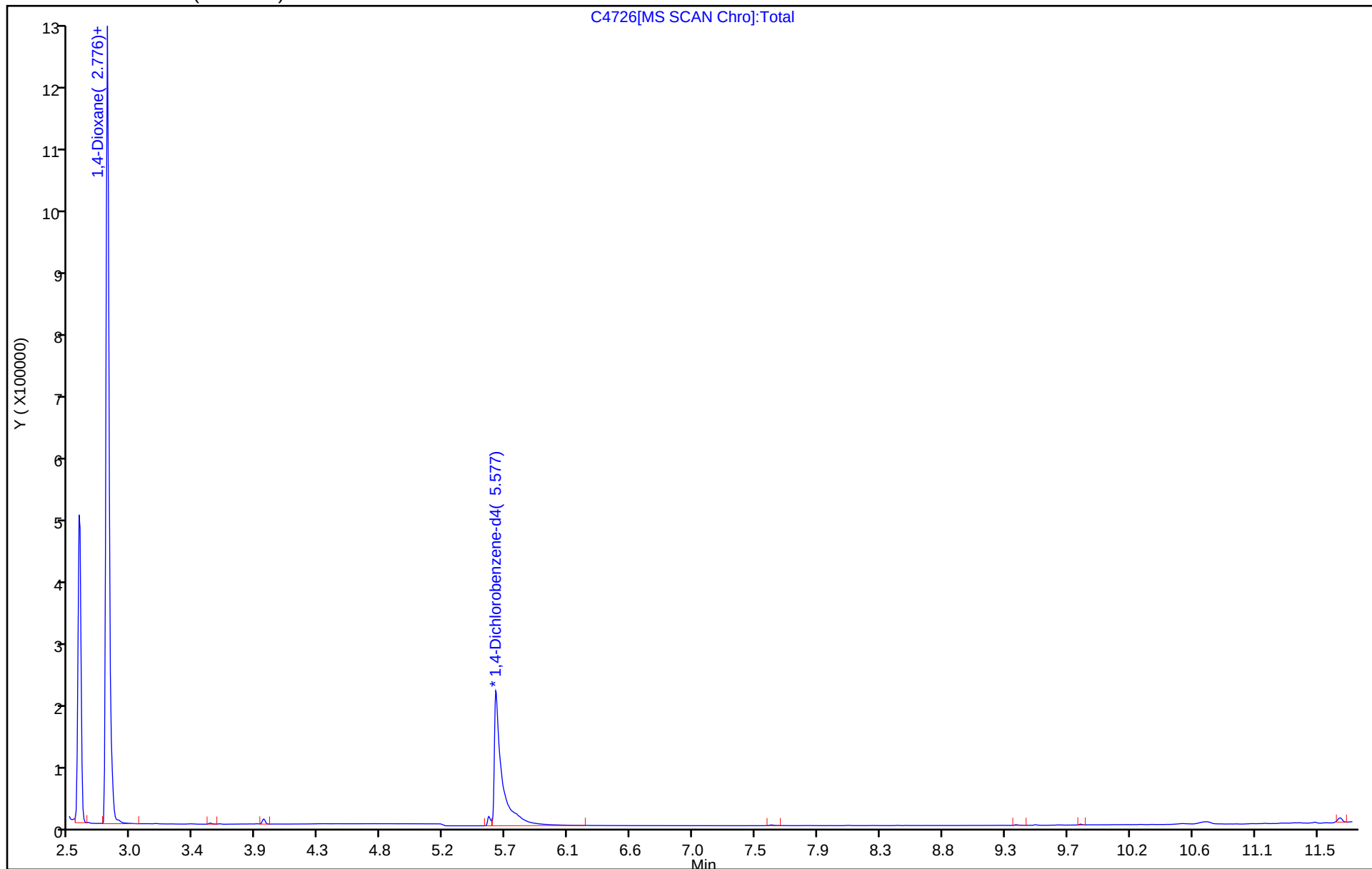
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Client Sample ID: _____ Lab Sample ID: LCSD 460-636859/3-A
Matrix: Water Lab File ID: C4727.D
Analysis Method: 8270D SIM ID Date Collected: _____
Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 01:43
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.50		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	42		10-200

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4727.D
 Lims ID: LCSD 460-636859/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Sep-2019 01:43:30 ALS Bottle#: 5 Worklist Smp#: 5
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-005
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 13:21:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	2.776	2.778	0.000	0	1037509	4.00	1.68	
2 1,4-Dioxane	88	2.804	2.804	0.007	83	62821	0.2000	0.1871	
* 4 1,4-Dichlorobenzene-d4	152	5.577	5.580	-0.003	98	311529	0.2000	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4727.D

Injection Date: 05-Sep-2019 01:43:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: LCSD 460-636859/3-A

Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 ul

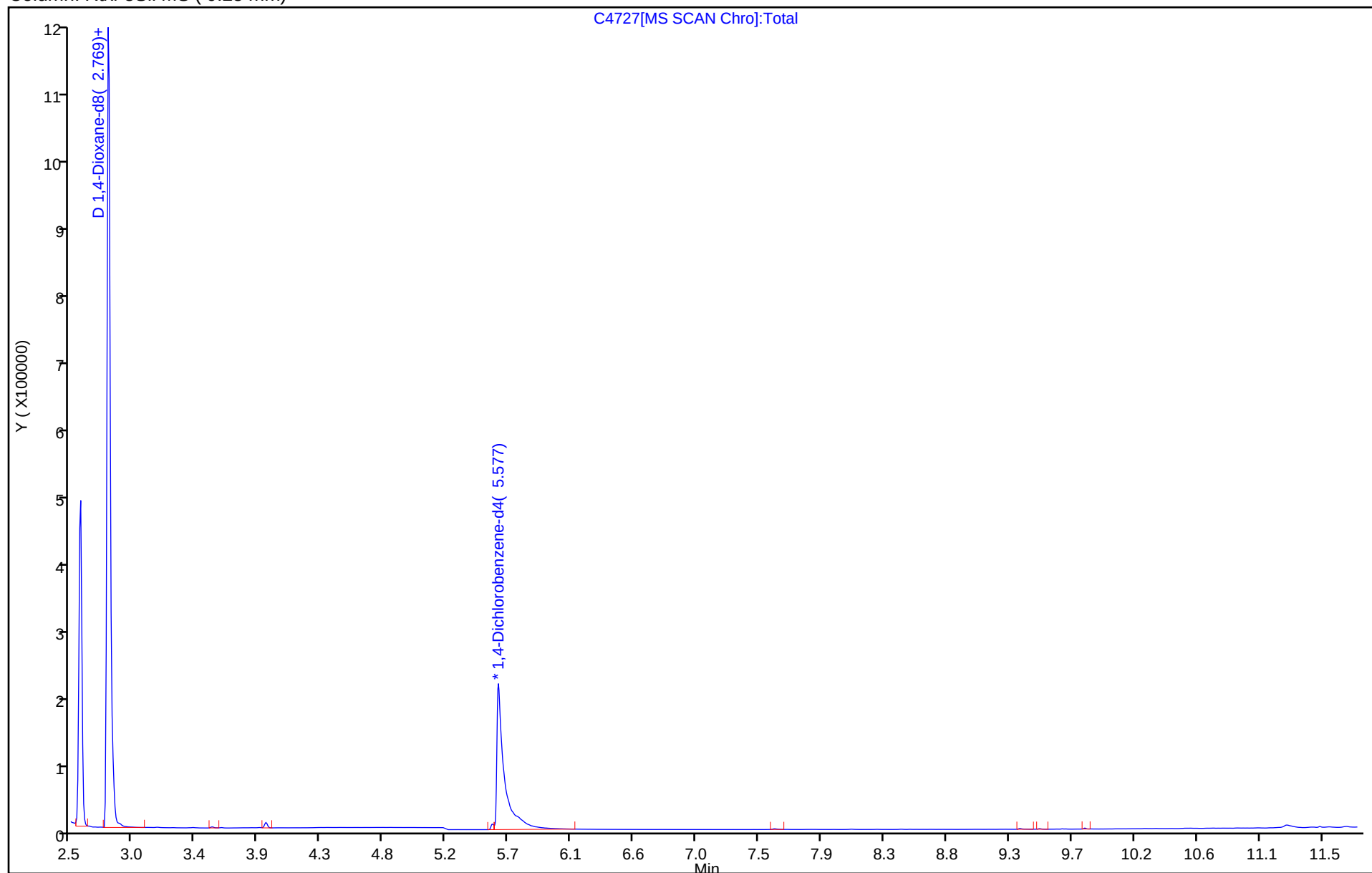
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_301_8_20190828 MS</u>	Lab Sample ID: <u>320-53835-1 MS</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4729.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 11:20</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 02:22</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.41		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	41		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4729.D
 Lims ID: 320-53835-A-1-B MS
 Client ID: BAGS_301_8_20190828
 Sample Type: MS
 Inject. Date: 05-Sep-2019 02:22:30 ALS Bottle#: 7 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-007
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: zhaoc

Date: 05-Sep-2019 09:16:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	2.776	2.778	0.000	0	959750	4.00	1.64	
2 1,4-Dioxane	88	2.804	2.804	0.007	79	54766	0.2000	0.1763	
* 4 1,4-Dichlorobenzene-d4	152	5.577	5.580	-0.003	97	295952	0.2000	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4729.D

Injection Date: 05-Sep-2019 02:22:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-A-1-B MS

Worklist Smp#: 7

Client ID: BAGS_301_8_20190828

Injection Vol: 5.0 ul

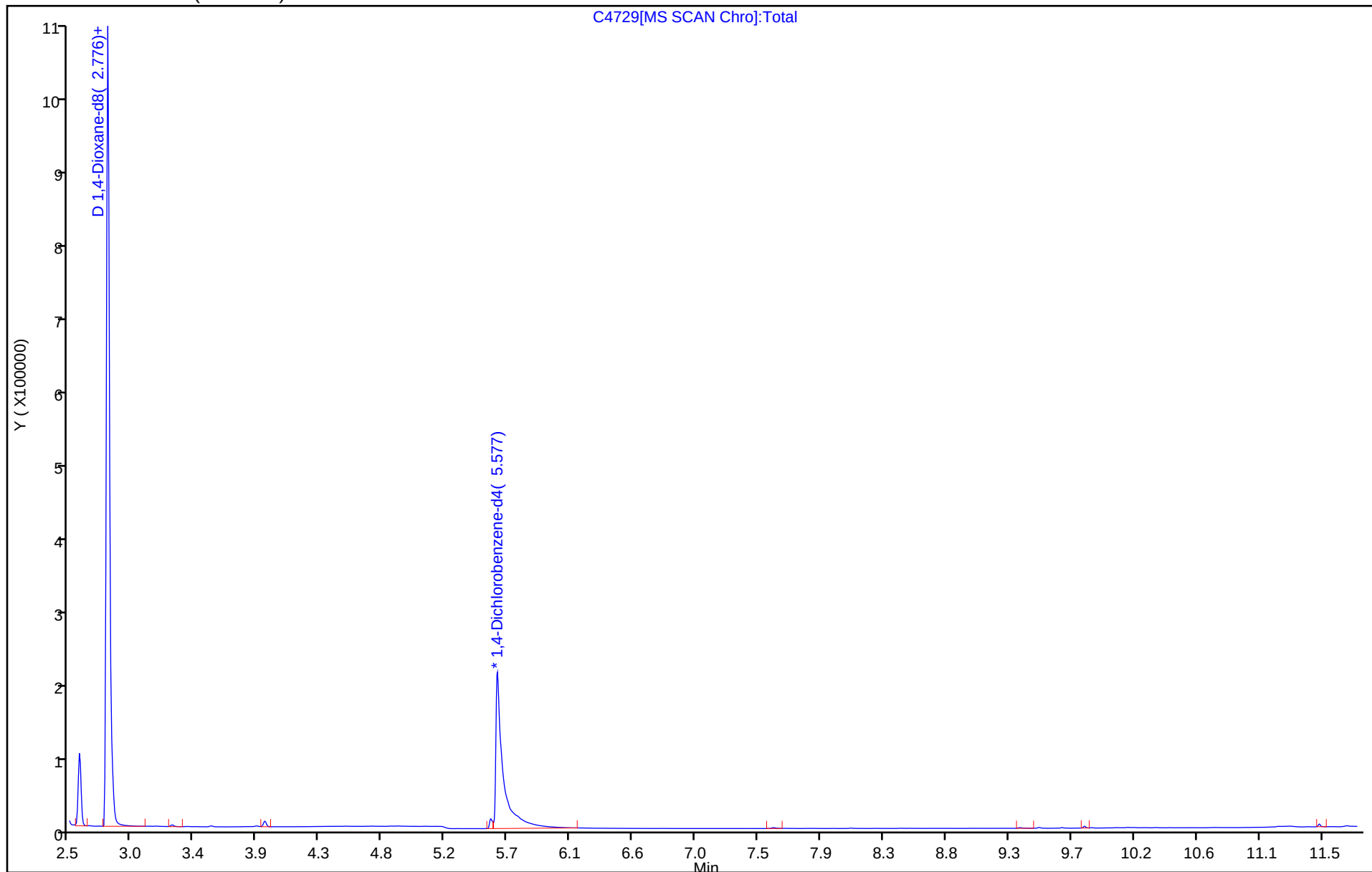
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>320-53835-1</u>
SDG No.: <u>BAGS Landfill</u>	
Client Sample ID: <u>BAGS_301_8_20190828 MSD</u>	Lab Sample ID: <u>320-53835-1 MSD</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4730.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>08/28/2019 11:20</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/04/2019 08:52</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/05/2019 02:42</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u></u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>637000</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.50		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		10-150

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4730.D
 Lims ID: 320-53835-B-1-C MSD
 Client ID: BAGS_301_8_20190828
 Sample Type: MSD
 Inject. Date: 05-Sep-2019 02:42:30 ALS Bottle#: 8 Worklist Smp#: 8
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0097071-008
 Operator ID: Instrument ID: CBNAMS13
 Method: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\8270_Isotope.m
 Limit Group: MSS 8270 Isotope Dilution IS
 Last Update: 05-Sep-2019 18:35:43 Calib Date: 11-May-2018 17:20:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Edison\ChromData\CBNAMS13\20180511-71845.b\C28993.D
 Column 1 : Rtxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX0311

First Level Reviewer: maheseep

Date: 05-Sep-2019 13:53:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
D 1 1,4-Dioxane-d8	96	2.776	2.778	0.000	0	668821	4.00	0.9824	
2 1,4-Dioxane	88	2.804	2.804	0.007	83	40522	0.2000	0.1872	
* 4 1,4-Dichlorobenzene-d4	152	5.569	5.580	-0.011	98	344438	0.2000	0.2000	

Reagents:

SM_iso_d4istd_00005 Amount Added: 20.00 Units: uL Run Reagent

Eurofins TestAmerica, Edison

Data File: \\chromna\Edison\ChromData\CBNAMS13\20190904-97071.b\C4730.D

Injection Date: 05-Sep-2019 02:42:30

Instrument ID: CBNAMS13

Operator ID:

Lims ID: 320-53835-B-1-C MSD

Worklist Smp#: 8

Client ID: BAGS_301_8_20190828

Injection Vol: 5.0 ul

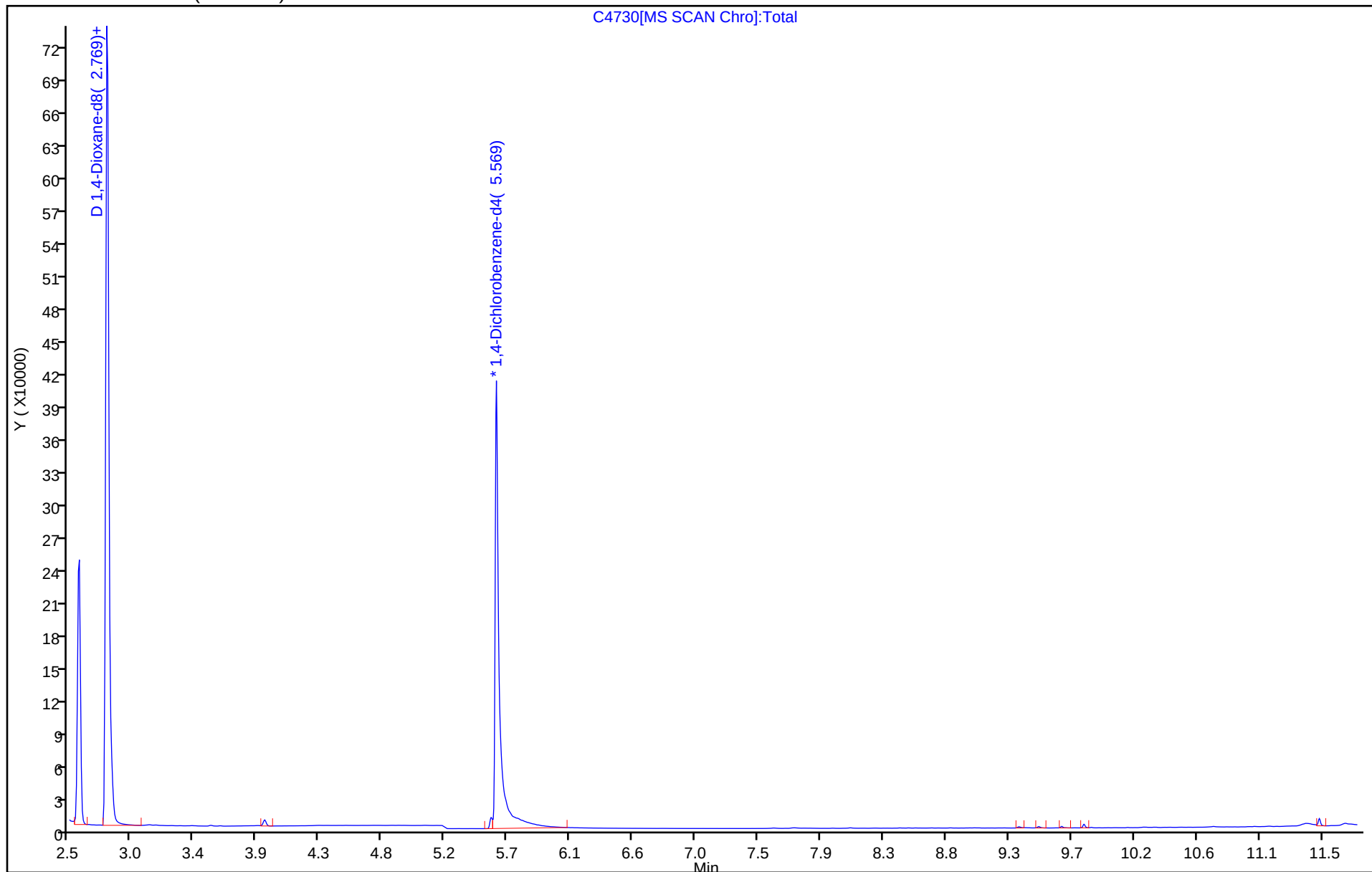
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: 8270_Isotope

Limit Group: MSS 8270 Isotope Dilution IS

Column: Rtxi-5Sil MS (0.25 mm)



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1SDG No.: BAGS LandfillInstrument ID: CBNAMS13 Start Date: 05/11/2018 12:33Analysis Batch Number: 518314 End Date: 05/11/2018 17:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-518314/1		05/11/2018 12:33	1	C28985.D	Rtxi-5Sil MS 0.25 (mm)
ICIS 460-518314/2		05/11/2018 12:48	1	C28986.D	Rtxi-5Sil MS 0.25 (mm)
STD8 460-518314/3 IC		05/11/2018 13:08	1	C28987.D	Rtxi-5Sil MS 0.25 (mm)
STD7 460-518314/4 IC		05/11/2018 13:27	1	C28988.D	Rtxi-5Sil MS 0.25 (mm)
STD6 460-518314/5 IC		05/11/2018 14:16	1	C28989.D	Rtxi-5Sil MS 0.25 (mm)
STD4 460-518314/6 IC		05/11/2018 14:35	1	C28990.D	Rtxi-5Sil MS 0.25 (mm)
STD3 460-518314/7 IC		05/11/2018 15:44	1	C28991.D	Rtxi-5Sil MS 0.25 (mm)
STD2 460-518314/8 IC		05/11/2018 16:02	1	C28992.D	Rtxi-5Sil MS 0.25 (mm)
STD1 460-518314/9 IC		05/11/2018 17:20	1	C28993.D	Rtxi-5Sil MS 0.25 (mm)
ICV 460-518314/10		05/11/2018 17:43	1		Rtxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, EdisonJob No.: 320-53835-1SDG No.: BAGS LandfillInstrument ID: CBNAMS13Start Date: 09/05/2019 00:30Analysis Batch Number: 637000End Date: 09/05/2019 07:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-637000/1		09/05/2019 00:30	1	C4723.D	Rtxi-5Sil MS 0.25 (mm)
CCVIS 460-637000/2		09/05/2019 00:45	1	C4724.D	Rtxi-5Sil MS 0.25 (mm)
MB 460-636859/1-A		09/05/2019 01:05	1	C4725.D	Rtxi-5Sil MS 0.25 (mm)
LCS 460-636859/2-A		09/05/2019 01:24	1	C4726.D	Rtxi-5Sil MS 0.25 (mm)
LCSD 460-636859/3-A		09/05/2019 01:43	1	C4727.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-1 MS		09/05/2019 02:22	1	C4729.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-1 MSD		09/05/2019 02:42	1	C4730.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-3		09/05/2019 03:01	1	C4731.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-4		09/05/2019 03:21	1	C4732.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-5		09/05/2019 03:40	1	C4733.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-6		09/05/2019 03:59	1	C4734.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-7		09/05/2019 04:19	1	C4735.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-8		09/05/2019 04:38	1	C4736.D	Rtxi-5Sil MS 0.25 (mm)
ZZZZZ		09/05/2019 04:57	1		Rtxi-5Sil MS 0.25 (mm)
ZZZZZ		09/05/2019 05:36	1		Rtxi-5Sil MS 0.25 (mm)
ZZZZZ		09/05/2019 05:55	1		Rtxi-5Sil MS 0.25 (mm)
ZZZZZ		09/05/2019 06:14	1		Rtxi-5Sil MS 0.25 (mm)
320-53835-2		09/05/2019 06:34	1	C4742.D	Rtxi-5Sil MS 0.25 (mm)
320-53835-1		09/05/2019 06:53	1	C4743.D	Rtxi-5Sil MS 0.25 (mm)
ZZZZZ		09/05/2019 07:13	1		Rtxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1

SDG No.: BAGS Landfill

Batch Number: 636859 Batch Start Date: 09/04/19 08:52 Batch Analyst: Biri, Zouher X

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	OP_1,4-DX_SP 00004	OP_14-DX_surr 00005
MB 460-636859/1		3510C, 8270D SIM ID		250 mL	2 mL	7 SU	<2 SU		20 uL
LCS 460-636859/2		3510C, 8270D SIM ID		250 mL	2 mL	7 SU	<2 SU	200 uL	20 uL
LCSD 460-636859/3		3510C, 8270D SIM ID		250 mL	2 mL	7 SU	<2 SU	200 uL	20 uL
320-53835-A-1 MS	BAGS_301_8_20190 828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU	200 uL	20 uL
320-53835-B-1 MSD	BAGS_301_8_20190 828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU	200 uL	20 uL
320-53835-A-1	BAGS_301_8_20190 828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-A-3	BAGS_307_8_B_201 90828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-A-4	BAGS_259_8_20190 828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-A-5	BAGS_135_8_A_201 90828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-A-6	BAGS_135_8_B_201 90828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-B-7	BAGS_272_KEL_201 90828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-A-8	BAGS_999_9_20190 828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL
320-53835-B-2	BAGS_307_8_A_201 90828	3510C, 8270D SIM ID	T	250 mL	2 mL	6 SU	<2 SU		20 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270D SIM ID

Page 1 of 2

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1

SDG No.: BAGS Landfill

Batch Number: 636859 Batch Start Date: 09/04/19 08:52 Batch Analyst: Biri, Zouher X

Batch Method: 3510C Batch End Date:

Batch Notes	
Acid Used for pH Adjustment ID	186983
Batch Comment	3510C_LVI SIM ISOTOPE
Concentration 1 Corrected Temperature	37 Degrees C
Analyst ID - Extraction	bz
Method/Fraction	3510C_LVI SIM ISOTOPE
Prep Solvent ID	MeCL2 231202
Prep Solvent Volume Used	120 mL
Analyst ID - Spike Analyst	bz
Sufficient Volume for Batch QC	Yes
Concentration 1 Uncorrected Temperature	37 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

Eurofins TestAmerica, Sacra
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5500 Fax: 916-372-1059

Chain of Custody Record

Environment Testing
TestAmerica

[illegible]

Chain of Custody Record

Client Information (Sub Contract Lab)				Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact:				Alltucker, David R		320-157967.1
Shipping/Receiving				E-Mail:	State of Origin:	Page:
Company:				david.alltucker@testamericainc.com	New York	Page 1 of 2
Address:				Accreditations Required (See note):	Job #:	
7777 New Durham Road,				NELAP - New York		320-53835-1
City:				Preservation Codes:		
Edison				A - HCL		
State, Zip:				B - NaOH		
NJ, 08817				C - Zn Acetate		
Phone:				D - Nitric Acid		
732-549-3900(Tel) 732-549-3679(Fax)				E - NaHSO4		
Email:				F - MeOH		
				G - Amchlor		
Project Name:				H - Ascorbic Acid		
BAGS LF DW Samples				I - Ice		
Site:				J - DI Water		
				K - EDTA		
				L - EDA		
				Z - other (specify)		
				Other:		
Sample Identification - Client ID (Lab ID)				Special Instructions/Note:		
BAGS_301_8_20190828 (320-53835-1)	8/28/19	11:20 Eastern	Water			
BAGS_301_8_20190828 (320-53835-1MS)	8/28/19	11:20 Eastern	Water			
BAGS_301_8_20190828 (320-53835-1MSD)	8/28/19	11:20 Eastern	Water			
BAGS_307_8_A_20190828 (320-53835-2)	8/28/19	12:10 Eastern	Water			
BAGS_307_8_B_20190828 (320-53835-3)	8/28/19	12:45 Eastern	Water			
BAGS_259_8_20190828 (320-53835-4)	8/28/19	13:20 Eastern	Water			
BAGS_135_8_A_20190828 (320-53835-5)	8/28/19	14:15 Eastern	Water			
BAGS_135_8_B_20190828 (320-53835-6)	8/28/19	14:50 Eastern	Water			
BAGS_272_KEL_20190828 (320-53835-7)	8/28/19	15:15 Eastern	Water			
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for any listed analyte being analyzed, the sample must be shipped back to the TestAmerica Laboratory or other laboratory that has been approved by the State of Origin. TestAmerica Laboratories, Inc. attests to the accuracy of the analysis.						
Possible Hazard Identification						
Unconfirmed						
Deliverable Requested: I, II, III, IV, Other (specify)						
Primary Deliverable Rank: 2						
Empty Kit Relinquished by:						
Relinquished by:						
Relinquished by:						
Relinquished by:						
Custody Seals Intact: Yes No						
A Yes A No						

Environment Testing
TestAmerica

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Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 320-53835-1
SDG Number: BAGS Landfill

Login Number: 53835

List Number: 1

Creator: Her, David A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	934357
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 320-53835-1
SDG Number: BAGS Landfill

Login Number: 53835
List Number: 2
Creator: Villanueva, Angelica P

List Source: Eurofins TestAmerica, Edison
List Creation: 08/31/19 04:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT D - DUSR

**DATA USABILITY SUMMARY REPORT
BAGS LANDFILL, NEW YORK**

Client: HDR, Inc., Mahwah, New Jersey
SDG: 320-53835-1
Laboratory: Eurofins Test America Laboratories, West Sacramento, California
Eurofins Test America Laboratories, Edison, New Jersey
Site: BAGS Landfill DW Samples, New York
Date: September 26, 2019

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	BAGS_301_8_20190828	320-53835-1	Water
1MS	BAGS_301_8_20190828MS	320-53835-1MS	Water
1MSD	BAGS_301_8_20190828MSD	320-53835-1MSD	Water
2	BAGS_307_8_A_20190828	320-53835-2	Water
3	BAGS_307_8_B_20190828	320-53835-3	Water
4	BAGS_259_8_20190828	320-53835-4	Water
5	BAGS_135_8_A_20190828	320-53835-5	Water
6	BAGS_135_8_B_20190828	320-53835-6	Water
7	BAGS_272_KEL_20190828	320-53835-7	Water
8	BAGS_999_9_20190828	320-53835-8	Water

A Data Usability Summary Review (DUSR) was performed on the analytical data for eight water samples collected on August 28, 2019 by HDR, Inc. at the BAGS Landfill site in New York. The samples were analyzed under the Environmental Protection Agency (USEPA) Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions.

Specific method references are as follows:

Analysis

1,4-Dioxane

Method References

USEPA SW-846 Method 8270D-SIM

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-35A, Revision 1, September 2016: Semivolatile Data Validation;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Data Completeness, Case Narrative & Custody Documentation

- Holding times
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

Data Usability Assessment

There were no rejections of data.

Overall the data are acceptable for the intended purposes. There were no qualifications.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Semivolatile Organic Compounds by SIM (1,4-Dioxane)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	BAGS_135_8_A_20190828 ug/L	BAGS_999_9_20190828 ug/L	RPD	Qualifier
None	ND	ND	-	-

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:



Nancy Weaver
Senior Chemist

Dated:

9/26/19

Data Qualifier	Definition
U	The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Client Sample ID: BAGS 301 8 20190828 Lab Sample ID: 320-53835-1
Matrix: Water Lab File ID: C4743.D
Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 11:20
Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
Sample wt/vol: 250(mL) Date Analyzed: 09/05/2019 06:53
Con. Extract Vol.: 2(mL) Dilution Factor: 1
Injection Volume: 5(uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	34		10-150

MT 9/26/19

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Client Sample ID: BAGS 307 8 A 20190828 Lab Sample ID: 320-53835-2
 Matrix: Water Lab File ID: C4742.D
 Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 12:10
 Extract. Method: 3510C Date Extracted: 09/04/2019 12:47
 Sample wt/vol: 250(mL) Date Analyzed: 09/05/2019 06:34
 Con. Extract Vol.: 2(mL) Dilution Factor: 1
 Injection Volume: 5(uL) Level: (low/med) Low
 % Moisture: GPC Cleanup: (Y/N) N
 Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	42		10-150

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Client Sample ID: BAGS_307_8_B_20190828 Lab Sample ID: 320-53835-3
Matrix: Water Lab File ID: C4731.D
Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 12:45
Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
Sample wt/vol: 250(mL) Date Analyzed: 09/05/2019 03:01
Con. Extract Vol.: 2(mL) Dilution Factor: 1
Injection Volume: 5(uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.29		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	13		10-150

MT 9/26/19

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Client Sample ID: BAGS_259_8_20190828 Lab Sample ID: 320-53835-4
 Matrix: Water Lab File ID: C4732.D
 Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 13:20
 Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
 Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 03:21
 Con. Extract Vol.: 2 (mL) Dilution Factor: 1
 Injection Volume: 5 (uL) Level: (low/med) Low
 % Moisture: GPC Cleanup: (Y/N) N
 Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	37		10-150

MT 9/26/19

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Client Sample ID: BAGS_135_8_A_20190828 Lab Sample ID: 320-53835-5
 Matrix: Water Lab File ID: C4733.D
 Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 14:15
 Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
 Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 03:40
 Con. Extract Vol.: 2 (mL) Dilution Factor: 1
 Injection Volume: 5 (uL) Level: (low/med) Low
 % Moisture: GPC Cleanup: (Y/N) N
 Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	18		10-150

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Client Sample ID: BAGS_135_8_B_20190828 Lab Sample ID: 320-53835-6
 Matrix: Water Lab File ID: C4734.D
 Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 14:50
 Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
 Sample wt/vol: 250 (mL) Date Analyzed: 09/05/2019 03:59
 Con. Extract Vol.: 2 (mL) Dilution Factor: 1
 Injection Volume: 5 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	32		10-150

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
SDG No.: BAGS Landfill
Client Sample ID: BAGS 272 KEL 20190828 Lab Sample ID: 320-53835-7
Matrix: Water Lab File ID: C4735.D
Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 15:15
Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
Sample wt/vol: 250(mL) Date Analyzed: 09/05/2019 04:19
Con. Extract Vol.: 2(mL) Dilution Factor: 1
Injection Volume: 5(uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	34		10-150

MT a/b/a/h

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

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Lab Name: Eurofins TestAmerica, Edison Job No.: 320-53835-1
 SDG No.: BAGS Landfill
 Client Sample ID: BAGS_999_9_20190828 Lab Sample ID: 320-53835-8
 Matrix: Water Lab File ID: C4736.D
 Analysis Method: 8270D SIM ID Date Collected: 08/28/2019 00:00
 Extract. Method: 3510C Date Extracted: 09/04/2019 08:52
 Sample wt/vol: 250(mL) Date Analyzed: 09/05/2019 04:38
 Con. Extract Vol.: 2(mL) Dilution Factor: 1
 Injection Volume: 5(uL) Level: (low/med) Low
 % Moisture: GPC Cleanup: (Y/N) N
 Analysis Batch No.: 637000 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	49		10-150

MT 9/26/19