Analytical Data Package For

NYS DEC
REGION 1
CONTRACT NO.: C003786
CASE NO.: SH100
SDG NO.: 1115

Water Samples
Received: 11/15/00

VOLATILES DATA PACKAGE

NOVEMBER 2000

H2M LABS, INC.
Environmental Testing Laboratories
575 Broad Hollow Road, Melville, N.Y. 11747

H2M LABS, INC.

ANALYTICAL DATA PACKAGE

TABLE OF CONTENTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 1
SAMPLES RECEIVED: 11/15/00
CONTRACT: C003786
CASE: SH100
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H2M LABS, INC.

I. NYS DEC SUMMARY FORMS

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
NYS DEC
REGION 1
SAMPLES RECEIVED: 11/15/00
SDG #: 1115
CONTRACT: C003786
CASE: SH100

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS	*BNA GC/MS	*GC VOA	PEST/ PCB	*METALS	OTHER
915902	20001115-089	X				X	
915903	20001115-090	X				X	
915904	20001115-091	X				X	

* Check Appropriate Boxes
* CLP, Non-CLP (Please indicate year of protocol) 10/95
* TCL/TAL, HCL, TS

Volatile Sample Analysis Summary

Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
915902	water	11/15/2000	11/15/2000	low	11/20/2000
915903	water	11/15/2000	11/15/2000	low	11/20/2000
915904	water	11/15/2000	11/15/2000	low	11/20/2000

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES
NYS DEC
CONTRACT NO.: C003786
CASE NO.: SH100
SAMPLES RECEIVED: 11/15/00
SDG: 1115

SAMPLE ID	MATRIX	ANALYSIS REQUESTED	DATE RECEIVED	DATE * ANALYZED
915902	WATER	TAL METALS	11/15/00	11/00
915903	WATER	TAL METALS	11/15/00	11/00
915904	WATER	TAL METALS	11/15/00	11/00

* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.

II. SDG NARRATIVES

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 11/15/00
CONTRACT #: C003786
CASE #: SH100
SDG#: 1115

For Samples:

915902
915903
915904

The above samples were analyzed according to the requirements of the NYSDEC ASP 10/95 method 95-1 for the TCL volatile organic analytes.

All quality control and calibration requirements were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 11, 2000

****
* *
* *
****

Joann M. Slavin
Laboratory Manager

o:\qc\narr2000\dec\voa\1115.rtf

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 11/15/00
CONTRACT #: C003786
CASE #: SH100
SDG#: 1115

For Samples:

915902
915903
915904

Three water samples were received by H2M Labs, Inc. on 11/15/00 for TAL metals analysis.

Samples were prepared and analyzed using the following methods: ICP analysis was performed on a TJA61E Trace Analyzer using method 200.7 CLP-M. Mercury was analyzed on a Leeman PS200 using method 245.1 CLP-M.

Sample A84201 (20001117-033) was utilized for batch ICP metals duplicate and spike reporting. Sample 915902 (20001115-089) was utilized for mercury duplicate and spike QC reporting.

Spike analysis of sample A84201 (20001117-033) did not recover within acceptance ranges for beryllium, cadmium, iron, lead and selenium. The sample was post spiked, reanalyzed and recovered acceptably for all analytes excepting lead. All associated data was reported flagged "N" on Forms 1 and 5A.

Duplicate analysis of sample A84201 (20001117-033) did not recover within acceptance ranges for aluminum, beryllium, cadmium, chromium, iron and lead. Associated data was reported flagged "*" to note matrix inconsistencies.

The initial calibration blank sample for ICP run 11/22/00 20:54:42 was calculated with two replicates for chromium due to an anomaly with the third replicate. Sample data was not affected.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 19, 2000

****
* *
****

Vincent Stancampiano
Vice President

o:\qc\narr2000\dec\metals\1115.doc

III. CONTRACT LAB SAMPLE INFORMATION SHEET

74-15-1 (9/97)—q

SEND THIS SHEET WITH SAMPLE TO CONTACT LAB

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print Legibly

Part 3

CAUTION (check if applicable)

☐ Lab personnel are expected to use caution when handling DEC samples, however, please use special caution when handling this sample since it is believed to contain significant concentrations of hazardous and/or toxic materials(s)

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

☐ 2. 13PP Metals
☐ 3. Volatiles—(USEPA 624 GC/MS)
☐ 6. Pesticides/PCBs (USEPA 608-GC)
☐ 4. Acids Base/Neutrals (USEPA 624 GC/MS)
☐ 5. Cyanide
☐ 9. BOD
☐ 7. Halogenated Volatiles (USEPA 601 GC)
☐ 8. Aromatic Volatiles USEPA 602 GC)
☐ 12. TSS
☐ 10. pH
☐ 11. COD
☐ 15. Ammonia
☐ 13. Settleable Solids
☐ 14. TKN
☐ 18. Reactive Phosphorus
☐ 16. Nitrate/Nitrite
☐ 17. Total Phosphorus
☐ 21. Total Phenols
☐ 19. Oil/Grease)
☐ 20. TOC
☐ 60. PCBs congener method (ASP 91-11)
☐ 22. Other _____
☐ 59. PCBs at 0.065 ug/l
☐ 64. Total Solids
☐ 62. CBOD
☐ 65. Volatiles (USEPA 524.2 GC/MS)

CONTRACT LABORATORY PROTOCOLS

☐ 23 (ALL)—Water—Includes 24-28
☐ 29. (ALL)—Soil/Sediments—Includes 30-34
☐ 24 Base/Neutral/Acid (B/N/A)—Water—GC/MS (ASP #95-2)
☐ 30. (B/N/A)—Soil/Sediments—GC/MS (ASP #95-2)
☒ 25 Volatile Organic Analysis VOA—Water—GC/MS (ASP #95-1)
☐ 31. VOA—Soil/Sediments—GC/MS (ASP #95-1)
☐ 26 Pesticides/PCBs—Water—GC/MS (ASP #95-3)
☐ 32. Pesticides/PCBs—Soil/Sediments—GC (ASP #95-3)
☒ 27 Metals—23 in Water
☐ 33. Metals—23 in Soil/Sediments)
☐ 28 Cyanide—Water
☐ 34. Cyanide—Soil/Sediments)
☐ 66 Dioxin-Water (ASP #91-7)
☐ 67. Dioxin-Soil/Sediments (ASP #91-7)
☐ 35 Other _____

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

☐ 36. EP Toxicity
☐ 37. EP Toxicity (Metals Only)
☐ 38. Ignitability
☐ 39. Corrosivity
☐ 40. VOA—(USEPA 8260 GC/MS)
☐ 41. BNA—(USEPA 8270 GC/MS)
☐ 42. Pesticides/PCBs (USEPA 8081)
☐ 43. TCLP
☐ 44. TCLP (Metals Only)
☐ 45. Reactivity
☐ 46. Dioxin (USEPA 8280)
☐ 47. Appendix IX
☐ 48. Other _____
☐ 63 Percent Solids
☐ 68. Metals—17 Hazardous

MUNICIPAL SLUDGE

☐ 56. RS-01 ☐ 57. RS-02 ☐ 58. Other _____

COLLECTED BY:	TELEPHONE NUMBER:	REGION NO.:
Jamie Ascher	631 444 0246	1

CONTRACT LABORATORY:	COUNTY:	SAMPLING DATE:	MILITARY TIME:
H2M	Suffolk	11/12/00	1100

SAMPLE MATRIX:

☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other _____

CASE NO.	SDG NO.	SAMPLE NO.	CHECK FOR MS/MD	TYPE OF SAMPLE
SIA1010	111151	91151910 14	☐ This sample	☒ Grab ☐ Composite ☐ Term _____ hours

☐ Check if there will be more samples with this SDG sent in this calendar week.

SAMPLING POINT:

Report via Category B, unless checked ☐

Check if field duplicate ☐ Outfall Number

Check if sampling is part of inspection ☐

FLOW: _____ GPD _____ MGD

SPDES NUMBER/REGISTRY NUMBER

| | | | | | |

A 0010

74-15-1 (9/97)—q

SEND THIS SHEET WITH SAMPLE TO CONTACT LAB

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print Legibly

Part 3

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☐ 8. Aromatic Volatiles USEPA 602 GC)
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MUNICIPAL SLUDGE

☐ 56. RS-01 ☐ 57. RS-02 ☐ 58. Other _____

COLLECTED BY:	TELEPHONE NUMBER:	REGION NO.:
Janie Ascher	631 444 0246	1

CONTRACT LABORATORY:	COUNTY:	SAMPLING DATE:	MILITARY TIME:
H2M	Suffolk	11/15/00	1030

SAMPLE MATRIX:

☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other _____

CASE NO.	SDG NO.	SAMPLE NO.	CHECK FOR MS/MD	TYPE OF SAMPLE
SH1010	11115	911590 12	☐ This sample	☒ Grab ☐ Composite ☐ Term _____ hours

☐ Check if there will be more samples with this SDG sent in this calendar week.

SAMPLING POINT:

Report via Category B, unless checked ☐

Check if field duplicate ☐ Outfall Number

Check if sampling is part of inspection ☐

FLOW: _____ GPD _____ MGD

SPDES NUMBER/REGISTRY NUMBER

| | | | | | |

A 0011

74-15-1 (9/97)—q

SEND THIS SHEET WITH SAMPLE TO CONTACT LAB

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print Legibly

Part 3

CAUTION (check if applicable)

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MUNICIPAL SLUDGE

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COLLECTED BY:	TELEPHONE NUMBER:	REGION NO.:
Jamie Ascher	631 444 0246	1

CONTRACT LABORATORY:	COUNTY:	SAMPLING DATE:	MILITARY TIME:
H2M	Suffolk	11/15/00	1045

SAMPLE MATRIX:

☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other _____

CASE NO.	SDG NO.	SAMPLE NO.	CHECK FOR MS/MD	TYPE OF SAMPLE
SA1100	11151	91591013	☐ This sample	☒ Grab ☐ Composite ☐ Term _____ hours

☐ Check if there will be more samples with this SDG sent in this calendar week.

SAMPLING POINT:

Report via Category B, unless checked ☐

Check if field duplicate ☐ Outfall Number

Check if sampling is part of inspection ☐

FLOW: _____ GPD _____ MGD

SPDES NUMBER/REGISTRY NUMBER

| | | | | | |

A 0012

IV. CHAIN OF CUSTODY DOCUMENTATION

H2M LABS, INC.

4712

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (516) 694-3040 Fax: (516) 420-8436

CLIENT: NYSDEC

H2M SDG NO: 1115

PROJECT NAME/NUMBER: NYSDEC Bldg 40 SUNY Stony Brook NY 11790 DER

SAMPLERS: (signature)/Client: Jamie Ascher

DELIVERABLES: ~~Cat B~~

TURNAROUND TIME: Standard

NOTES: TCLM PUTCL

Project Contact:

Phone Number:

Sample Container Description → 40ml (HCl), Alst. 2 HNO3

Total No. of Containers →

ANALYSIS REQUESTED

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ORGANIC VOA	ORGANIC BNA	ORGANIC Pest/PCB					INORG. Metal	INORG. CN	LAB I.D. NO.	REMARKS:
11/15/00	1030	gw	SH100 1115 915902	3	2							1		20000 1115-089	
11/15/00	1045	gw	SH100 1115 915903	3	2							1		-090	
11/15/00	1100	gw	SH100 1115 915904	3	2							1		-091	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	11/15/00	1245		11/15/00	1245
	11/15/00	1245		11/15/00	1245

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:
1. Shipped ___ or Hand Delivered ___ Airbill# ___
2. Ambient or chilled
3. Received in good condition: Y or N
4. Properly preserved: Y or N
5. Samples returned to lab ___ Hrs from collection.

transferred from cooler

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

A 0014

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: DEC DELIVERABLES: CS-10 TURN AROUND TIME: 30 Day

SDG #: ~~DEC115~~ SBM 11/15/00 CASE #: SH100 MATRIX: GW pH CHECK Y or N

REMARKS:

RECEIVED BY: SBM SIGNATURE: SBM DATE: 11/15/00 TIME: 12:45

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
1 SBM 11/15/00 SH100115915902	2000-1115 -089	11/15/00	DH	2	PUTCL
2 3	-090				
3 4	-091				
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

H2M LABS, INC.

CLIENT: DEC

SDG #: 1115

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
11/15/00	15:20	SIGN	SIGN Brandon Deng	DH	Analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
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		SIGN	SIGN			

Folder 11-22-00

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: DEC DELIVERABLES: CS-70 TURN AROUND TIME: 30 Days

SDG #: 1115 CASE #: SH100 MATRIX: GW pH CHECK Y or N

REMARKS:

RECEIVED BY: SBM SIGNATURE: DATE: 11/15/00 TIME: 12:45

	CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
1	11/15/00 SBM ~~SH100115~~ 915902	20001115 -089	11/15/00	EN	1	A TCLM
2	903	-090			1	12/15/00
3	904	-091			1	
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

11/15/00

H2M LABS, INC.

CLIENT: DEC

SDG #: 1115

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
11/15/00	15:00	SIGN	SIGN	EN	Analysis	
11-21-00	13:5	SIGN	SIGN	All EN	Digestion	
11-21-00	21:5	SIGN	SIGN	All EN DIG	Storage	
11/22/00	19:00	SIGN	SIGN	All fil digs	ICP Analysis	
11/22/00	22:00 ~~19:00~~	SIGN	SIGN	All fil digs	Storage	
11/28/00	6:00	SIGN	SIGN	EN	Hg prep/storage	
11/29/00	6:00	SIGN	SIGN	BOD	Hg analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
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		SIGN	SIGN			

H2M LABS, INC.

V. ANALYTICAL DATA PACKAGES
- A. VOLATILES
- B. METALS

1115

H2M LABS, INC.

VOLATILE ORGANICS

TABLE OF CONTENTS

H2M LABS, INC.

I. QC SUMMARY FOR VOLATILE ORGANICS

A. SYSTEM MONITORING COMPOUND RECOVERY FORM
B. MS/MSD FORM
C. MSB FORM
D. METHOD BLANK FORM
E. GC/MS TUNING FORM
F. INTERNAL STANDARD AREA AND RT SUMMARY
G. INSTRUMENT DETECTION LIMITS

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	TOT OUT
01	VBLK11/20/00	98	101	98	0
02	915902	103	102	98	0
03	915903	94	101	99	0
04	915904	101	103	98	0

				QC LIMITS
SMC1	(DCE)	=	1,2-Dichloroethane-d4	(76-114)
SMC2	(TOL)	=	Toluene-d8	(88-110)
SMC3	(BFB)	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK11/20/00

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: SAS No.: SDG No.: DEC1115

Lab File ID: F4769.D Lab Sample ID: VBLK11/20/00

Date Analyzed: 11/20/00 Time Analyzed: 12:02

GC Column: RTX624 ID: 0.2 (mm) Heated Purge: (Y/N) N

Instrument ID: H5973

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	915902	20001115-089	F4774.D	14:39
02	915903	20001115-090	F4775.D	15:10
03	915904	20001115-091	F4776.D	15:40

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Lab File ID: F4733.D BFB Injection Date: 11/18/00

Instrument ID: H5973 BFB Injection Time: 12:59

GC Column: RTX624 ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.5
75	30.0 - 60.0% of mass 95	48.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	65.0
175	5.0 - 9.0% of mass 174	4.5 (7.0)1
176	95.0 - 101.0% of mass 174	62.6 (96.2)1
177	5.0 - 9.0% of mass 176	3.9 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	F4735.D	11/18/00	14:17
02	VSTD100	VSTD100	F4737.D	11/18/00	15:20
03	VSTD200	VSTD200	F4738.D	11/18/00	15:51
04	VSTD050	VSTD050	F4739.D	11/18/00	16:24

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Lab File ID: F4766.D BFB Injection Date: 11/20/00

Instrument ID: H5973 BFB Injection Time: 10:26

GC Column: RTX624 ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.7
75	30.0 - 60.0% of mass 95	48.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.4 (0.7)1
174	50.0 - 120.0% of mass 95	61.2
175	5.0 - 9.0% of mass 174	4.1 (6.7)1
176	95.0 - 101.0% of mass 174	59.9 (97.8)1
177	5.0 - 9.0% of mass 176	3.8 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	F4768.D	11/20/00	11:31
02	VBLK11/20/00	VBLK11/20/00	F4769.D	11/20/00	12:02
03	915902	20001115-089	F4774.D	11/20/00	14:39
04	915903	20001115-090	F4775.D	11/20/00	15:10
05	915904	20001115-091	F4776.D	11/20/00	15:40

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Lab File ID (Standard): F4768.D Date Analyzed: 11/20/00

Instrument ID: H5973 Time Analyzed: 11:31

GC Column: RTX624 ID: 0.20 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	21389	4.82	130186	5.78	119988	8.54
	UPPER LIMIT	42778	4.32	260372	5.28	239976	8.04
	LOWER LIMIT	10695	5.32	65093	6.28	59994	9.04
	EPA SAMPLE NO.						
01	VBLK11/20/00	21878	4.83	125819	5.78	112854	8.54
02	915902	20899	4.82	126882	5.78	114647	8.54
03	915903	22055	4.82	124884	5.78	111253	8.54
04	915904	20359	4.83	123844	5.78	110403	8.54

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

INSTRUMENT DETECTION LIMIT

Instrument: HP5973
Method: clp/624
Date : 17 Feb 2000 22:23
Amount Spiked: 2 ppb
Matrix: Water

	F3474.D	F3475.D	F3476.D	F3477.D	F3478.D	F3480.D	F3483.D	AVG	SD	IDL ug/L	%RSD
Chloromethane	1.92	1.99	1.82	2.08	2.03	1.99	1.90	1.96	0.09	**0.27**	4.45
Bromomethane	2.06	1.86	1.77	2.22	1.84	1.92	1.91	1.94	0.15	**0.48**	7.84
Vinyl Chloride	1.92	1.97	1.86	2.15	1.92	2.04	1.88	1.96	0.10	**0.32**	5.24
Chloroethane	1.80	1.87	1.82	1.86	1.66	2.37	2.04	1.92	0.23	**0.72**	11.93
Methylene Chloride	1.94	1.68	1.93	1.89	1.98	2.00	2.34	1.97	0.20	**0.62**	10.06
Acetone	1.58	2.03	1.66	2.10	1.33	2.27	2.29	1.89	0.37	**1.17**	19.70
Carbon Disulfide	2.29	2.15	1.81	1.94	1.61	2.12	1.92	1.98	0.23	**0.72**	11.63
1,1-Dichloroethene	1.96	1.98	1.84	2.01	2.02	2.04	1.85	1.96	0.08	**0.25**	4.11
1,1-Dichloroethane	2.01	2.01	1.91	2.00	2.01	2.00	1.95	1.98	0.04	**0.12**	1.95
Trichlorofluoromethane	1.88	1.97	1.80	1.84	1.96	2.03	1.89	1.91	0.08	**0.26**	4.28
trans-1,2-Dichloroethene	2.05	2.01	1.91	1.99	1.98	2.01	1.93	1.98	0.05	**0.15**	2.45
cis-1,2-Dichloroethene	2.03	2.01	1.93	2.03	1.99	2.00	1.95	1.99	0.04	**0.12**	1.88
1,2-Dichloroethene (total)	4.08	4.01	3.85	4.02	3.97	4.01	3.88	3.98	0.08	**0.26**	2.05
2-Butanone	1.87	2.18	1.92	2.00	2.16	1.94	2.01	2.01	0.12	**0.37**	5.78
Chloroform	2.04	2.00	1.95	2.01	1.99	2.00	1.95	1.99	0.03	**0.10**	1.60
1,2-Dichloroethane	1.99	1.99	1.97	2.01	1.99	2.02	1.99	1.99	0.02	**0.05**	0.76
1,1,1-Trichloroethane	1.89	2.02	1.87	1.81	1.90	2.04	1.87	1.91	0.08	**0.26**	4.28
Carbon Tetrachloride	1.77	2.04	1.80	1.75	1.87	2.05	1.80	1.87	0.13	**0.40**	6.83
2-Chloroethylvinylether	1.98	2.03	1.95	2.08	2.01	2.03	1.99	2.01	0.04	**0.13**	2.08
Bromodichloromethane	2.04	2.01	1.95	1.97	1.99	2.00	1.96	1.99	0.03	**0.10**	1.57
1,2-Dichloropropane	1.99	1.96	1.97	1.89	1.98	1.99	1.97	1.97	0.03	**0.11**	1.73
cis-1,3-Dichloropropene	2.01	2.01	2.00	1.92	1.92	1.97	1.97	1.97	0.04	**0.11**	1.84
Trichloroethene	1.82	1.89	1.89	1.74	1.89	2.07	1.97	1.90	0.11	**0.33**	5.58
Benzene	1.97	1.99	1.92	1.91	1.97	1.99	1.95	1.96	0.03	**0.10**	1.66
Dibromochloromethane	2.05	2.05	1.93	1.88	1.93	1.99	1.95	1.97	0.06	**0.20**	3.26
trans-1,3-Dichloropropene	2.03	1.99	1.99	1.92	1.99	2.00	1.93	1.98	0.04	**0.12**	1.97
1,1,2-Trichloroethane	2.02	1.96	1.96	1.94	1.97	2.00	1.98	1.98	0.03	**0.08**	1.34
Bromoform	2.01	2.04	2.00	1.77	1.86	2.00	1.97	1.95	0.10	**0.31**	5.08
4-Methyl-2-Pentanone	1.99	1.99	1.96	2.02	2.05	2.02	1.93	1.99	0.04	**0.13**	2.03
2-Hexanone	1.92	2.05	2.00	1.92	2.16	1.94	1.95	1.99	0.09	**0.27**	4.37
Tetrachloroethene	1.65	2.04	1.78	1.60	1.85	2.20	1.74	1.84	0.21	**0.67**	11.63
1,1,2,2-Tetrachloroethane	2.08	2.09	2.07	1.81	1.91	1.99	1.86	1.97	0.11	**0.35**	5.71
Toluene	1.81	2.05	1.94	1.64	1.84	2.06	1.91	1.89	0.15	**0.46**	7.70
Chlorobenzene	1.82	2.05	1.99	1.59	1.78	2.12	1.92	1.89	0.18	**0.56**	9.47
Ethylbenzene	1.67	2.02	1.92	1.55	1.83	2.14	1.85	1.85	0.20	**0.63**	10.87
Styrene	1.75	2.05	1.98	1.53	1.79	2.10	1.95	1.88	0.20	**0.62**	10.58
m\p-Xylene	3.27	4.11	3.83	3.07	3.69	4.27	3.74	3.71	0.43	**1.34**	11.52
o-Xylene	1.71	2.01	1.96	1.50	1.80	2.16	1.91	1.86	0.21	**0.67**	11.51
Xylene (total)	1.71	2.01	1.96	1.50	1.80	2.16	1.91	1.86	0.21	**0.67**	11.51
1,3-Dichlorobenzene	1.72	2.05	2.00	1.44	1.70	2.20	1.90	1.86	0.26	**0.81**	13.80
1,4-Dichlorobenzene	1.77	2.06	1.98	1.42	1.63	2.22	1.91	1.86	0.27	**0.85**	14.57
1,2-Dichlorobenzene	1.79	2.06	1.99	1.42	1.63	2.25	1.93	1.87	0.28	**0.88**	15.00
	F3474.D	F3475.D	F3476.D	F3477.D	F3478.D	F3480.D	F3483.D				

H2M LABS, INC.

II. SAMPLE DATA PACKAGE FOR VOLATILE ORGANICS

A. REPORTS
B. RAW DATA

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(300\ U)}{D} \text{ x df where } D = \frac{100\%moisture}{100}$$

and df - dilution factor

$$\text{For example, at 24\% moisture, } D = \frac{100-24}{100} = 0.76$$

$$\frac{(300\ U)}{.76} \text{ x 10 - 4300 U rounded to the appropriate number of significant figures}$$

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported of Form I with a "P".

C - This flag applies to pesticide results when the identification has been confirmed by GC/MS.. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory defined flag, discussed below.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.

E - This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 ug/L or the peak representing the two coeluting isomers on that GC column exceed 400 ug/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 ug/L.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG narrative. Begin by using "X". If more than one flag is required use "Y" and "Z" as needed. If more than five qualifiers are required for a sample result, used the "X" flag to combine several flags as needed. For instance, the "X" flag might combine "A", "B", and "D" flags for some samples. The laboratory defined flags limited to the letters "X", "Y" and "Z".

The combination of flags "BU' or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

915902

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: 20001115-089

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4774.D

Level: (low/med) LOW Date Received: 11/15/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	7	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	8	J
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

915902

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: 20001115-089

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4774.D

Level: (low/med) LOW Date Received: 11/15/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

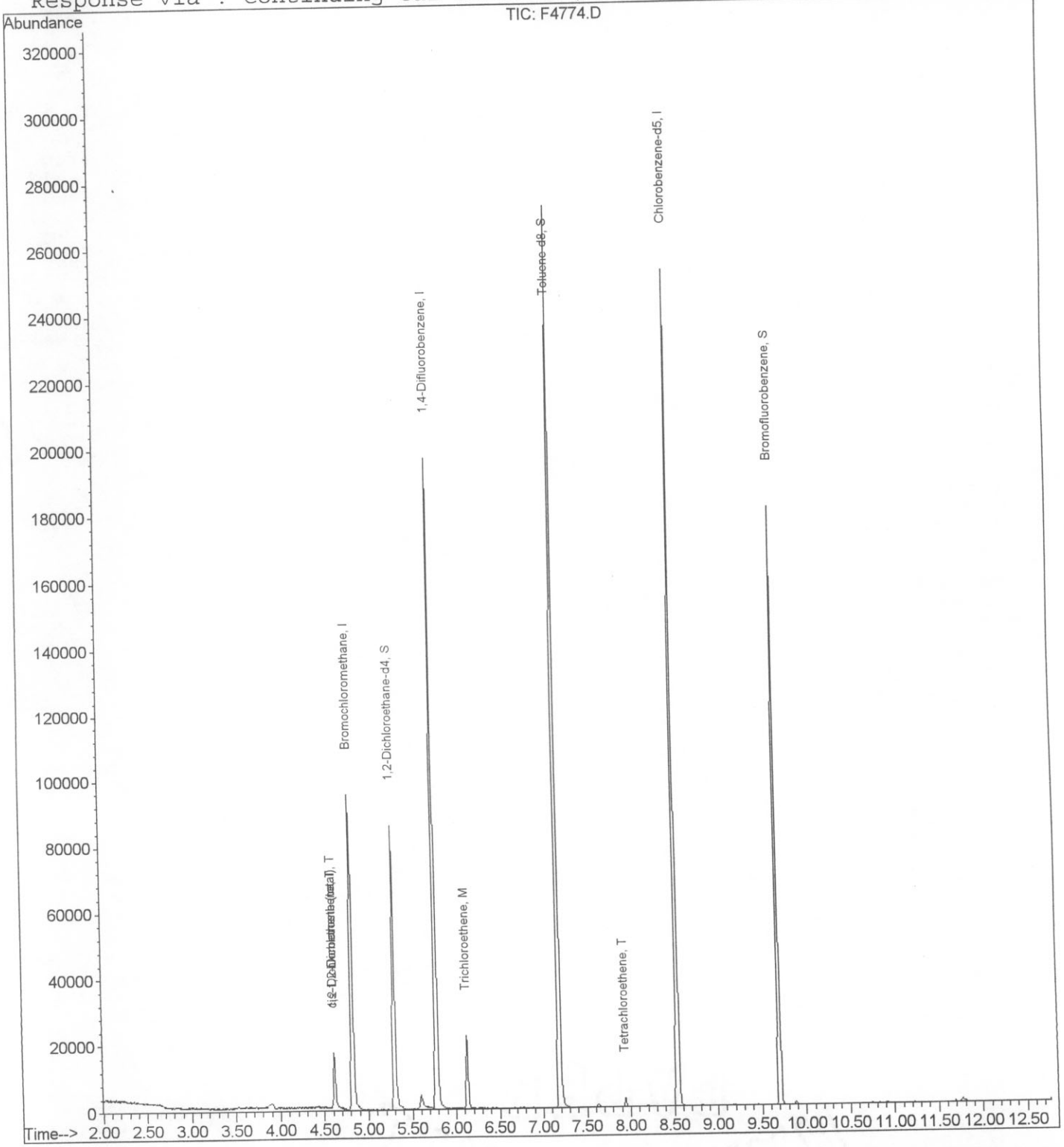
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\112000V\F4774.D
Acq On : 20 Nov 2000 14:39
Sample : 20001115-089
Misc : 915902 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:02 2000

Vial: 9
Operator: BD
Inst : h5973
Multiplr: 1.00

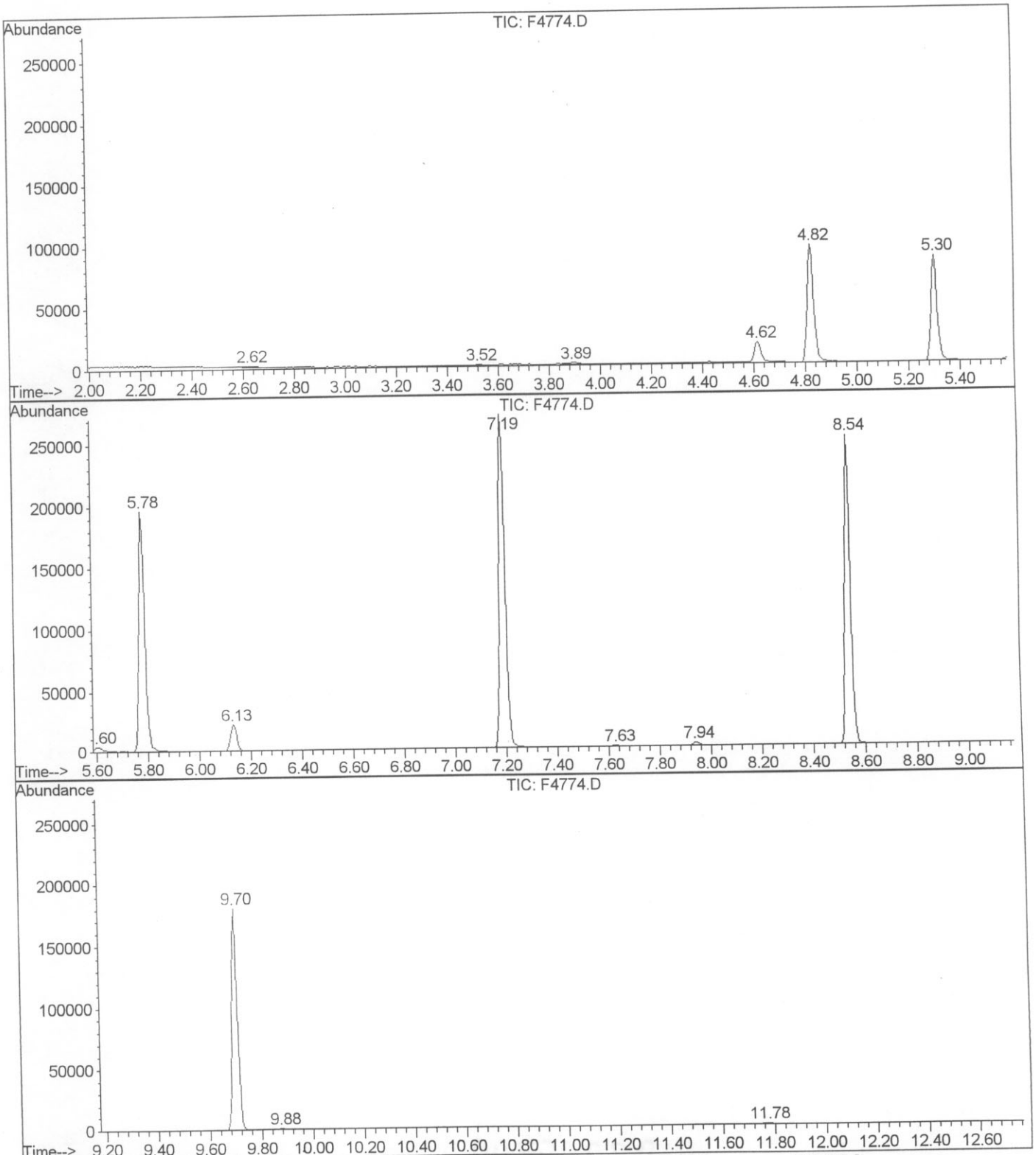
Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D



LSC Report - Integrated Chromatogram

File : O:\MS\5973\DATA\NOV00\112000V\F4774.D
Operator : BD
Acquired : 20 Nov 2000 14:39 using AcqMethod CLPW1118
Instrument : h5973
Sample Name: 20001115-089
Misc Info : 915902 5ML
Vial Number: 9
Quant File :CLPW1118.RES (RTE Integrator)



F4774.D CLPW1118.M Wed Dec 06 19:48:46 2000 H5972

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\112000V\F4774.D
Acq On : 20 Nov 2000 14:39
Sample : 20001115-089
Misc : 915902 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:02 2000

Vial: 9
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.82	128	20899	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	126882	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	114647	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	49701	51.33 ug/l	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 102.66%		
41) Toluene-d8	7.19	98	151714	50.81 ug/l	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 101.62%		
45) Bromofluorobenzene	9.70	95	57423	48.96 ug/l	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 97.92%		

Target Compounds					Qvalue
17) cis-1,2-Dichloroethene	4.62	96	6105	6.67 ug/l #	48
18) 1,2-Dichloroethene (total)	4.62	96	6105	6.67 ug/l	94
30) Trichloroethene	6.13	95	6521	7.59 ug/l	96
39) Tetrachloroethene	7.94	166	610	1.06 ug/l	86

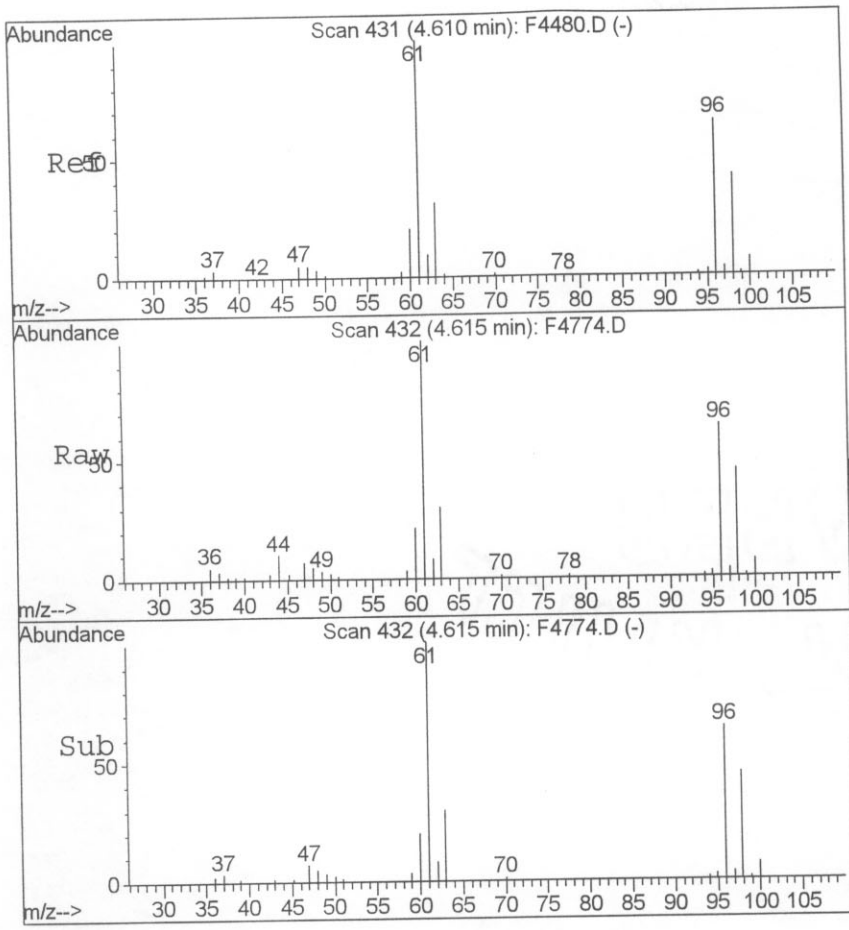
(#) = qualifier out of range (m) = manual integration

Tentatively Identified Compound (LSC) summary

Operator ID: BD Date Acquired: 20 Nov 2000 14:39
Data File: O:\MS\5973\DATA\NOV00\112000V\F4774.D
Name: 20001115-089
Misc: 915902 5ML
Method: C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

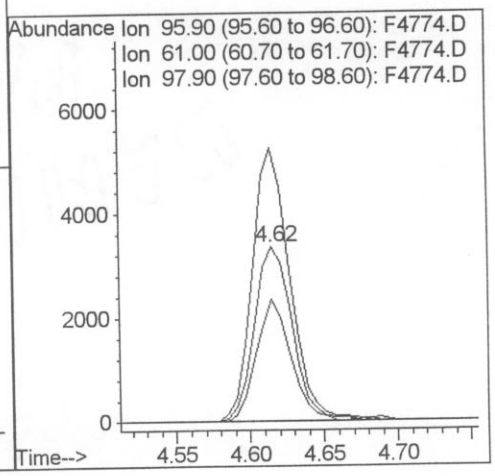
F4774.D CLPW1118.M Wed Dec 06 19:48:46 2000 H5972

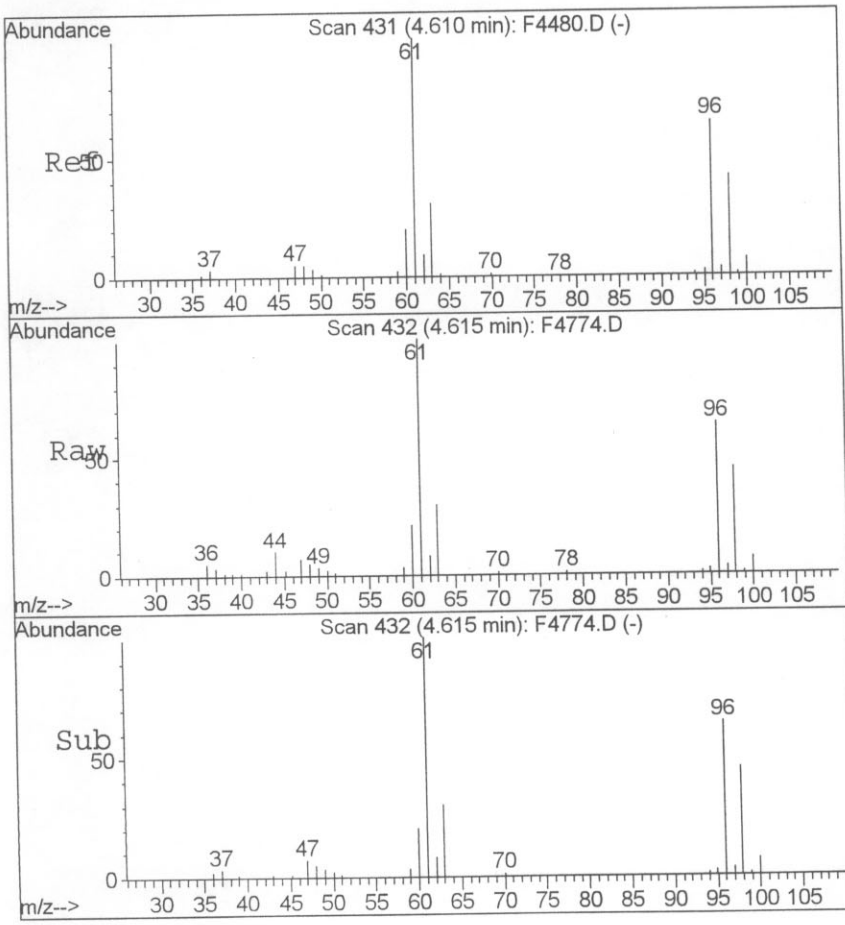


#17
cis-1,2-Dichloroethene
Concen: 6.67 ug/l
RT: 4.62 min Scan# 432
Delta R.T. -0.00 min
Lab File: F4774.D
Acq: 20 Nov 2000 14:39

Tgt Ion: 96 Resp: 6105

Ion	Ratio	Lower	Upper
96	100		
61	154.3	59.4	89.0#
98	63.6	54.6	81.8

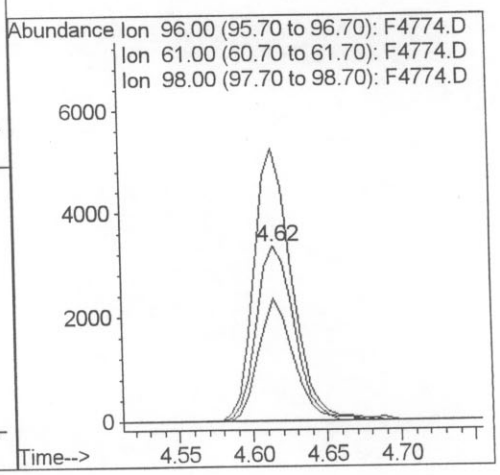




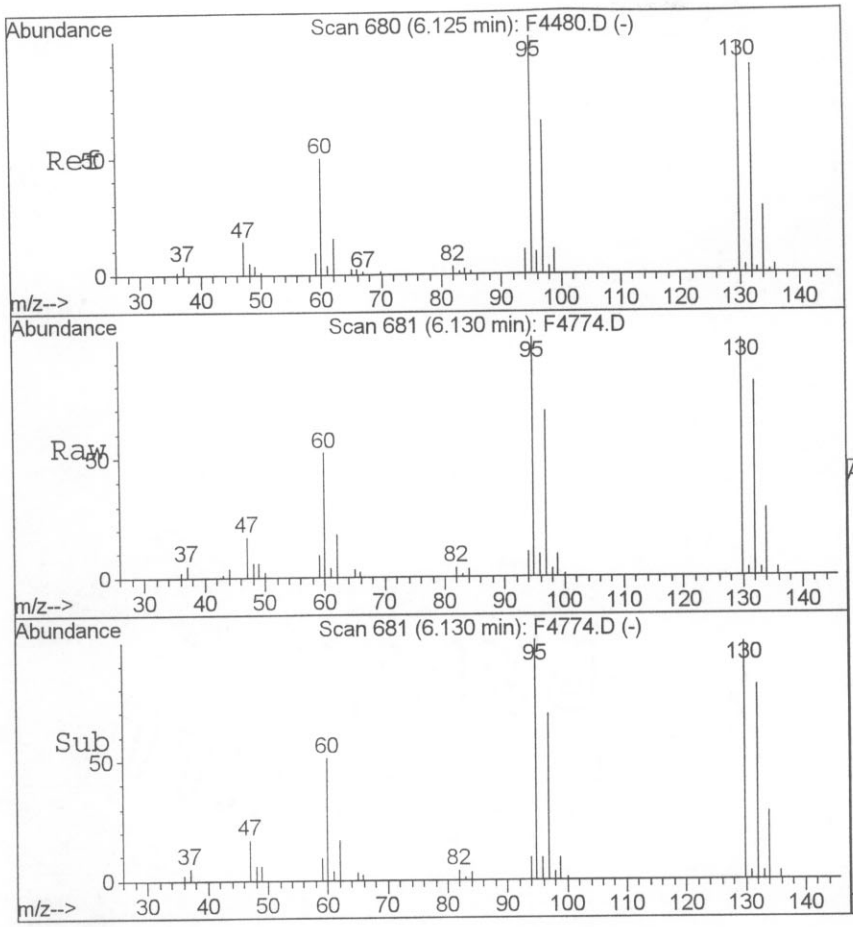
#18
1,2-Dichloroethene (total)
Concen: 6.67 ug/l
RT: 4.62 min Scan# 432
Delta R.T. -0.00 min
Lab File: F4774.D
Acq: 20 Nov 2000 14:39

Tgt Ion: 96 Resp: 6105

Ion	Ratio	Lower	Upper
96	100		
61	156.5	129.7	169.7
98	70.1	44.9	84.9



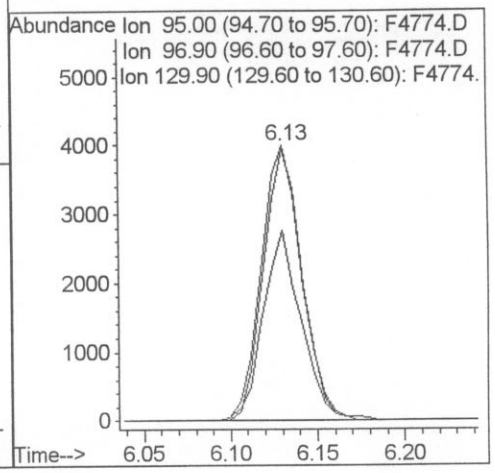
V 0018

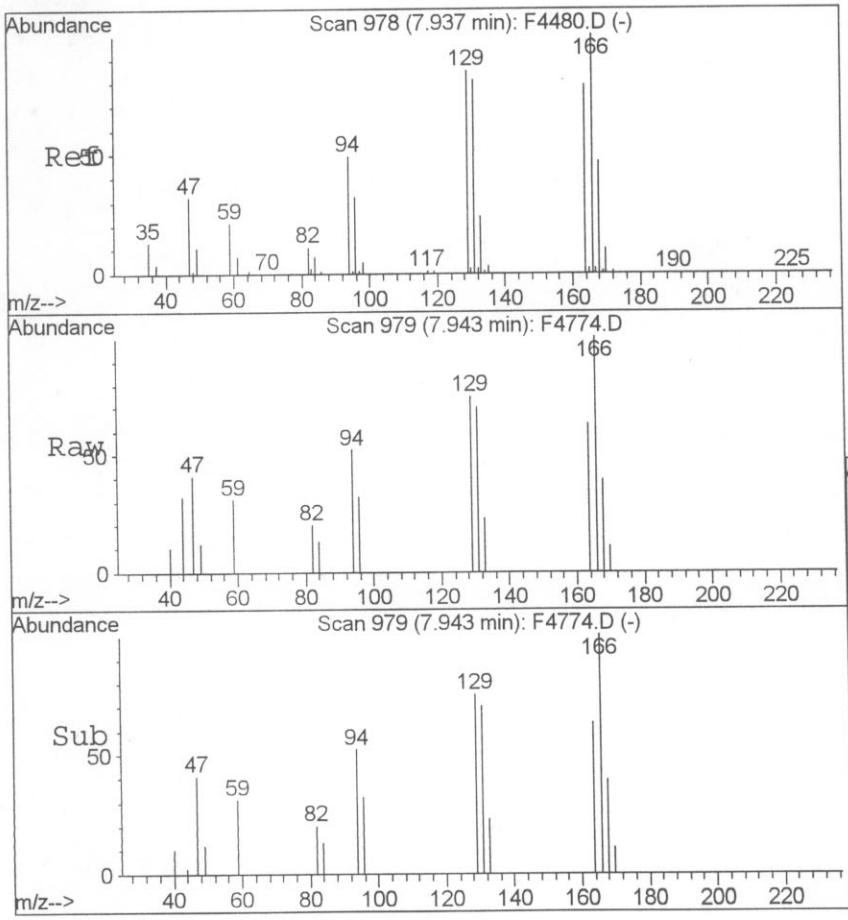


#30
Trichloroethene
Concen: 7.59 ug/l
RT: 6.13 min Scan# 681
Delta R.T. -0.00 min
Lab File: F4774.D
Acq: 20 Nov 2000 14:39

Tgt Ion: 95 Resp: 6521

Ion	Ratio	Lower	Upper
95	100		
97	69.4	45.0	85.0
130	98.7	76.0	116.0

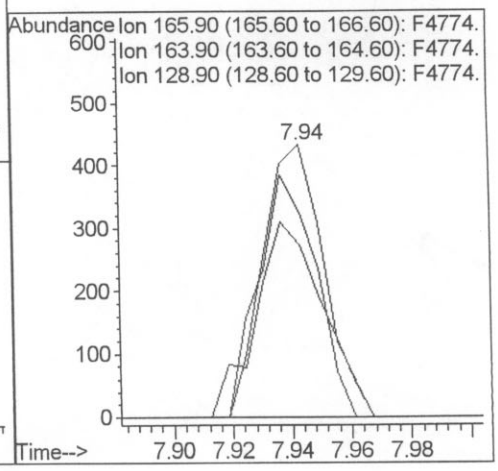




#39
Tetrachloroethene
Concen: 1.06 ug/l
RT: 7.94 min Scan# 979
Delta R.T. -0.00 min
Lab File: F4774.D
Acq: 20 Nov 2000 14:39

Tgt Ion:166 Resp: 610

Ion	Ratio	Lower	Upper
166	100		
164	62.8	61.0	101.0
129	75.1	62.0	102.0



V 0019

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

915903

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: 20001115-090

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4775.D

Level: (low/med) LOW Date Received: 11/15/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	7	J
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

915903

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: 20001115-090

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4775.D

Level: (low/med) LOW Date Received: 11/15/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

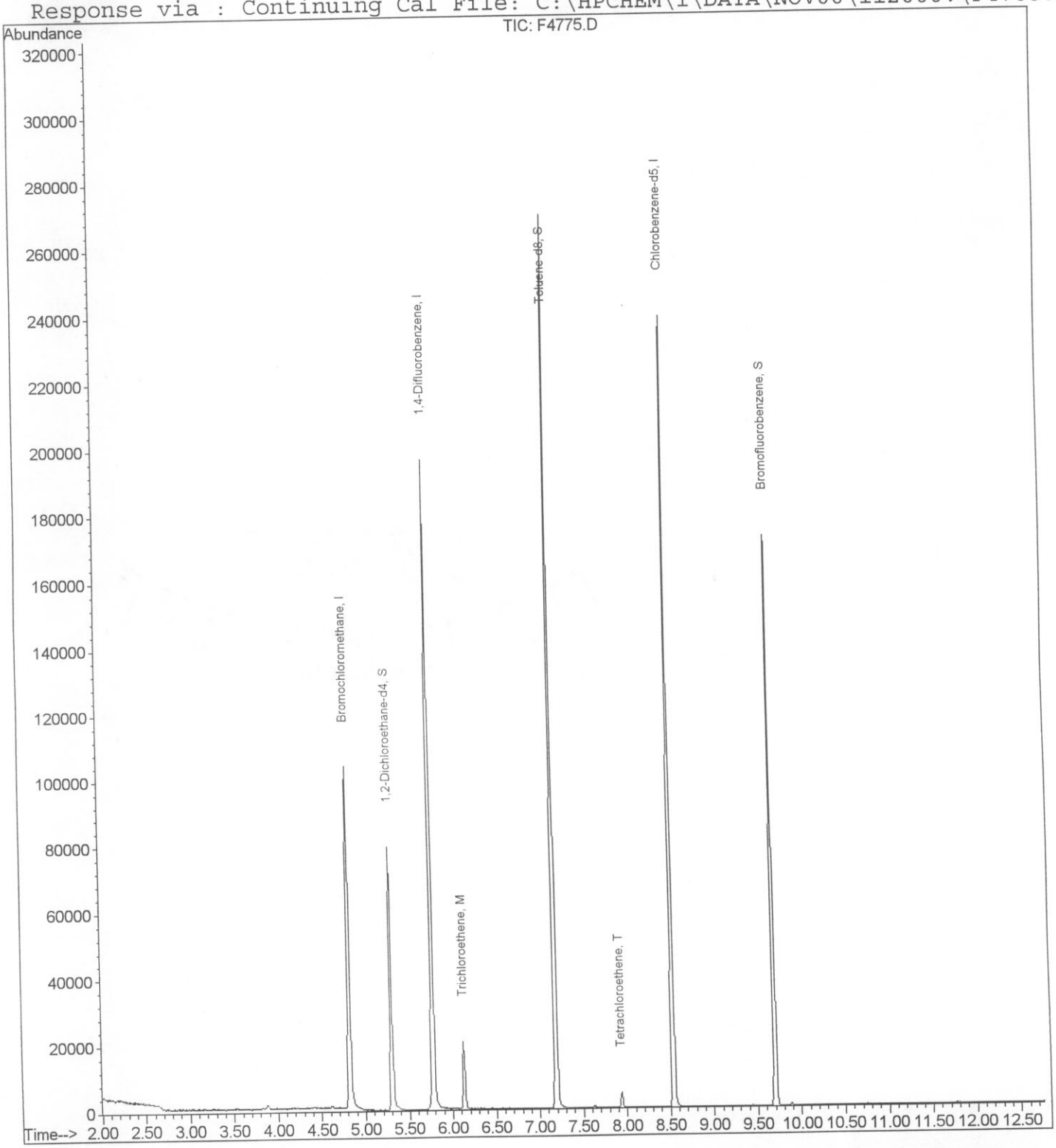
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\112000V\F4775.D
Acq On : 20 Nov 2000 15:10
Sample : 20001115-090
Misc : 915903 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:24 2000

Vial: 10
Operator: BD
Inst : h5973
Multiplr: 1.00

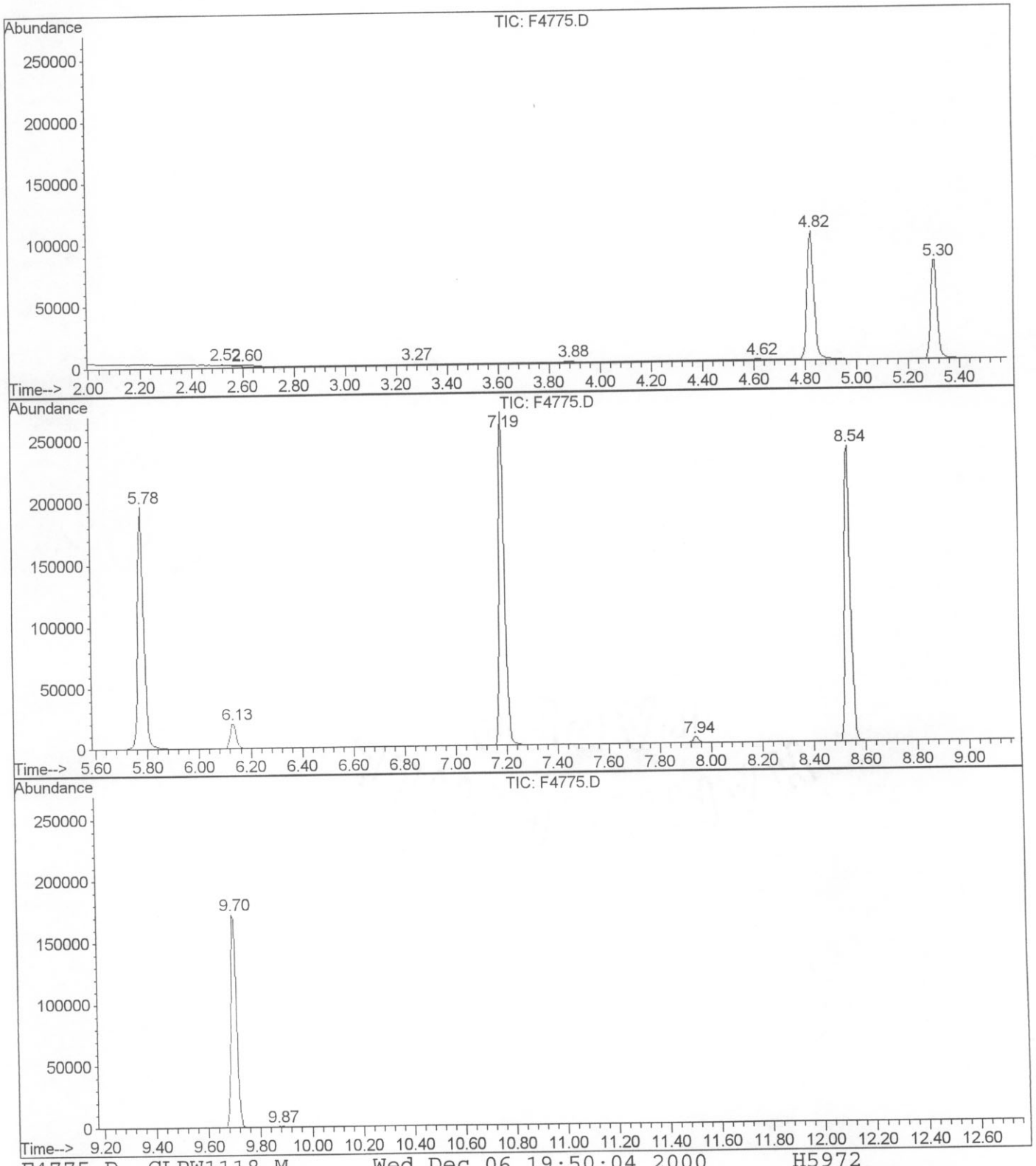
Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D



LSC Report - Integrated Chromatogram

File : O:\MS\5973\DATA\NOV00\112000V\F4775.D
Operator : BD
Acquired : 20 Nov 2000 15:10 using AcqMethod CLPW1118
Instrument : h5973
Sample Name: 20001115-090
Misc Info : 915903 5ML
Vial Number: 10
Quant File :CLPW1118.RES (RTE Integrator)



F4775.D CLPW1118.M Wed Dec 06 19:50:04 2000 H5972

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\112000V\F4775.D
Acq On : 20 Nov 2000 15:10
Sample : 20001115-090
Misc : 915903 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:24 2000

Vial: 10
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.82	128	22055	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	124884	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	111253	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	47850	46.83 ug/l	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 93.66%		
41) Toluene-d8	7.19	98	146673	50.62 ug/l	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 101.24%		
45) Bromofluorobenzene	9.70	95	56107	49.29 ug/l	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 98.58%		

Target Compounds					Qvalue
30) Trichloroethene	6.13	95	5966	7.05 ug/l	98
39) Tetrachloroethene	7.94	166	1024	1.83 ug/l	97

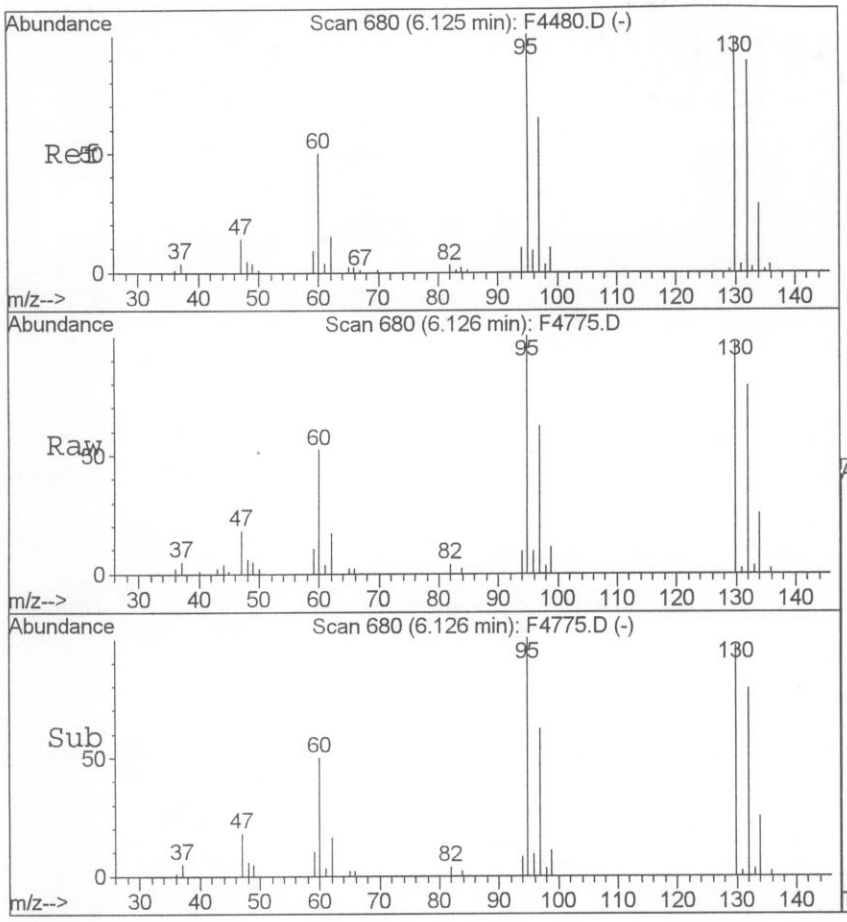
(#) = qualifier out of range (m) = manual integration

Tentatively Identified Compound (LSC) summary

Operator ID: BD Date Acquired: 20 Nov 2000 15:10
Data File: O:\MS\5973\DATA\NOV00\112000V\F4775.D
Name: 20001115-090
Misc: 915903 5ML
Method: C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

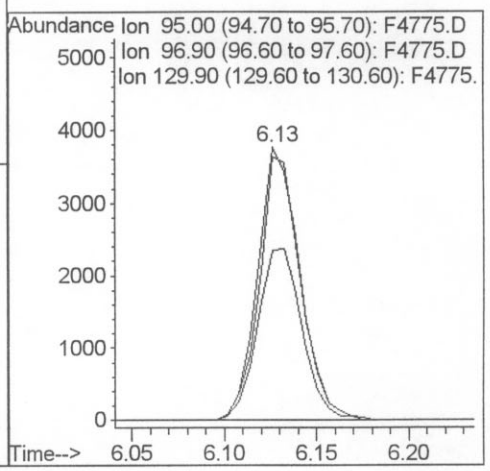
F4775.D CLPW1118.M Wed Dec 06 19:50:05 2000 H5972

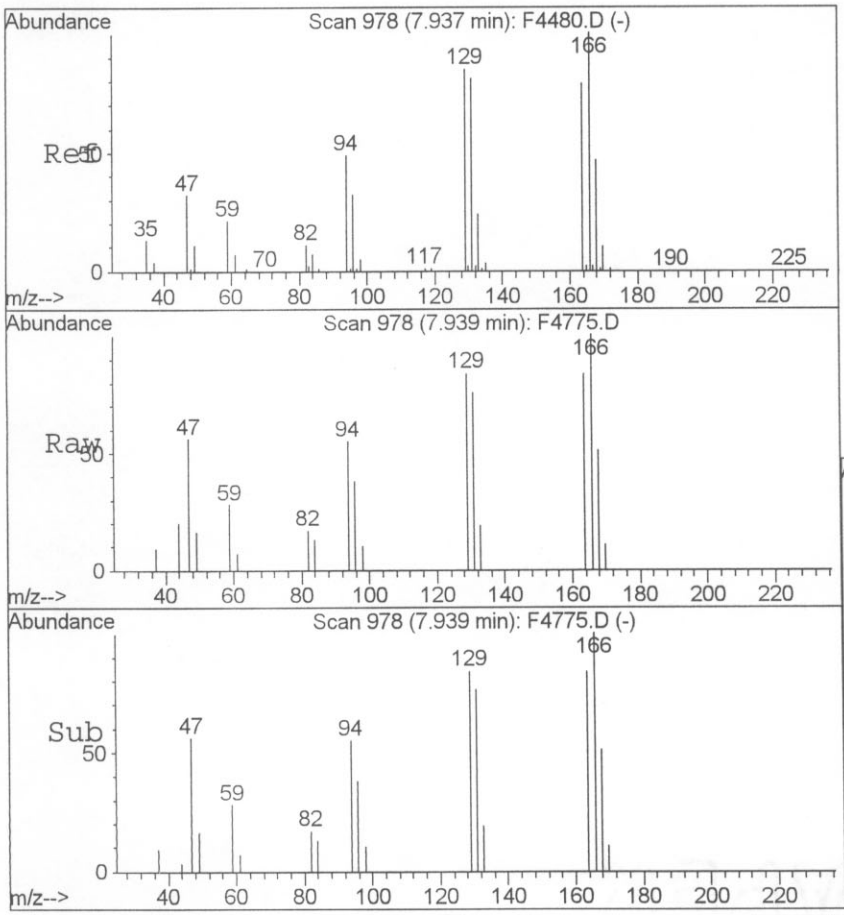


#30
Trichloroethene
Concen: 7.05 ug/l
RT: 6.13 min Scan# 680
Delta R.T. -0.00 min
Lab File: F4775.D
Acq: 20 Nov 2000 15:10

Tgt Ion: 95 Resp: 5966

Ion	Ratio	Lower	Upper
95	100		
97	62.4	45.0	85.0
130	96.7	76.0	116.0

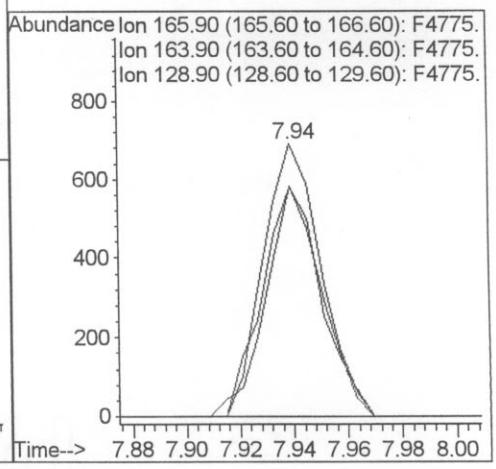




#39
Tetrachloroethene
Concen: 1.83 ug/l
RT: 7.94 min Scan# 978
Delta R.T. -0.00 min
Lab File: F4775.D
Acq: 20 Nov 2000 15:10

Tgt Ion:166 Resp: 1024

Ion	Ratio	Lower	Upper
166	100		
164	84.2	61.0	101.0
129	83.6	62.0	102.0



V 0026

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

915904

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: 20001115-091

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4776.D

Level: (low/med) LOW Date Received: 11/15/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	12	
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

915904

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: 20001115-091

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4776.D

Level: (low/med) LOW Date Received: 11/15/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

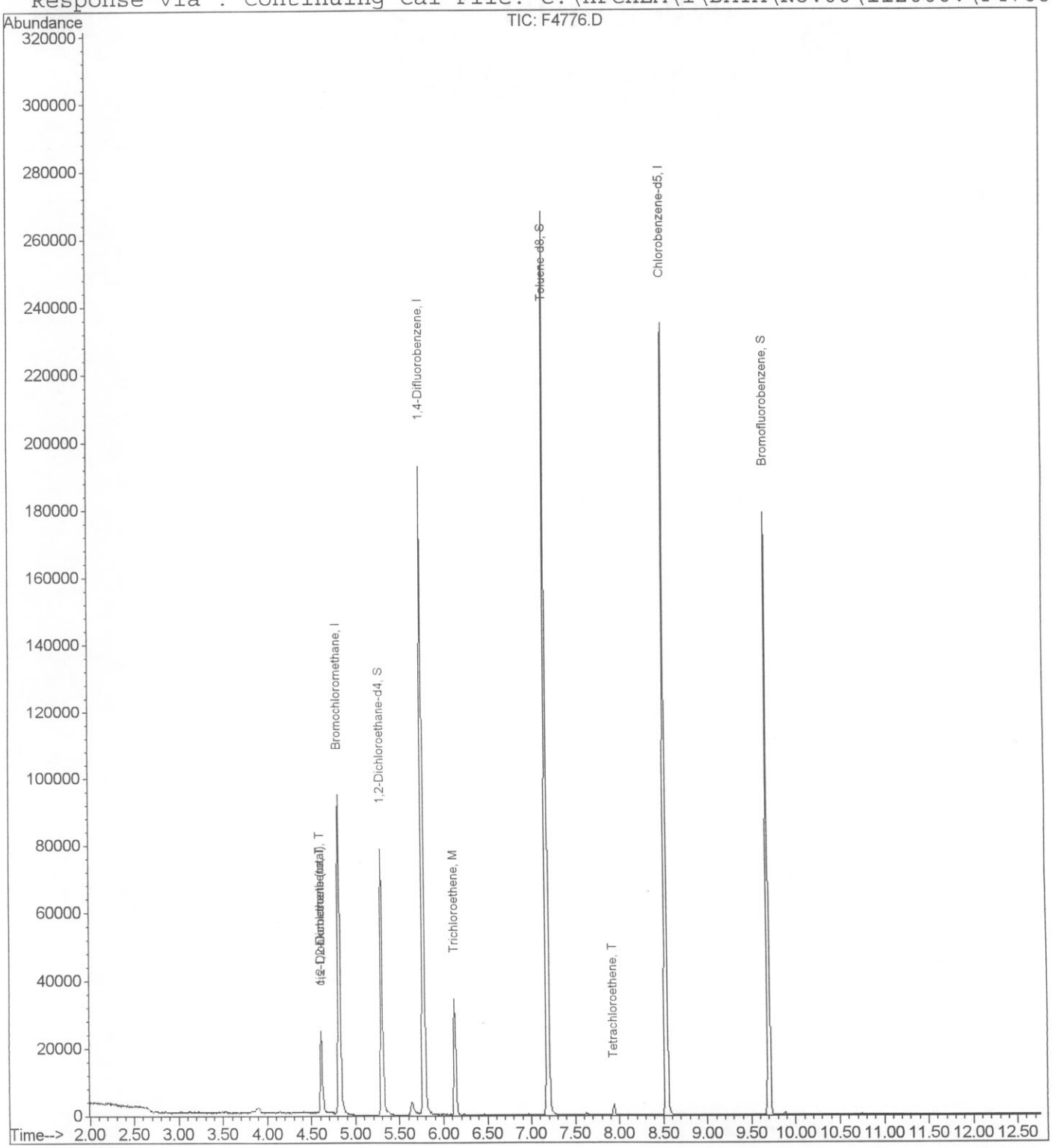
Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

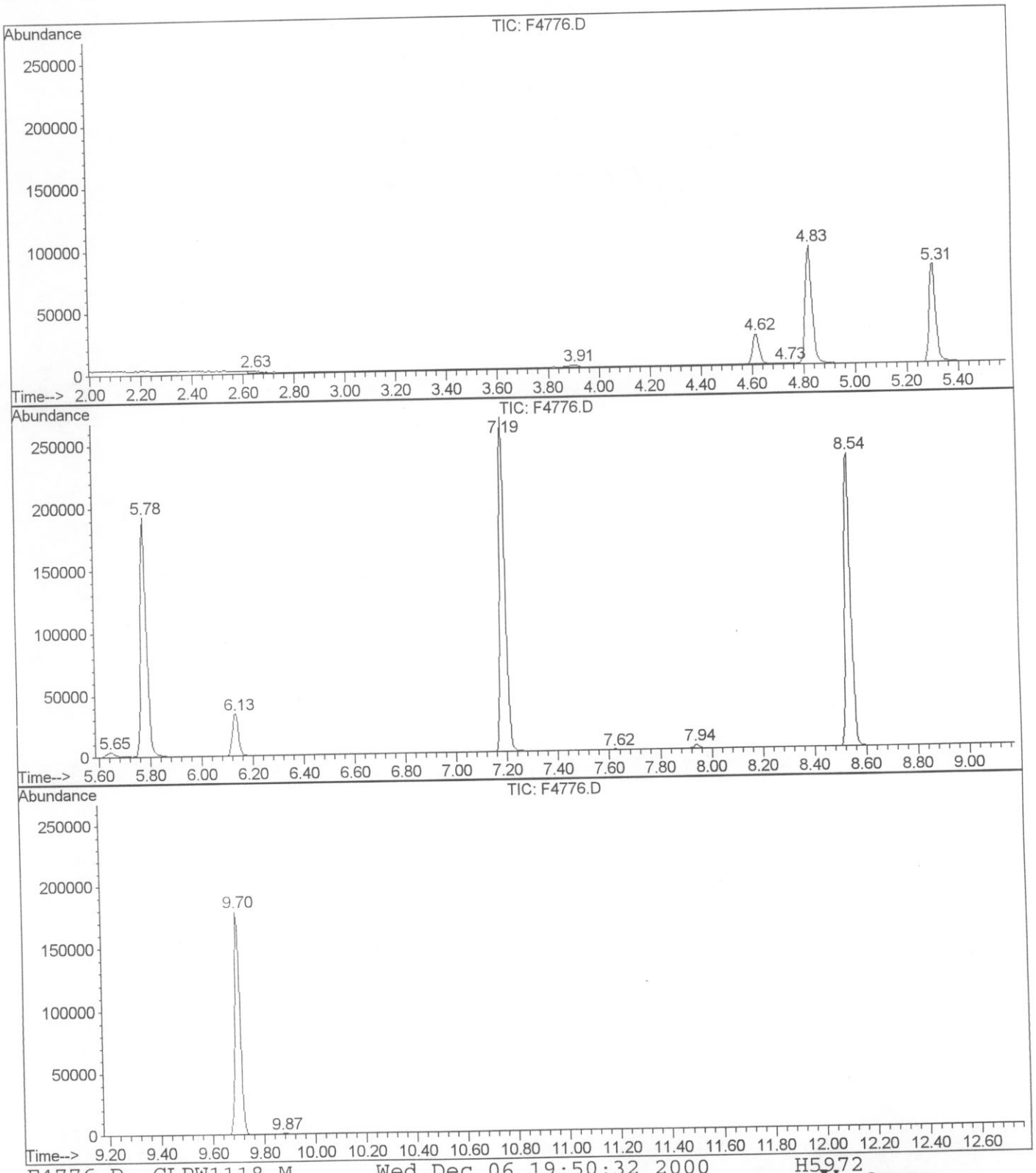
Data File : O:\MS\5973\DATA\NOV00\112000V\F4776.D Vial: 11
Acq On : 20 Nov 2000 15:40 Operator: BD
Sample : 20001115-091 Inst : h5973
Misc : 915904 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:55 2000 Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D



LSC Report - Integrated Chromatogram

File : O:\MS\5973\DATA\NOV00\112000V\F4776.D
Operator : BD
Acquired : 20 Nov 2000 15:40 using AcqMethod CLPW1118
Instrument : h5973
Sample Name: 20001115-091
Misc Info : 915904 5ML
Vial Number: 11
Quant File :CLPW1118.RES (RTE Integrator)



Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\112000V\F4776.D
Acq On : 20 Nov 2000 15:40
Sample : 20001115-091
Misc : 915904 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:55 2000

Vial: 11
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.83	128	20359	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	123844	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	110403	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.31	65	47737	50.61 ug/l	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 101.22%		
41) Toluene-d8	7.19	98	147500	51.30 ug/l	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 102.60%		
45) Bromofluorobenzene	9.70	95	55605	49.23 ug/l	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 98.46%		

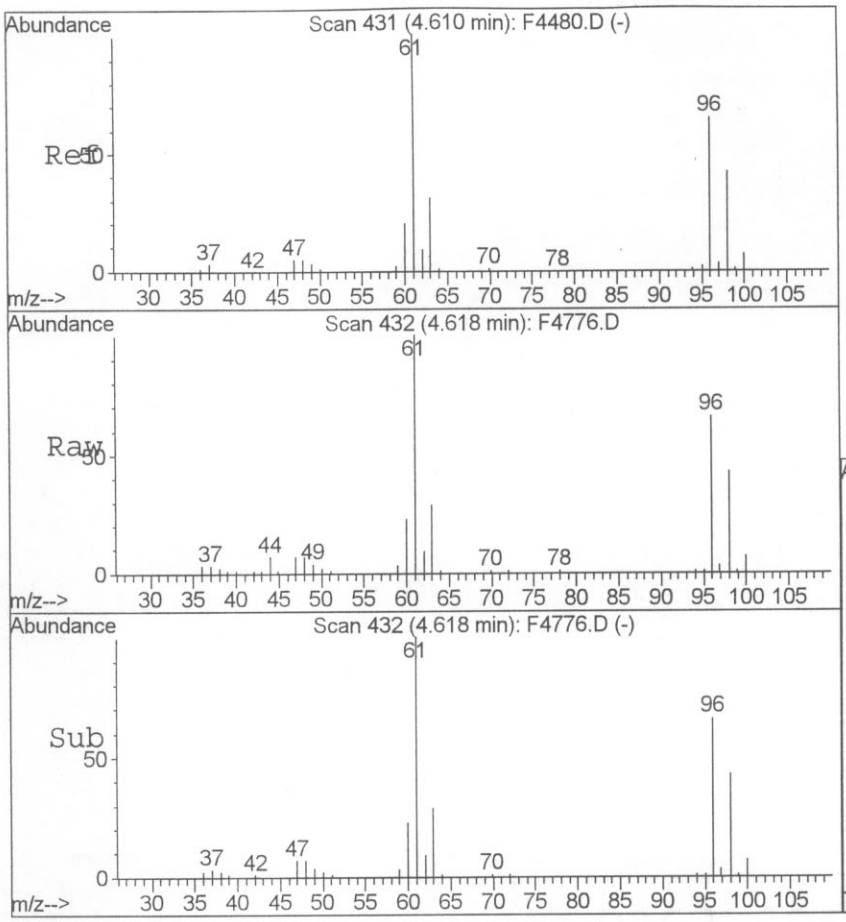
Target Compounds					Qvalue
17) cis-1,2-Dichloroethene	4.62	96	9094	10.19 ug/l #	49
18) 1,2-Dichloroethene (total)	4.62	96	9094	10.20 ug/l	99
30) Trichloroethene	6.13	95	10174	12.13 ug/l	92
39) Tetrachloroethene	7.94	166	663	1.19 ug/l	87

(#) = qualifier out of range (m) = manual integration

Tentatively Identified Compound (LSC) summary

Operator ID: BD Date Acquired: 20 Nov 2000 15:40
Data File: O:\MS\5973\DATA\NOV00\112000V\F4776.D
Name: 20001115-091
Misc: 915904 5ML
Method: C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NIST98.L

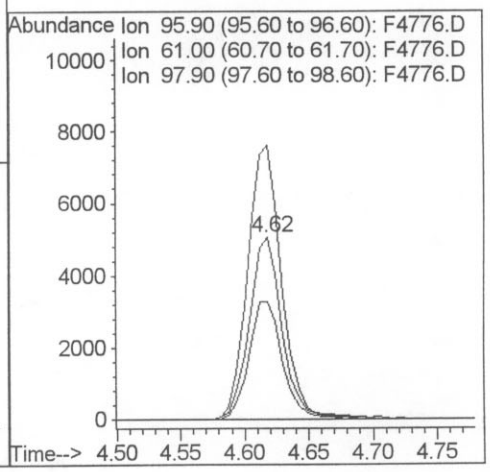
TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
F4776.D	CLPW1118.M	Wed Dec 06 19:50:32 2000				H5972			

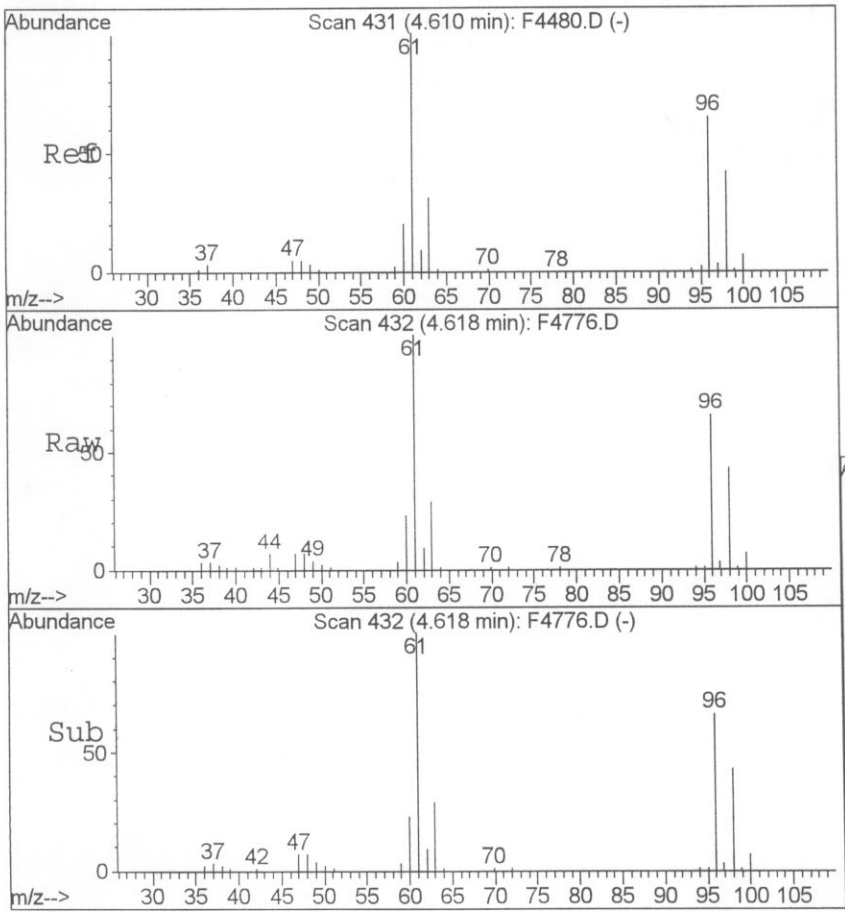


#17
cis-1,2-Dichloroethene
Concen: 10.19 ug/l
RT: 4.62 min Scan# 432
Delta R.T. 0.00 min
Lab File: F4776.D
Acq: 20 Nov 2000 15:40

Tgt Ion: 96 Resp: 9094

Ion	Ratio	Lower	Upper
96	100		
61	155.8	59.4	89.0#
98	66.3	54.6	81.8

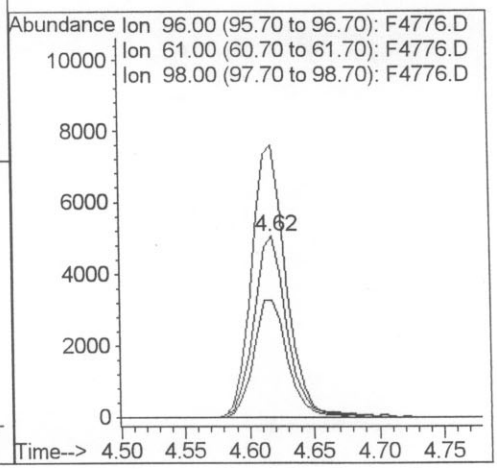




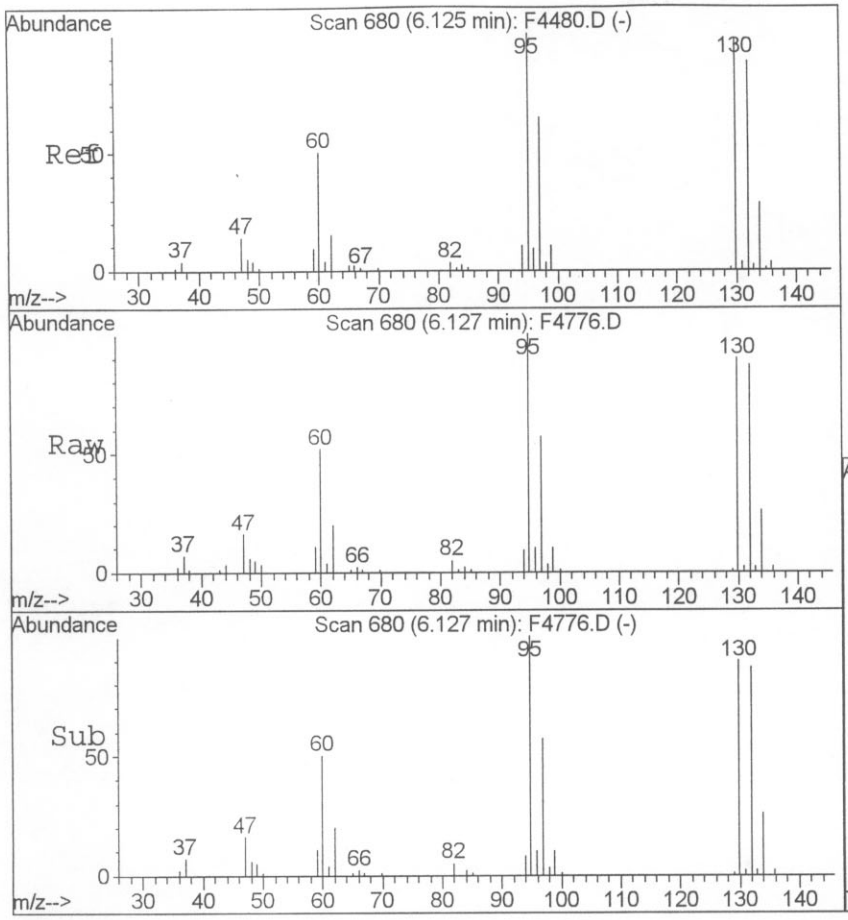
#18
1,2-Dichloroethene (total)
Concen: 10.20 ug/l
RT: 4.62 min Scan# 432
Delta R.T. 0.00 min
Lab File: F4776.D
Acq: 20 Nov 2000 15:40

Tgt Ion: 96 Resp: 9094

Ion	Ratio	Lower	Upper
96	100		
61	151.0	129.7	169.7
98	64.9	44.9	84.9



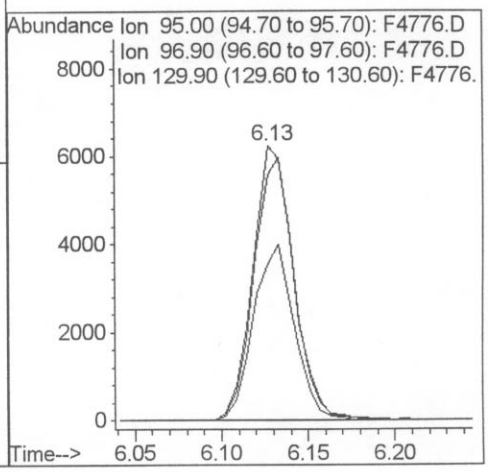
V 0033

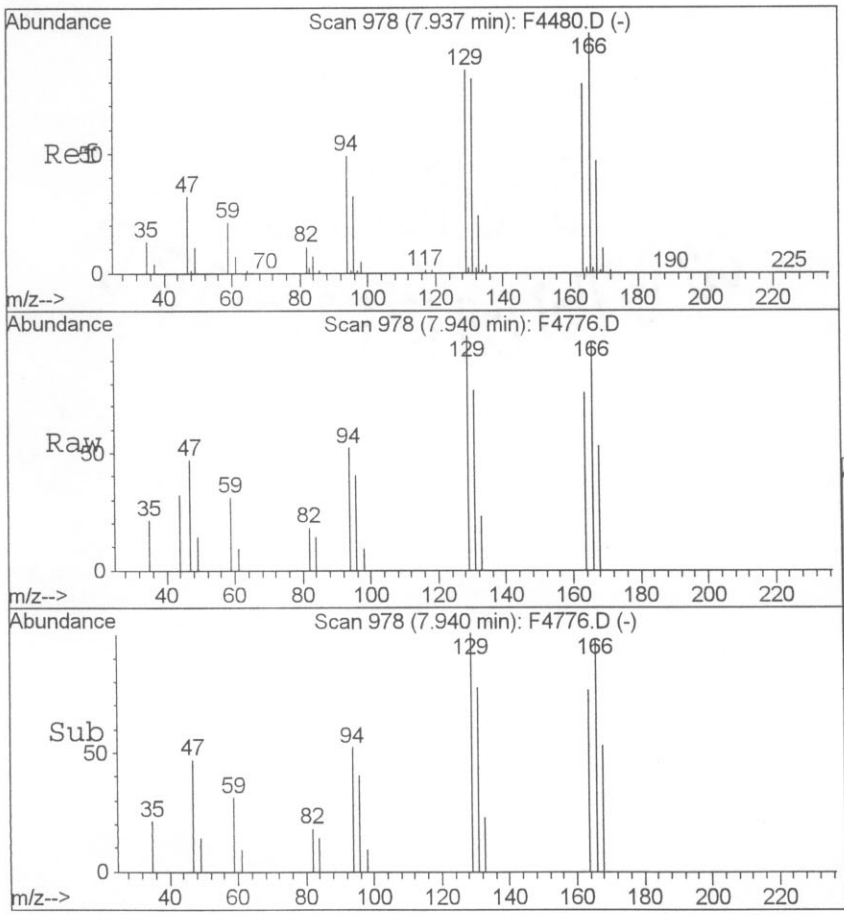


#30
Trichloroethene
Concen: 12.13 ug/l
RT: 6.13 min Scan# 680
Delta R.T. -0.00 min
Lab File: F4776.D
Acq: 20 Nov 2000 15:40

Tgt Ion: 95 Resp: 10174

Ion	Ratio	Lower	Upper
95	100		
97	57.3	45.0	85.0
130	89.6	76.0	116.0

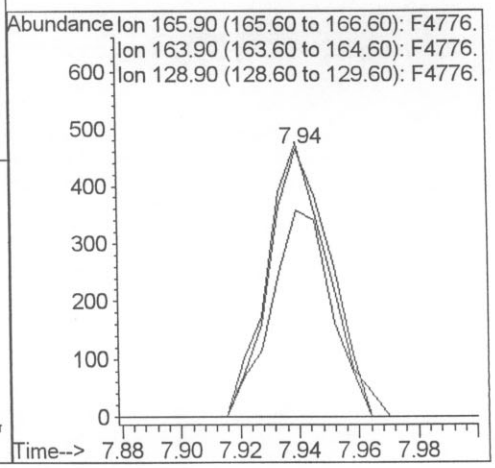




#39
Tetrachloroethene
Concen: 1.19 ug/l
RT: 7.94 min Scan# 978
Delta R.T. -0.00 min
Lab File: F4776.D
Acq: 20 Nov 2000 15:40

Tgt Ion:166 Resp: 663

Ion	Ratio	Lower	Upper
166	100		
164	77.2	61.0	101.0
129	101.7	62.0	102.0



V 0034

H2M LABS, INC.

III. STANDARD DATA PACKAGE FOR VOLATILE ORGANICS

A. INITIAL CALIBRATION FORM
B. STANDARD GC/MD CHROMATOGRAMS
C. DATA SYSTEM REPORT
D. CONTINUING CALIBRATION FORM
E. STANDARD GC/MS CHROMATOGRAMS
F. DATA SYSTEM REPORT

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: SAS No.: SDG No.: DEC1115

Instrument ID: H5973 Calibration Date(s): 11/18/00 11/18/00

Heated Purge (Y/N): N Calibration Times: 13:46 16:24

GC Column: RTX624 ID: 0.20 (mm)

LAB FILE ID: RRF10 = F4734.D RRF20 = F4735.D

RRF50 = F4739.D RRF100 = F4737.D RRF200 = F4738.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane		3.948	3.269	3.484	4.050	3.951	3.740	9.2	
Bromomethane	*	1.297	1.263	1.443	1.668	1.660	1.466	13.1	*
Vinyl Chloride	*	3.132	2.557	2.555	3.153	2.938	2.867	10.3	*
Chloroethane		1.707	1.472	1.532	1.773	1.739	1.645	8.1	
Methylene Chloride		2.328	2.052	2.132	2.222	2.269	2.200	5.0	
Acetone		1.784	1.064	1.292	0.872	0.996	1.202	29.9	
Carbon Disulfide		6.687	6.062	6.320	6.725	7.067	6.572	5.9	
1,1-Dichloroethene	*	1.799	1.615	1.711	1.906	1.970	1.800	8.0	*
1,1-Dichloroethane	*	4.557	4.061	4.346	4.633	4.667	4.453	5.7	*
1,2-Dichloroethene (total)		2.242	1.902	2.011	2.177	2.262	2.119	7.4	
2-Butanone		2.546	1.647	1.608	1.361	1.647	1.762	25.8	
Chloroform	*	4.139	3.145	3.370	3.611	3.658	3.584	10.4	*
1,2-Dichloroethane	*	3.561	3.015	3.231	3.357	3.366	3.306	6.1	*
1,1,1-Trichloroethane	*	0.459	0.405	0.410	0.414	0.505	0.439	9.8	*
Carbon Tetrachloride	*	0.234	0.227	0.259	0.263	0.370	0.270	21.4	*
Bromodichloromethane	*	0.812	0.578	0.557	0.605	0.623	0.635	16.1	*
1,2-Dichloropropane		0.515	0.412	0.411	0.417	0.445	0.440	10.1	
cis-1,3-Dichloropropene	*	0.702	0.554	0.571	0.581	0.623	0.606	9.8	*
Trichloroethene	*	0.376	0.317	0.317	0.308	0.364	0.336	9.3	*
Benzene	*	1.532	1.321	1.288	1.341	1.452	1.387	7.3	*
Dibromochloromethane	*	0.440	0.327	0.344	0.348	0.383	0.368	12.2	*
trans-1,3-Dichloropropene	*	0.706	0.535	0.560	0.583	0.659	0.609	11.8	*
1,1,2-Trichloroethane	*	0.459	0.405	0.410	0.414	0.505	0.439	9.8	*
Bromoform	*	0.237	0.183	0.193	0.199	0.229	0.208	11.4	*
4-Methyl-2-Pentanone		0.733	0.528	0.540	0.562	0.570	0.586	14.2	
2-Hexanone		0.601	0.385	0.429	0.379	0.411	0.441	20.8	
Tetrachloroethene	*	0.218	0.190	0.212	0.205	0.277	0.220	15.2	*
1,1,2,2-Tetrachloroethane	*	0.684	0.523	0.505	0.492	0.538	0.548	14.2	*
Toluene	*	0.950	0.826	0.893	0.831	1.060	0.912	10.6	*
Chlorobenzene	*	1.174	0.948	0.967	0.880	1.082	1.010	11.6	*
Ethylbenzene	*	0.458	0.386	0.423	0.398	0.541	0.441	14.1	*
Styrene	*	1.170	0.985	1.060	0.992	1.309	1.103	12.4	*
Xylene (total)	*	0.648	0.543	0.572	0.544	0.731	0.608	13.3	*
1,2-Dichloroethane-d4		2.853	2.362	2.309	2.419	2.436	2.476	8.7	
Toluene-d8		1.517	1.026	1.326	1.353	1.389	1.322	13.7	
Bromofluorobenzene	*	0.662	0.482	0.522	0.554	0.588	0.562	12.2	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

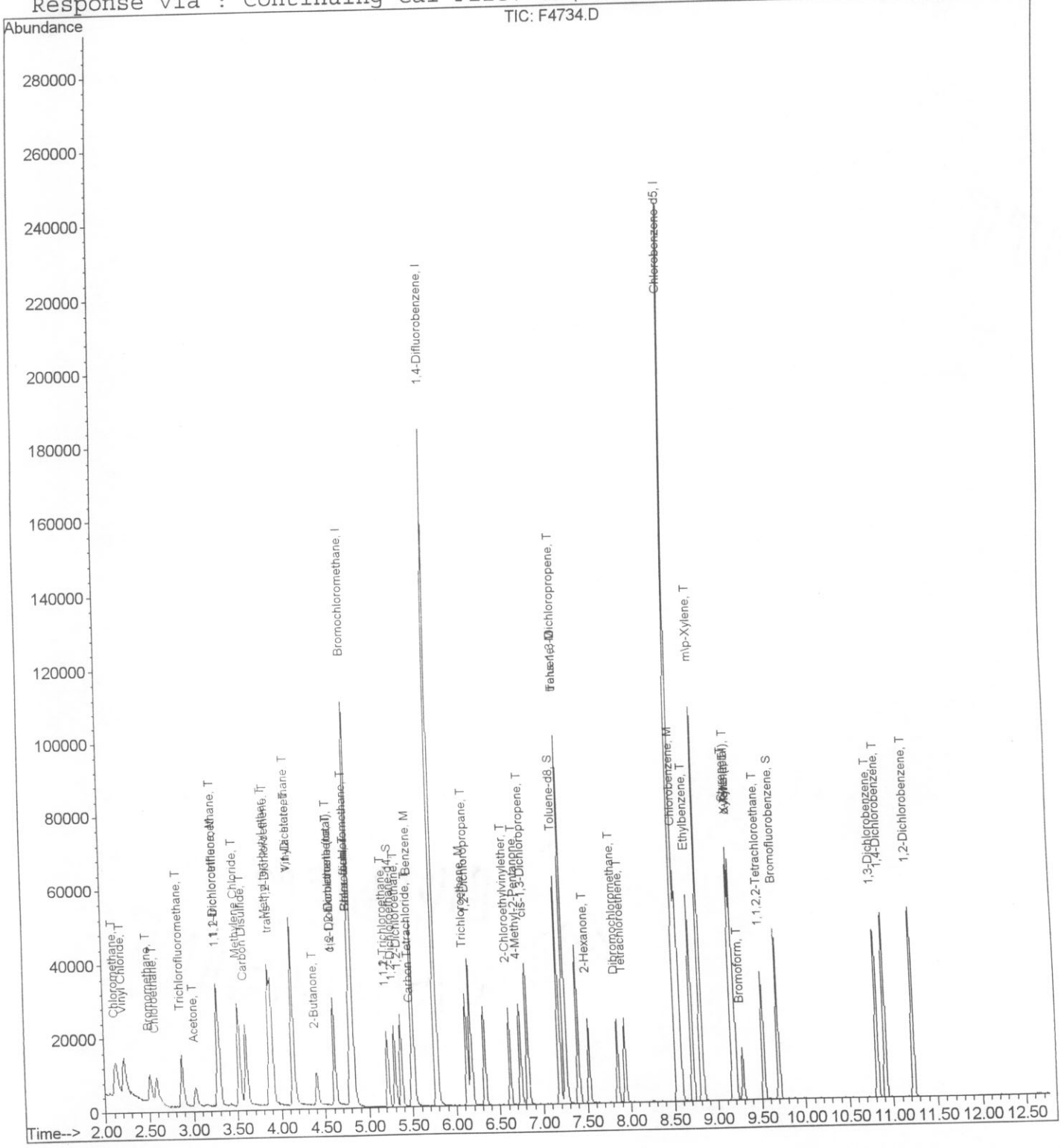
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4734.D
Acq On : 18 Nov 2000 13:46
Sample : VSTD010
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:49 2000

Vial: 2
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D



Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4734.D
Acq On : 18 Nov 2000 13:46
Sample : VSTD010
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:49 2000

Vial: 2
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.83	128	23720	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	120922	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	115239	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	13535	12.57 ug/l	0.00
Spiked Amount 50.000	Range 70 - 121		Recovery = 25.14%#		
41) Toluene-d8	7.19	98	34963	11.53 ug/l	0.00
Spiked Amount 50.000	Range 84 - 138		Recovery = 23.06%#		
45) Bromofluorobenzene	9.70	95	15257	12.69 ug/l	0.00
Spiked Amount 50.000	Range 59 - 113		Recovery = 25.38%#		

Target Compounds					Qvalue
3) Chloromethane	2.12	50	18727	12.26 ug/l	99
4) Bromomethane	2.51	94	6154	9.68 ug/l	96
5) Vinyl Chloride	2.22	62	14857	12.53 ug/l	100
6) Chloroethane	2.59	64	8098	11.80 ug/l	90
7) Methylene Chloride	3.52	84	11044	11.48 ug/l #	77
8) Acetone	3.02	43	8463	13.61 ug/l	88
9) Carbon Disulfide	3.60	76	31721	11.61 ug/l	100
10) 1,1,2-trichlorotrifluoroet	3.30	101	6907	10.34 ug/l	92
11) 1,1-Dichloroethene	3.28	96	8533	11.71 ug/l	94
12) 1,1-Dichloroethane	4.14	63	21620	11.25 ug/l	99
13) Trichlorofluoromethane	2.87	101	13446	12.15 ug/l	97
14) Vinylacetate	4.14	43	43150	12.09 ug/l	96
15) Methyl tert-butyl ether	3.88	73	31439	11.07 ug/l #	61
16) trans-1,2-Dichloroethene	3.91	96	10118	11.63 ug/l #	43
17) cis-1,2-Dichloroethene	4.61	96	11039	11.54 ug/l #	45
18) 1,2-Dichloroethene (total)	4.61	96	21274m	23.18 ug/l	
19) 2-Butanone	4.41	43	12080 12/1	13.31 ug/l #	53
20) Chloroform	4.80	83	19634 12-6-00	12.74 ug/l	96
22) 1,2-Dichloroethane	5.37	62	16892	11.47 ug/l	97
24) 1,1,1-Trichloroethane	5.22	97	11089	13.06 ug/l	94
25) Carbon Tetrachloride	5.49	117	5648	11.36 ug/l	97
26) 2-Chloroethylvinylether	6.62	63	9340	12.50 ug/l	98
27) Bromodichloromethane	4.80	83	19634	14.81 ug/l	97
28) 1,2-Dichloropropane	6.18	63	12461	13.73 ug/l	98
29) cis-1,3-Dichloropropene	6.83	75	16965	13.21 ug/l	97
30) Trichloroethene	6.13	95	9081	13.44 ug/l	96
31) Benzene	5.52	78	37052	13.00 ug/l	100
32) Dibromochloromethane	7.86	129	10641	13.87 ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4734.D
Acq On : 18 Nov 2000 13:46
Sample : VSTD010
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:49 2000

Vial: 2
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) trans-1,3-Dichloropropene	7.26	75	17083	13.41 ug/l	93
34) 1,1,2-Trichloroethane	5.22	97	11089	13.06 ug/l	98
35) Bromoform	9.28	173	5740	13.13 ug/l	93
37) 4-Methyl-2-Pentanone	6.74	43	16890	13.50 ug/l	93
38) 2-Hexanone	7.53	43	13842	13.99 ug/l	94
39) Tetrachloroethene	7.94	166	5018	11.74 ug/l	92
40) 1,1,2,2-Tetrachloroethane	9.53	83	15767	14.06 ug/l	98
42) Toluene	7.26	92	21885	12.54 ug/l	94
43) Chlorobenzene	8.57	112	27067	13.53 ug/l	99
44) Ethylbenzene	8.71	106	10561	12.12 ug/l	97
46) Styrene	9.18	104	26974	12.13 ug/l	87
47) m\p-Xylene	8.82	106	27089	24.00 ug/l #	61
48) o-Xylene	9.20	106	14939	12.33 ug/l	99
49) Xylene (total)	9.20	106	14939	12.33 ug/l	95
50) 1,3-Dichlorobenzene	10.82	146	16565	12.21 ug/l	99
51) 1,4-Dichlorobenzene	10.92	146	17176	11.98 ug/l	97
52) 1,2-Dichlorobenzene	11.23	146	17953	12.40 ug/l	97

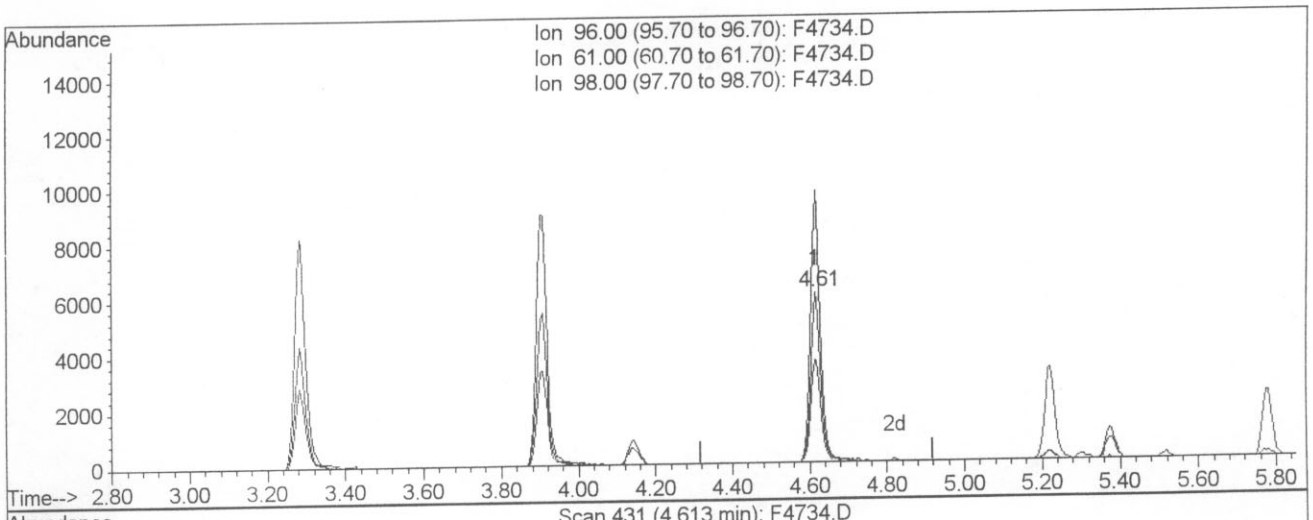
(#) = qualifier out of range (m) = manual integration

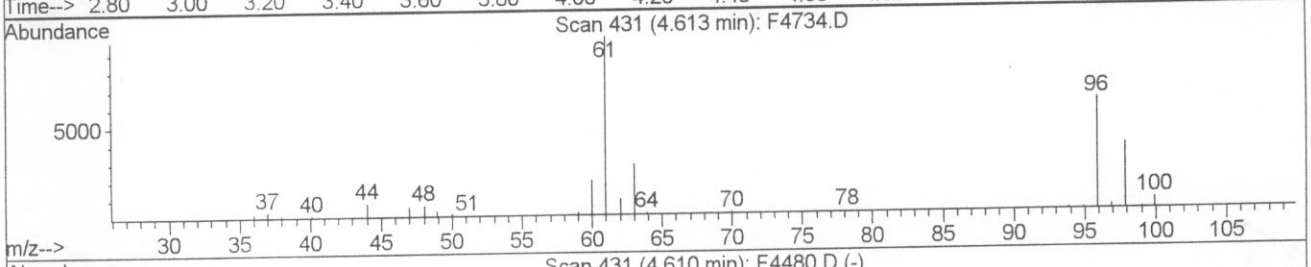
Quantitation Report

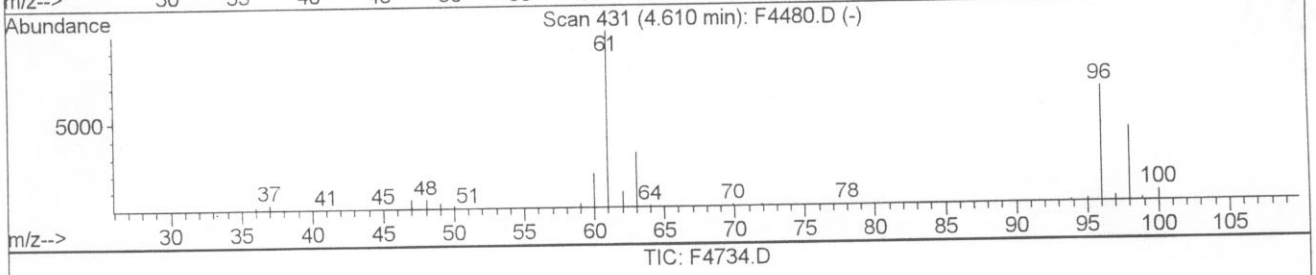
Data File : O:\MS\5973\DATA\NOV00\111800V\F4734.D
Acq On : 18 Nov 2000 13:46
Sample : VSTD010
Misc : 5ML
MS Integration Params: RTEINT.P

Vial: 2
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: temp.res

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Single Level Calibration







TIC: F4734.D

(18) 1,2-Dichloroethene (total) (T)

4.61min 23.18ug/l m

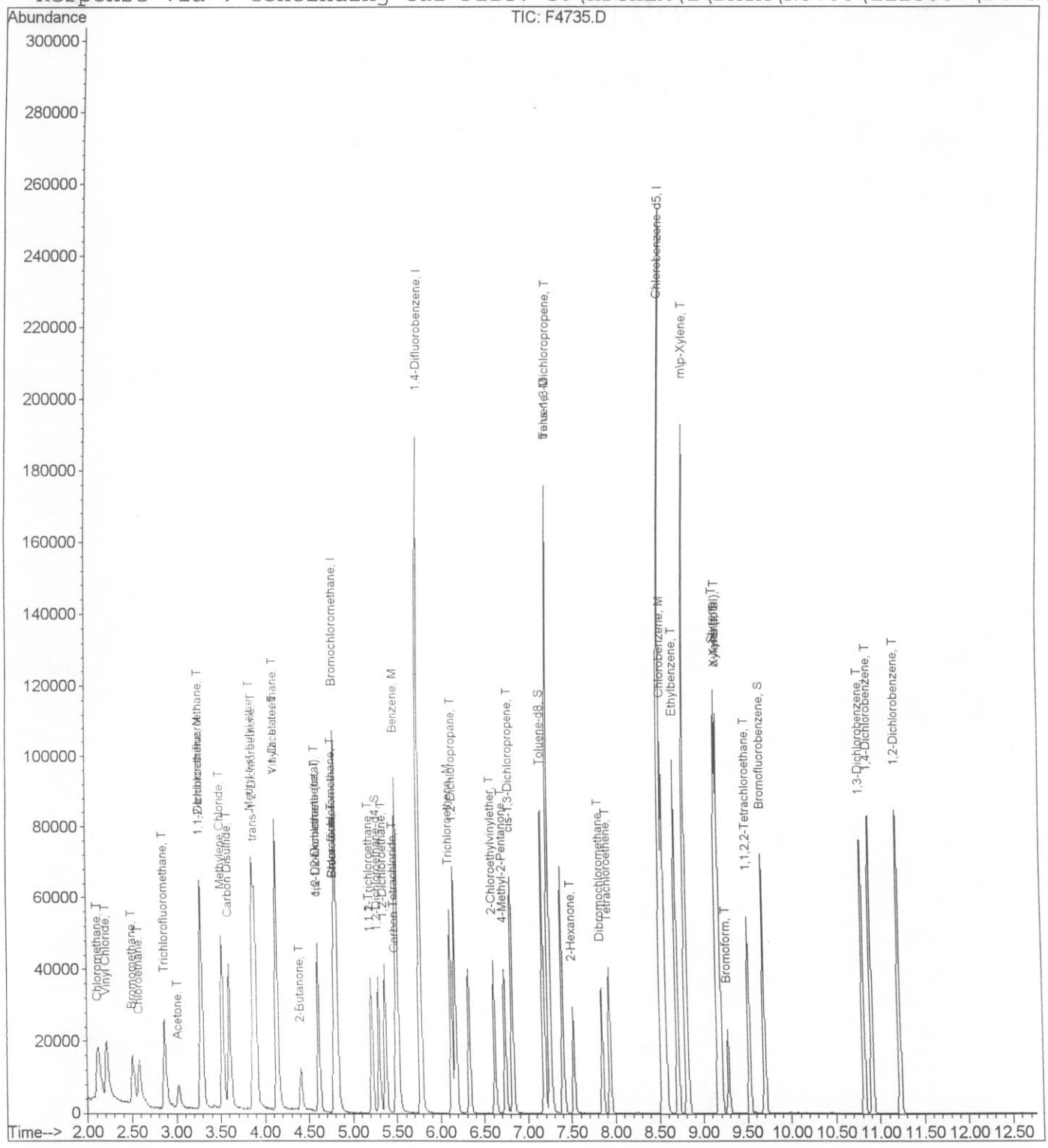
response 21274

Ion	Exp%	Act%
96.00	100	100
61.00	149.70	160.47
98.00	64.90	60.20
0.00	0.00	0.00

Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4735.D Vial: 3
Acq On : 18 Nov 2000 14:17 Operator: BD
Sample : VSTD020 Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:26 2000 Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D



V 0041

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4735.D
Acq On : 18 Nov 2000 14:17
Sample : VSTD020
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:26 2000

Vial: 3
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.83	128	23523	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	127994	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	120432	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	22226	20.82 ug/l	0.00
Spiked Amount 50.000	Range 70 - 121		Recovery = 41.64%#		
41) Toluene-d8	7.19	98	49412	15.59 ug/l	0.00
Spiked Amount 50.000	Range 84 - 138		Recovery = 31.18%#		
45) Bromofluorobenzene	9.70	95	23215	18.47 ug/l	0.00
Spiked Amount 50.000	Range 59 - 113		Recovery = 36.94%#		

Target Compounds					Qvalue
3) Chloromethane	2.12	50	30760	20.30 ug/l	99
4) Bromomethane	2.51	94	11883	18.85 ug/l	99
5) Vinyl Chloride	2.22	62	24063	20.46 ug/l	96
6) Chloroethane	2.58	64	13847	20.35 ug/l	99
7) Methylene Chloride	3.52	84	19310	20.24 ug/l #	71
8) Acetone	3.03	43	10010	16.24 ug/l	95
9) Carbon Disulfide	3.60	76	57034	21.04 ug/l	100
10) 1,1,2-trichlorotrifluoroet	3.29	101	13870	20.94 ug/l	87
11) 1,1-Dichloroethene	3.28	96	15199	21.03 ug/l	90
12) 1,1-Dichloroethane	4.14	63	38213	20.05 ug/l	99
13) Trichlorofluoromethane	2.87	101	24658	22.46 ug/l	98
14) Vinylacetate	4.15	43	62786	17.74 ug/l	97
15) Methyl tert-butyl ether	3.88	73	57120	20.27 ug/l #	60
16) trans-1,2-Dichloroethene	3.90	96	18124	21.01 ug/l #	42
17) cis-1,2-Dichloroethene	4.61	96	17431	18.37 ug/l #	50
18) 1,2-Dichloroethene (total)	4.61	96	35793m	39.33 ug/l	
19) 2-Butanone	4.41	43	15492 BBL 12-6-00	17.22 ug/l #	53
20) Chloroform	4.80	83	29594	19.36 ug/l	100
22) 1,2-Dichloroethane	5.37	62	28364	19.43 ug/l	99
24) 1,1,1-Trichloroethane	5.22	97	20731	23.06 ug/l	98
25) Carbon Tetrachloride	5.49	117	11631	22.10 ug/l	90
26) 2-Chloroethylvinylether	6.62	63	14599	18.45 ug/l	99
27) Bromodichloromethane	4.80	83	29594	21.08 ug/l	93
28) 1,2-Dichloropropane	6.18	63	21107	21.97 ug/l	98
29) cis-1,3-Dichloropropene	6.83	75	28347	20.85 ug/l	98
30) Trichloroethene	6.13	95	16225	22.69 ug/l	99
31) Benzene	5.52	78	67635	22.42 ug/l	100
32) Dibromochloromethane	7.86	129	16737	20.61 ug/l	97

(#) = qualifier out of range (m) = manual integration

Data File : O:\MS\5973\DATA\NOV00\111800V\F4735.D
Acq On : 18 Nov 2000 14:17
Sample : VSTD020
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:26 2000

Vial: 3
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

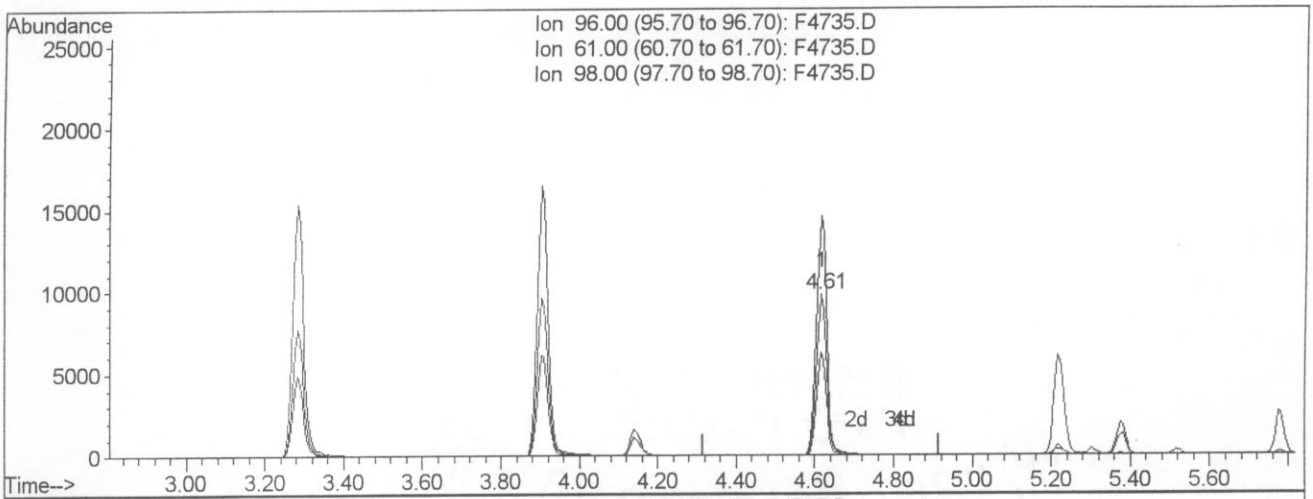
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) trans-1,3-Dichloropropene	7.26	75	27395	20.32 ug/l	96
34) 1,1,2-Trichloroethane	5.22	97	20731	23.06 ug/l	98
35) Bromoform	9.29	173	9360	20.23 ug/l	94
37) 4-Methyl-2-Pentanone	6.74	43	25428	19.44 ug/l	93
38) 2-Hexanone	7.53	43	18523	17.92 ug/l	91
39) Tetrachloroethene	7.94	166	9139	20.45 ug/l	94
40) 1,1,2,2-Tetrachloroethane	9.53	83	25176	21.49 ug/l	97
42) Toluene	7.26	92	39794	21.81 ug/l	93
43) Chlorobenzene	8.57	112	45649	21.83 ug/l	98
44) Ethylbenzene	8.71	106	18611	20.44 ug/l	98
46) Styrene	9.18	104	47459	20.42 ug/l	88
47) m\p-Xylene	8.82	106	47193	40.00 ug/l #	62
48) o-Xylene	9.20	106	26172	20.68 ug/l	99
49) Xylene (total)	9.20	106	26172	20.68 ug/l	99
50) 1,3-Dichlorobenzene	10.82	146	27487	19.39 ug/l	99
51) 1,4-Dichlorobenzene	10.92	146	29638	19.79 ug/l	98
52) 1,2-Dichlorobenzene	11.23	146	30101	19.89 ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4735.D Vial: 3
Acq On : 18 Nov 2000 14:17 Operator: BD
Sample : VSTD020 Inst : h5973
Misc : 5ML Multiplr: 1.00
MSAnalysis : NOVPARAMS.RTEINT.P Quant Results File: temp.res
Quant Time: Nov 18 16:22

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Single Level Calibration



(18) 1,2-Dichloroethene (total) (T)

4.61min 39.33ug/l m

response 35793

Ion	Exp%	Act%
96.00	100	100
61.00	149.70	149.21
98.00	64.90	64.07
0.00	0.00	0.00

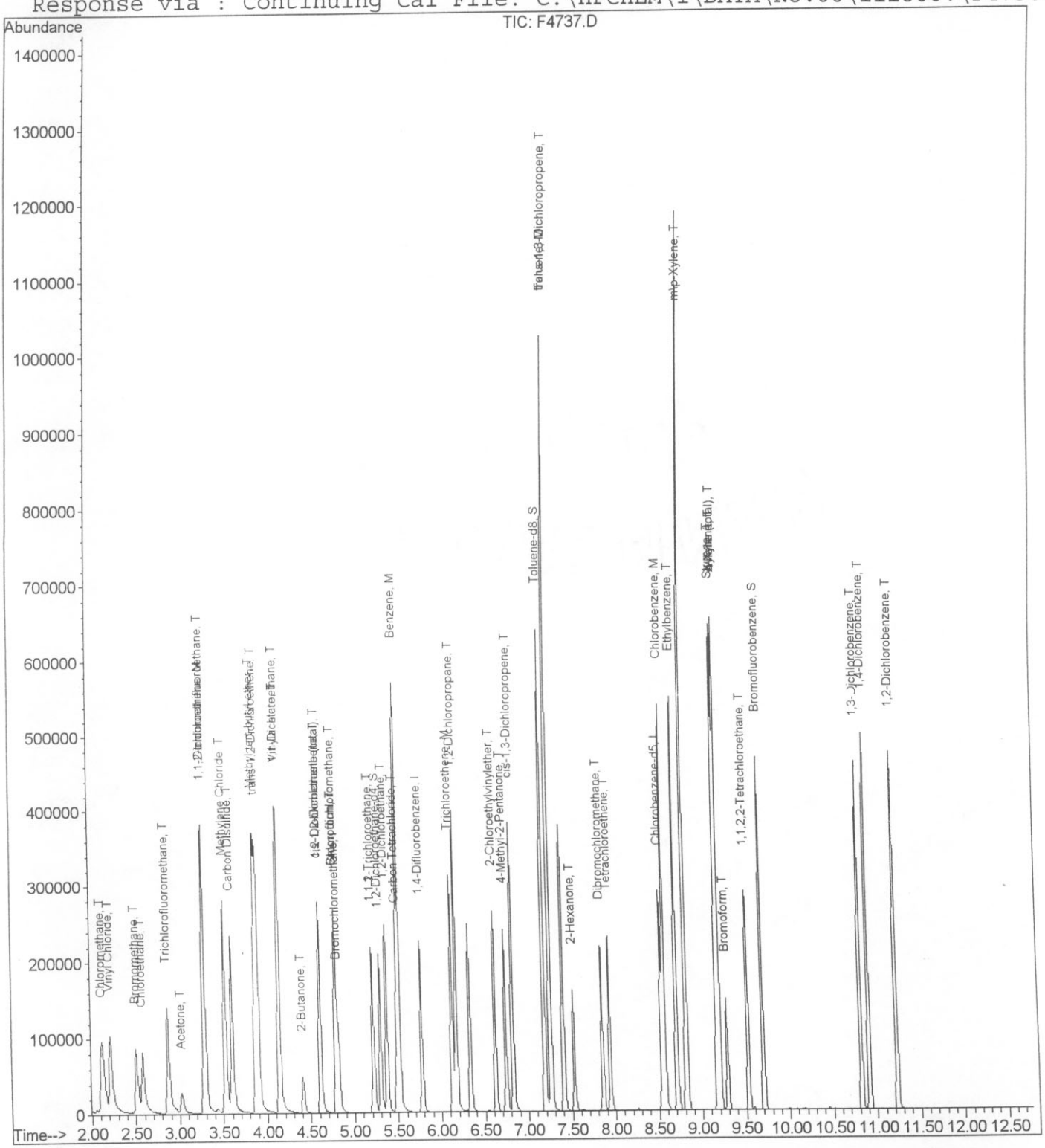
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4737.D
Acq On : 18 Nov 2000 15:20
Sample : VSTD100
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:47 2000

Vial: 5
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D



Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4737.D
Acq On : 18 Nov 2000 15:20
Sample : VSTD100
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:47 2000

Vial: 5
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.82	128	24631	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	147112	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	133171	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	119170	106.60 ug/l	0.00
Spiked Amount 50.000	Range	70 - 121	Recovery	= 213.20%#	
41) Toluene-d8	7.19	98	360233	102.81 ug/l	0.00
Spiked Amount 50.000	Range	84 - 138	Recovery	= 205.62%#	
45) Bromofluorobenzene	9.70	95	147551	106.19 ug/l	0.00
Spiked Amount 50.000	Range	59 - 113	Recovery	= 212.38%#	

Target Compounds					Qvalue
3) Chloromethane	2.12	50	199527	125.78 ug/l	98
4) Bromomethane	2.51	94	82172	124.46 ug/l	100
5) Vinyl Chloride	2.21	62	155333	126.14 ug/l	98
6) Chloroethane	2.58	64	87352	122.57 ug/l	96
7) Methylene Chloride	3.53	84	109440	109.55 ug/l #	72
8) Acetone	3.03	43	42966	66.56 ug/l	95
9) Carbon Disulfide	3.61	76	331273	116.72 ug/l	100
10) 1,1,2-trichlorotrifluoroet	3.30	101	82974	119.62 ug/l	91
11) 1,1-Dichloroethene	3.28	96	93905	124.08 ug/l	92
12) 1,1-Dichloroethane	4.14	63	228213	114.34 ug/l	99
13) Trichlorofluoromethane	2.88	101	144670	125.87 ug/l	98
14) Vinylacetate	4.15	43	281579	75.96 ug/l	97
15) Methyl tert-butyl ether	3.87	73	300290	101.79 ug/l #	60
16) trans-1,2-Dichloroethene	3.90	96	107747	119.27 ug/l #	41
17) cis-1,2-Dichloroethene	4.62	96	106270	106.95 ug/l #	49
18) 1,2-Dichloroethene (total)	4.62	96	214474m	225.06 ug/l	
19) 2-Butanone	4.41	43	67044	71.16 ug/l #	55
20) Chloroform	4.79	83	177868	111.15 ug/l	98
22) 1,2-Dichloroethane	5.38	62	165358	108.17 ug/l	100
24) 1,1,1-Trichloroethane	5.22	97	121925	117.99 ug/l	94
25) Carbon Tetrachloride	5.49	117	77262	127.72 ug/l	95
26) 2-Chloroethylvinylether	6.62	63	92120	101.30 ug/l	99
27) Bromodichloromethane	4.79	83	177868	110.24 ug/l	94
28) 1,2-Dichloropropane	6.18	63	122570	111.02 ug/l	100
29) cis-1,3-Dichloropropene	6.83	75	170942	109.42 ug/l	99
30) Trichloroethene	6.13	95	90493	110.11 ug/l	99
31) Benzene	5.52	78	394620	113.83 ug/l	100
32) Dibromochloromethane	7.85	129	102392	109.69 ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4737.D
Acq On : 18 Nov 2000 15:20
Sample : VSTD100
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:47 2000

Vial: 5
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) trans-1,3-Dichloropropene	7.26	75	171589	110.74 ug/l	94
34) 1,1,2-Trichloroethane	5.22	97	121925	117.99 ug/l	97
35) Bromoform	9.29	173	58481	110.00 ug/l	92
37) 4-Methyl-2-Pentanone	6.74	43	149664	103.49 ug/l	95
38) 2-Hexanone	7.52	43	100857	88.22 ug/l	91
39) Tetrachloroethene	7.94	166	54586	110.47 ug/l	98
40) 1,1,2,2-Tetrachloroethane	9.52	83	131134	101.21 ug/l	98
42) Toluene	7.26	92	221290	109.69 ug/l	94
43) Chlorobenzene	8.58	112	234374	101.36 ug/l	99
44) Ethylbenzene	8.72	106	105967	105.27 ug/l	100
46) Styrene	9.18	104	264325	102.87 ug/l	89
47) m\p-Xylene	8.82	106	275945	211.53 ug/l #	60
48) o-Xylene	9.20	106	144780	103.44 ug/l	97
49) Xylene (total)	9.20	106	144780	103.44 ug/l	96
50) 1,3-Dichlorobenzene	10.82	146	156633	99.93 ug/l	98
51) 1,4-Dichlorobenzene	10.91	146	167247	100.97 ug/l	98
52) 1,2-Dichlorobenzene	11.23	146	163721	97.85 ug/l	98

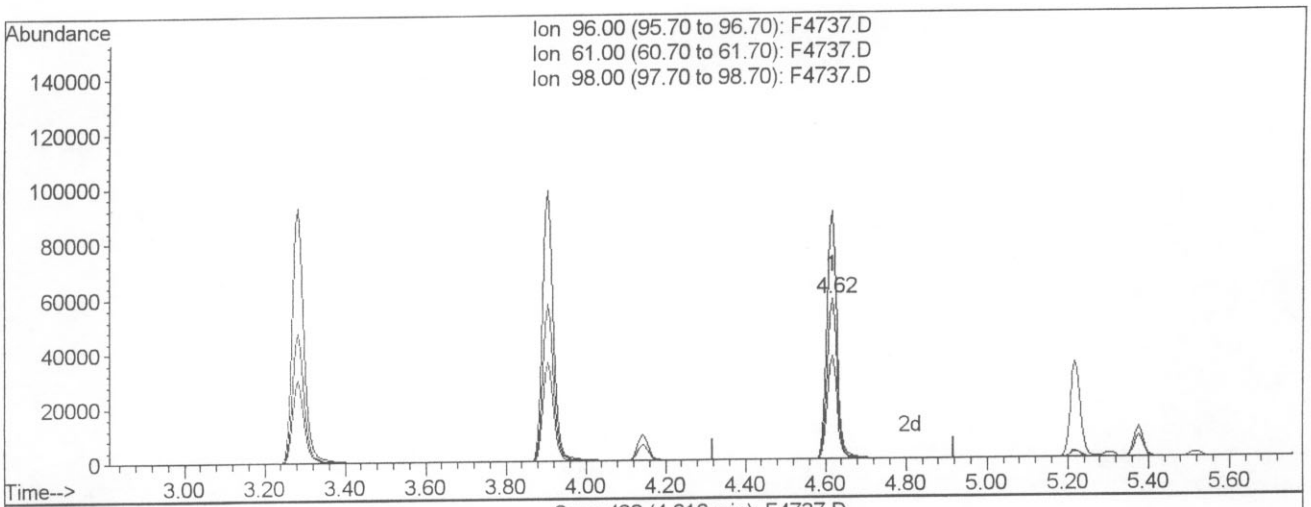
(#) = qualifier out of range (m) = manual integration

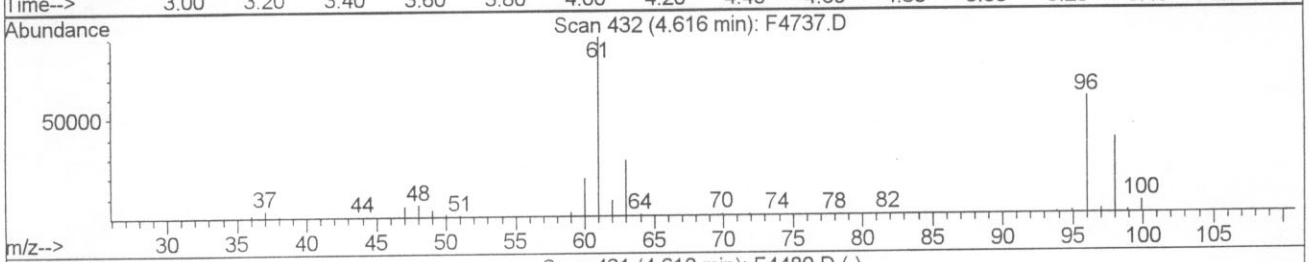
Quantitation Report

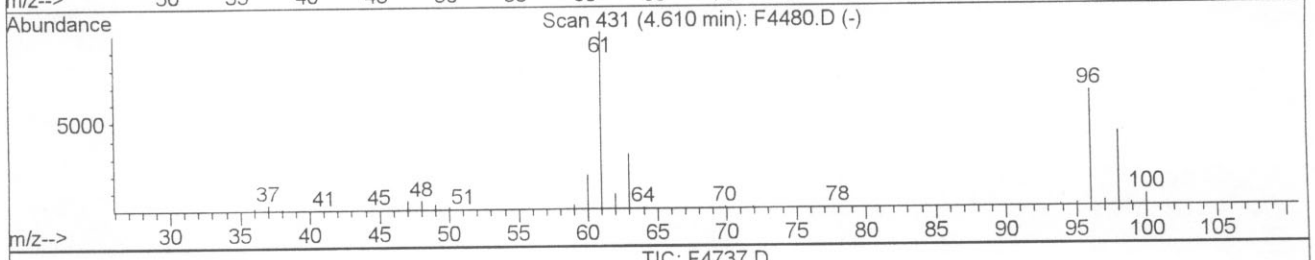
Data File : O:\MS\5973\DATA\NOV00\111800V\F4737.D
Acq On : 18 Nov 2000 15:20
Sample : VSTD100
Misc : 5ML
MS Integration Params: RTEINT.P

Vial: 5
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: temp.res

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Single Level Calibration







TIC: F4737.D

(18) 1,2-Dichloroethene (total) (T)

4.62min 225.06ug/l m

response 214474

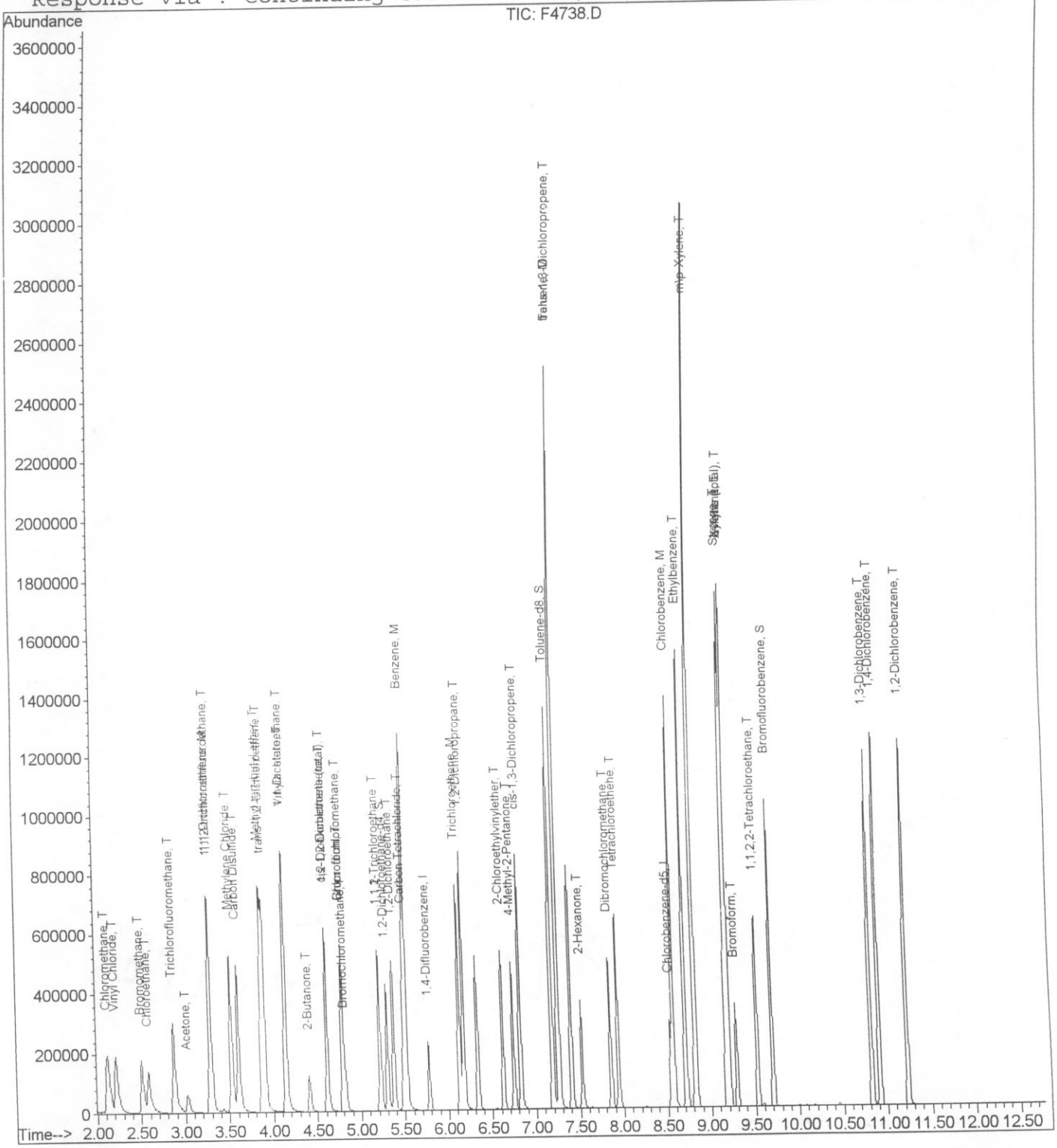
Ion	Exp%	Act%
96.00	100	100
61.00	149.70	153.67
98.00	64.90	64.87
0.00	0.00	0.00

Data File : O:\MS\5973\DATA\NOV00\111800V\F4738.D
Acq On : 18 Nov 2000 15:51
Sample : VSTD200
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:48 2000

Vial: 6
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D



Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4738.D
Acq On : 18 Nov 2000 15:51
Sample : VSTD200
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:48 2000

Vial: 6
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.82	128	25144	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	147618	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	135675	50.00 ug/l	0.00

System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	245048	214.73 ug/l	0.00
Spiked Amount 50.000	Range 70 - 121		Recovery = 429.46%#		
41) Toluene-d8	7.19	98	753751	211.15 ug/l	0.00
Spiked Amount 50.000	Range 84 - 138		Recovery = 422.30%#		
45) Bromofluorobenzene	9.70	95	319243	225.51 ug/l	0.00
Spiked Amount 50.000	Range 59 - 113		Recovery = 451.02%#		

Target Compounds					Qvalue
3) Chloromethane	2.12	50	397321	245.36 ug/l	100
4) Bromomethane	2.51	94	166903	247.64 ug/l	99
5) Vinyl Chloride	2.21	62	295462	235.03 ug/l	98
6) Chloroethane	2.58	64	174872	240.37 ug/l	97
7) Methylene Chloride	3.53	84	228179	223.75 ug/l #	76
8) Acetone	3.02	43	100182	152.04 ug/l	92
9) Carbon Disulfide	3.61	76	710742	245.30 ug/l	100
10) 1,1,2-trichlorotrifluoroet	3.30	101	139552	197.08 ug/l	91
11) 1,1-Dichloroethene	3.28	96	198105	256.41 ug/l	91
12) 1,1-Dichloroethane	4.14	63	469395	230.37 ug/l	99
13) Trichlorofluoromethane	2.87	101	326944	278.65 ug/l	98
14) Vinylacetate	4.15	43	648672	171.42 ug/l	97
15) Methyl tert-butyl ether	3.87	73	620838	206.15 ug/l #	59
16) trans-1,2-Dichloroethene	3.90	96	221486	240.17 ug/l #	40
17) cis-1,2-Dichloroethene	4.62	96	231931	228.65 ug/l #	47
18) 1,2-Dichloroethene (total)	4.62	96	455074m	467.78 ug/l	
19) 2-Butanone	4.41	43	165614	172.19 ug/l #	53
20) Chloroform	4.79	83	367882	225.19 ug/l	99
22) 1,2-Dichloroethane	5.38	62	338492	216.91 ug/l	99
24) 1,1,1-Trichloroethane	5.22	97	298273	287.66 ug/l	96
25) Carbon Tetrachloride	5.49	117	218615	360.16 ug/l	94
26) 2-Chloroethylvinylether	6.62	63	180735	198.07 ug/l	99
27) Bromodichloromethane	4.79	83	367882	227.24 ug/l	93
28) 1,2-Dichloropropane	6.18	63	263023	237.43 ug/l	99
29) cis-1,3-Dichloropropene	6.83	75	367662	234.52 ug/l	100
30) Trichloroethene	6.13	95	214706	260.35 ug/l	99
31) Benzene	5.52	78	857052	246.37 ug/l	100
32) Dibromochloromethane	7.85	129	225846	241.11 ug/l	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4738.D
Acq On : 18 Nov 2000 15:51
Sample : VSTD200
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:48 2000

Vial: 6
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

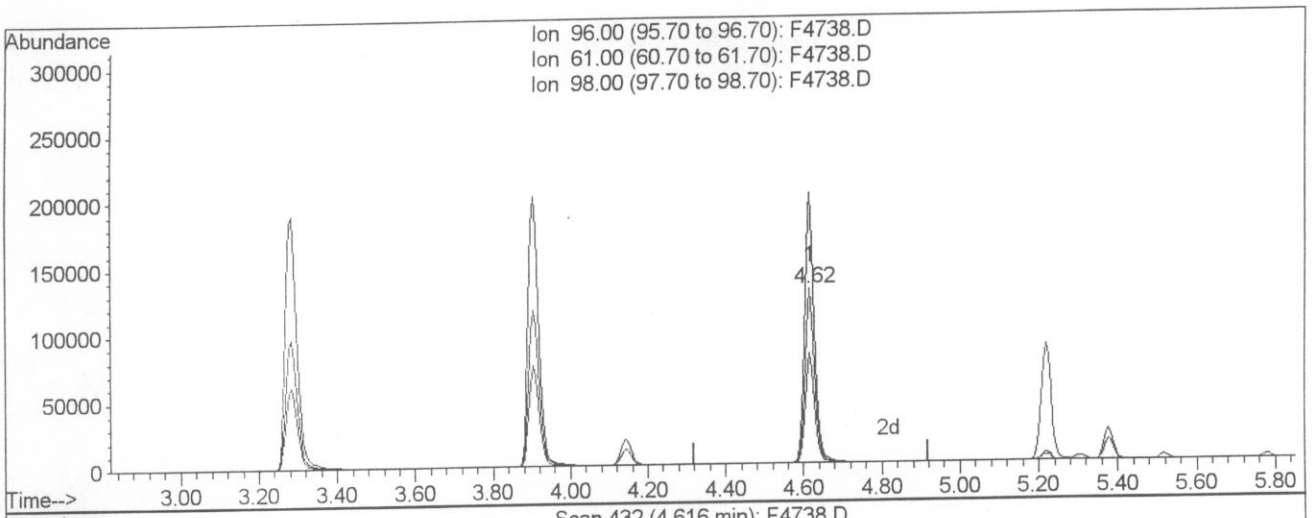
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) trans-1,3-Dichloropropene	7.26	75	389089	250.26 ug/l	93
34) 1,1,2-Trichloroethane	5.22	97	298273	287.66 ug/l	100
35) Bromoform	9.29	173	135321	253.65 ug/l	93
37) 4-Methyl-2-Pentanone	6.75	43	309442	210.01 ug/l	93
38) 2-Hexanone	7.53	43	223020	191.48 ug/l	92
39) Tetrachloroethene	7.94	166	150335	298.63 ug/l	96
40) 1,1,2,2-Tetrachloroethane	9.53	83	291772	221.03 ug/l	98
42) Toluene	7.26	92	575306	279.90 ug/l	97
43) Chlorobenzene	8.58	112	586934	249.14 ug/l	97
44) Ethylbenzene	8.72	106	293465	286.16 ug/l	99
46) Styrene	9.18	104	710421	271.37 ug/l	91
47) m\p-Xylene	8.83	106	765014	575.60 ug/l #	60
48) o-Xylene	9.20	106	396555	278.10 ug/l	98
49) Xylene (total)	9.20	106	396555	278.10 ug/l	96
50) 1,3-Dichlorobenzene	10.82	146	410225	256.90 ug/l	97
51) 1,4-Dichlorobenzene	10.92	146	428156	253.73 ug/l	98
52) 1,2-Dichlorobenzene	11.23	146	416892	244.56 ug/l	98

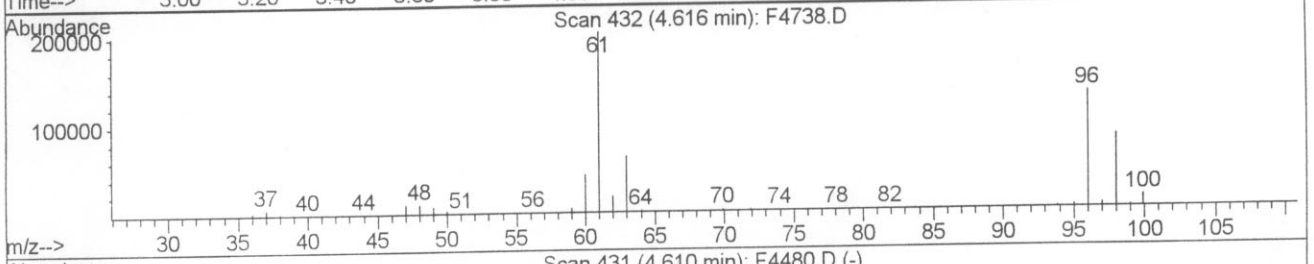
(#) = qualifier out of range (m) = manual integration

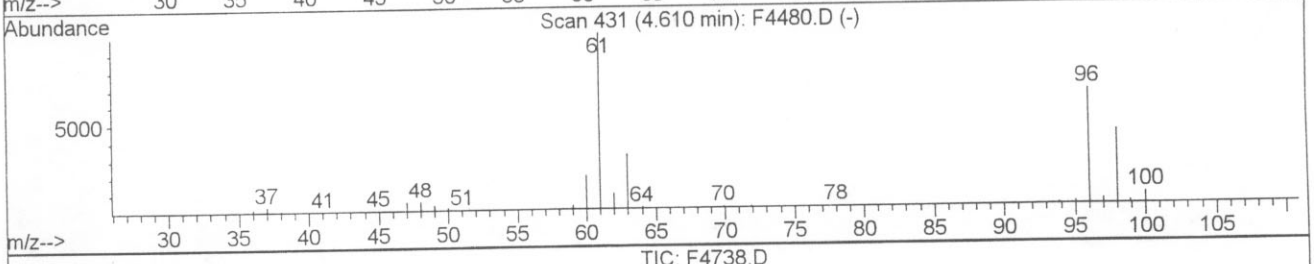
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4738.D
Acq On : 18 Nov 2000 15:51
Sample : VSTD200
Misc : 5ML
Quant Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Quant Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Single Level Calibration

Vial: 6
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: temp.res







TIC: F4738.D

(18) 1,2-Dichloroethene (total) (T)

4.62min 467.78ug/l m

response 455074

Ion	Exp%	Act%
96.00	100	100
61.00	149.70	154.99
98.00	64.90	63.37
0.00	0.00	0.00

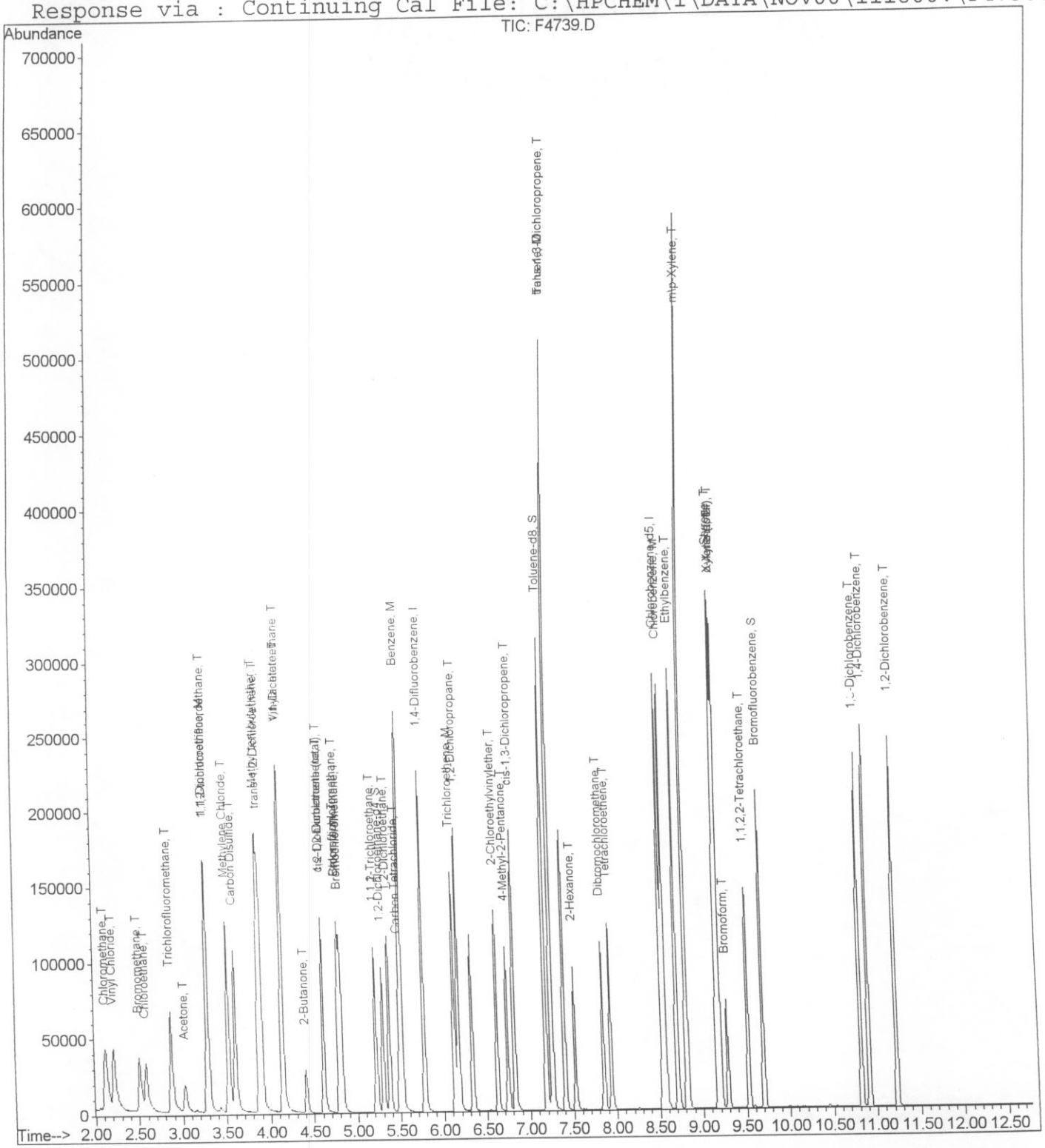
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4739.D
Acq On : 18 Nov 2000 16:24
Sample : VSTD050
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:41 2000

Vial: 1
Operator: BD
Inst : h5973
Multiplr: 1.00

Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D



V 0053

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4739.D Vial: 1
Acq On : 18 Nov 2000 16:24 Operator: BD
Sample : VSTD050 Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:41 2000 Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.82	128	24163	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	146065	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	131595	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	55801	50.88 ug/l	0.00
Spiked Amount 50.000	Range 70 - 121		Recovery = 101.76%		
41) Toluene-d8	7.19	98	174449	50.39 ug/l	0.00
Spiked Amount 50.000	Range 84 - 138		Recovery = 100.78%		
45) Bromofluorobenzene	9.70	95	68729	50.06 ug/l	0.00
Spiked Amount 50.000	Range 59 - 113		Recovery = 100.12%		

Target Compounds					Qvalue
3) Chloromethane	2.12	50	84192	54.10 ug/l	98
4) Bromomethane	2.51	94	34858	53.82 ug/l	99
5) Vinyl Chloride	2.21	62	61732	51.10 ug/l	97
6) Chloroethane	2.58	64	37022	52.96 ug/l	94
7) Methylene Chloride	3.52	84	51509	52.56 ug/l #	73
8) Acetone	3.03	43	31225	49.31 ug/l	96
9) Carbon Disulfide	3.61	76	152697	54.84 ug/l	100
10) 1,1,2-trichlorotrifluoroet	3.30	101	35919	52.79 ug/l	90
11) 1,1-Dichloroethene	3.28	96	41341	55.68 ug/l #	87
12) 1,1-Dichloroethane	4.14	63	105002	53.63 ug/l	98
13) Trichlorofluoromethane	2.87	101	66001	58.54 ug/l	98
14) Vinylacetate	4.15	43	190530	52.39 ug/l	98
15) Methyl tert-butyl ether	3.87	73	149680	51.72 ug/l #	60
16) trans-1,2-Dichloroethene	3.90	96	48980	55.27 ug/l #	40
17) cis-1,2-Dichloroethene	4.62	96	47708	48.94 ug/l #	49
18) 1,2-Dichloroethene (total)	4.62	96	97180m	103.95 ug/l	
19) 2-Butanone	4.41	43	38855	42.04 ug/l #	54
20) Chloroform	4.79	83	81417	51.86 ug/l	98
22) 1,2-Dichloroethane	5.38	62	78060	52.05 ug/l	100
24) 1,1,1-Trichloroethane	5.22	97	59890	58.37 ug/l	96
25) Carbon Tetrachloride	5.49	117	37759	62.87 ug/l	97
26) 2-Chloroethylvinylether	6.62	63	45542	50.44 ug/l	99
27) Bromodichloromethane	4.79	83	81417	50.82 ug/l	94
28) 1,2-Dichloropropane	6.18	63	60028	54.76 ug/l	99
29) cis-1,3-Dichloropropene	6.82	75	83359	53.74 ug/l	99
30) Trichloroethene	6.13	95	46237	56.66 ug/l	98
31) Benzene	5.52	78	188093	54.64 ug/l	100
32) Dibromochloromethane	7.85	129	50282	54.25 ug/l	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\111800V\F4739.D
Acq On : 18 Nov 2000 16:24
Sample : VSTD050
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 18 16:41 2000

Vial: 1
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 16:18:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4736.D
DataAcq Meth : CLPW1118

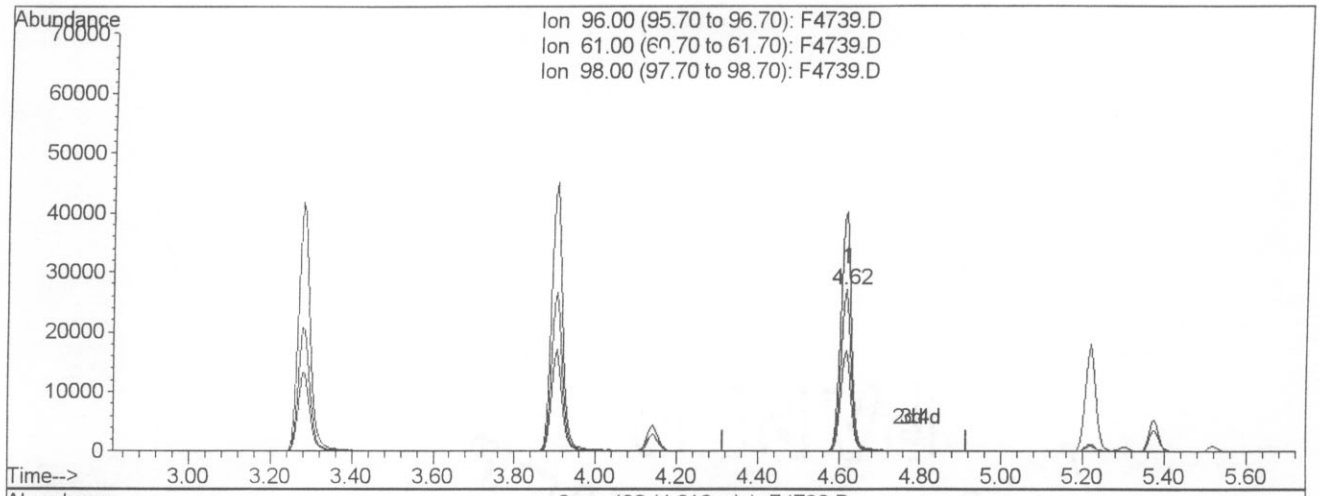
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) trans-1,3-Dichloropropene	7.26	75	81764	53.15 ug/l	93
34) 1,1,2-Trichloroethane	5.22	97	59890	58.37 ug/l	100
35) Bromoform	9.29	173	28232	53.48 ug/l	93
37) 4-Methyl-2-Pentanone	6.75	43	70999	49.68 ug/l	92
38) 2-Hexanone	7.52	43	56511	50.02 ug/l	91
39) Tetrachloroethene	7.94	166	27912	57.16 ug/l	99
40) 1,1,2,2-Tetrachloroethane	9.53	83	66476	51.92 ug/l	99
42) Toluene	7.26	92	117480	58.93 ug/l	94
43) Chlorobenzene	8.58	112	127301	55.71 ug/l	98
44) Ethylbenzene	8.71	106	55687	55.98 ug/l	97
46) Styrene	9.17	104	139537	54.95 ug/l	91
47) m\p-Xylene	8.82	106	140832	109.25 ug/l #	60
48) o-Xylene	9.20	106	75319	54.46 ug/l	97
49) Xylene (total)	9.20	106	75319	54.46 ug/l	97
50) 1,3-Dichlorobenzene	10.82	146	79141	51.10 ug/l	98
51) 1,4-Dichlorobenzene	10.91	146	84665	51.73 ug/l	98
52) 1,2-Dichlorobenzene	11.23	146	84268	50.97 ug/l	98

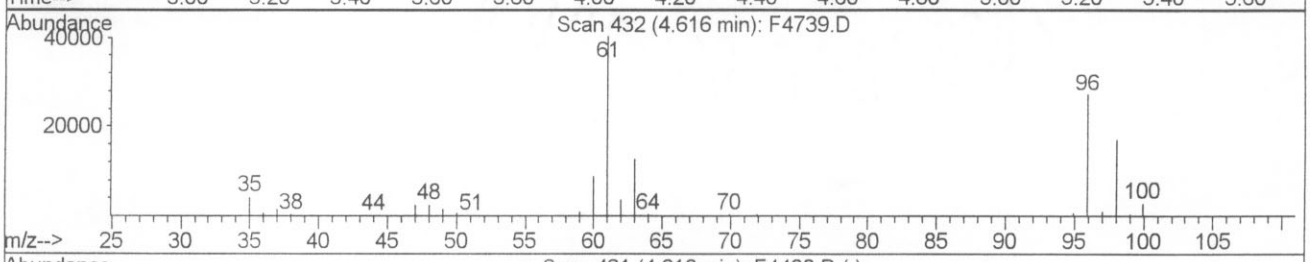
(#) = qualifier out of range (m) = manual integration

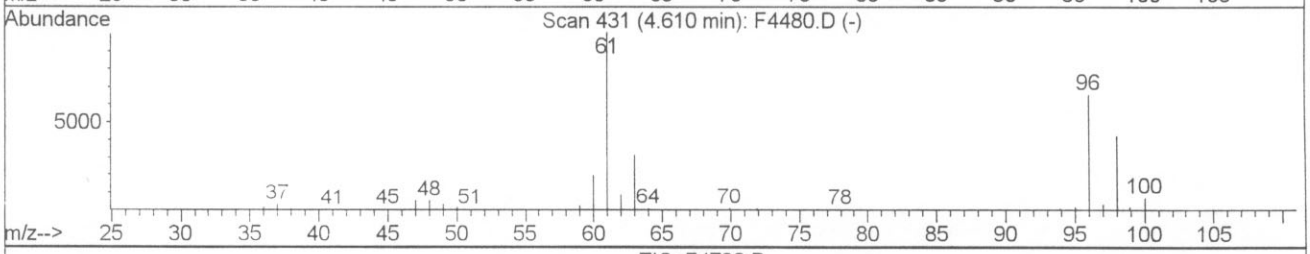
Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\111800V\F4739.D Vial: 1
Acq On : 18 Nov 2000 16:24 Operator: BD
Sample : VSTD050 Inst : h5973
Misc : 5ML Multiplr: 1.00
MSD Tune : NovPaths:4RTEINT.P Quant Results File: temp.res
Quant Time: Nov 18 16:41

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Single Level Calibration







TIC: F4739.D

(18) 1,2-Dichloroethene (total) (T)

4.62min 103.95ug/l m

response 97180

Ion	Exp%	Act%
96.00	100	100
61.00	149.70	148.74
98.00	64.90	62.33
0.00	0.00	0.00

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Instrument ID: H5973 Calibration Date: 11/20/00 Time: 11:31

Lab File ID: F4768.D Init. Calib. Date(s): 11/18/00 11/18/00

Heated Purge: (Y/N) N Init. Calib. Times: 13:46 16:24

GC Column: RTX624 ID: 0.20 (mm)

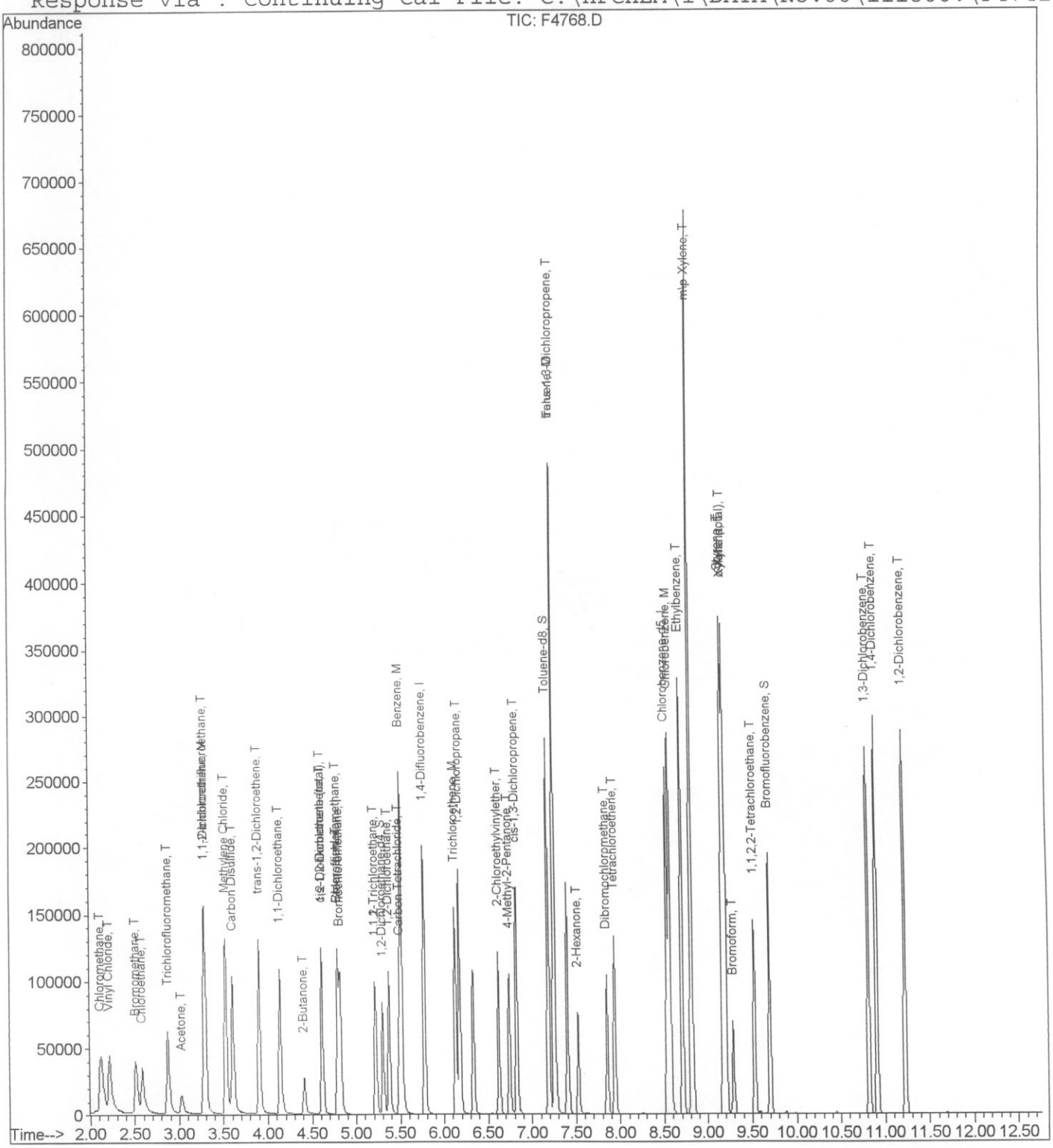
COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	3.740	4.067		-8.7	
Bromomethane	1.466	1.704	0.100	-16.2	25.0
Vinyl Chloride	2.867	3.050	0.100	-6.4	25.0
Chloroethane	1.645	1.768		-7.5	
Methylene Chloride	2.200	2.457		-11.7	
Acetone	1.202	1.091		9.2	
Carbon Disulfide	6.572	6.777		-3.1	
1,1-Dichloroethene	1.800	1.835	0.100	-1.9	25.0
1,1-Dichloroethane	4.453	4.761	0.200	-6.9	25.0
1,2-Dichloroethene (total)	2.119	2.190		-3.3	
2-Butanone	1.762	1.770		-0.5	
Chloroform	3.584	3.654	0.200	-1.9	25.0
1,2-Dichloroethane	3.306	3.437	0.100	-4.0	25.0
1,1,1-Trichloroethane	0.439	0.424	0.100	3.2	25.0
Carbon Tetrachloride	0.270	0.266	0.100	1.7	25.0
Bromodichloromethane	0.635	0.600	0.200	5.5	25.0
1,2-Dichloropropane	0.440	0.437		0.8	
cis-1,3-Dichloropropene	0.606	0.598	0.200	1.4	25.0
Trichloroethene	0.336	0.339	0.300	-0.8	25.0
Benzene	1.387	1.359	0.500	2.0	25.0
Dibromochloromethane	0.368	0.364	0.100	1.3	25.0
trans-1,3-Dichloropropene	0.609	0.599	0.100	1.6	25.0
1,1,2-Trichloroethane	0.439	0.424	0.100	3.2	25.0
Bromoform	0.208	0.208	0.100	0.0	25.0
4-Methyl-2-Pentanone	0.586	0.566		3.6	
2-Hexanone	0.441	0.402		8.9	
Tetrachloroethene	0.220	0.252	0.200	-14.4	25.0
1,1,2,2-Tetrachloroethane	0.548	0.554	0.500	-0.9	25.0
Toluene	0.912	0.955	0.400	-4.7	25.0
Chlorobenzene	1.010	1.088	0.500	-7.7	25.0
Ethylbenzene	0.441	0.521	0.100	-18.0	25.0
Styrene	1.103	1.264	0.300	-14.5	25.0
Xylene (total)	0.608	0.715	0.300	-17.7	25.0
1,2-Dichloroethane-d4	2.476	2.317		6.4	
Toluene-d8	1.322	1.302		1.5	
Bromofluorobenzene	0.562	0.512	0.200	8.9	25.0

All other compounds must meet a minimum RRF of 0.010.

Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\112000V\F4768.D Vial: 3
Acq On : 20 Nov 2000 11:31 Operator: BD
Sample : VSTD050 Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 11:58 2000 Quant Results File: CLPW1118.RES

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4741.D



Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\112000V\F4768.D Vial: 3
Acq On : 20 Nov 2000 11:31 Operator: BD
Sample : VSTD050 Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 11:58 2000 Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 18:46:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4741.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.82	128	21389	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	130186	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	119988	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	49551	49.83 ug/l	0.00
Spiked Amount 50.000	Range	76 - 114	Recovery	= 99.66%	
41) Toluene-d8	7.19	98	156250	49.16 ug/l	0.00
Spiked Amount 50.000	Range	88 - 110	Recovery	= 98.32%	
45) Bromofluorobenzene	9.70	95	61378	48.89 ug/l	0.00
Spiked Amount 50.000	Range	86 - 115	Recovery	= 97.78%	

Target Compounds					Qvalue
3) Chloromethane	2.12	50	86984	67.54 ug/l	100
4) Bromomethane	2.51	94	36448	65.33 ug/l	98
5) Vinyl Chloride	2.21	62	65230	69.39 ug/l	100
6) Chloroethane	2.58	64	37818	67.34 ug/l	97
7) Methylene Chloride	3.53	84	52562	61.30 ug/l #	74
8) Acetone	3.02	43	23328	52.51 ug/l	88
9) Carbon Disulfide	3.61	76	144962	64.08 ug/l	100
10) 1,1,2-trichlorotrifluoroet	3.30	101	33549	64.10 ug/l	89
11) 1,1-Dichloroethene	3.28	96	39252	64.02 ug/l	89
12) 1,1-Dichloroethane	4.14	63	101831	60.04 ug/l	100
13) Trichlorofluoromethane	2.88	101	61321	62.71 ug/l	97
16) trans-1,2-Dichloroethene	3.90	96	46344	63.05 ug/l #	42
17) cis-1,2-Dichloroethene	4.62	96	46859	60.81 ug/l #	48
18) 1,2-Dichloroethene (total)	4.62	96	93662m	123.95 ug/l	
19) 2-Butanone	4.42	43	37861	52.12 ug/l #	54
20) Chloroform	4.79	83	78153	59.06 ug/l	99
22) 1,2-Dichloroethane	5.38	62	73509	54.43 ug/l	98
24) 1,1,1-Trichloroethane	5.22	97	55253	57.62 ug/l	98
25) Carbon Tetrachloride	5.49	117	34594	58.17 ug/l	95
26) 2-Chloroethylvinylether	6.62	63	42154	50.52 ug/l	99
27) Bromodichloromethane	4.79	83	78153	57.81 ug/l	94
28) 1,2-Dichloropropane	6.18	63	56847	55.93 ug/l	99
29) cis-1,3-Dichloropropene	6.83	75	77795	55.11 ug/l	99
30) Trichloroethene	6.13	95	44078	59.22 ug/l	100
31) Benzene	5.52	78	176895	57.89 ug/l	100
32) Dibromochloromethane	7.85	129	47330	54.87 ug/l	96
33) trans-1,3-Dichloropropene	7.26	75	77954	54.85 ug/l	95
34) 1,1,2-Trichloroethane	5.22	97	55253	57.62 ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\112000V\F4768.D Vial: 3
Acq On : 20 Nov 2000 11:31 Operator: BD
Sample : VSTD050 Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 11:58 2000 Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 18:46:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\111800V\F4741.D
DataAcq Meth : CLPW1118

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35) Bromoform	9.29	173	27120	54.52 ug/l	92
37) 4-Methyl-2-Pentanone	6.75	43	67857	49.82 ug/l	92
38) 2-Hexanone	7.52	43	48175	49.82 ug/l	91
39) Tetrachloroethene	7.94	166	30250	53.96 ug/l	97
40) 1,1,2,2-Tetrachloroethane	9.53	83	66413	52.48 ug/l	99
42) Toluene	7.26	92	114570	56.09 ug/l	93
43) Chlorobenzene	8.58	112	130486	56.65 ug/l	99
44) Ethylbenzene	8.71	106	62501	54.29 ug/l	98
46) Styrene	9.17	104	151614	55.37 ug/l	90
47) m\p-Xylene	8.82	106	161742	108.82 ug/l #	60
48) o-Xylene	9.20	106	85808	54.25 ug/l	98
49) Xylene (total)	9.20	106	85808	54.25 ug/l	97
50) 1,3-Dichlorobenzene	10.82	146	92306	50.18 ug/l	98
51) 1,4-Dichlorobenzene	10.91	146	100091	51.12 ug/l	98
52) 1,2-Dichlorobenzene	11.23	146	97454	51.53 ug/l	98

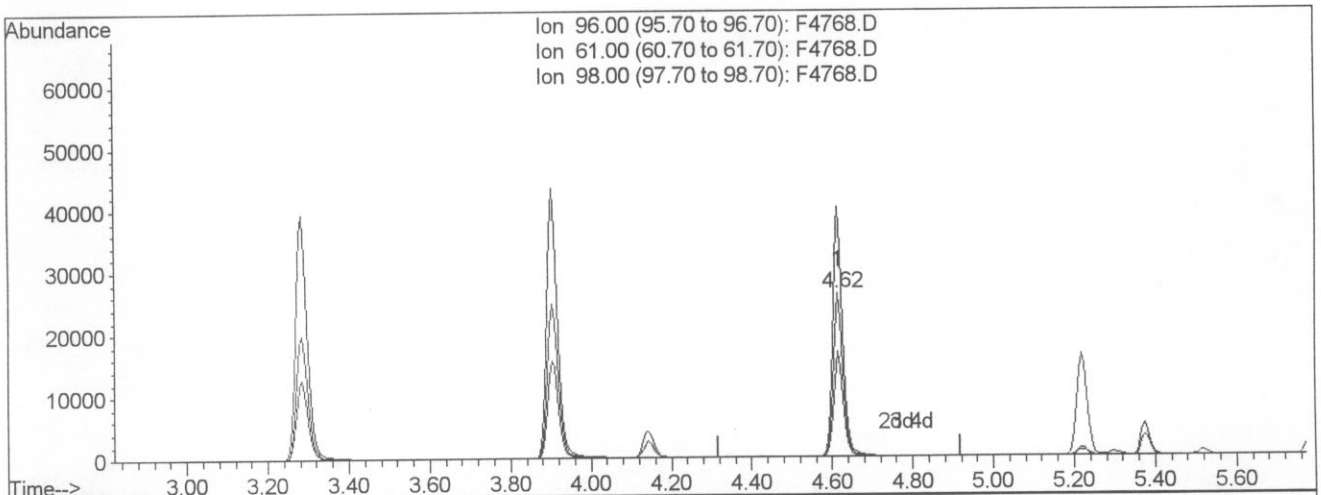
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\112000V\F4768.D
Acq On : 20 Nov 2000 11:31
Sample : VSTD050
Misc : 5ML
MS Integration Params: RTEINT.P

Vial: 3
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: temp.res

Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Single Level Calibration



(18) 1,2-Dichloroethene (total) (T)

4.62min 123.95ug/l m

response 93662

Ion	Exp%	Act%
96.00	100	100
61.00	149.70	153.48
98.00	64.90	64.70
0.00	0.00	0.00

H2M LABS, INC.

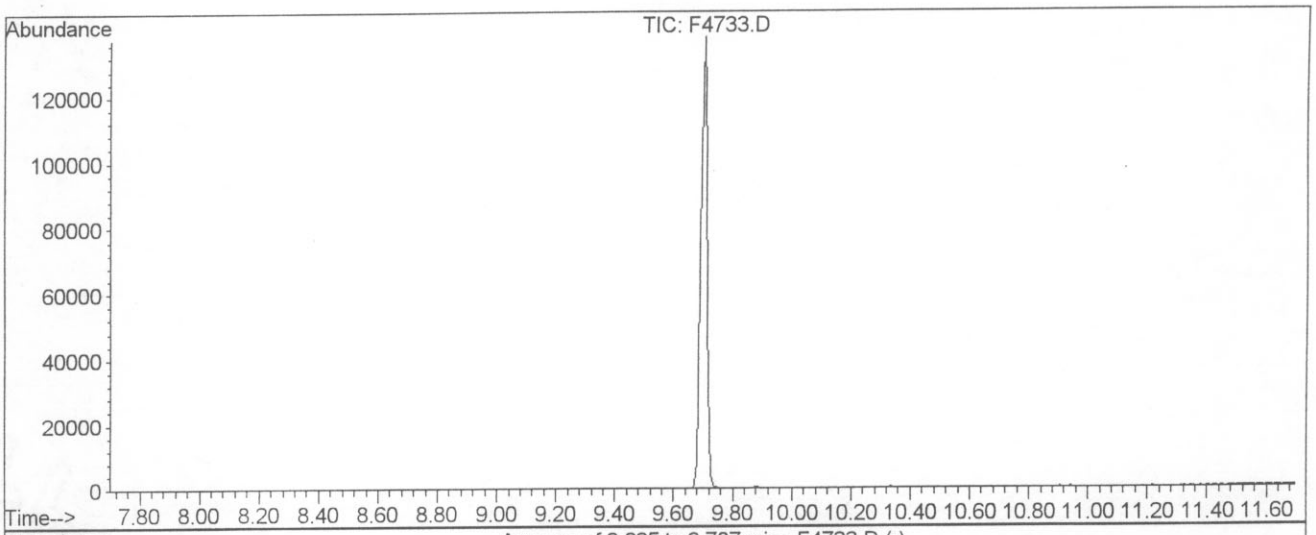
IV. RAW QC DATA PACKAGE FOR VOLATILE ORGANICS

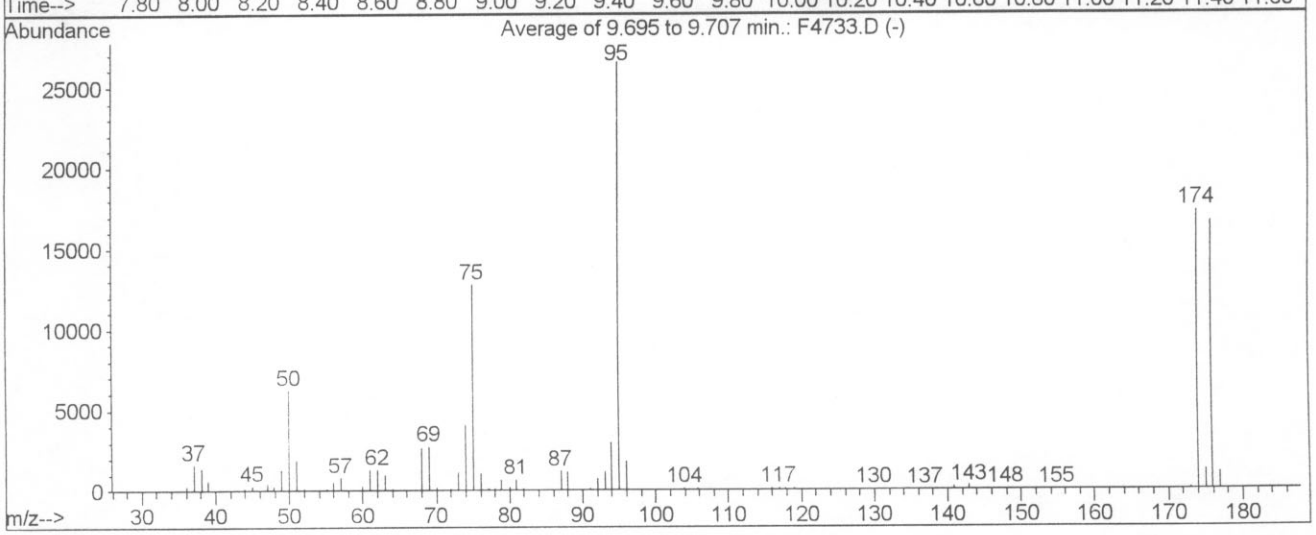
A. TUNING
B. BLANK
C. MATRIX SPIKE BLANK
D. SPIKE AND SPIKE DUPLICATE
E. COPY OF CALCULATIONS

CLPBFB

Data File : O:\MS\5973\DATA\NOV00\111800V\F4733.D
Acq On : 18 Nov 2000 12:59
Sample : 50NG BFB
Misc : 5ML
MS Integration Params: RTEINT.P
Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration

Vial: 1
Operator: BD
Inst : h5973
Multiplr: 1.00



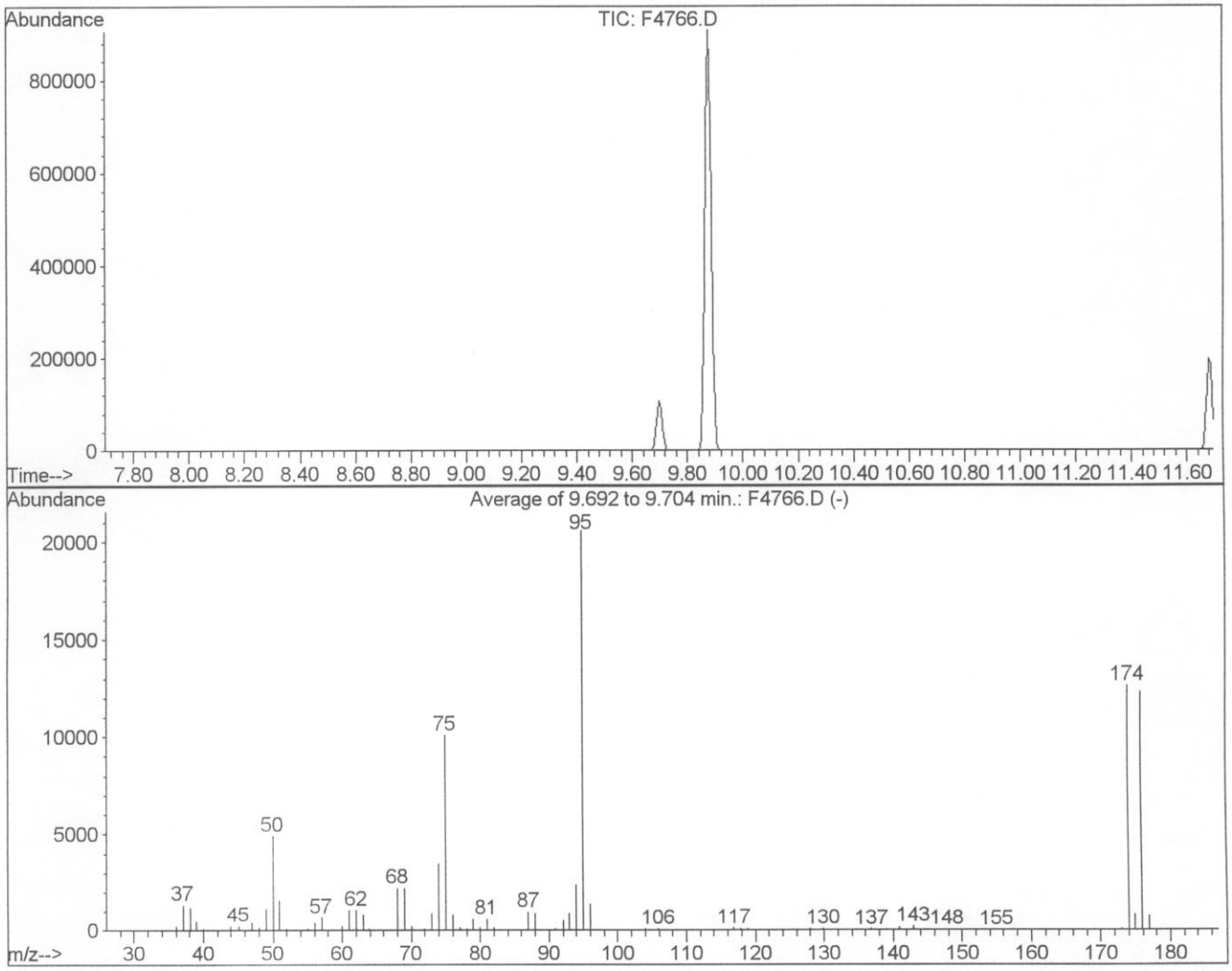


AutoFind: Scans 1267, 1268, 1269; Background Corrected with Scan 1259

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.5	6223	PASS
75	95	30	60	48.0	12734	PASS
95	95	100	100	100.0	26523	PASS
96	95	5	9	7.1	1889	PASS
173	174	0.00	2	0.6	112	PASS
174	95	50	100	65.0	17247	PASS
175	174	5	9	7.0	1202	PASS
176	174	95	101	96.2	16591	PASS
177	176	5	9	6.2	1036	PASS

CLPBFB

Data File : O:\MS\5973\DATA\NOV00\112000V\F4766.D Vial: 1
Acq On : 20 Nov 2000 10:26 Operator: BD
Sample : 50NG BFB Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration



AutoFind: Scans 1266, 1267, 1268; Background Corrected with Scan 1259

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.7	4881	PASS
75	95	30	60	48.9	10064	PASS
95	95	100	100	100.0	20560	PASS
96	95	5	9	6.7	1387	PASS
173	174	0.00	2	0.7	83	PASS
174	95	50	100	61.2	12590	PASS
175	174	5	9	6.7	841	PASS
176	174	95	101	97.8	12311	PASS
177	176	5	9	6.4	789	PASS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK11/20/00

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: VBLK11/20/00

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4769.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK11/20/00

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: _____ SAS No.: _____ SDG No.: DEC1115

Matrix: (soil/water) WATER Lab Sample ID: VBLK11/20/00

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F4769.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: RTX624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

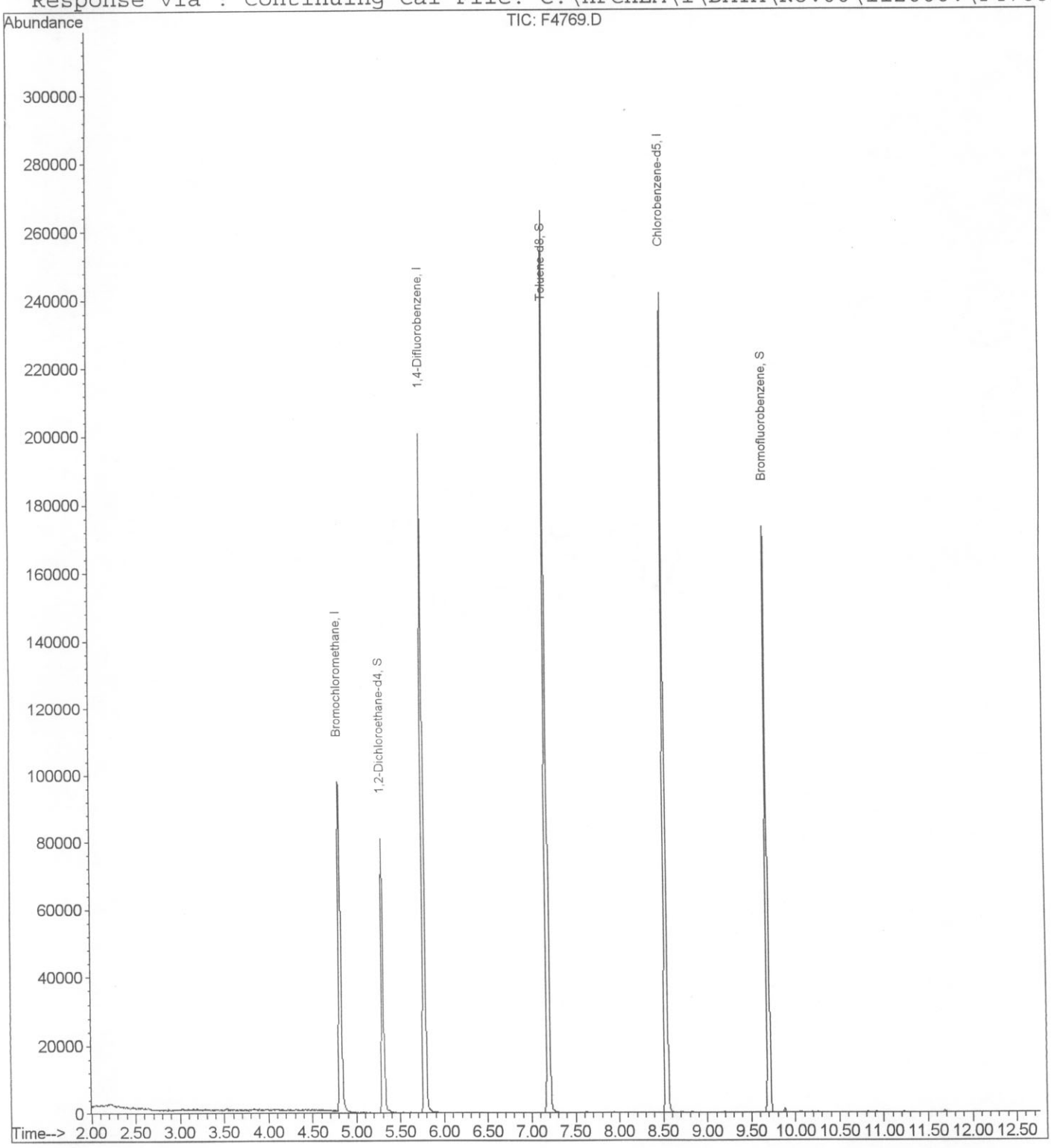
CAS NO.	COMPOUND	RT	EST. CONC.	Q

Quantitation Report

Data File : O:\MS\5973\DATA\NOV00\112000V\F4769.D
Acq On : 20 Nov 2000 12:02
Sample : VBLK11/20/00
Misc : 5ML
MS Integration Params: RTEINT.P
Quant Time: Nov 20 12:17 2000

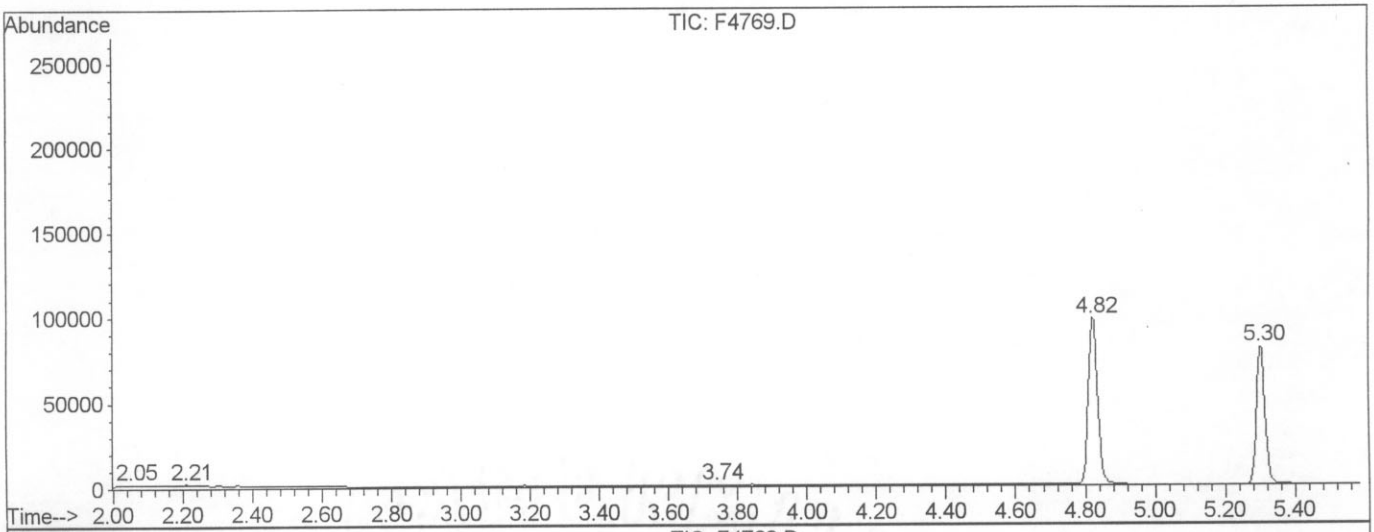
Vial: 4
Operator: BD
Inst : h5973
Multiplr: 1.00
Quant Results File: CLPW1118.RES

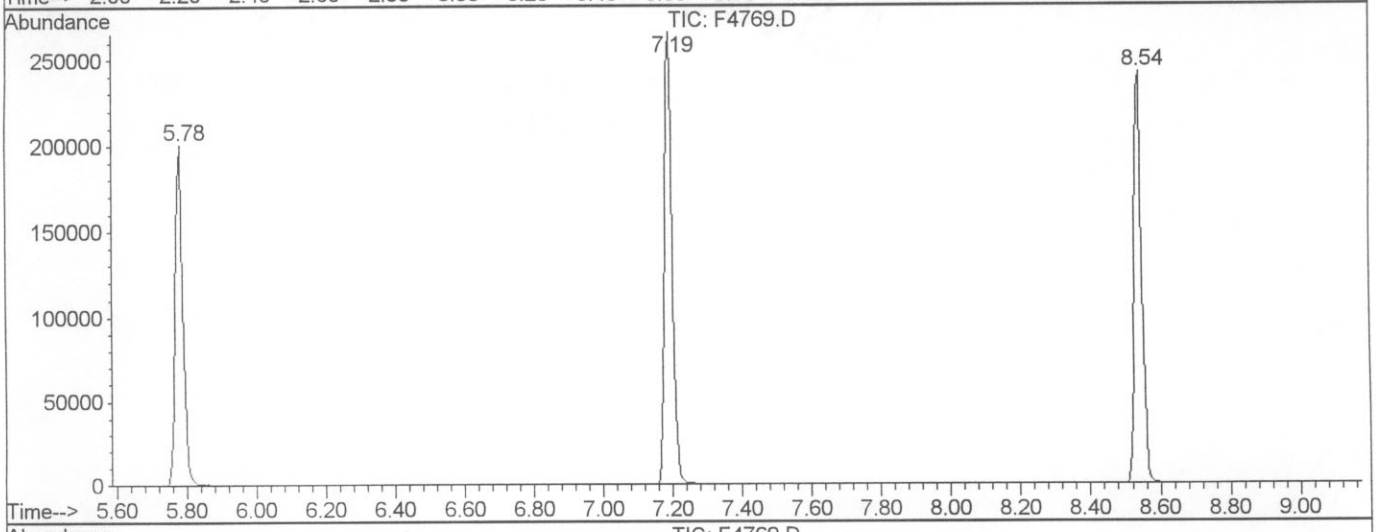
Method : O:\MS\5973\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Mon Nov 20 12:54:49 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D

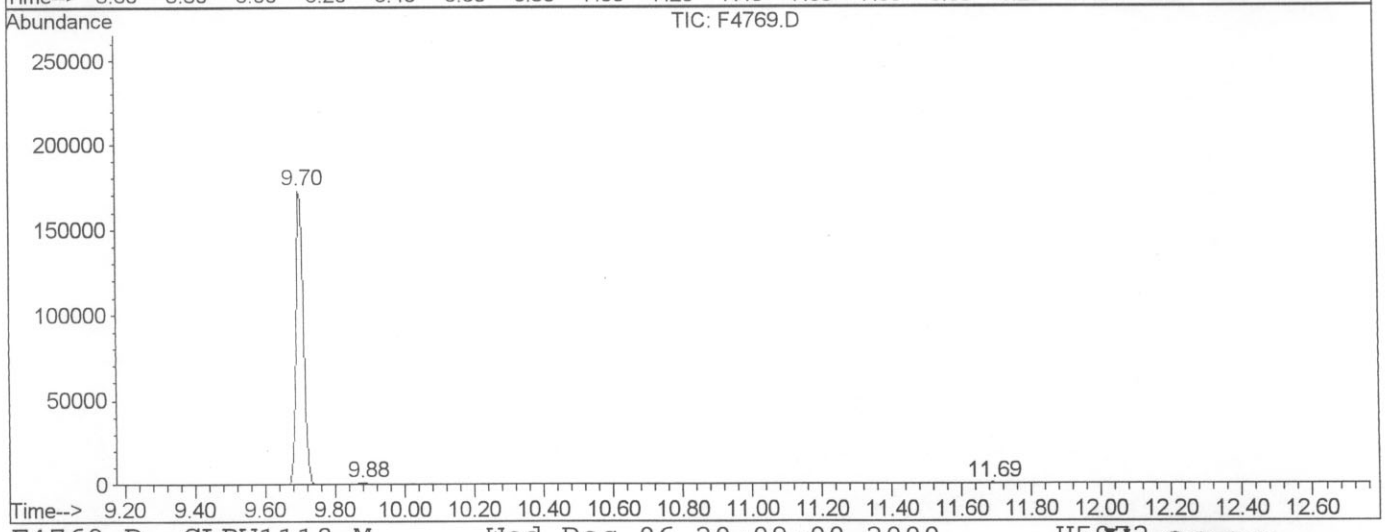


LSC Report - Integrated Chromatogram

File : O:\MS\5973\DATA\NOV00\112000V\F4769.D
Operator : BD
Acquired : 20 Nov 2000 12:02 using AcqMethod CLPW1118
Instrument : h5973
Sample Name: VBLK11/20/00
Misc Info : 5ML
Vial Number: 4
Quant File :CLPW1118.RES (RTE Integrator)







Quantitation Report (QT Reviewed)

Data File : O:\MS\5973\DATA\NOV00\112000V\F4769.D Vial: 4
Acq On : 20 Nov 2000 12:02 Operator: BD
Sample : VBLK11/20/00 Inst : h5973
Misc : 5ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 12:17 2000 Quant Results File: CLPW1118.RES

Quant Method : C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Nov 18 18:46:10 2000
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\NOV00\112000V\F4768.D
DataAcq Meth : CLPW1118

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	4.83	128	21878	50.00 ug/l	0.00
23) 1,4-Difluorobenzene	5.78	114	125819	50.00 ug/l	0.00
36) Chlorobenzene-d5	8.54	117	112854	50.00 ug/l	0.00
System Monitoring Compounds					
21) 1,2-Dichloroethane-d4	5.30	65	49414	48.75 ug/l	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 97.50%		
41) Toluene-d8	7.19	98	148530	50.53 ug/l	0.00
Spiked Amount 50.000	Range 88 - 110		Recovery = 101.06%		
45) Bromofluorobenzene	9.70	95	56680	49.09 ug/l	0.00
Spiked Amount 50.000	Range 86 - 115		Recovery = 98.18%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Tentatively Identified Compound (LSC) summary

Operator ID: BD Date Acquired: 20 Nov 2000 12:02
Data File: O:\MS\5973\DATA\NOV00\112000V\F4769.D
Name: VBLK11/20/00
Misc: 5ML
Method: C:\HPCHEM\1\METHODS\CLPW1118.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NIST98.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
F4769.D	CLPW1118.M	Wed Dec 06 20:09:00 2000				H5972			

H2M LABS, INC.

COMPUTATIONS FOR VOLATILE ORGANICS
PERFORMED BY RTE DATA SYSTEM OF HP

$$CONC = \frac{Ax}{Ais \times RRF} \quad \frac{Is}{W}$$

WHERE:

CONC = Concentration in sample (ug/L or ug/KG)

Ax = Area of characteristic ion of compound

Ais = Area of characteristic ion of internal standard

RRF = Relative response factor as area per (ng) of compound, divided by area per ng of respective internal standard

Is = Amount of internal standard injected (ng)

W = Volume of sample in (ml) or dry weight (g)

Generally the amount of each internal standard injected is 250 ng.

H2M LABS, INC.

V. DOCUMENTATION FOR VOLATILE ORGANICS

A. LOG BOOK PAGES
B. REPORTING ANALYST SIGNATURE PAGE

H2M LABS, INC.

VOLATILE

	LOT #	SOL'N ID
SURR.		
I.S.		
MS		
QC CHECK		
CALIBRATION		

SCAN VOA INSTRUMENT: H5973 COLUMN: HP-Vocol

DATE	RUN #	SAMPLE	LAB #	VOL /WT	PH	HEAT. PUR. Y/N	METHD	TRAY POS	TIME INJ.	ANALYSTS SIGNATURE
11/16/00	F4720	B27 19-21'RE	20001110-086RE	5.0g		Y	CLPS1024		1427	MBielucha
	F4721	B28 19-21'DBG	20001114-018						1459	
	F4722	B29 19-20'DBG	-019						1532	
	F4723	B30 14-16'DBG	-077						1605	
	F4724	B30 19-21'DBG	-078			Re No Purge			1638	
	F4725	B31 19-21'DBG	20001115-033						1710	
	F4726	B31 24-26'DBG	-034						1743	
	F4727	B32 19-21'DBG	-035						1815	
	F4728	B32 24-26'DBG	-036						1847	
	F4729	B33 14-16'	-144						1920	
	F4730	B33 19-21'	-145						1952	
	F4731	B34 19-21'	-146			Re I.S. Area			2025	
	F4732	B30 19-21'DBG	20001114-078						2057	
11/18/00	F4733	50ng BFB		5mL		N		1	1259	Bandal Long
	F4734	VSTD010	+					2	1346	
	F4735	020	+					3	1417	
	F4736	050					Clpw1118.M4	4	1448	
	F4737	100	+					5	1520	
	F4738	200	+					6	1551	
	F4739	250	+					7	1624	
	F4740	50ng BFB		5mL		N			1659	
	F4741	VSTD050		"		"	Clpw1118.M2		1802	
	F4742	VBIK 11/18/00		"		"		3	1833	
	F4743	MW-5	20001116-112	"		"		4	1905	
	F4744	LFB 11/18/00		"		"		5	1936	
	F4745	B27-GW	20001114-009	"		"		6	2007	
	F4746	LFB 11/18/00	-010	"		"		7	2039	

H2M LABS, INC.

VOLATILE

	LOT #	SOL'N ID
SURR.		
I.S.		
MS		
QC CHECK		
CALIBRATION		

SCAN VOA **INSTRUMENT:** H5976 **COLUMN:** RTX624

DATE	RUN #	SAMPLE	LAB #	VOL /WT	PH	HEAT. PUR. Y/N	METHD	TRAY POS	TIME INJ.	ANALYSTS SIGNATURE
	F4747	FB 11/13/00	2000114-052	5mL		N		8	2110	
	F4748	FB 11/13/00	-053	"		"		9	2142	
	F4749	FB 11/14/00	2000115-140	"		"		10	2213	
	F4750	FB 11/15/00	-141	"		"		11	2244	
	F4751	FB 11/14/00	-142	"		"		12	2316	
	F4752	B28-GW	2000114-110	"		"		13	2347	
	F4753	B29-GW	-111	"		"		14	0019	
	F4754	PIEZO-3	-112	"		"		15	0050	
	F4755	-4	-113	"		"		16	0122	
	F4756	B30-GW	2000114-048	"		"		17	0153	Dilute 1:25
	F4757	B31-↓	-049	"		"		18	0224	
	F4758	PIEZO-1	-050	"		"		19	0256	Dilute 1:25
	F4759	-2	-051	"		"		20	0327	
	F4760	B32-GW	2000115-135	"				21	0358	
	F4761	33-	-136	"		"		22	0430	
	F4762	34-	-137	"		"		23	0501	
	F4763	35-	-138	"		"		24	0532	out of range
	F4764	36-↓	-139	"		"		25	0604	
	F4765	BIK		"		"		26	0635	
11/22/00	F4766	500g BFB		5mL		N		1	1026	Brandon Lang
	F4767	VSTD50C		"		"		2	1057	
	F4768	VSTD50C *		"		"	Clpw1115.M	3	1131	
	F4769	VBIK 11/22/00		"		"		4	1202	
	F4770	LFB 11/22/00		"		"		5	1234	
	F4771	VICLPBIK 11/14/00		"		"		6	1305	
	F4772	000002	2000110-064	5mL		"		7	1336	
	F4773	000002MS	-064MS	"		"		8	1408	

o:\qc books\injlog.doc

H2M LABS, INC.

VOLATILE

	LOT #	SOL'N ID
SURR.		
I.S.		
MS		
QC CHECK		
CALIBRATION		

SCAN VOA **INSTRUMENT:** HS9773-0 **COLUMN:** RTX502.2

DATE	RUN #	SAMPLE	LAB #	VOL /WT	PH	HEAT. PUR. Y/N	METHD	TRAY POS	TIME INJ.	ANALYSTS SIGNATURE
	F4774	915902	2000115-089	5mL		N		9	1439	
	F4775	03	-090	"		"		10	1510	
	F4776	04	-091	"		"		11	1540	
	F4777	Piezo-5DL	2000114-014DL	1:5, 5mL		"		12	1611	Dilute IS
	F4778	-6DL	-015DL	"		"		13	1641	"
	F4779	Piezo-5	-014	5mL		"		14	1711	
	F4780	-6	-015	"		"		15	1741	
	F4781	B30-GWDL	2000114-048DL	1:25, 5mL		"		16	1812	
	F4782	Piezo-1DL	-049DL	"		"		17	1842	
	F4783	B34-GW	2000115-037	5mL		"		18	1912	
	F4784	B35-	-038	"		"		19	1942	
	F4785	B36-	-039	"		"		20	2013	
	F4786	FB 11/16/00	2000117-043	"		"		21	2043	
	F4787	FB "	-044	"		"		22	2113	
	F4788	B38-GW	-046	"		"		23	2144	
	F4789	B39-GW	-047	"		"		24	2214	
11/21/00	F4790	50ng BFB		5mL		"		1	1117	
	F4791	50ng BFB +		"		"		1	1436	
	F4792	VSTD050		"		"		2	1507	
	F4793	BLK		"		"		3	1537	
	F4794	VSTD050 +		"		"	Chpolis-M	4	1607	
	F4795	VBLK 11/21/00		"		"		5	1637	
	F4796	MSB 11/21/00		"		"		6	1710	
	F4797	B37-GW	2000117-045	"		"		7	1740	
	F4798	B40-	-048	"		"		8	1810	
	F4799	B41-	-049	"		"		9	1841	
	F4800	B42-	-050	"		"		10	1911	

H2M LABS, INC.

SDG # DEC1115

SCAN: VOA

This data package was reported by the undersigned. This reporting includes data calculations, manual edits, if necessary, and compilation of raw data. The information presented is true and correct to the best of my knowledge.

Signature: BBLaguna

Date: 12/06/00