APPENDIX C

TtFW Laboratory Data Package

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908.789.8900 Fax: 908.789.8922

DATA PACKAGE FOR
VOLATILE ORGANICS
METALS
GENERAL CHEMISTRY

PROJECT NAME: Boyertown Sanitary Disposal Landfill

TETRA TECH FW INC..
2300 LINCOLN HIGHWAY EAST
ONE OXFORD VALLEY, SUITE 200
LANGHORNE, PA 19047-
215-702-4086

CHEMTECH PROJECT NO. S2186
ATTENTION: Roxanne Clarke

www.chemtech.net
Since 1967

CHEMTECH

284 Sheffield Street, Mountainside NJ 07092
Tel: 908-789-8900 Fax 908-789-8922

COVER PAGE

ProjectID: Boyertown Sanitary Disposa

OrderID S2186

CustomerName: Tetra Tech FW Inc..

LAB SAMPLE NO.	CLIENT SAMPLE NO
S2186-01	MW-1
S2186-02	MW-7
S2186-03	FIELDBLANK-1
S2186-04	MW-8
S2186-05	TRIPBLANK
S2186-06	MW-5
S2186-07	MW-8DUP
S2186-08	MW-11
S2186-09	MW-12
S2186-10	MW-10
S2186-11	MW-9
S2186-12	FIELDBLANK-2
S2186-13	RINSEBLANK
S2186-14	AMW-1
S2186-15	AMW-1DUP
S2186-16	MW-6
S2186-17	MW-1
S2186-18	MW-7
S2186-19	FIELDBLANK
S2186-20	MW-8
S2186-21	MW-5
S2186-22	MW-8DUP

I certify that the 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 hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: _____ Name: _____

Date: 4/28/04 Title: _____

NYDOH CERTIFICATION NO.11376

NJDEP CERTIFICATION NO. 20012

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Tel: 908-789-8900 Fax 908-789-8922

COVER PAGE

ProjectID: Boyertown Sanitary Disposa

OrderID S2186

CustomerName: Tetra Tech FW Inc..

LAB SAMPLE NO.	CLIENT SAMPLE NO
S2186-23	MW-11
S2186-24	MW-12
S2186-25	MW-10
S2186-26	MW-9
S2186-27	FIELDBLANK
S2186-28	RINSEBLANK
S2186-29	AMW-1
S2186-30	AMW-1DUP
S2186-31	MW-6

I certify that the 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 hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: _____ Name: Anupa Bisht

Date: 4/28/04 Title: DAQC

NYDOH CERTIFICATION NO.11376

NJDEP CERTIFICATION NO. 20012

1.0 CASE NARRATIVE

CASE NARRATIVE

Client: Tetra Tech FW Inc..
Project Name: Boyertown Sanitary Disposal Landfill
Chemtech project #: S2186

Chemtech received a total of eight samples Ten water samples, two Field Blanks, One Trip Blank, One Rinse Blank and Two Duplicates on April 14, 2004 for Volatile Organic, Metals & General Chemistry using test method for evaluating waste water, SW846 3RD edition.

The analyses for **Volatile Organic** were performed on instrument MSVOA D using GC column RTX502.2 which is 40 meters, 0.18mm ID, 1.0mm df, Catalog#40915. The Trap was supplied by Supelco, VO CARB 3000, Tekmar 3000.

- System Monitoring Compound recoveries were within QC limits.
- MS/MSD recoveries met requirements.
- Blank Spike recoveries and Method Blank met requirements.
- Holding Times were met.
- Calibrations met requirements.
- Internal Standard Areas and Retention Times met requirements.
- Blank analyses did not indicate the presence of contamination.

The analysis for **Metals** is based on method 6010, Mercury by Method 7470.

- Calibration met all the QC limits.
- Blank analyses did not indicate the presence of contamination.
- Spike samples recoveries were with in QC limits except for Mercury and Potassium.
- The serial dilution Form (9) met QC requirements.
- Duplicate analyses met requirements.
- Holding Time were met.

The analysis for **Dissolved Metals** is based on method 6010, **Dissolved Mercury** by Method 7470.

- FIELDBLANKS S2186-19 and S2186-27 have been identified as FIELDBLANK4-13 and FIELDBLANK4-14.
- Calibration met all the QC limits.
- Blank analyses did not indicate the presence of contamination.
- Spike samples recoveries were with in QC limits except for Mercury and Potassium.
- The serial dilution Form (9) met QC requirements.
- Duplicate analyses met requirements.
- Holding Time were met.

CHEMTECH

CASE NARRATIVE

The analysis for **Cyanide & Dissolved Cyanide** is based on method 9012

- Blank analysis did not indicate the presence of contamination. Spike Sample recoveries were within QC limits. Holding Times were met.

I certify that the 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 hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature_____ Name: Krupa Dubey

Date: 11/28/04 Title: QA/QC

2.0 CHAIN OF CUSTODY

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: 32186
CHEMTECH QUOTE NO.:

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Tetra Tech FW
ADDRESS: 2300 Lincoln Highway
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Roxanne Clarke
PHONE: 215-702-4003 FAX: 215-702-4045

PROJECT INFORMATION

PROJECT NAME: Boyertown Landfill
PROJECT NO.: LOCATION:
PROJECT MANAGER:
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: AS CONTRACTED DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ NY STATE CATEGORY A
☐ RESULTS PLUS QC ☐ NY STATE CATEGORY B
☐ REGULATORY FORMAT: STATE: AS CONTRACTED
☐ NEW JERSEY REDUCED DELIVERABLES
☐ CLP ☐ OTHER:
☐ EDD FORMAT:

ANALYSIS

1 Metals
2 Dissolved Metals
3
4 Cyanide
5 Dissolved Metals
6 VOCs
7
8
9

PRESERVATIVES — **COMMENTS**

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	Comments
1. 1 17	MW-1	GW		X	4/13/04	0815	6	X	X	X	X	X					
2. 2 18	MW-7	GW		X		0920	6	X	X	X	X	X					
3. 3 19	FIELD BLANK	GW		X		1000	4	X	X	X	X						
4. 4 20	MW-8	GW		X		1010	6	X	X	X	X	X					
5. 5 ~~21~~ 26	TRIP BLANK	GW		X		—						X					
6. 6 21	MW-5	GW		X		1135	6	X	X	X	X	X					
7. 7 22	MW-8 DUP	GW		X		1010	6	X	X	X	X	X					
8. 8 23	MW-11	GW		X		1330	6	X	X	X	X	X					
9. 9 24	MW-12	GW		X		1430	6	X	X	X	X	X					
10. 10 25	MW-10	GW		X	4/14/04	0750	6	X	X	X	X	X					

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	4/14/04 1500	1. [signature]
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
		2.
RELINQUISHED BY: [signature]	DATE/TIME: 4/15 4.15.04	RECEIVED FOR LAB BY: 3. [signature]

Conditions of bottles or coolers at receipt: ☐ Complaint ☐ Non-Complaint ☑ Temp. of Cooler 4
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Page 1 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☑ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☑ YES ☐ NO

Ver. 10/20

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

4: 5

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: S2186
CHEMTECH QUOTE NO.:

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Tetra Tech FW
ADDRESS: 2300 Lincoln Highway
CITY: Langhorne STATE: PA ZIP: 19047
ATTENTION: Roxanne Clarke
PHONE: 215-702-4003 FAX: 215-702-4045

PROJECT INFORMATION

PROJECT NAME: Bayertown Landfill
PROJECT NO.: LOCATION:
PROJECT MANAGER:
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: AS CONTRACTED DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ NY STATE CATEGORY A
☐ RESULTS PLUS QC ☐ NY STATE CATEGORY B
☐ REGULATORY FORMAT, STATE:
☐ NEW JERSEY REDUCED DELIVERABLES
☐ CLP ☐ OTHER:
☐ EDD FORMAT:

ANALYSIS

1 Metals
2 Dissolved metals
3 Cyanide
4 Dissolved Cyanide
5 VOCs
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1 11 26	~~MW-09~~ MW-9	GW		X	4/14/04	0850	6	X	X	X	X	X					
2 12 27	Field Blank			X		0855	4	X	X	X	X						
3 13 28	Rinse Blank			X		0855	4	X	X	X	X						
4 14 29	AMW-1			X		0916	6	X	X	X	X	X					
5 15 30	AMW-1 DUP			X		0916	6	X	X	X	X	X					
6 16 31	MW-6			X		1000	6	X	X	X	X	X					
7.																	
8.																	
9.																	
10.																	

PRESERVATIVES

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/14/04 1500	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
		2.
RELINQUISHED BY:	DATE/TIME: 4.35 4.15.04	RECEIVED FOR LAB BY: 3. Sunny Parker

Conditions of bottles or coolers at receipt: ☐ Complaint ☐ Non-Complaint ☑ Temp. of Cooler 4
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Page 2 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☑ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☑ YES ☐ NO

6

Ver. 10/2002 WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

43263

Internal
Record of Communication
Login Change Form

Order Number: S2186	**Today's Date:** 04/16/04
Client: Tetra Tech FW Inc.	**Sample Date:** 04/14/04
Client Contact: Roxanne Clarke	**Form Initiated by:** Omayra L. Penas
Project: Boyertown Landfill	**Project Manager** Omayra L. Penas
General Comments/Special Instructions: Contacted client concerning additional bottles for Dissolved Cyanide, but not listed on the COC. Per clients request Dissolved Cyanide is required for all samples except for FB, RB, and TB.	

Call initiated by ☐ Client ☒ Chemtech

Login Changes

Sample Number	Add Test	Delete Test	Change TAT

Signature Omayra Penas Date 4/16/04

3.0 DATA QUALIFIERS

CHEMTECH

284 Sheffield Street Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

CHEMTECH

234 Sheffield Street Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	If the analyte was analyzed for, but not detected.
E	The reported value is estimated because of the presence of interference
M	Duplicate injection precision not met.
N	Spiked sample recovery not within control limits.
S	The reported value was determined by the Method of Standard Addition (MSA).
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less that 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Correlation coefficient for the MSA is less than 0.995.
***	Entering "S", "W " or " +" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.
D	The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers "P" for ICP instrument "A" for Flame AA "PM" for ICP when Microwave Digestion is used "AM" for flame AA when Microwave Digestion is used "FM" for furnace AA when Microwave Digestion is used "CV" for Manual Cold Vapor AA "AV" for automated Cold Vapor AA "CA" for MIDI-Distillation Spectrophotometric "AS" for Semi -Automated Spectrophotometric "C" for Manual Spectrophotometric "T" for Titrimetric "NR" for analyte not required to be analyzed

4.0 VOLATILE SAMPLE RESULTS

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-01 | Client ID: MW-1

Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042306.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
rans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

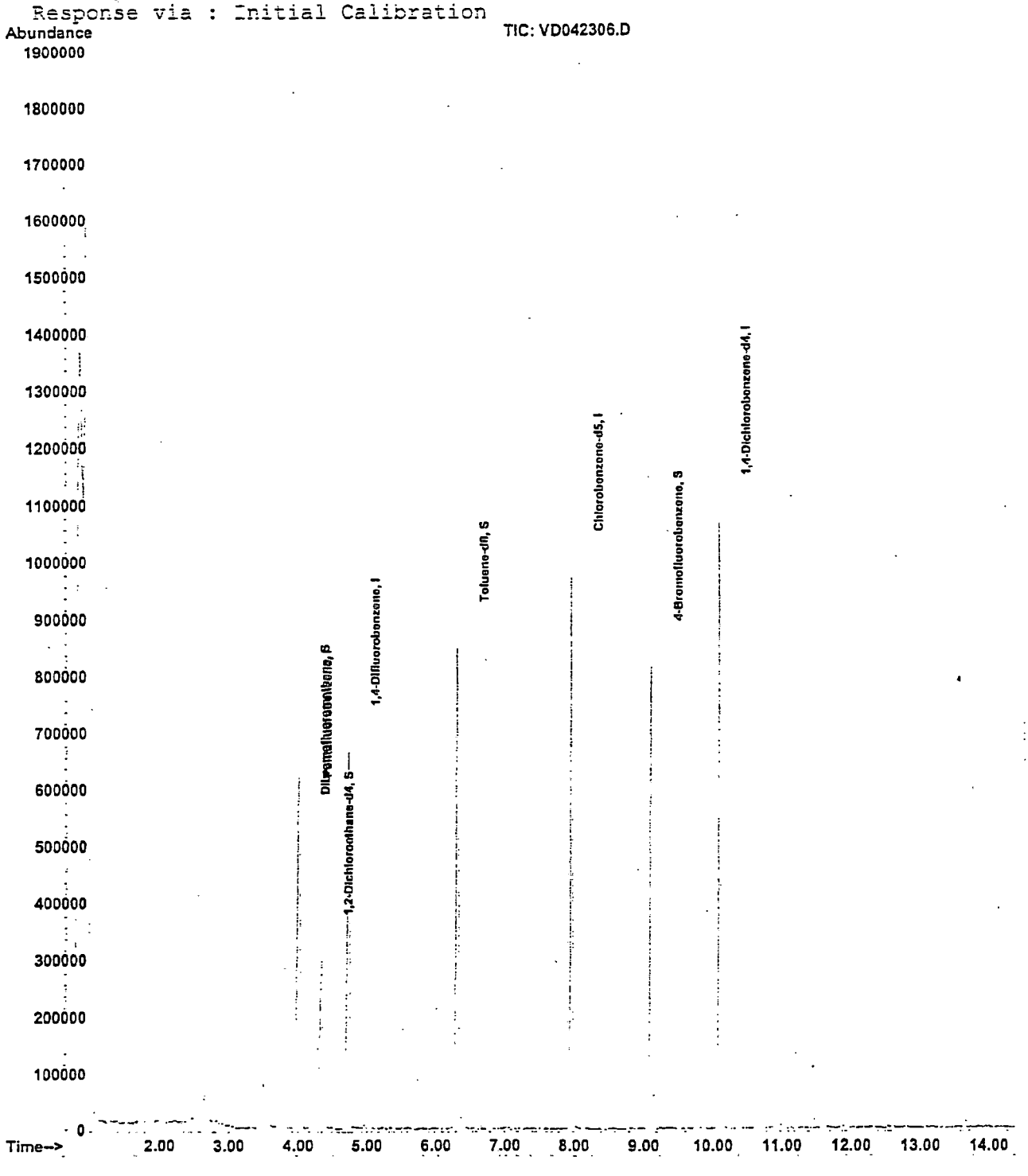
Sample ID:	S2186-01	Client ID:	MW-1
Date Collected:	4/13/2004	Date Received:	4/15/2004
Date Analyzed:	4/23/2004	Matrix:	WATER
File ID:	VD042306.D	Analytical Run ID:	VD041904
Dilution:	1	Instrument ID:	MSVOAD
Analytical Method:	8260-Low	Associated Blank:	VBD0423W1
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	
Soil Aliquot Vol:		% Moisture:	100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	10.7	107 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.18	102 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.46	95 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.96	90 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	352393	4.42			
1,4-Difluorobenzene	540-36-3	566592	5.13			
Chlorobenzene-d5	3114-55-4	470873	8.36			
1,4-Dichlorobenzene-d4	3855-82-1	252660	10.50			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042306.D Vial: 6
Acq On : 23 Apr 2004 9:53 am Operator: BPIJ
Sample : S2186-01 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:21 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042306\VD042306.D Vial: 6
Acq On : 23 Apr 2004 9:53 am Operator: BRIJ
Sample : S2186-01 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:21 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	352393	10.00 ug/l	-0.01
31) 1,4-Difluorobenzene	5.13	114	566592	10.00 ug/l	-0.02
57) Chlorobenzene-d5	8.36	117	470873	10.00 ug/l	-0.01
66) 1,4-Dichlorobenzene-	10.50	152	252660	10.00 ug/l	-0.02
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	264350	10.70 ug/l	-0.01
Spiked Amount 10.000			Recovery = 107.00%		
32) Dibromofluoromethane	4.39	113	232400	10.18 ug/l	-0.01
Spiked Amount 10.000			Recovery = 101.80%		
43) Toluene-d8	6.71	98	657369	9.46 ug/l	-0.02
Spiked Amount 10.000			Recovery = 94.60%		
56) 4-Bromofluorobenzene	9.51	95	263362	8.96 ug/l	0.00
Spiked Amount 10.000			Recovery = 89.60%		

Target Compounds Qvalue

Analyst Signature: RJB Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042306.D Vial: 6
Acq On : 23 Apr 2004 9:53 am Operator: BRIJ
Sample : S2186-01 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

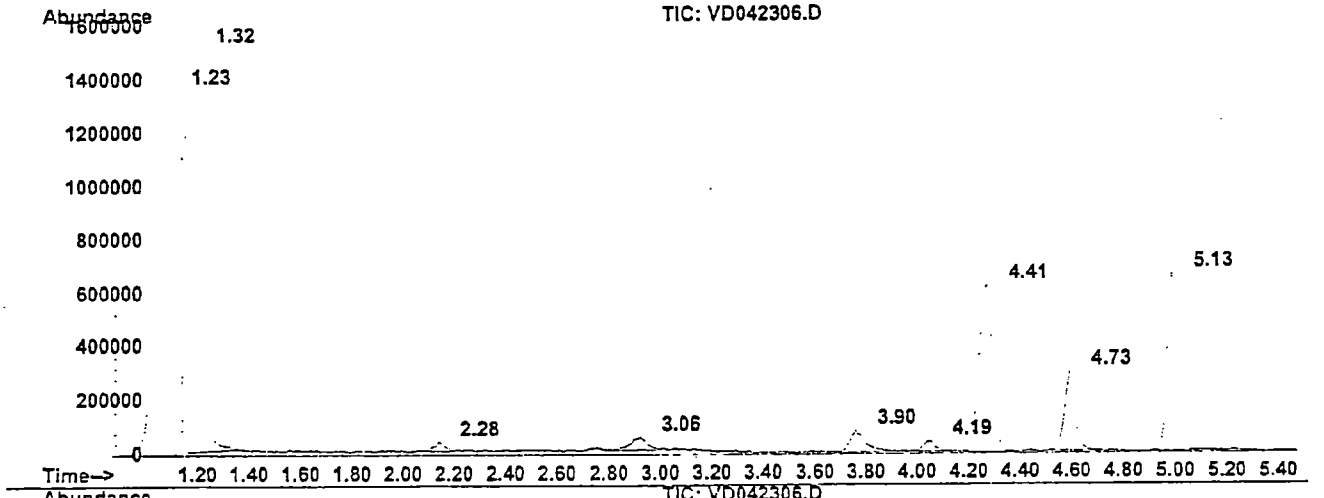
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.228	4	21	26	rBV	1368451	8257195	100.00%	31.454%
2	1.322	28	30	47	rVB	1581935	4625606	56.02%	17.620%
3	2.279	115	122	128	rBV2	35424	107095	1.30%	0.408%
4	3.059	187	197	205	rVV3	47836	215562	2.61%	0.821%
5	3.899	270	278	291	rBV	80871	341524	4.14%	1.301%
6	4.191	300	306	314	rVB4	38554	116413	1.41%	0.443%
7	4.410	319	327	338	rVB2	622631	2250431	27.25%	8.572%
8	4.731	350	358	368	rVB	293879	831281	10.07%	3.167%
9	5.126	390	396	403	rBV	664117	1785772	21.63%	6.802%
10	6.710	543	548	554	rBV	844189	2189906	26.52%	8.342%
11	8.364	702	707	712	rBV	968196	1926301	23.33%	7.338%
12	9.508	812	817	820	rBV	812748	1559810	18.89%	5.942%
13	9.560	820	822	826	rVB	62378	100277	1.21%	0.382%
14	10.496	908	912	918	rBV	1064781	1944660	23.55%	7.408%

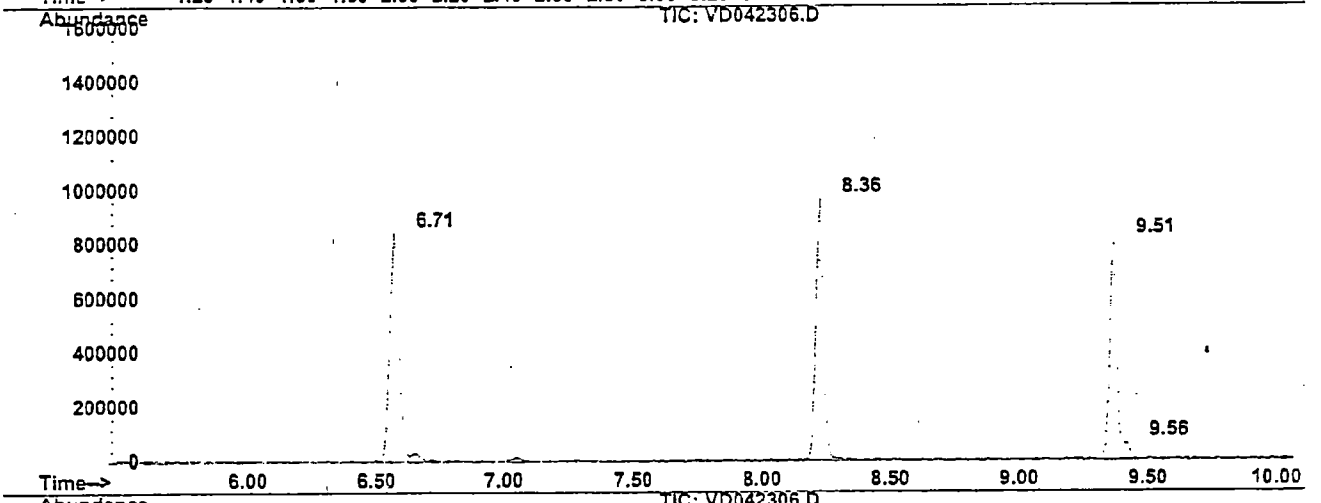
Sum of corrected areas: 26251833

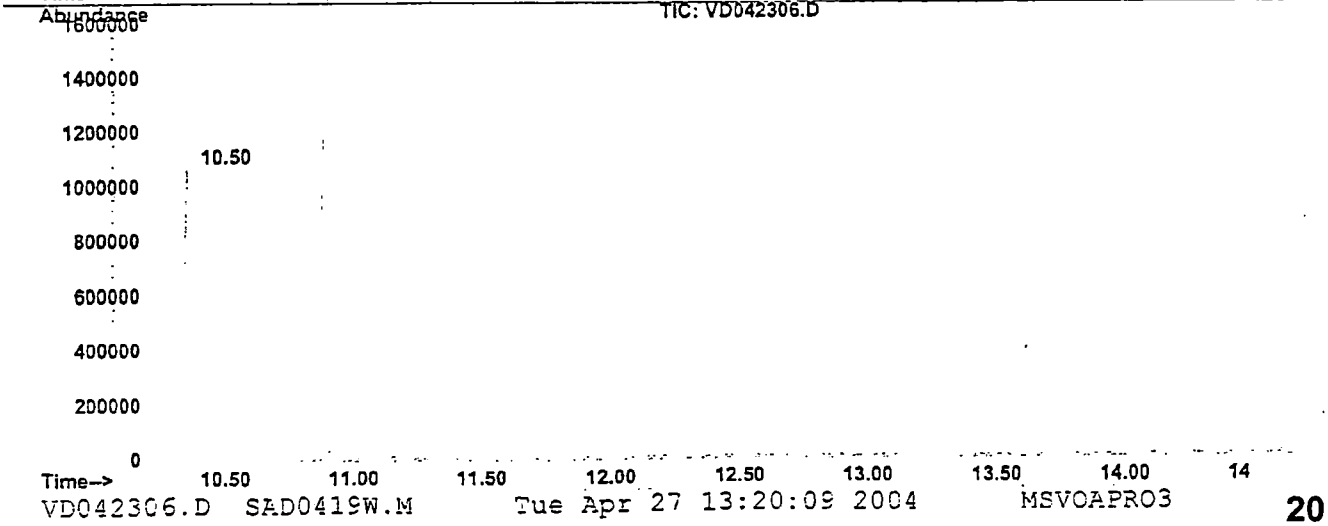
VD042306.D SAD0419W.M Tue Apr 27 13:20:09 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042306.D
Operator : BRIJ
Acquired : 23 Apr 2004 9:53 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-01
Misc Info : 25mL
Vial Number: 6
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042306.D Vial: 6
Acq On : 23 Apr 2004 9:53 am Operator: BRIJ
Sample : S2186-01 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

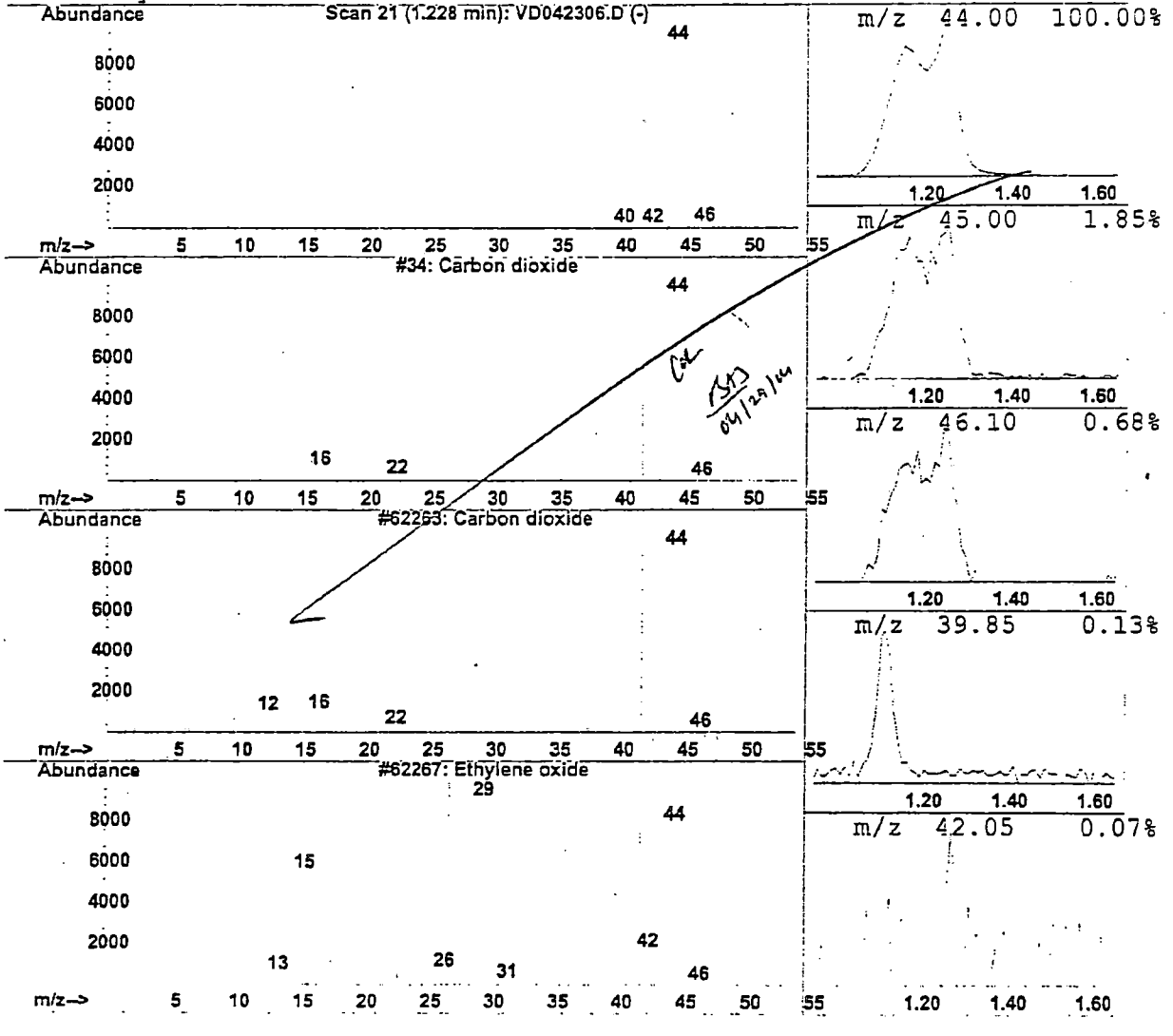
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.23	36.69 ug/l	8257200	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042306.D Vial: 6
Acq On : 23 Apr 2004 9:53 am Operator: BPIJ
Sample : S2186-01 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

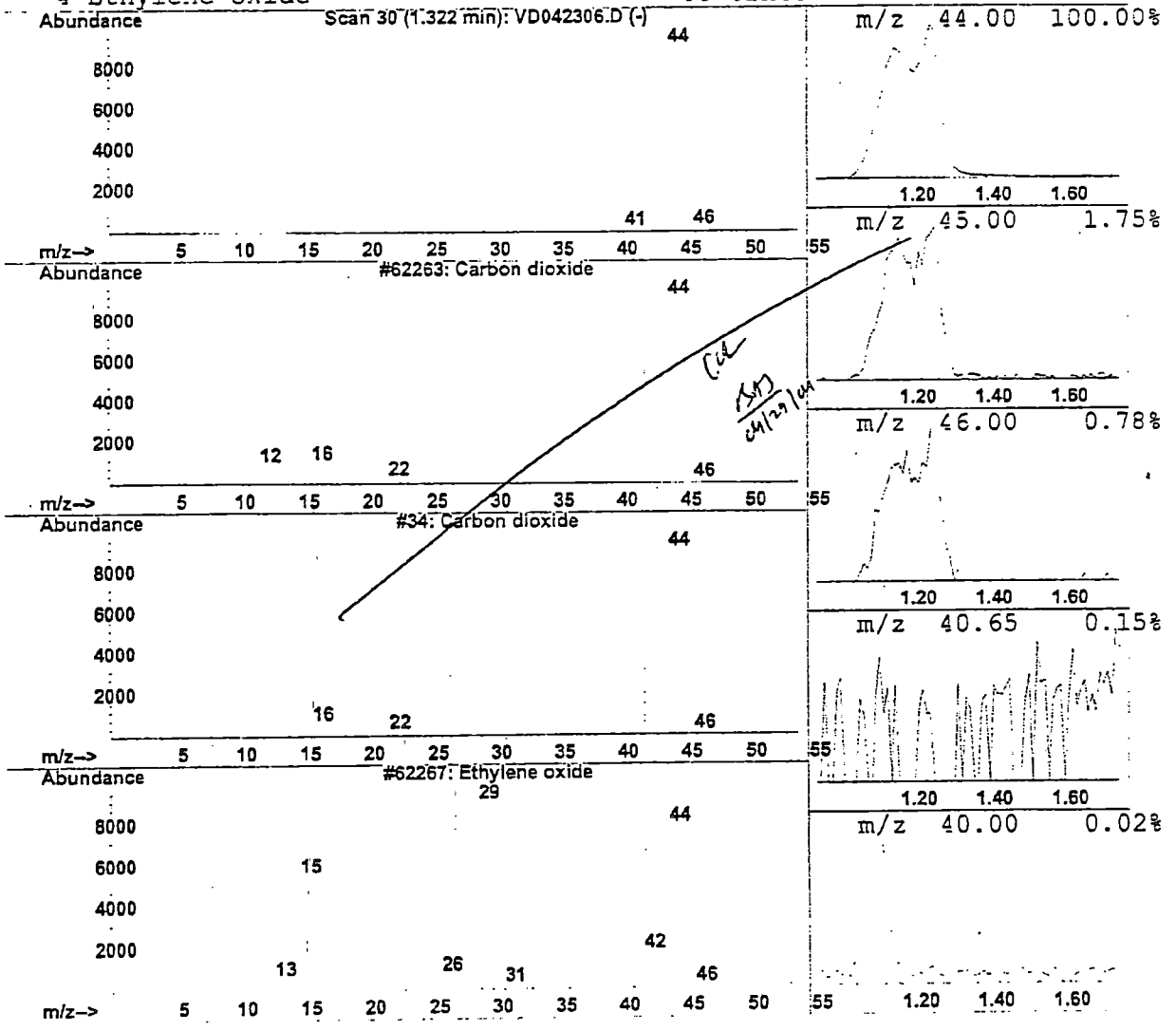
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.32	20.55 ug/l	4625610	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Cal
AM 04/29/04

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042306.D Vial: 6
Acq On : 23 Apr 2004 9:53 am Operator: BRIT
Sample : S2186-01 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

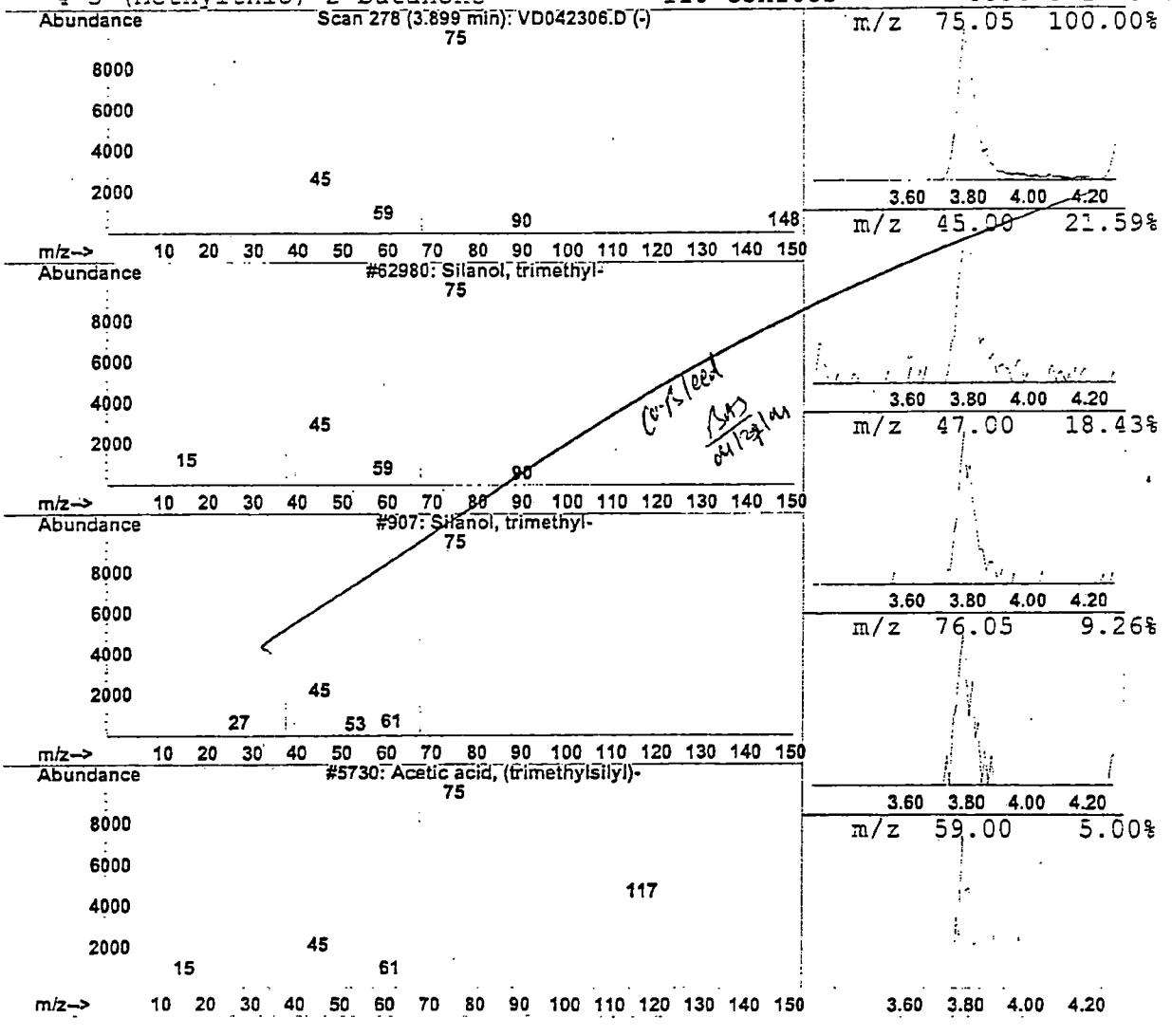
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Silanol, trimethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.90	1.52 ug/l	341524	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	83
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
3	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	72
4	3-(Methylthio)-2-butanone	118	C5H10OS	053475-15-3	64



Tentatively Identified Compound (LSC) summary

Operator ID: ERIC Date Acquired: 13 Apr 2004 9:53 am
Data File: F:\1\DATA\MSVOAD\VD042304\VD042306.D
Name: S2186-01
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.23	36.7	ug/l	8257200	ISTD01	4.42	2250430	10.0
Carbon dioxide	1.32	20.6	ug/l	4625610	ISTD01	4.42	2250430	10.0
Silanol, trimethyl-	3.90	1.5	ug/l	341524	ISTD01	4.42	2250430	10.0

VD042306.D SAD0419W.M Tue Apr 27 13:20:10 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-02 | Client ID: MW-7

Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042307.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	0.97	J	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-02 | Client ID: MW-7

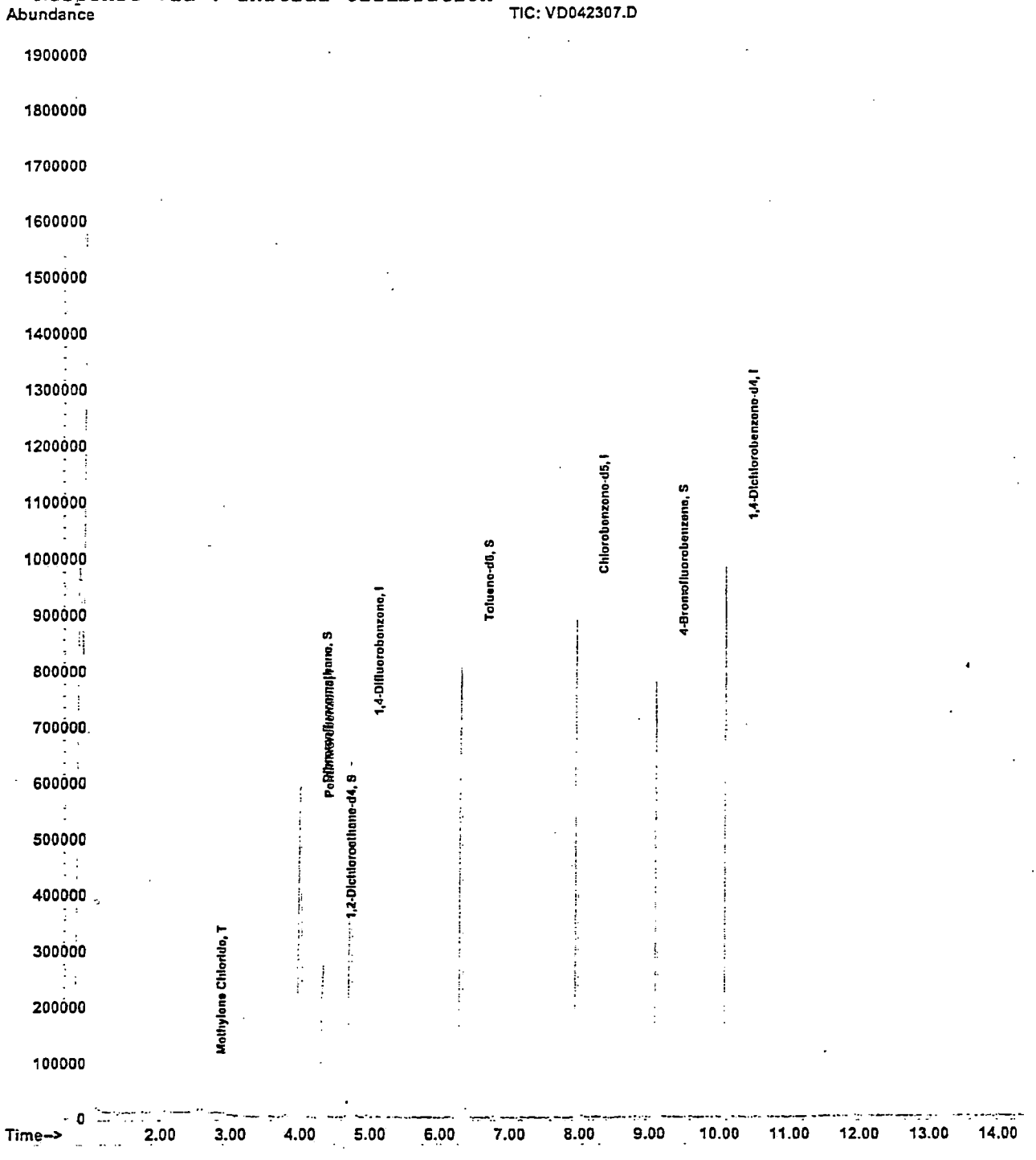
Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042307.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Wol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11	110 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.08	101 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.33	93 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.6	86 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	337564	4.43			
1,4-Difluorobenzene	540-36-3	546321	5.13			
Chlorobenzene-d5	3114-55-4	466338	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	230781	10.50			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042307.D Vial: 7
Acq On : 23 Apr 2004 10:34 am Operator: EPIC
Sample : S2186-02 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:21 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report QT Reviewed

Data File : F:\1\DATA\MSVOAD\VD042304\VD042307.D Vial: 7
Acq On : 23 Apr 2004 10:34 am Operator: BRIT
Sample : S2196-02 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:21 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

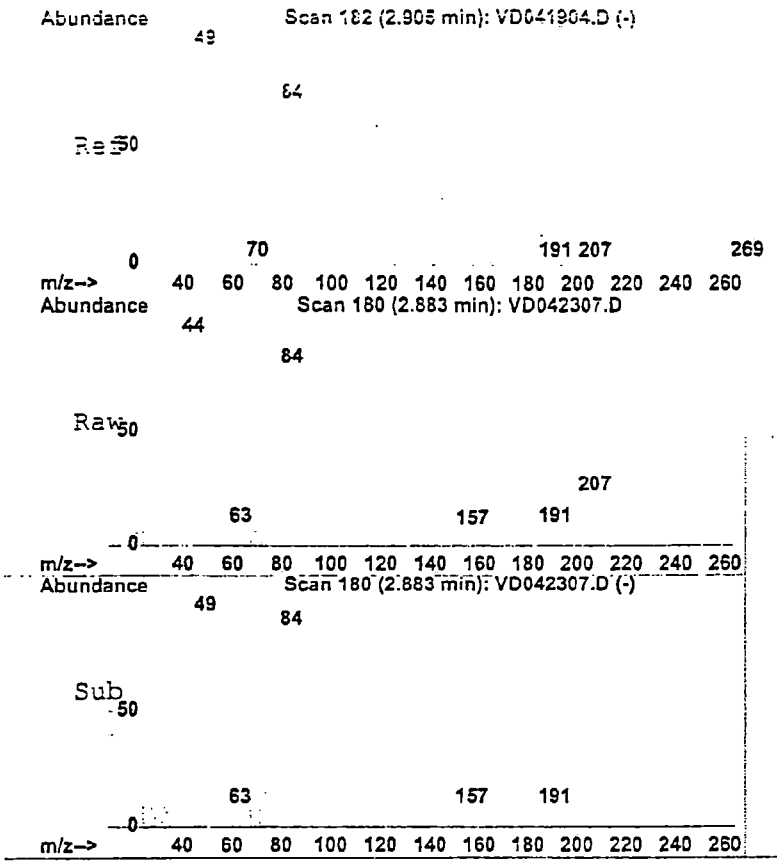
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.43	168	337564	10.00 ug/l	0.00
31) 1,4-Difluorobenzene	5.13	114	546321	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	466338	10.00 ug/l	-0.01
66) 1,4-Dichlorobenzene-	10.50	152	230781	10.00 ug/l	-0.02
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.74	65	260231	11.00 ug/l	0.00
Spiked Amount 10.000			Recovery	= 110.00%	
32) Dibromoflucromethane	4.39	113	222059	10.08 ug/l	0.00
Spiked Amount 10.000			Recovery	= 100.80%	
43) Toluene-d8	6.72	98	624721	9.33 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 93.30%	
56) 4-Bromoflucrobenzene	9.50	95	243877	8.60 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 86.00%	
Target Compounds					Qvalue
19) Methylene Chloride	2.88	84	16735	0.97 ug/l #	75

Analyst Signature: SAD Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

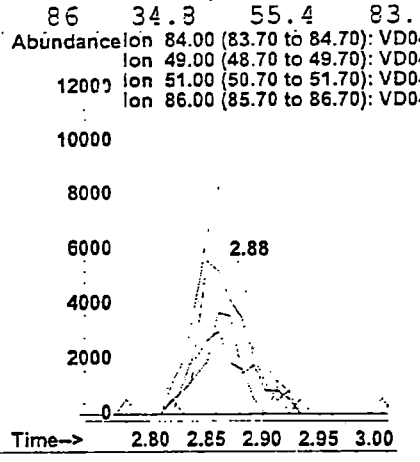
(#) = qualifier out of range (m) = manual integration



#19
Methylene Chloride
Conc: 1.97 ug/L
RT: 2.88 min Scan# 180
Delta R.T. -0.02 min
Lab File: VD042307.D
Acq: 23 Apr 2004 10:34 am

Tgt Ion: 84 Resp: 16735

Ion	Ratio	Lower	Upper
84	100		
49	117.3	117.6	176.4#
51	48.4	36.8	55.2
86	34.8	55.4	83.2#



LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042307.D Vial: 7
Acq On : 23 Apr 2004 10:34 am Operator: BPIJ
Sample : S2136-02 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

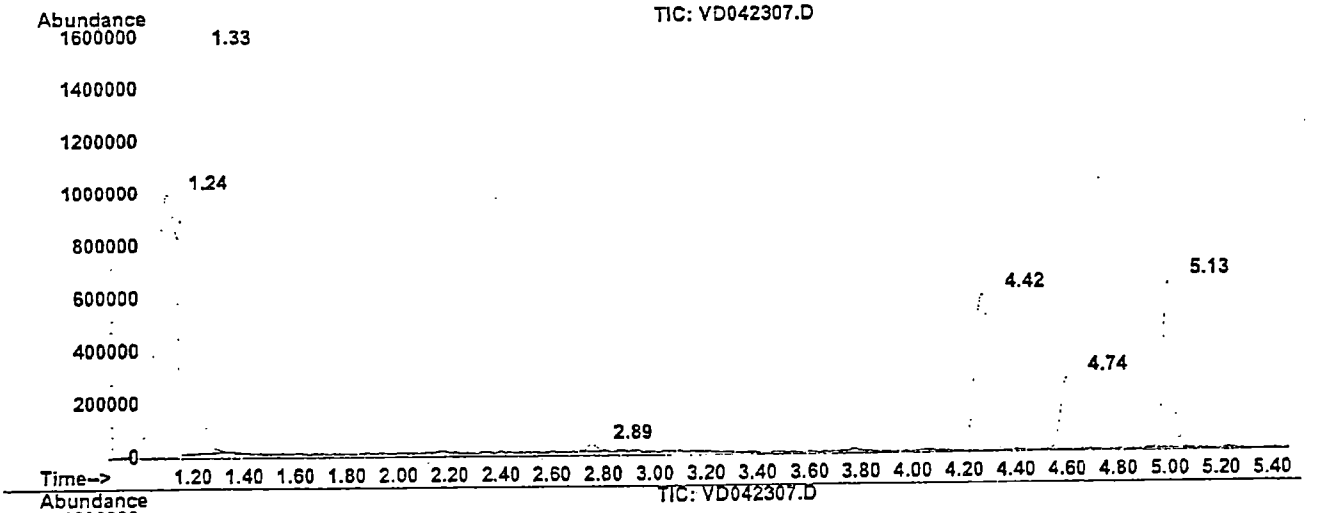
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.240	3	22	26	rBV	997607	5651782	100.00%	24.523%
2	1.333	27	31	44	rVB	1613244	5484779	97.05%	23.798%
3	2.893	178	181	185	rBV3	23502	63192	1.12%	0.274%
4	4.415	317	327	336	rBV3	593075	2164575	38.30%	9.392%
5	4.737	349	358	364	rBV	274340	804670	14.24%	3.491%
6	5.134	389	396	404	rBV	635320	1723148	30.49%	7.477%
7	6.716	542	548	554	rBV	803767	2090817	36.99%	9.072%
8	8.368	702	707	713	rBV	888311	1845610	32.66%	8.008%
9	9.502	812	816	820	rBV	775778	1439748	25.47%	6.247%
10	10.498	908	912	919	rBV	982777	1778552	31.47%	7.717%

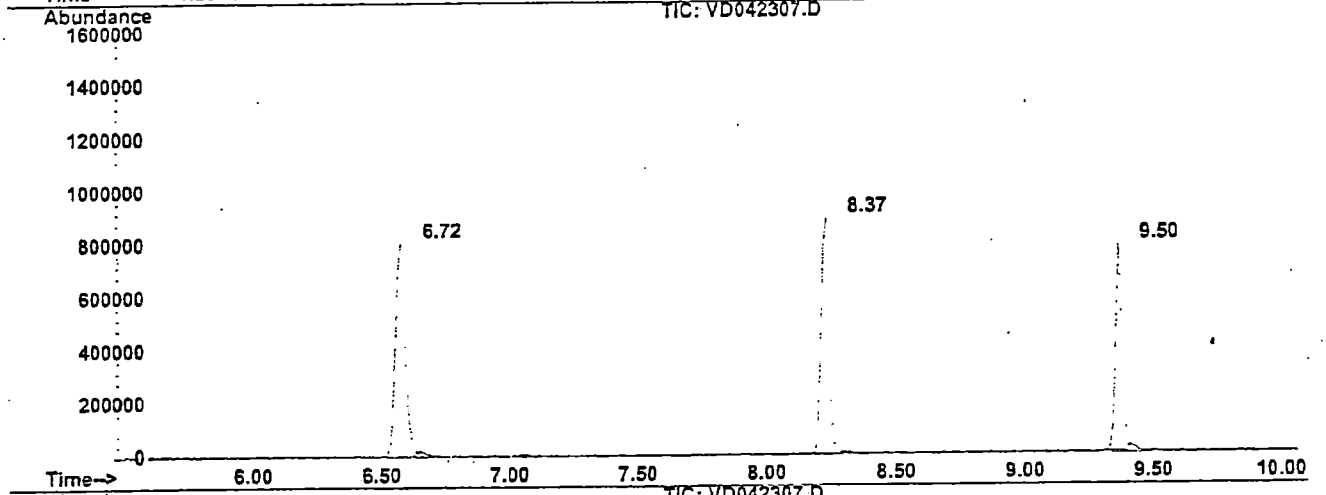
Sum of corrected areas: 23046873

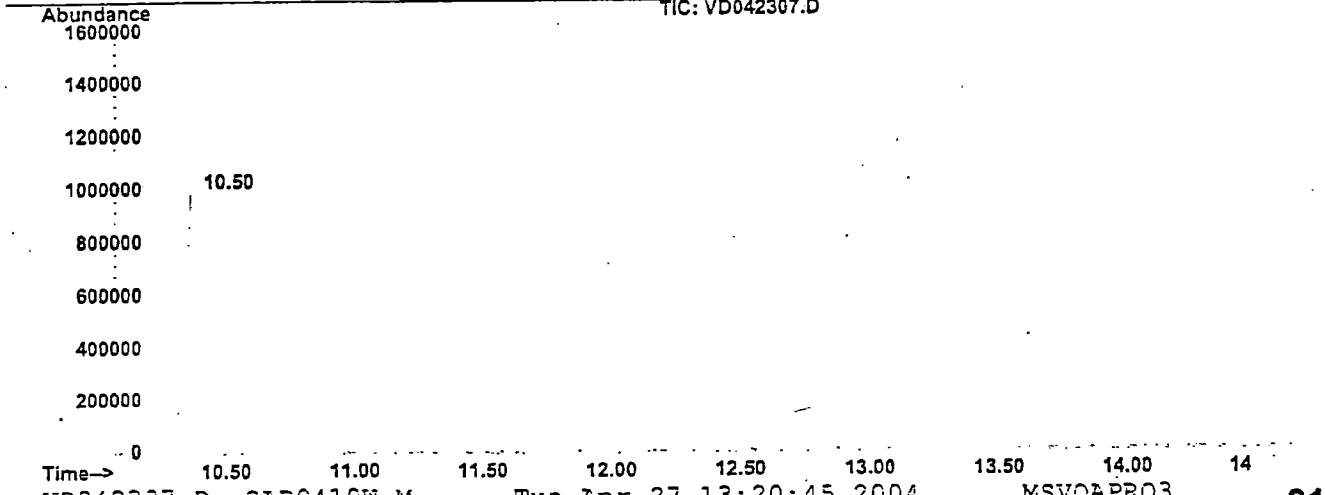
VD042307.D SAD0419W.M Tue Apr 27 13:20:45 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042307.D
Operator : BRIJ
Acquired : 23 Apr 2004 10:34 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-02
Misc Info : 25mL
Vial Number: 7
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042307.D Vial: 7
Acq On : 23 Apr 2004 10:34 am Operator: BPJJ
Sample : S2156-02 Inst : 5971 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

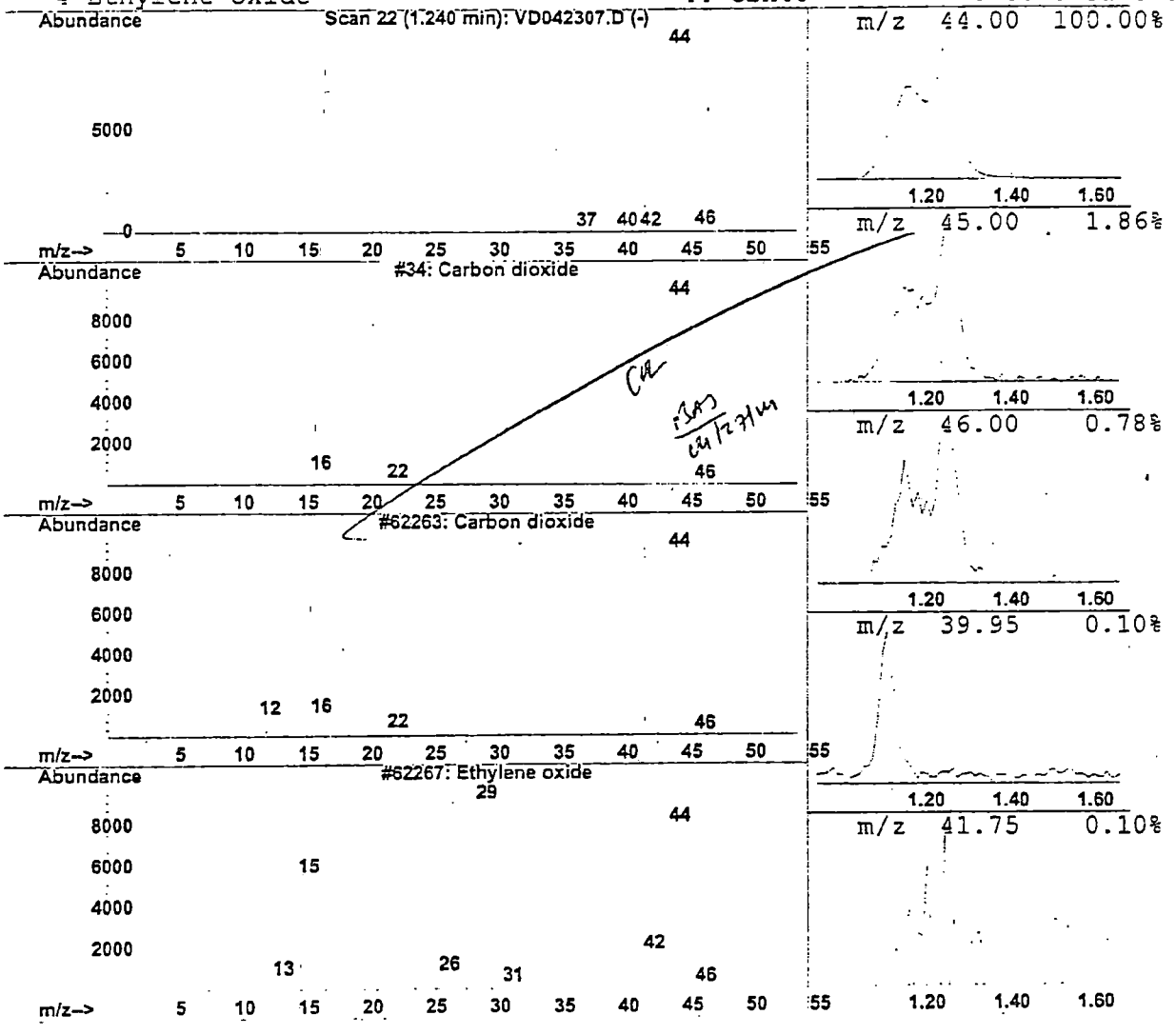
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.24	26.11 ug/l	5651780	Pentafluorobenzene	4.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOA1\VD042304\VD042307.D Vial: -
Acq On : 23 Apr 2004 10:34 am Operator: EPIC
Sample : S2196-02 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

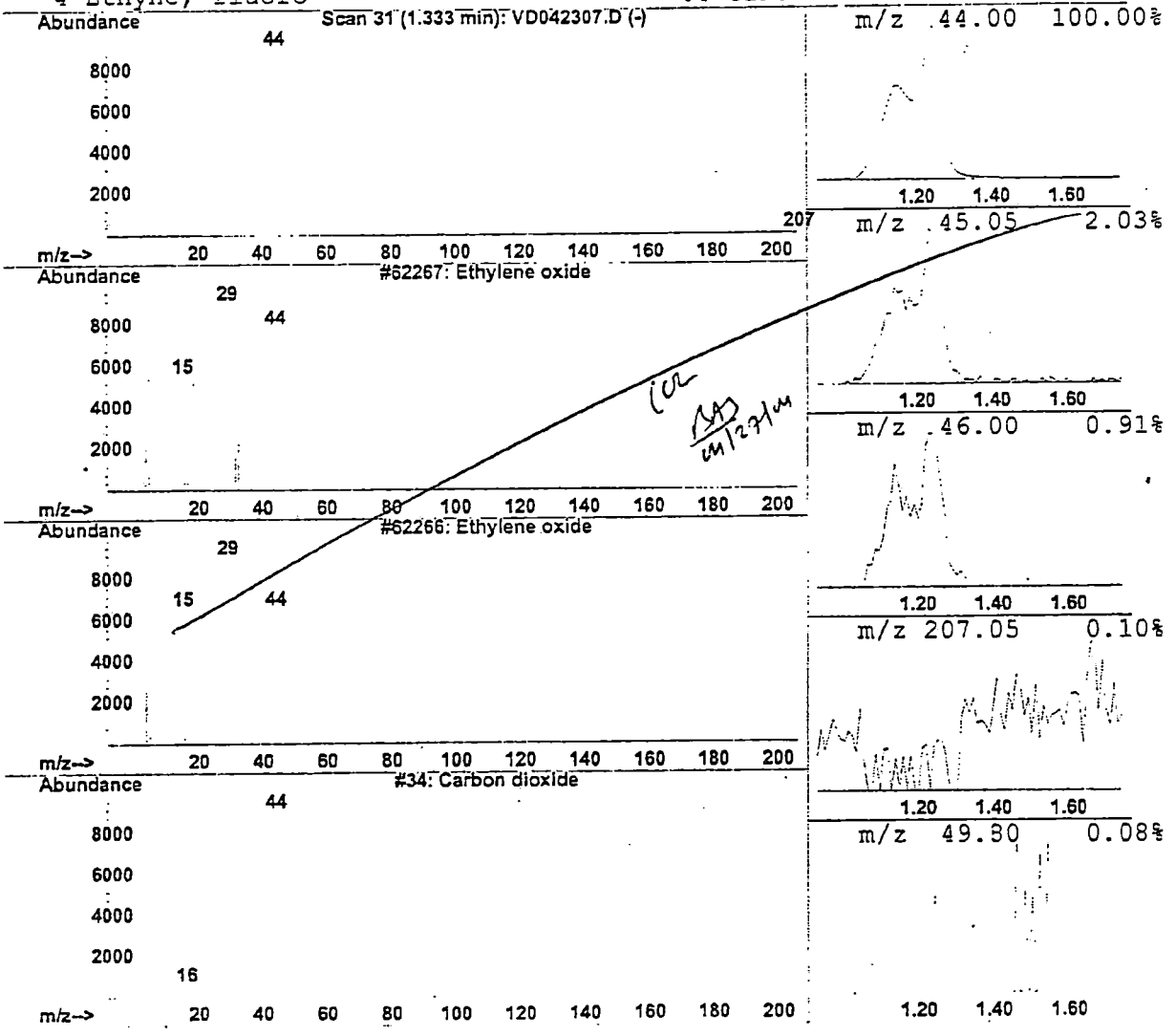
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.33	25.34 ug/l	5484780	Pentafluorobenzene	4.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Tentatively Identified Compound (TIC) summary

Operator ID: BPIT Date Acquired: 18 Apr 2004 10:34 am
Data File: F:\1\DATA\MSVOAD\VD042304\VD042307.D
Name: S2186-02
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.24	26.1	ug/l	5651780	ISTD01	4.43	2164580	10.0
Ethylene oxide	1.33	25.3	ug/l	5484780	ISTD01	4.43	2164580	10.0

VD042307.D SAD0419W.M Tue Apr 27 13:20:46 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-04 | Client ID: MW-8

Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042308.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	0.51	J	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-04 | Client ID: MW-8

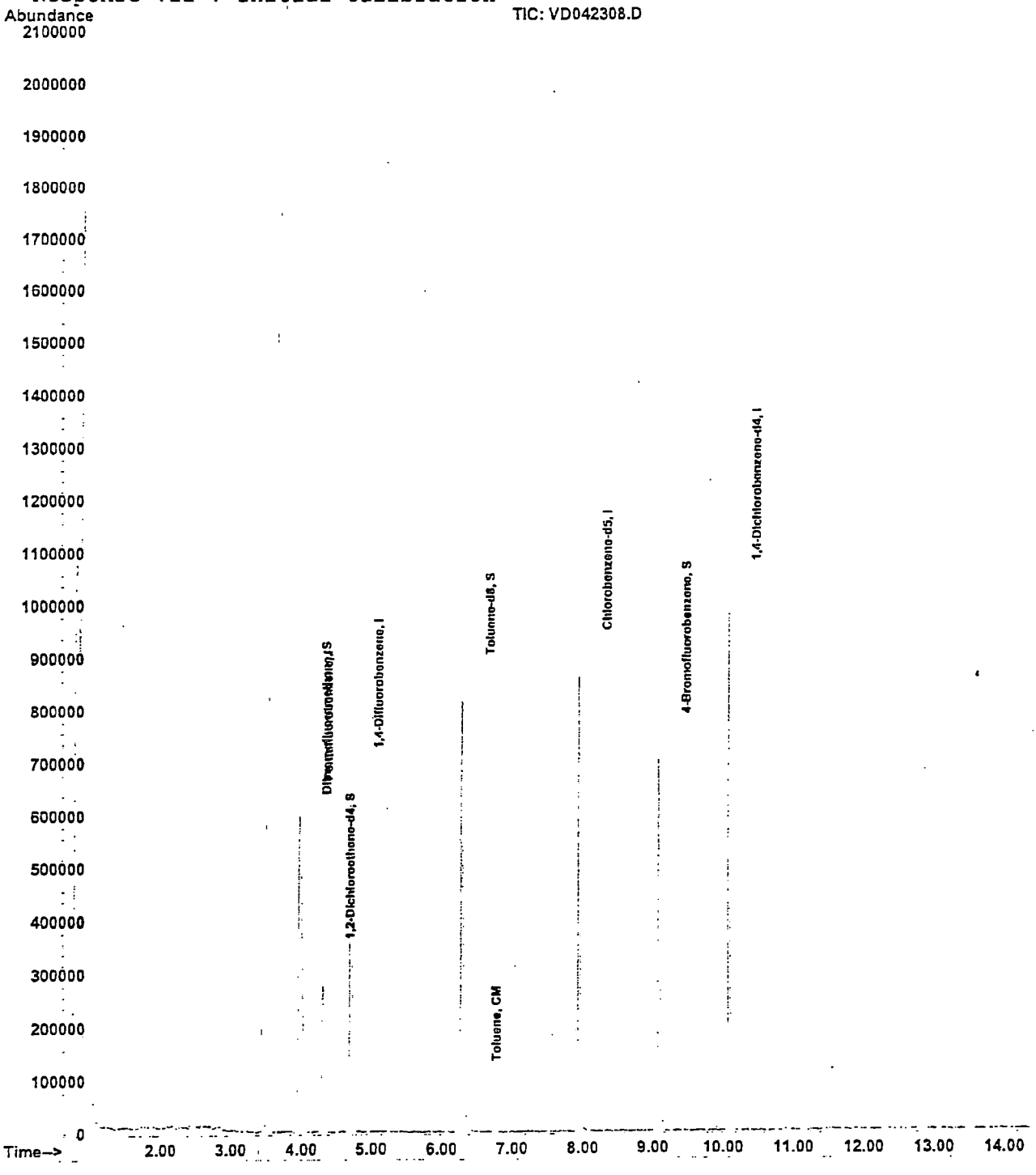
Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042308.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Wol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.55	116 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.26	103 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.3	93 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.47	85 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	332531	4.41			
1,4-Difluorobenzene	540-36-3	549283	5.13			
Chlorobenzene-d5	3114-55-4	472676	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	237057	10.50			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042308.D Vial: 8
Acq On : 23 Apr 2004 11:15 am Operator: BRIT
Sample : S2186-04 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:22 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041304\VD042308.D Vial: 8
Acq On : 23 Apr 2004 11:18 am Operator: BRIT
Sample : S2186-04 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:22 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

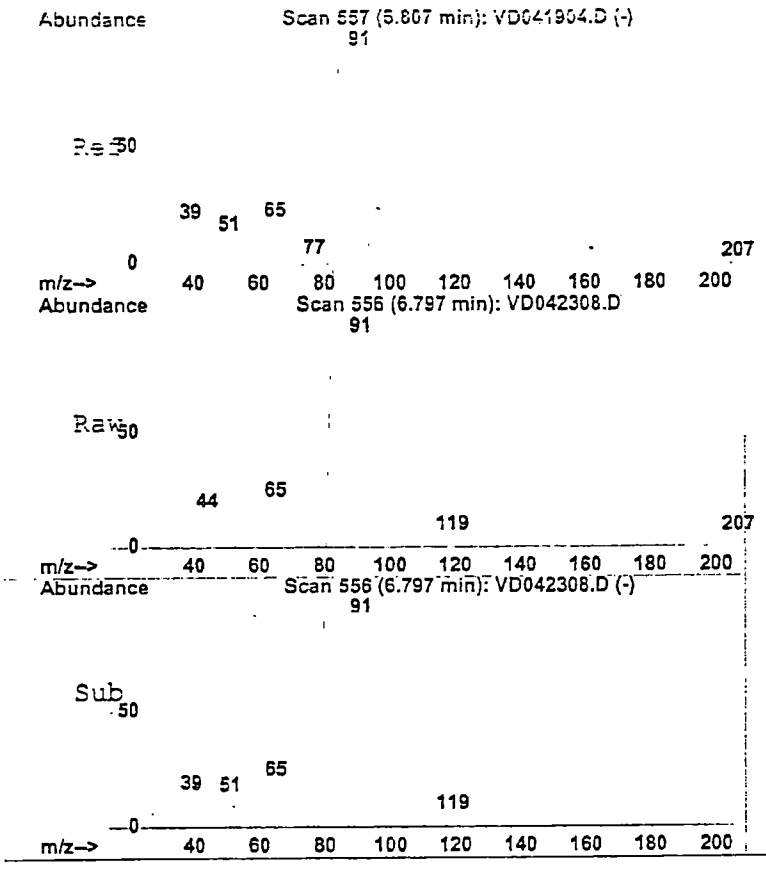
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.41	168	332531	10.00 ug/l	-0.02
31) 1,4-Difluorobenzene	5.13	114	549283	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	472676	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.50	152	237057	10.00 ug/l	-0.01
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	269342	11.55 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 115.50%	
32) Dibromofluoromethane	4.39	113	227235	10.26 ug/l	0.00
Spiked Amount 10.000			Recovery	= 102.60%	
43) Toluene-d8	6.71	98	626187	9.30 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 93.00%	
56) 4-Bromofluorobenzene	9.50	95	241318	8.47 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 84.70%	
Target Compounds					Qvalue
46) Toluene	6.80	92	23727	0.51 ug/l	97

Analyst Signature: MM Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

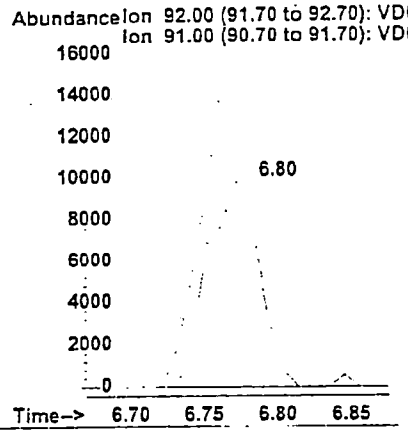
(#) = qualifier out of range (m) = manual integration



#46
Toluene
Concen: 0.51 ug/L
RT: 6.80 min Scan# 556
Delta R.T. -0.01 min
Lab File: VD042308.D
Acq: 23 Apr 2004 11:15 am

Tgt Ion: 92 Resp: 23727

Ion	Ratio	Lower	Upper
92	100		
91	162.7	127.4	191.2



LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042314\VD142308.D Vial: 3
Acq On : 23 Apr 2004 11:18 am Operator: BFIT
Sample : S2136-04 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

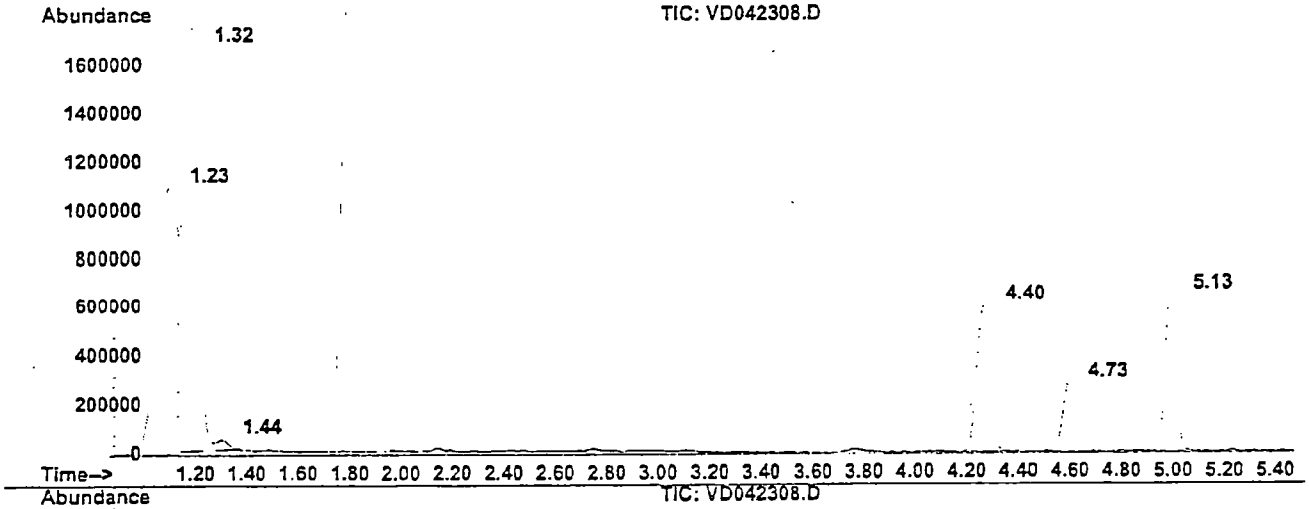
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.229	4	21	25	rBV	1098361	6138677	100.00%	25.327%
2	1.323	26	30	38	rVV	1746447	5969233	97.24%	24.628%
3	1.438	39	41	47	rVB	39090	113810	1.85%	0.470%
4	4.404	318	326	336	rBV3	598286	2154769	35.10%	8.890%
5	4.726	351	357	365	rVB	277340	823007	13.41%	3.396%
6	5.133	389	396	402	rBV	640839	1753743	28.57%	7.236%
7	6.714	542	548	553	rBV	816400	2105676	34.30%	8.688%
8	6.786	553	555	560	rVB	43714	104490	1.70%	0.431%
9	8.369	702	707	713	rBV	864614	1878040	30.59%	7.748%
10	9.502	812	816	820	rBV	705818	1384803	22.56%	5.713%
11	10.500	907	912	918	rBV	996938	1811538	29.51%	7.474%

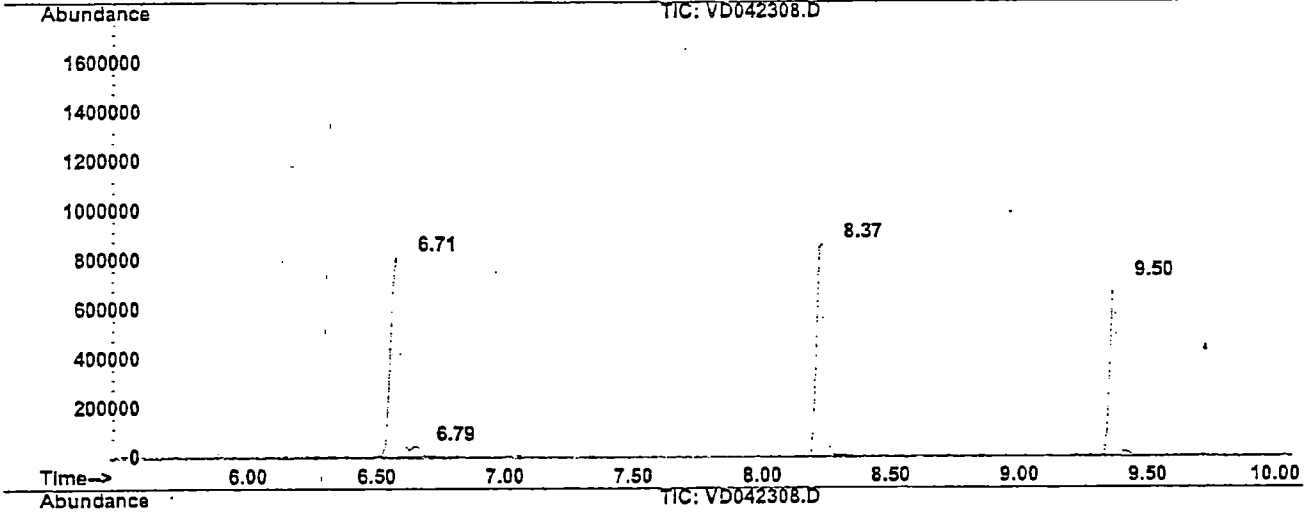
Sum of corrected areas: 24237786

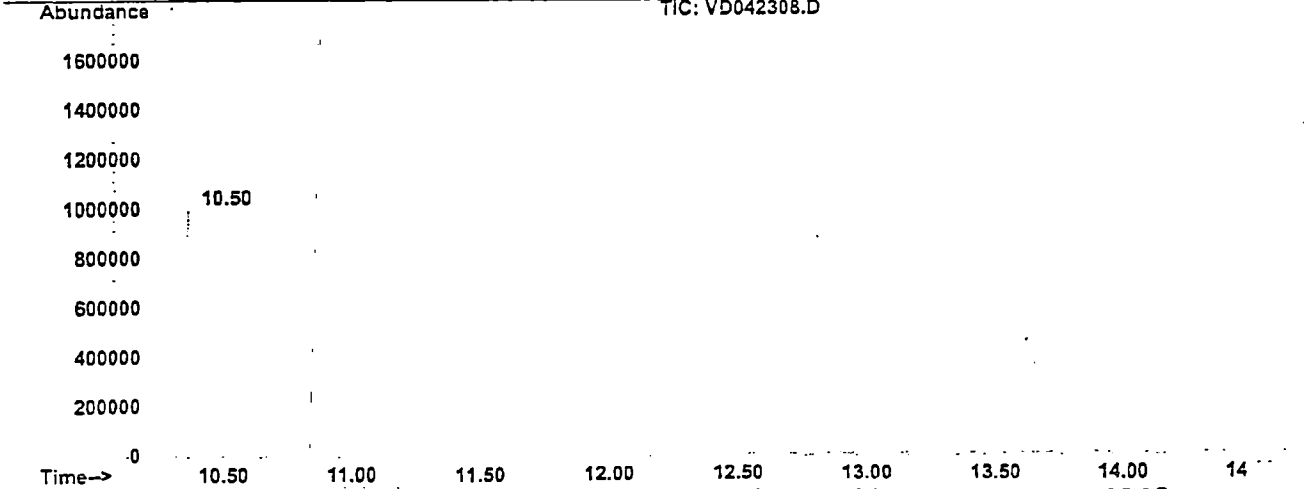
VD042308.D SAD0419W.M Tue Apr 27 13:21:21 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042308.D
Operator : BRIJ
Acquired : 23 Apr 2004 11:15 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-04
Misc Info : 25mL
Vial Number: 8
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042308.D Vial: 8
Acq On : 23 Apr 2004 11:15 am Operator: BRIJ
Sample : SI196-04 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

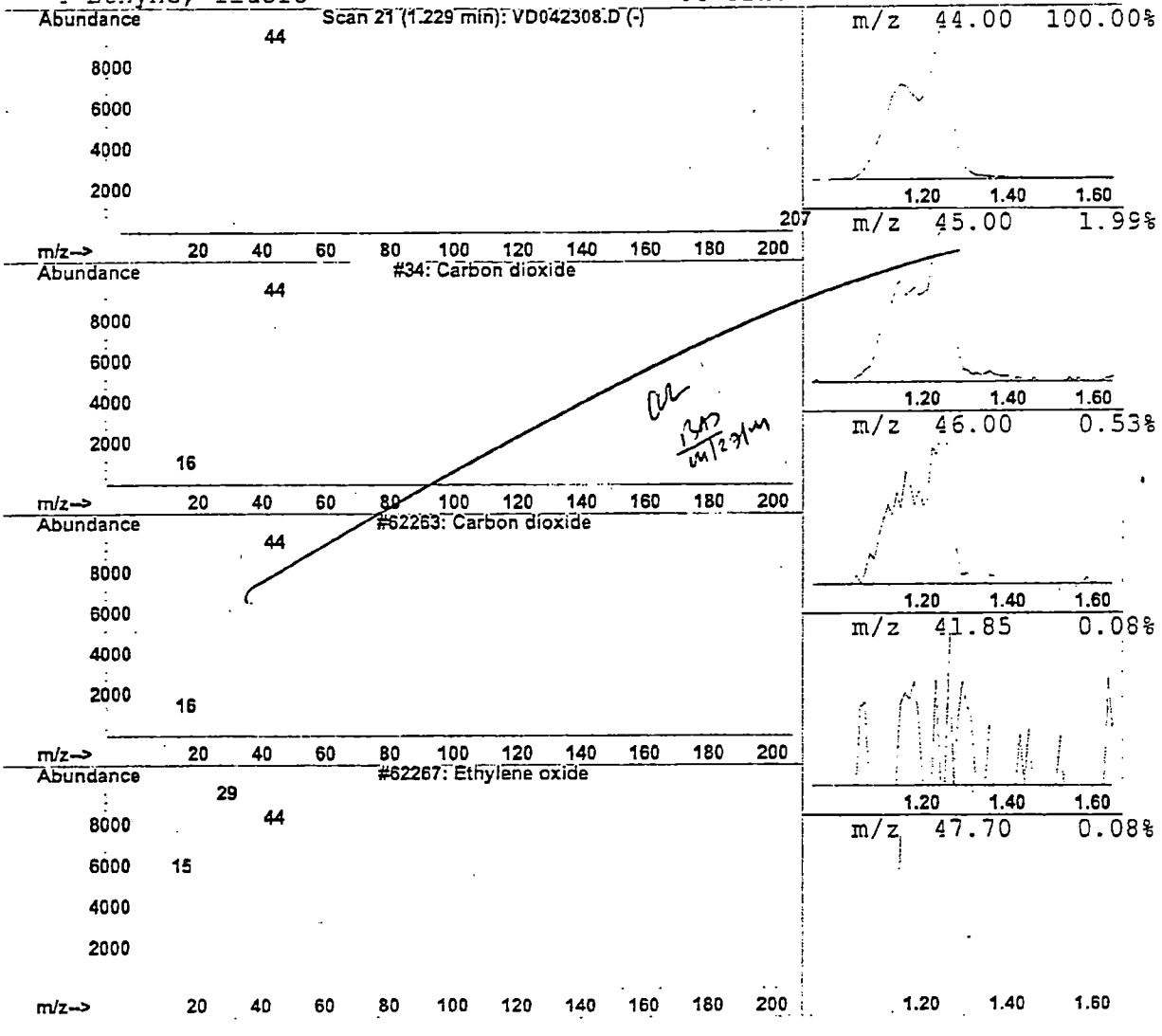
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.23	28.49 ug/l	6138680	Pentaflucrobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042308.D Vial: 5
Acq On : 23 Apr 2004 11:15 am Operator: EPCC
Sample : S2186-C4 Inst : 5970 MSD
Misc : 25ml Multiplr: 1.00
MS Integration Params: LSTINT.P

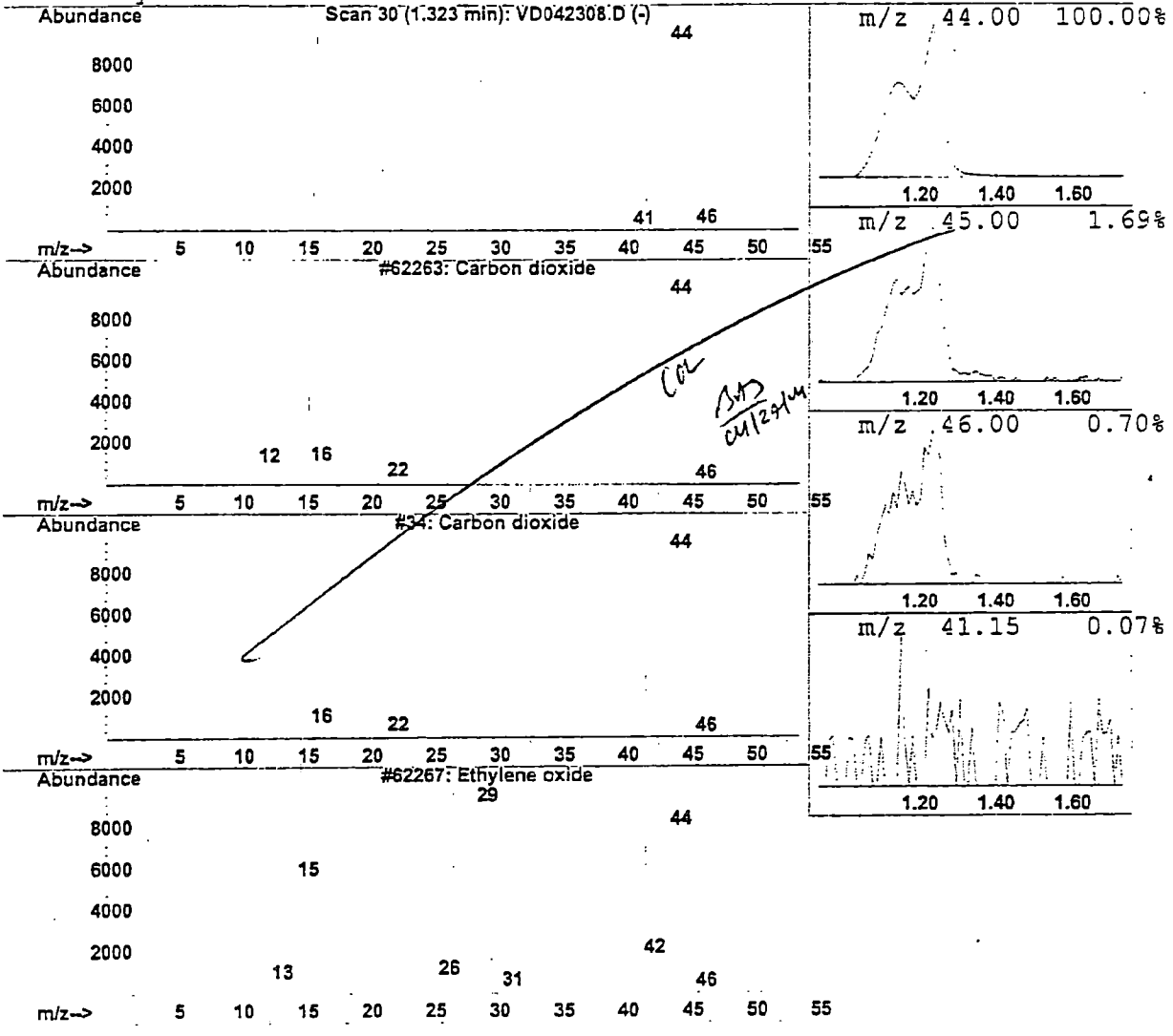
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.32	27.70 ug/l	5969230	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Tentatively Identified Compound (TIC) summary

Operator ID: BRIG Date Acquired: 28 Apr 2004 11:15 am
Data File: F:\1\DATA\MSVOAD\VD042304\VD042308.D
Name: S2186-04
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.23	28.5	ug/l	6138680	ISTD01	4.41	2154770	10.0
Carbon dioxide	1.32	27.7	ug/l	5969230	ISTD01	4.41	2154770	10.0

VD042308.D SAD0419W.M Tue Apr 27 13:21:22 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-05 | Client ID: TRIPBLANK

Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042305.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	1.6		1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

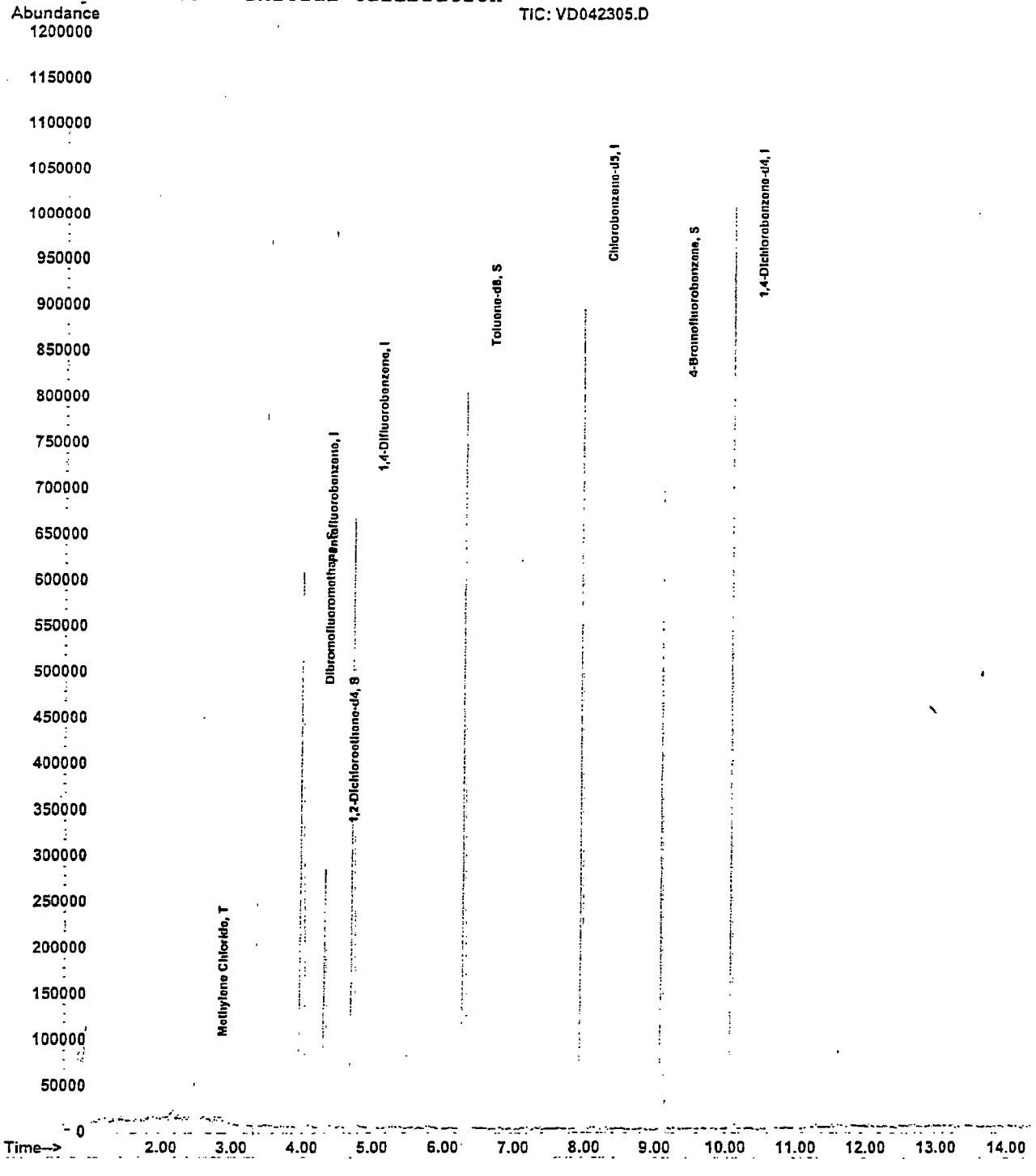
Sample ID:	S2186-05	Client ID:	TRIPBLANK
Date Collected:	4/13/2004	Date Received:	4/15/2004
Date Analyzed:	4/23/2004	Matrix:	WATER
File ID:	VD042305.D	Analytical Run ID:	VD041904
Dilution:	1	Instrument ID:	MSVOAD
Analytical Method:	8260-Low	Associated Blank:	VBD0423W1
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	
Soil Aliquot Vol:		% Moisture:	100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.07	111 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	9.79	98 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.02	90 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.14	81 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	335104	4.41			
1,4-Difluorobenzene	540-36-3	568872	5.13			
Chlorobenzene-d5	3114-55-4	466368	8.36			
1,4-Dichlorobenzene-d4	3855-82-1	235565	10.50			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042305.D Vial: 5
Acq On : 23 Apr 2004 9:12 am Operator: BPIO
Sample : S2136-05 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:20 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846·8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042305.D Vial: 5
Acq On : 23 Apr 2004 9:12 am Operator: BRIJ
Sample : S2186-05 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:20 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

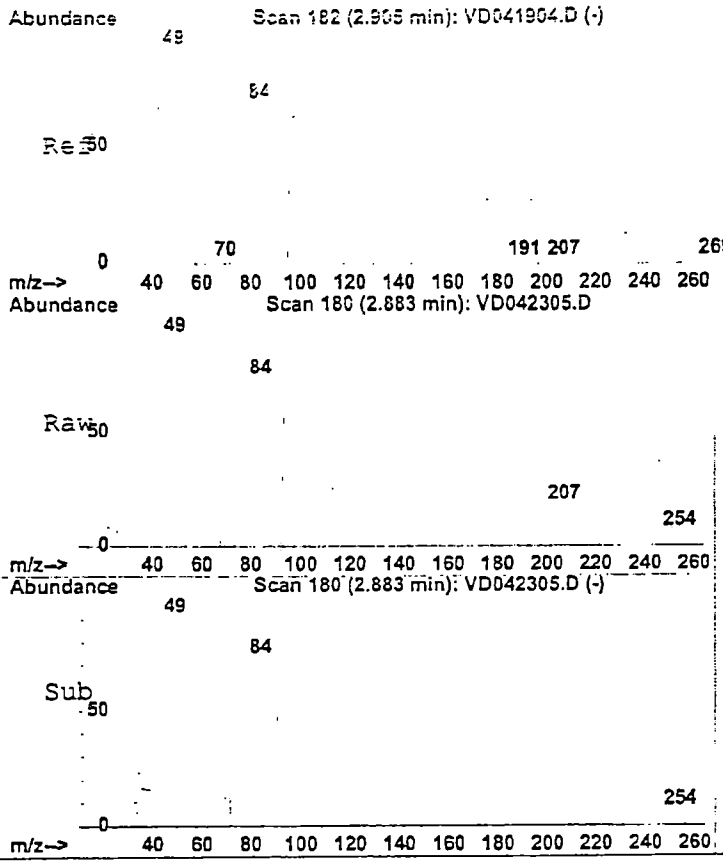
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.41	168	335104	10.00 ug/l	-0.02
31) 1,4-Difluorobenzene	5.13	114	568872	10.00 ug/l	-0.01
57) Chlorobenzene-d5	8.36	117	466368	10.00 ug/l	-0.02
66) 1,4-Dichlorobenzene-	10.50	152	235565	10.00 ug/l	-0.01
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	260026	11.07 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 110.70%	
32) Dibromofluoromethane	4.38	113	224532	9.79 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 97.90%	
43) Toluene-d8	6.71	98	629521	9.02 ug/l	-0.03
Spiked Amount 10.000			Recovery	= 90.20%	
56) 4-Bromofluorobenzene	9.50	95	240124	8.14 ug/l	0.00
Spiked Amount 10.000			Recovery	= 81.40%	
Target Compounds					Qvalue
19) Methylene Chloride	2.88	84	27611	1.60 ug/l	91

Analyst Signature: MS Analyst Name: _____ Date: 04/29/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

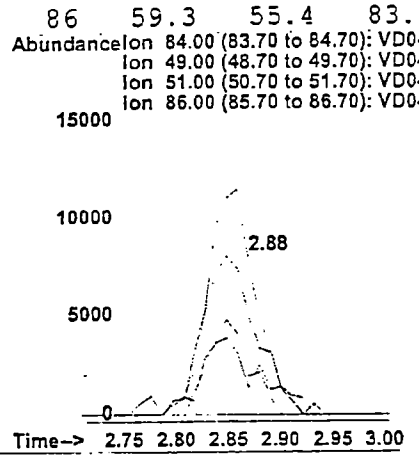
(#) = qualifier out of range (m) = manual integration



#19
Methylene Chloride
Concen: 1.60 ug/l
RT: 2.88 min Scan# 180
Delta R.T. -0.02 min
Lab File: VD042305.D
Acq: 23 Apr 2004 9:12 am

Tgt Ion: 84 Resp: 27611

Ion	Ratio	Lower	Upper
84	100		
49	136.3	117.6	176.4
51	47.9	36.8	55.2
86	59.3	55.4	83.2



LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042305.D Vial: 5
Acq On : 13 Apr 2004 9:12 am Operator: BRIJ
Sample : S2186-05 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

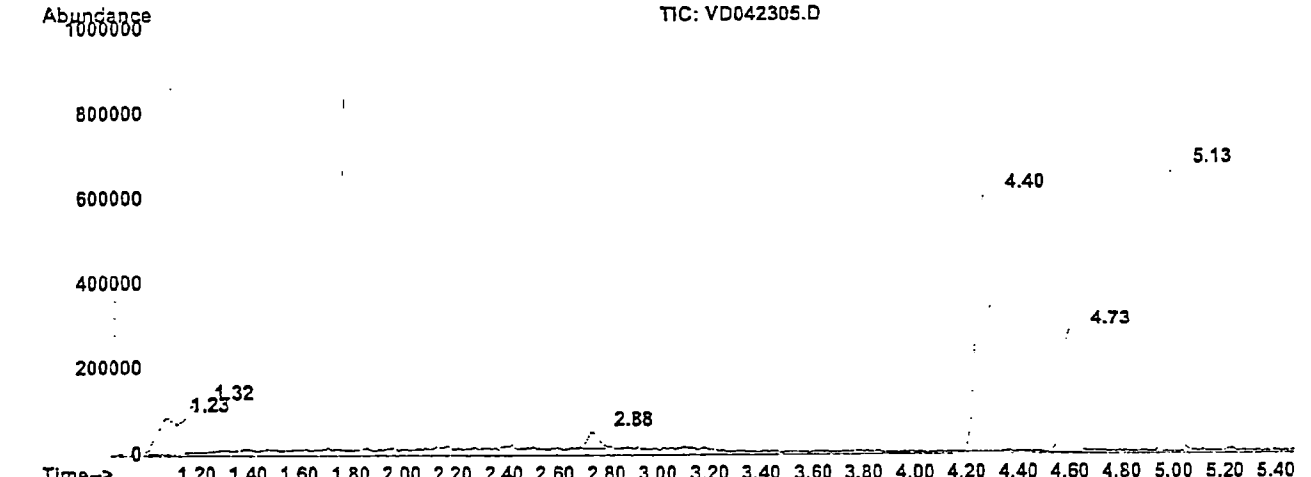
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.229	10	21	24	rBV2	85134	421845	19.34%	3.251%
2	1.323	27	30	40	rVV	109113	349345	16.01%	2.693%
3	2.883	174	180	186	rBV3	38356	123217	5.65%	0.950%
4	4.403	318	326	335	rBV3	605040	2181591	100.00%	16.815%
5	4.734	349	358	366	rBV	283431	825921	37.86%	6.366%
6	5.129	389	396	404	rBV	665679	1777971	81.50%	13.704%
7	6.708	541	548	560	rBV	802879	2126179	97.46%	16.387%
8	8.361	701	707	715	rBV	895100	1888244	86.55%	14.554%
9	9.505	813	817	821	rBV	768797	1421377	65.15%	10.955%
10	9.557	821	822	826	rVB	31511	34248	1.57%	0.264%
11	10.502	908	913	917	rBV	1007475	1824501	83.63%	14.062%

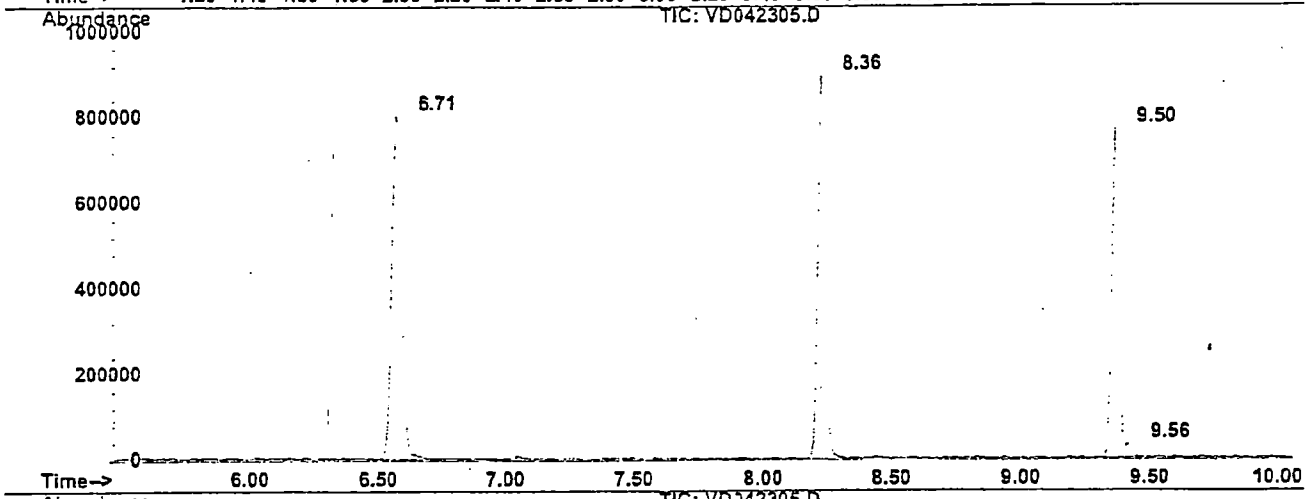
Sum of corrected areas: 12974439

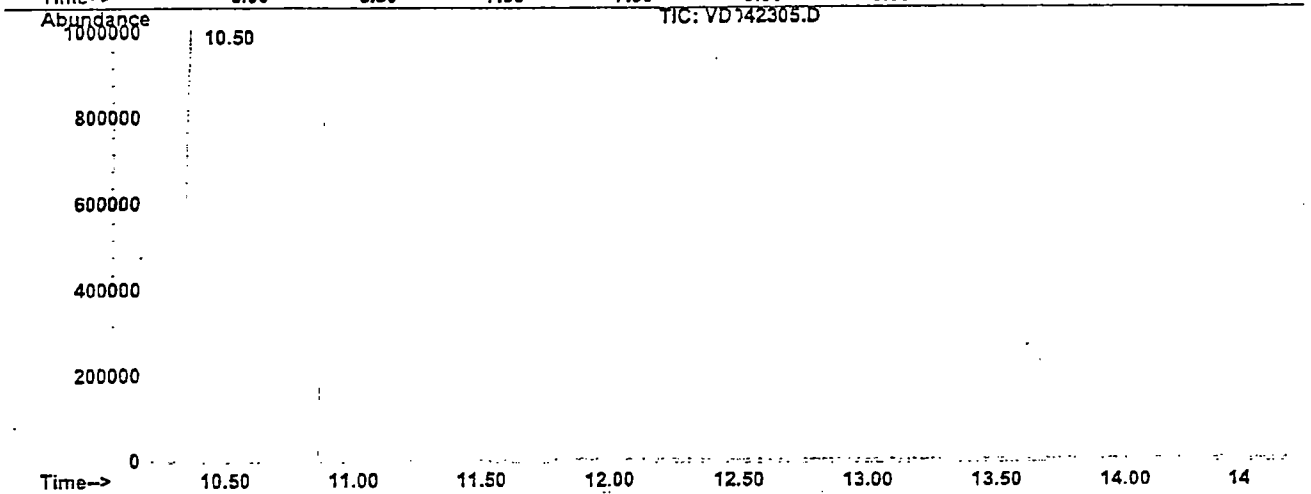
VD042305.D SAD0419W.M Tue Apr 27 13:19:29 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042305.D
Operator : ERIC
Acquired : 23 Apr 2004 9:12 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-05
Misc Info : 25mL
Vial Number: 5
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042305.D Vial: 5
Acq On : 23 Apr 2004 9:11 am Operator: BRIT
Sample : S2186-05 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

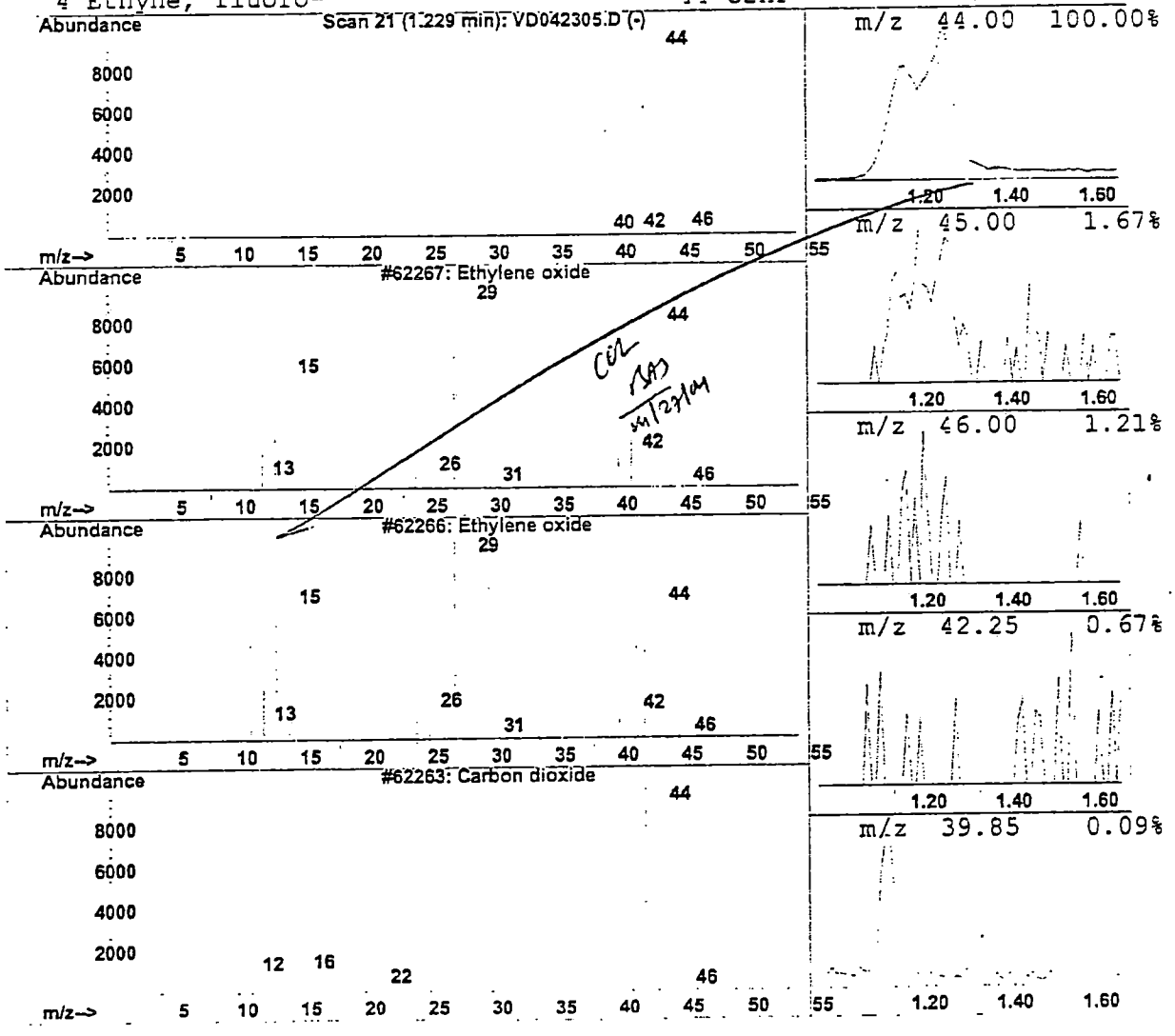
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Ethylene oxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.23	1.93 ug/l	421845	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042305.D Vial: 5
Acq On : 13 Apr 2004 9:12 am Operator: BRIJ
Sample : S2186-05 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

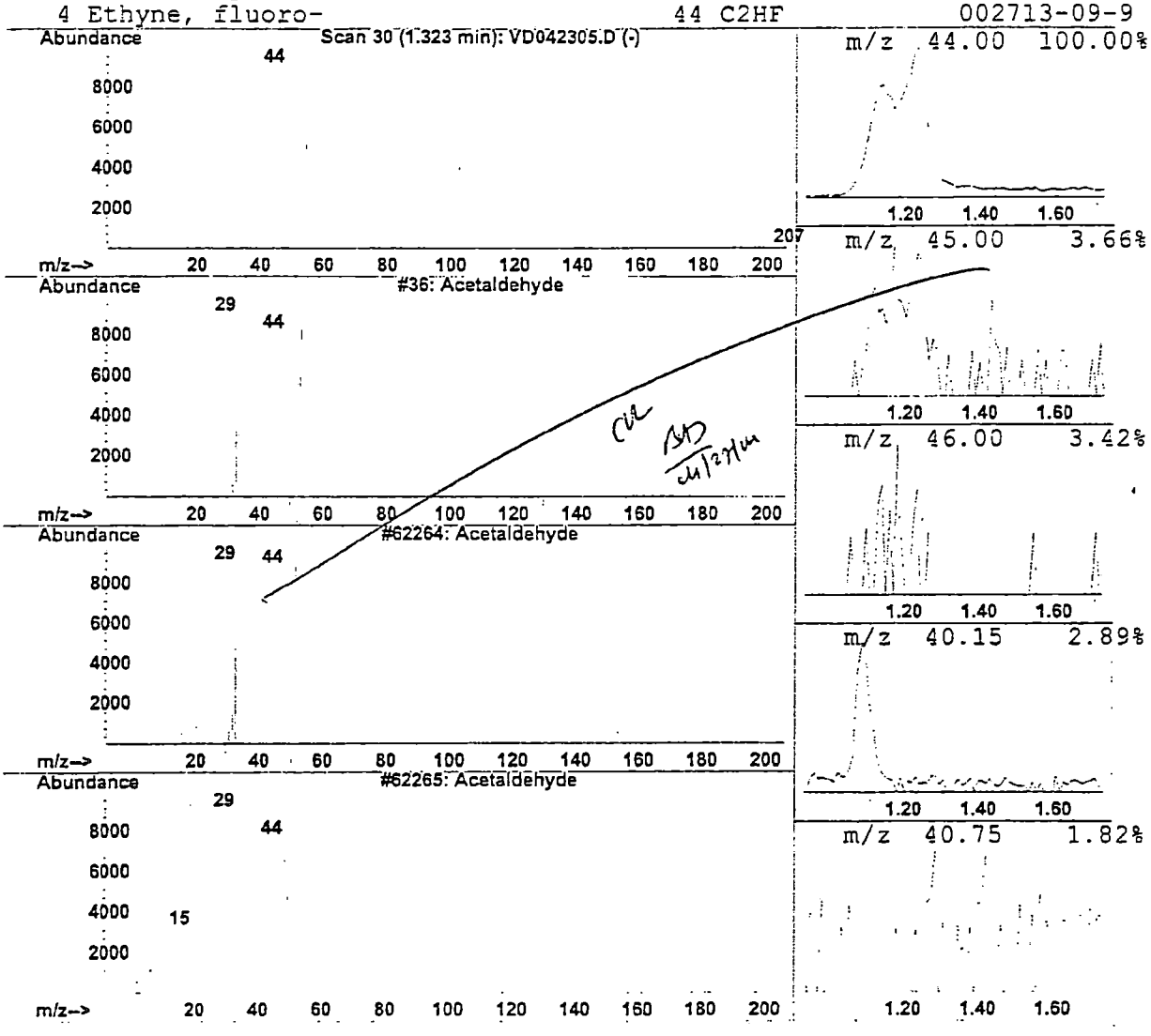
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Acetaldehyde Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.32	1.60 ug/l	349345	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	3
2	Acetaldehyde	44	C2H4O	000075-07-0	3
3	Acetaldehyde	44	C2H4O	000075-07-0	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



CL
SD 4/27/04

Tentatively Identified Compound (TIC) summary

Operator ID: EPIJ Date Acquired: 23 Apr 2004 9:12 am
Data File: F:\1\DATA\MSVOAD\VD042304\VD042305.D
Name: S2186-05
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethylene oxide	1.23	1.9	ug/l	421845	ISTD01	4.41	2181590	10.0
Acetaldehyde	1.32	1.6	ug/l	349345	ISTD01	4.41	2181590	10.0

VD042305.D SAD0419W.M Tue Apr 27 13:19:30 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186
Client: Tetra Tech FW Inc.

Client ID: MW-5

Sample ID: S2186-06

Date Collected: 4/13/2004
Date Analyzed: 4/23/2004
File ID: VD042309.D
Dilution: 1
Analytical Method: 8260-Low
Sample Wt/Vol: 25.0 Units: mL
Soil Aliquot Vol:

Date Received: 4/15/2004
Matrix: WATER
Analytical Run ID: VD041904
Instrument ID: MSVOAD
Associated Blank: VBD0423W1
Soil Extract Vol:
% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-06 | Client ID: MW-5

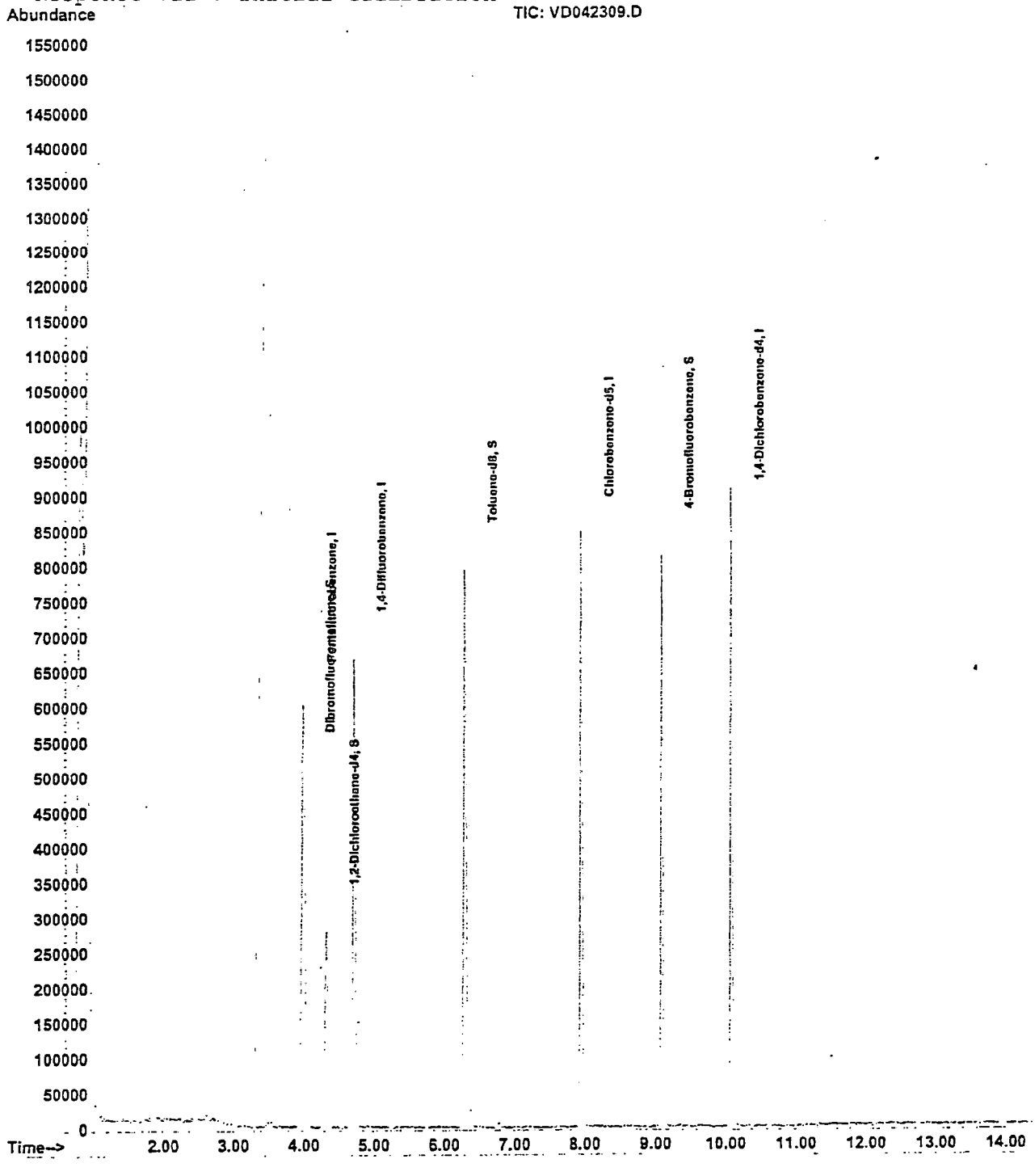
Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042309.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.45	115 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.24	102 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.25	93 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.67	87 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	327565	4.41			
,4-Difluorobenzene	540-36-3	550475	5.13			
hlorobenzene-d5	3114-55-4	464453	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	228103	10.51			
TENTITIVE IDENTIFIED COMPOUNDS						
Acetaldehyde	75070	20	J	1.33		ug/L

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042309.D Vial: 9
Acq On : 23 Apr 2004 11:56 am Operator: BRIJ
Sample : S2186-06 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:23 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042309.D Vial: 9
Acq On : 23 Apr 2004 11:56 am Operator: BRIC
Sample : S2186-06 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:23 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.41	168	327565	10.00 ug/l	-0.02
31) 1,4-Difluorobenzene	5.13	114	550475	10.00 ug/l	-0.01
57) Chlorobenzene-d5	8.37	117	464453	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	228103	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	262869	11.45 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 114.50%	
32) Dibromofluoromethane	4.39	113	227231	10.24 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 102.40%	
43) Toluene-d8	6.71	98	624628	9.25 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 92.50%	
56) 4-Bromofluorobenzene	9.50	95	247565	8.67 ug/l	0.00
Spiked Amount 10.000			Recovery	= 86.70%	

Target Compounds Qvalue

Analyst Signature: NO Analyst Name: _____ Date: 4/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042309.D Vial: 9
Acq On : 23 Apr 2004 11:56 am Operator: BRIJ
Sample : S2136-06 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

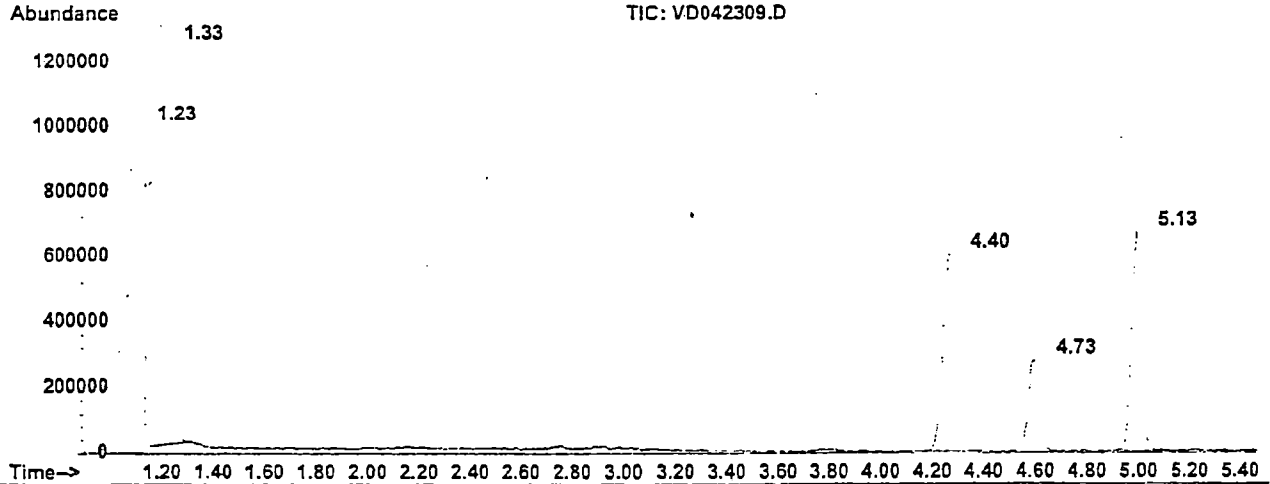
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.229	5	21	25	rBV	1002423	5440440	100.00%	25.209%
2	1.332	27	31	41	rVB	1286744	4247643	78.08%	19.682%
3	4.402	316	326	337	rVB4	600678	2149087	39.50%	9.958%
4	4.735	350	358	367	rVB	278293	814091	14.96%	3.772%
5	5.128	391	396	404	rVB	667141	1751231	32.19%	8.115%
6	6.709	541	548	555	rBV	795283	2110797	38.80%	9.781%
7	8.359	703	707	715	rBV	848717	1843903	33.89%	8.544%
8	9.505	812	817	828	rVB	813185	1496972	27.52%	6.937%
9	10.495	908	912	917	rBV	907046	1726767	31.74%	8.001%

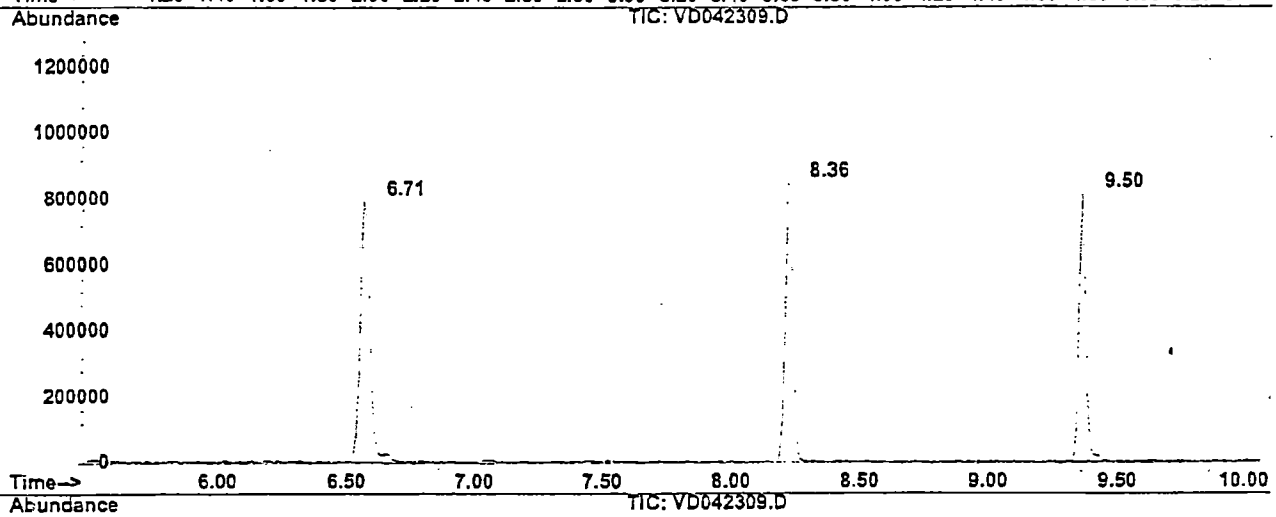
Sum of corrected areas: 21580931

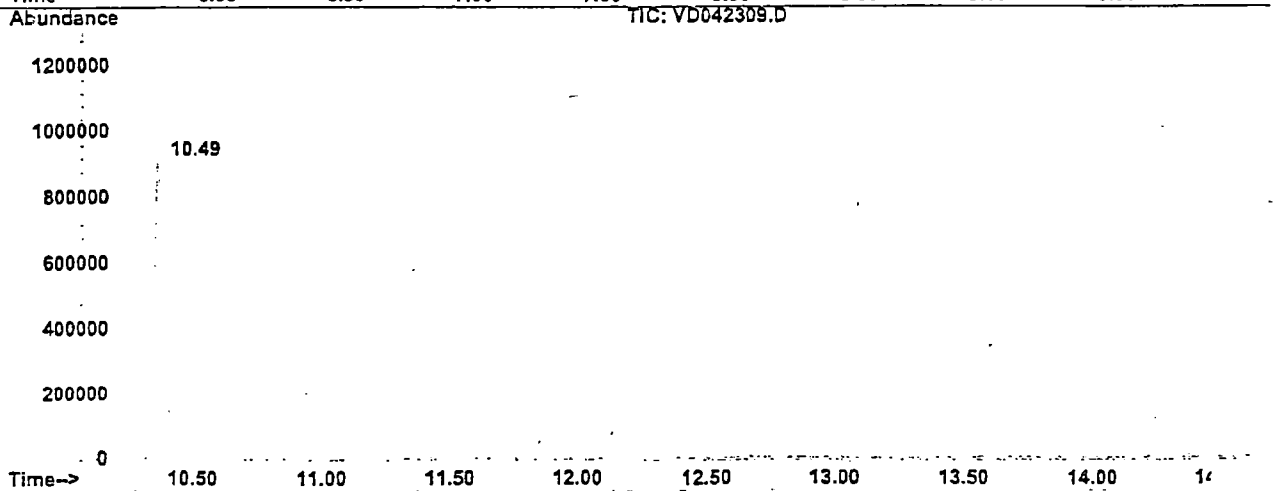
VD042309.D SAD0419W.M Tue Apr 27 13:21:57 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042309.D
Operator : BRIJ
Acquired : 23 Apr 2004 11:56 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-06
Misc Info : 25mL
Vial Number: 9
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042309.D Vial: 9
Acq On : 23 Apr 2004 11:34 am Operator: BRIT
Sample : S2186-06 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

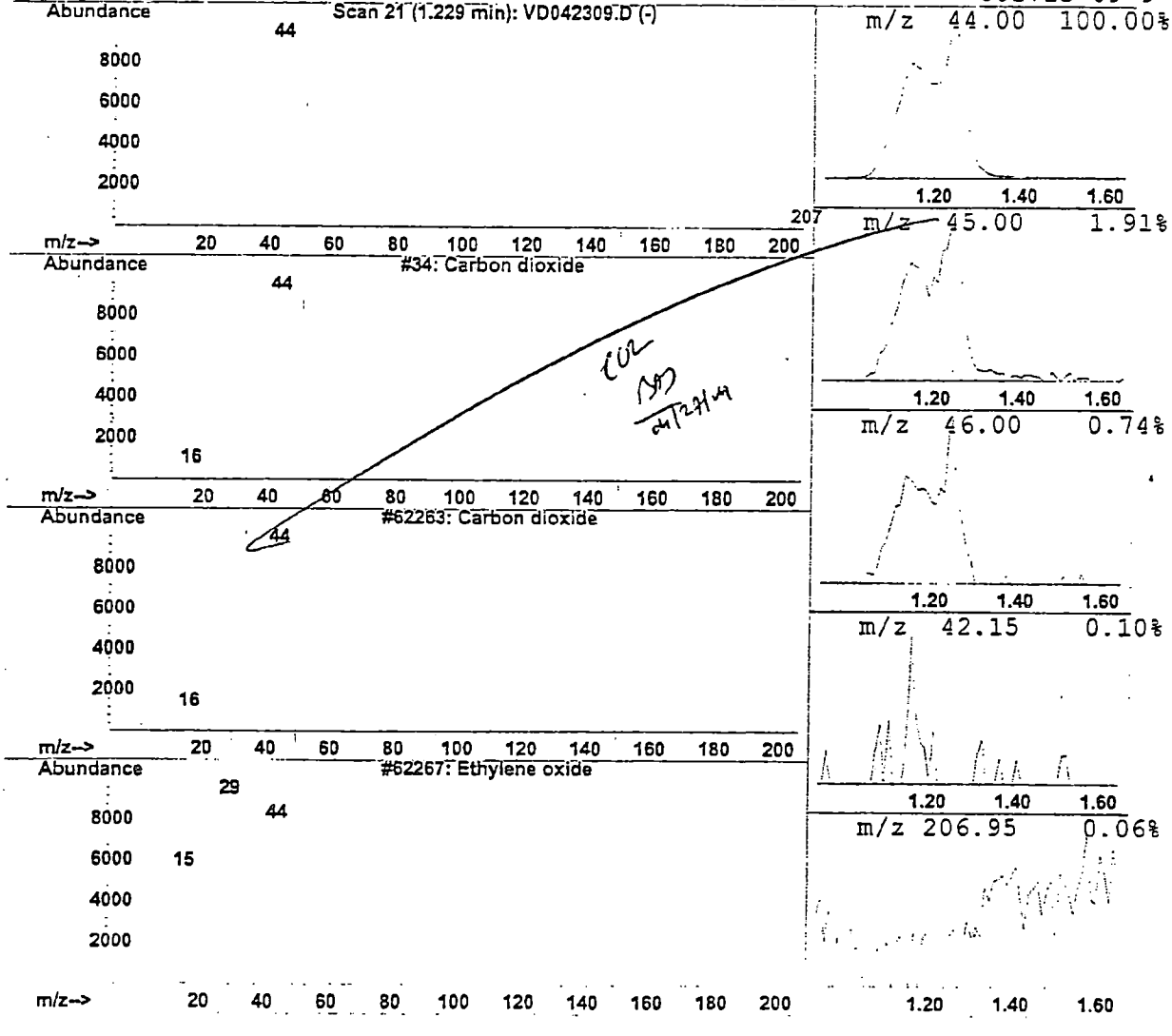
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.23	25.32 ug/l	5440440	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042309.D Vial: 9
Acq On : 23 Apr 2004 11:56 am Operator: BRIT
Sample : S2186-06 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

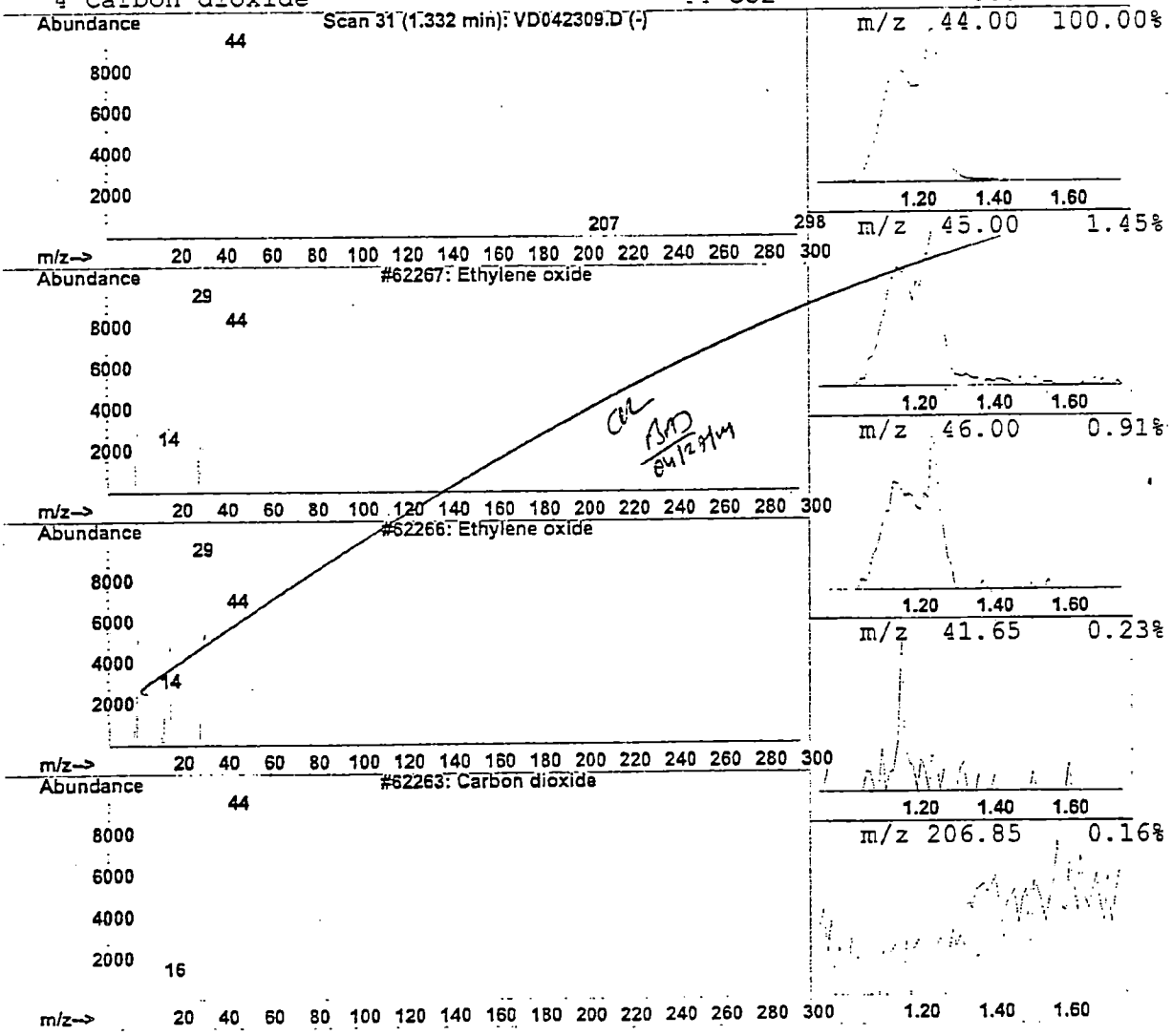
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.33	19.76 ug/l	4247640	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Tentatively Identified Compound (LSC) summary

Operator ID: ERIC Date Acquired: 23 Apr 2004 11:56 am
Data File: F:\1\DATA\MSVOAD\VD042304\VD042309.D
Name: S2186-06
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.23	25.3	ug/l	5440440	ISTD01	4.41	2149090	10.0
Ethylene oxide	1.33	19.8	ug/l	4247640	ISTD01	4.41	2149090	10.0

VD042309.D SAD0419W.M Tue Apr 27 13:21:58 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-07

Client ID: MW-8DUP

Date Collected: 4/13/2004

Date Received: 4/15/2004

Date Analyzed: 4/23/2004

Matrix: WATER

File ID: VD042310.D

Analytical Run ID: VD041904

Dilution: 1

Instrument ID: MSVOAD

Analytical Method: 8260-Low

Associated Blank: VBD0423W1

Sample Wt/Vol: 25.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID:	S2186-07	Client ID:	MW-8DUP
Date Collected:	4/13/2004	Date Received:	4/15/2004
Date Analyzed:	4/23/2004	Matrix:	WATER
File ID:	VD042310.D	Analytical Run ID:	VD041904
Dilution:	1	Instrument ID:	MSVOAD
Analytical Method:	8260-Low	Associated Blank:	VBD0423W1
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	
Soil Aliquot Vol:		% Moisture:	100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.3	113 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.11	101 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	8.51	85 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.69	87 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	320951	4.42			
1,4-Difluorobenzene	540-36-3	535046	5.13			
Chlorobenzene-d5	3114-55-4	445093	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	235000	10.50			
TENTITIVE IDENTIFIED COMPOUNDS						
Ethyne, fluoro-	2713099	19	J	1.33		ug/L

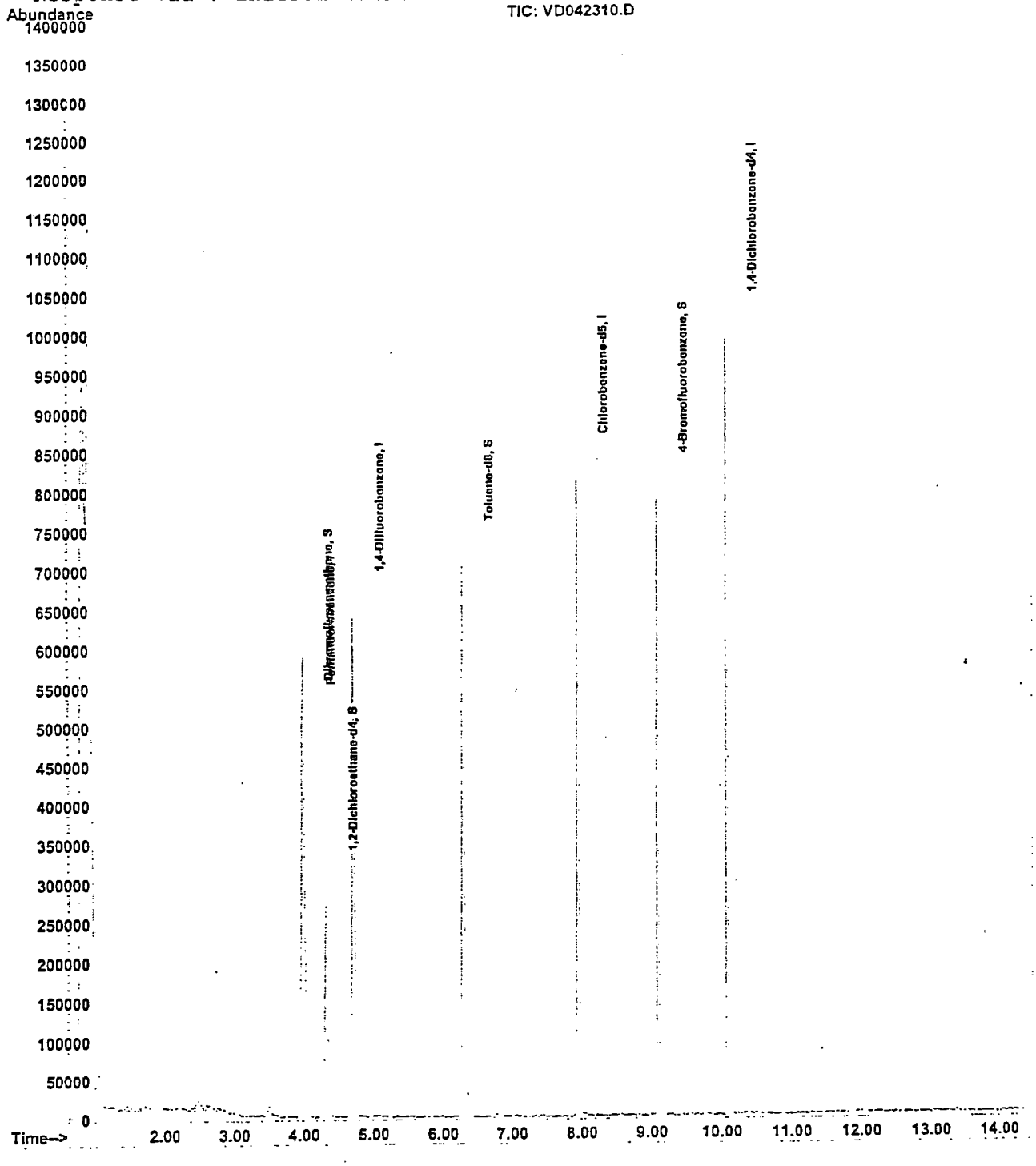
Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042310.D
Acq On : 23 Apr 2004 12:37 pm
Sample : S2186-07
Misc : 25mL
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:23 2004

Vial: 10
Operator: BRIO
Inst : 5970 MSD
Multiplr: 1.00

Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VCAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042310.D Vial: 10
Acq On : 23 Apr 2004 12:37 pm Operator: BRIC
Sample : S2186-07 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:23 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	320951	10.00 ug/l	-0.01
31) 1,4-Difluorobenzene	5.13	114	535046	10.00 ug/l	-0.01
57) Chlorobenzene-d5	8.37	117	445093	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.50	152	235000	10.00 ug/l	-0.01
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.74	65	254181	11.30 ug/l	0.00
Spiked Amount 10.000			Recovery	= 113.00%	
32) Dibromofluoromethane	4.39	113	217981	10.11 ug/l	0.00
Spiked Amount 10.000			Recovery	= 101.10%	
43) Toluene-d8	6.71	98	558159	8.51 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 85.10%	
56) 4-Bromofluorobenzene	9.51	95	241141	8.69 ug/l	0.00
Spiked Amount 10.000			Recovery	= 86.90%	

Target Compounds Qvalue

Analyst Signature: BD Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042310.D Vial: 10
Acq On : 23 Apr 2004 12:37 pm Operator: BRIJ
Sample : S2136-07 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

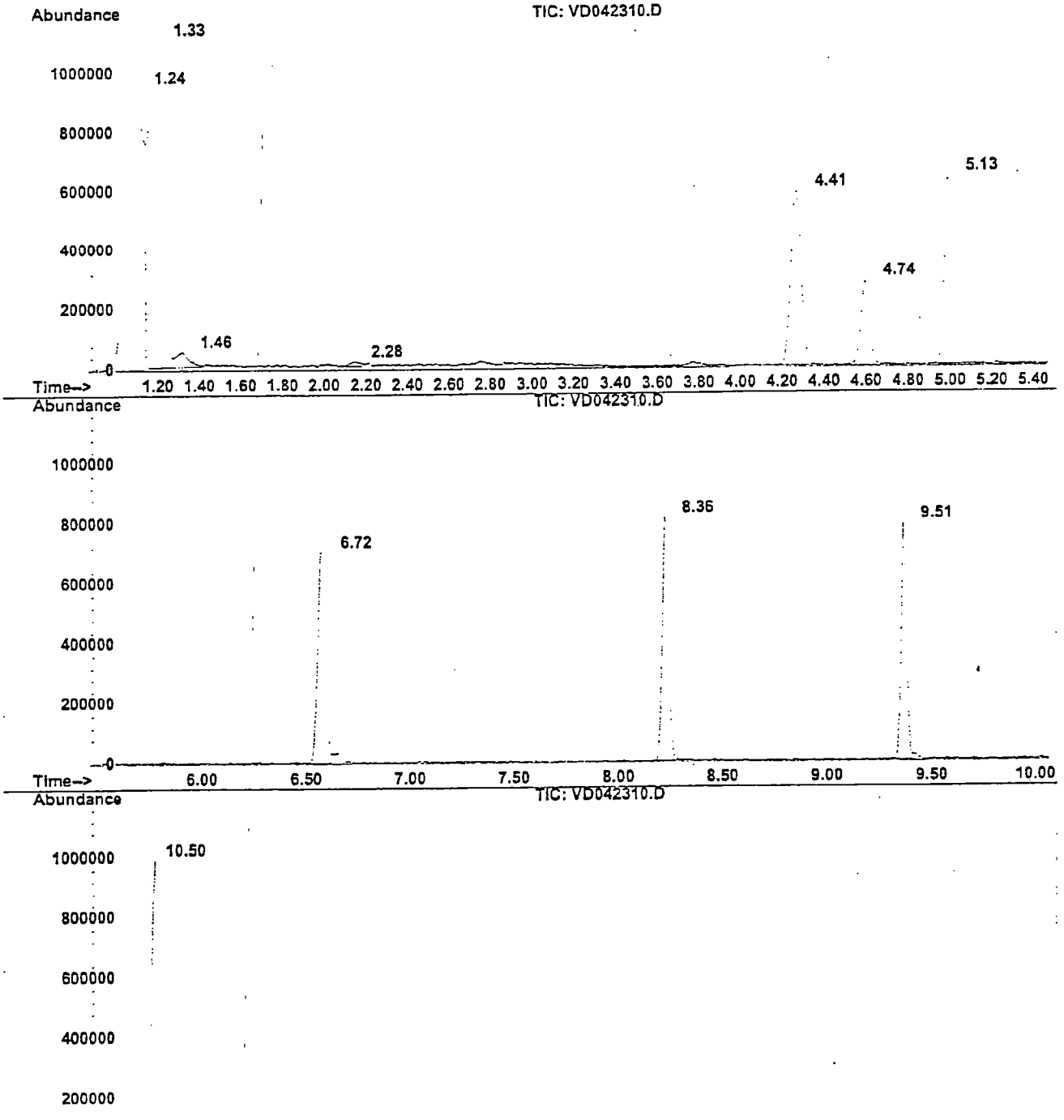
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.240	5	22	26	rBV	952224	5507948	100.00%	25.994%
2	1.333	27	31	39	rVV	1161601	3973060	72.13%	18.751%
3	1.458	39	43	53	rVB	46896	202341	3.67%	0.955%
4	2.280	115	122	127	rBV6	14078	57671	1.05%	0.272%
5	4.413	318	327	336	rBV2	588134	2080294	37.77%	9.818%
6	4.737	347	358	366	rBV2	282127	797086	14.47%	3.762%
7	5.131	390	396	404	rVB	637912	1691858	30.72%	7.985%
8	6.720	542	549	553	rBV	704401	1869145	33.94%	8.821%
9	8.362	703	707	714	rBV	812139	1748115	31.74%	8.250%
10	9.506	813	817	821	rBV	787424	1433700	26.03%	6.766%
11	10.503	908	913	918	rBV	991558	1827718	33.18%	8.626%

Sum of corrected areas: 21188936

VD042310.D SAD0419W.M Tue Apr 27 13:22:33 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042310.D
Operator : BRIJ
Acquired : 23 Apr 2004 12:37 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-07
Misc Info : 25mL
Vial Number: 10
Quant File :SAD0419W.RES (RTE Integrator)



VD042310.D SAD0419W.M Tue Apr 27 13:22:33 2004 MSVOAPRO3

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042310.D Vial: 10
Acq On : 23 Apr 2004 10:37 pm Operator: BRIJ
Sample : S2186-07 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

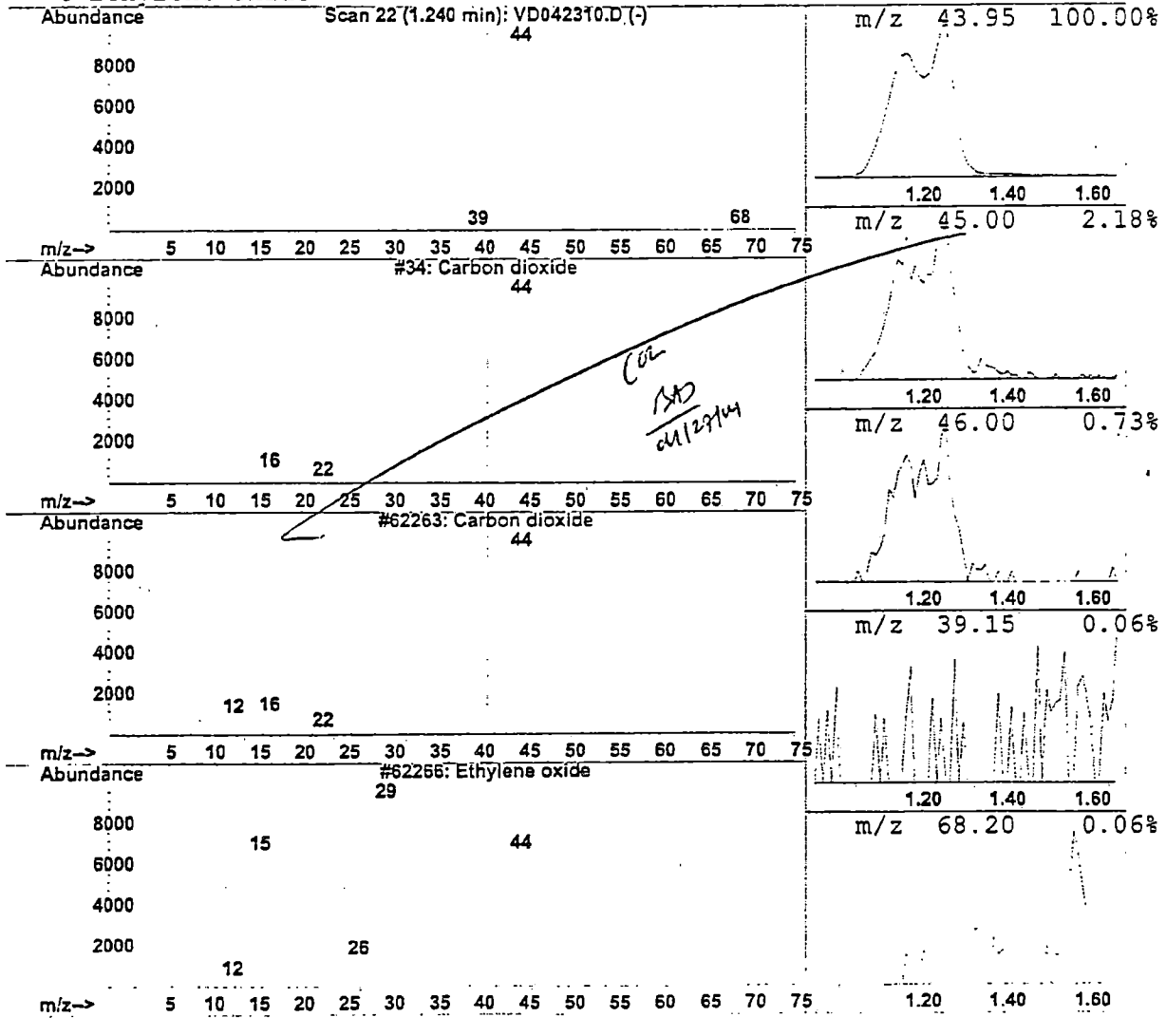
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.24	26.48 ug/l	5507950	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	4
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042310.D Vial: 10
Acq On : 23 Apr 2004 12:37 pm Operator: BRIT
Sample : S2186-07 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

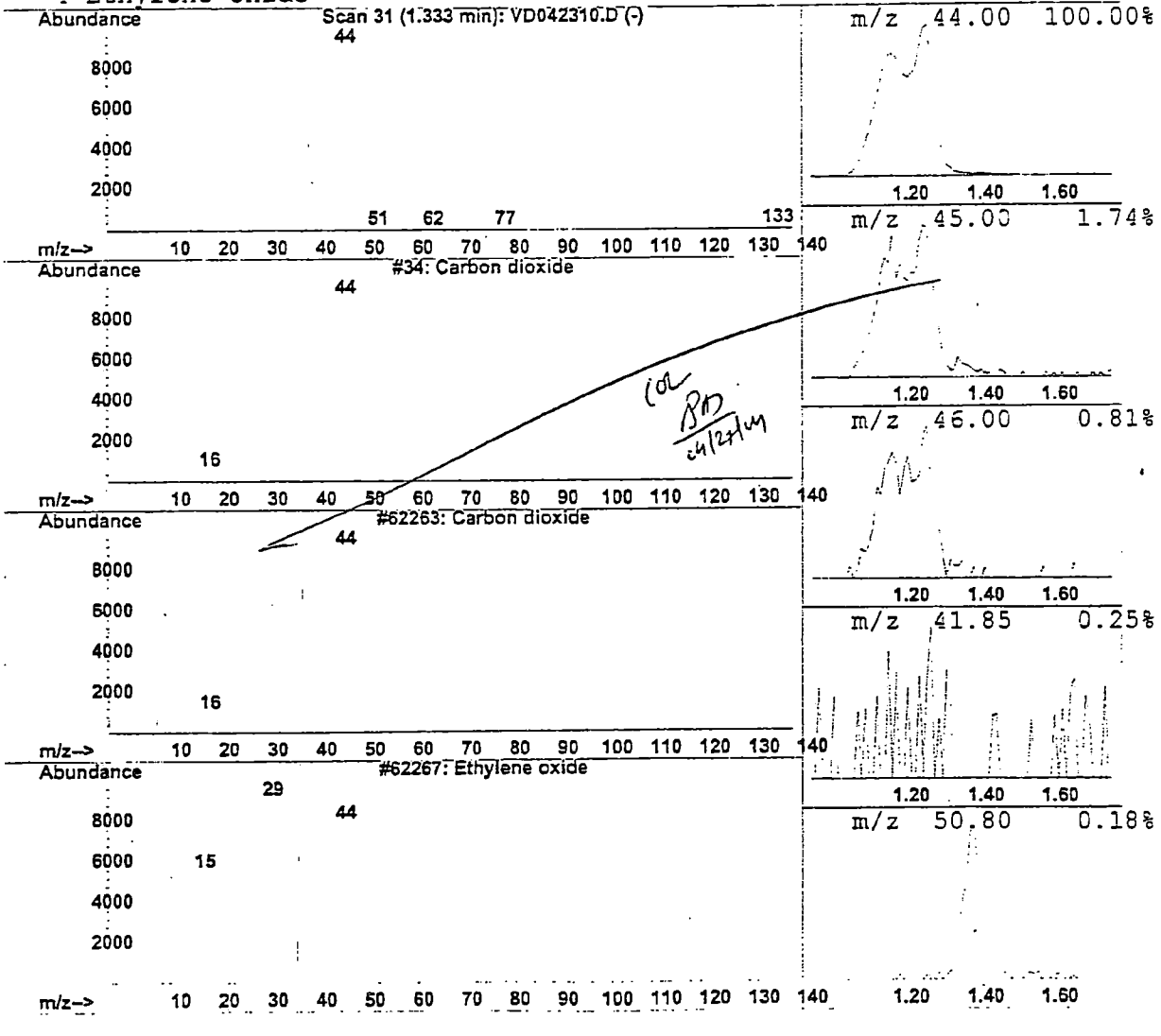
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.33	19.10 ug/l	3973060	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



COL BD 4/27/04

Tentatively Identified Compound (LSC) summary

Operator ID: ERIJ Date Acquired: 23 Apr 2004 12:37 pm
Data File: F:\1\DATA\MSVOAD\VD042304\VD042310.D
Name: S2186-07
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.24	26.5	ug/l	5507950	ISTD01	4.42	2080290	10.0
Carbon dioxide	1.33	19.1	ug/l	3973060	ISTD01	4.42	2080290	10.0

VD042310.D SAD0419W.M Tue Apr 27 13:22:34 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-08

Client ID: MW-11

Date Collected: 4/13/2004

Date Received: 4/15/2004

Date Analyzed: 4/23/2004

Matrix: WATER

File ID: VD042311.D

Analytical Run ID: VD041904

Dilution: 1

Instrument ID: MSVOAD

Analytical Method: 8260-Low

Associated Blank: VBD0423W1

Sample Wt/Vol: 25.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-08 | Client ID: MW-11

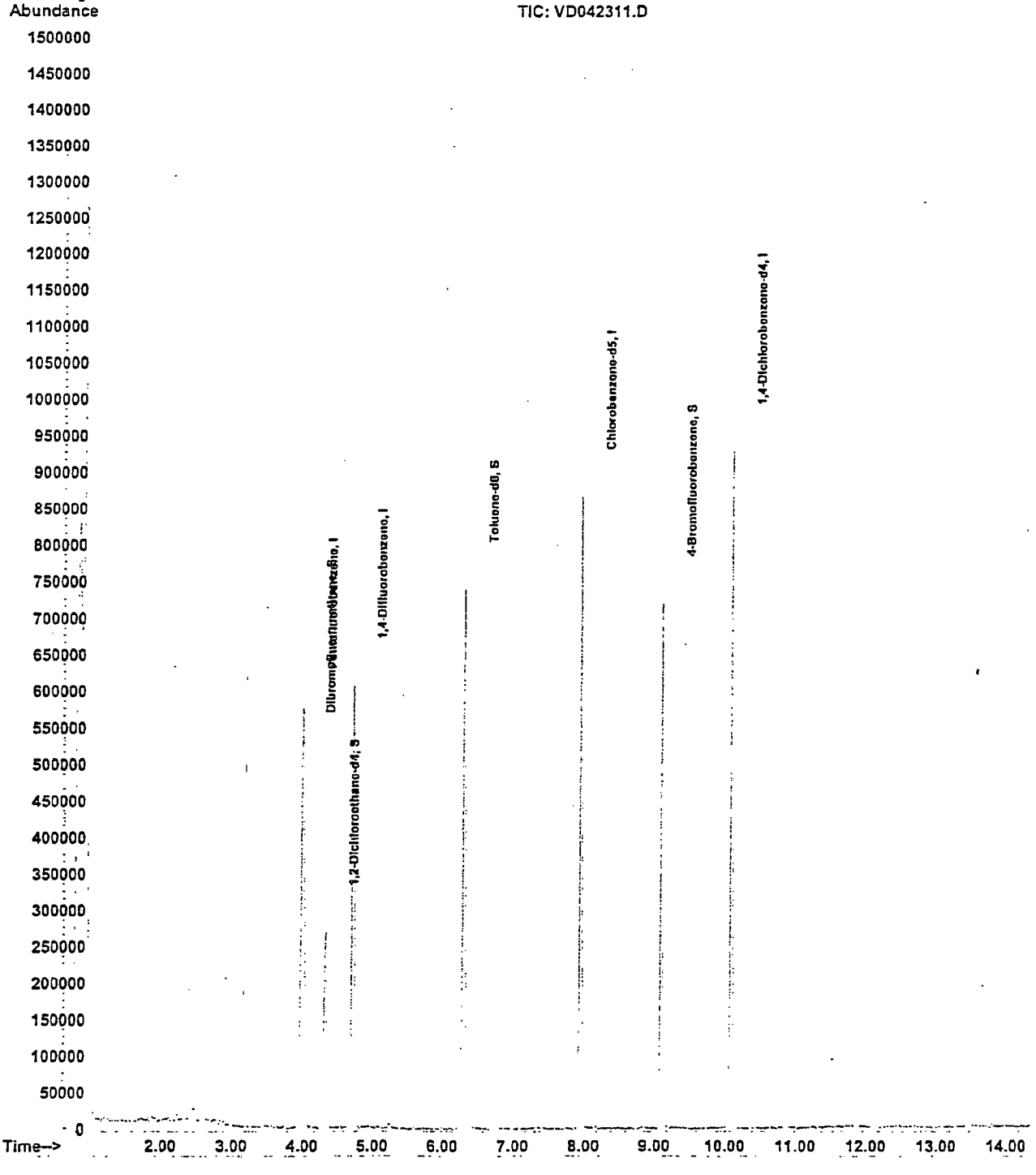
Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042311.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.36	114 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.39	104 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	8.9	89 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	9.14	91 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	314819	4.41			
1,4-Difluorobenzene	540-36-3	514171	5.13			
Chlorobenzene-d5	3114-55-4	439363	8.36			
1,4-Dichlorobenzene-d4	3855-82-1	231759	10.50			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042311.D Vial: 11
Acq On : 23 Apr 2004 1:19 pm Operator: BRCC
Sample : S2186-08 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:24 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042311.D Vial: 11
Acq On : 23 Apr 2004 1:19 pm Operator: BRIT
Sample : S2186-08 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:24 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.41	168	314819	10.00 ug/l	-0.02
31) 1,4-Difluorobenzene	5.13	114	514171	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.36	117	439363	10.00 ug/l	-0.02
66) 1,4-Dichlorobenzene-	10.50	152	231759	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.74	65	250804	11.36 ug/l	0.00
Spiked Amount 10.000			Recovery	= 113.60%	
32) Dibromofluoromethane	4.39	113	215238	10.39 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 103.90%	
43) Toluene-d8	6.71	98	561080	8.90 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 89.00%	
56) 4-Bromofluorobenzene	9.50	95	243881	9.14 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 91.40%	

Target Compounds Qvalue

Analyst Signature: BS Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042311.D Vial: 11
Acq On : 23 Apr 2004 1:18 pm Operator: BRIJ
Sample : S2186-08 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

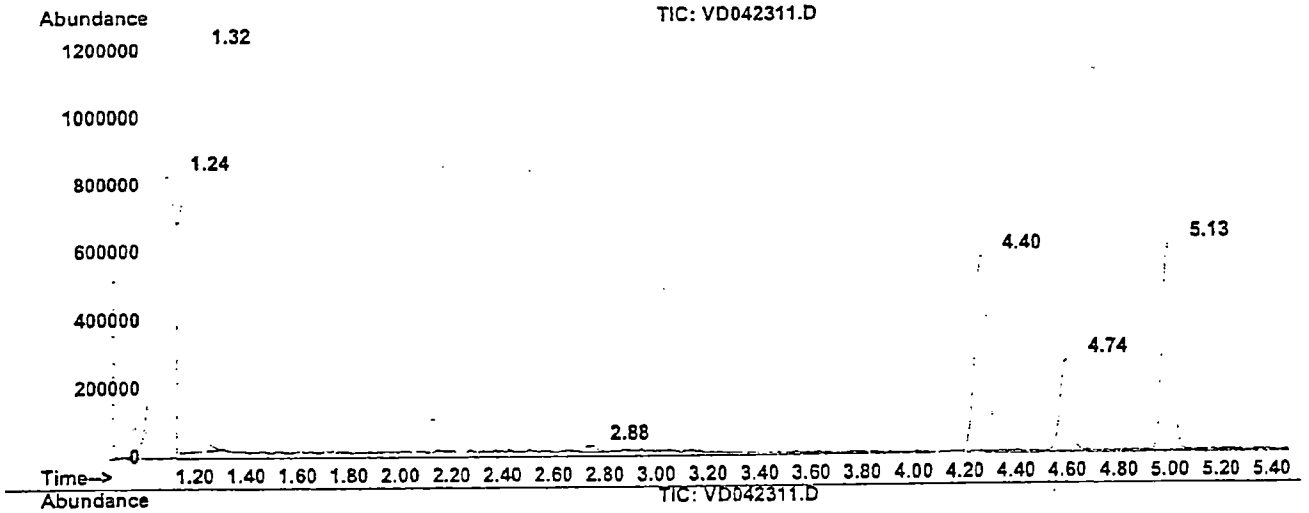
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.239	6	22	25	rBV	829720	4507600	100.00%	22.120%
2	1.320	26	30	42	rVB	1250352	4442895	98.56%	21.803%
3	2.876	177	180	185	rVB4	17750	54800	1.22%	0.269%
4	4.403	319	327	335	rBV3	574146	2038839	45.23%	10.005%
5	4.735	351	359	366	rBV	269425	778926	17.28%	3.822%
6	5.132	390	397	404	rBV	608294	1634543	36.26%	8.021%
7	6.714	543	549	554	rBV	738217	1857282	41.20%	9.114%
8	6.796	554	557	562	rVB	31527	72395	1.61%	0.355%
9	8.364	703	708	715	rBV	867801	1745800	38.73%	8.567%
10	9.509	813	818	822	rBV	719519	1433377	31.80%	7.034%
11	10.505	909	914	918	rBV	926207	1811063	40.18%	8.888%

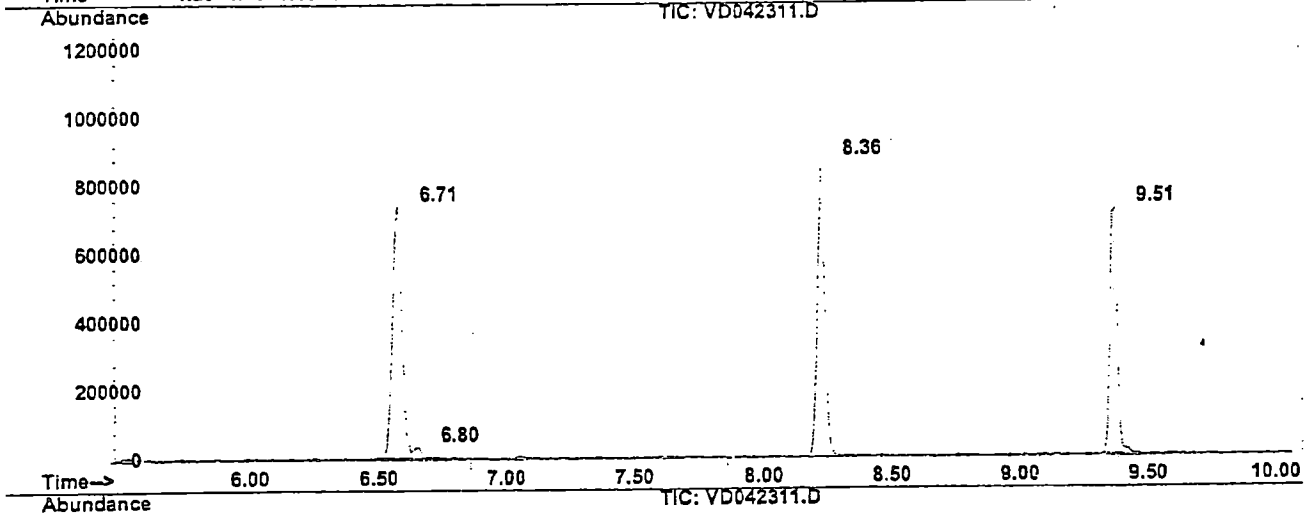
Sum of corrected areas: 20377520

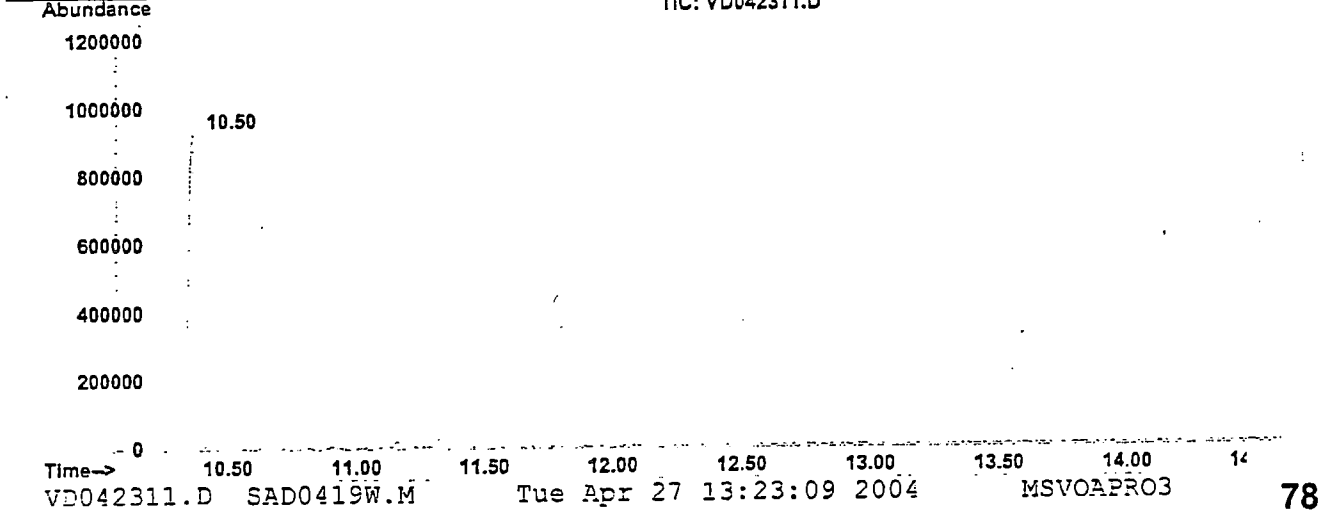
VD042311.D SAD0419W.M Tue Apr 27 13:23:09 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOA2\VD042304\VD042311.D
Operator : BRIJ
Acquired : 23 Apr 2004 1:18 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-08
Misc Info : 25mL
Vial Number: 11
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042311.D Vial: 11
Acq On : 23 Apr 2004 1:18 pm Operator: BPIT
Sample : S2186-08 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

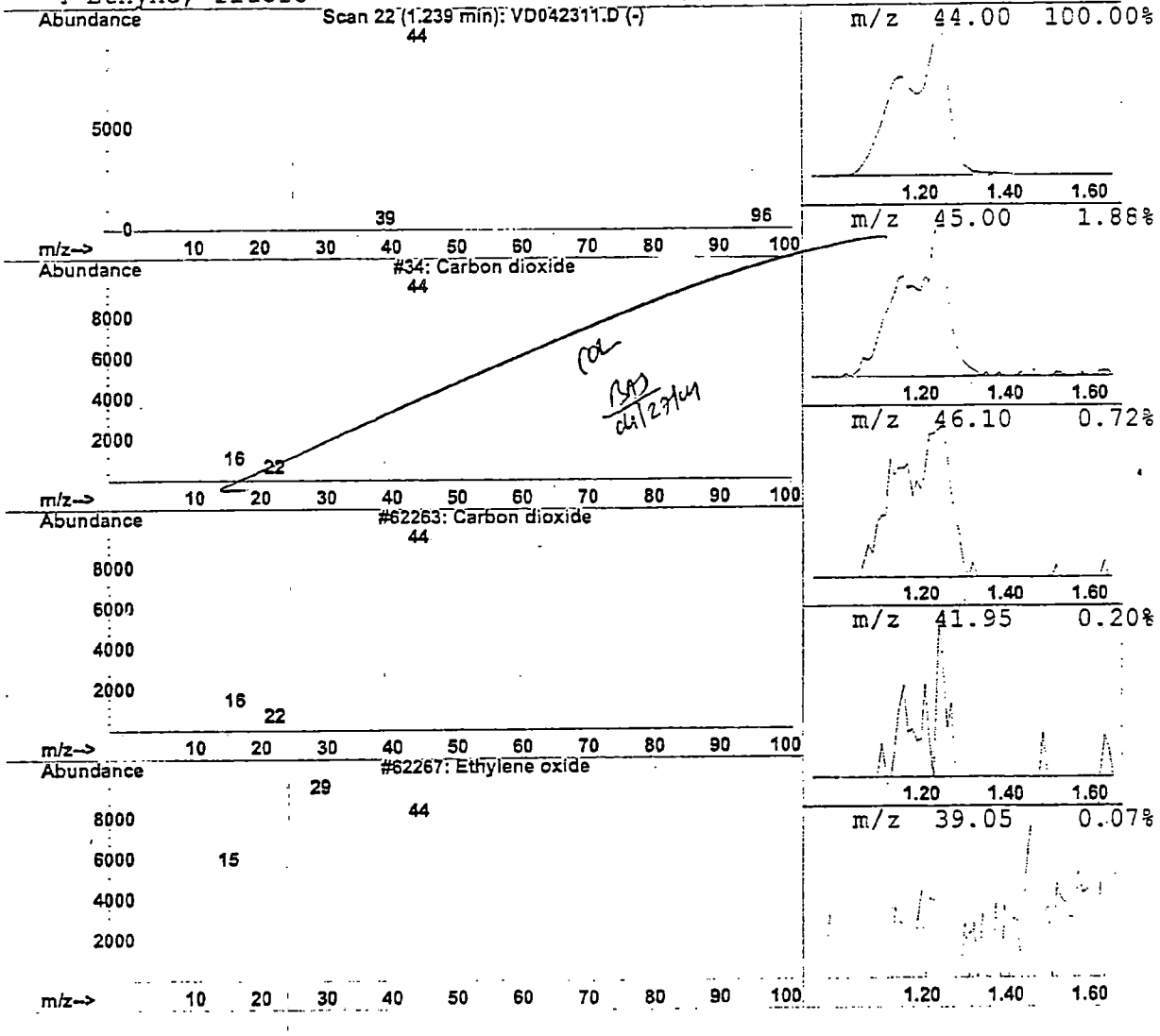
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.24	22.11 ug/l	4507600	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042311.D
Acq On : 23 Apr 2004 1:18 pm
Sample : S2196-08
Misc : 25mL
MS Integration Params: LSTINT.P

Vial: 11
Operator: BPIC
Inst : 5970 MSD
Multiplr: 1.00

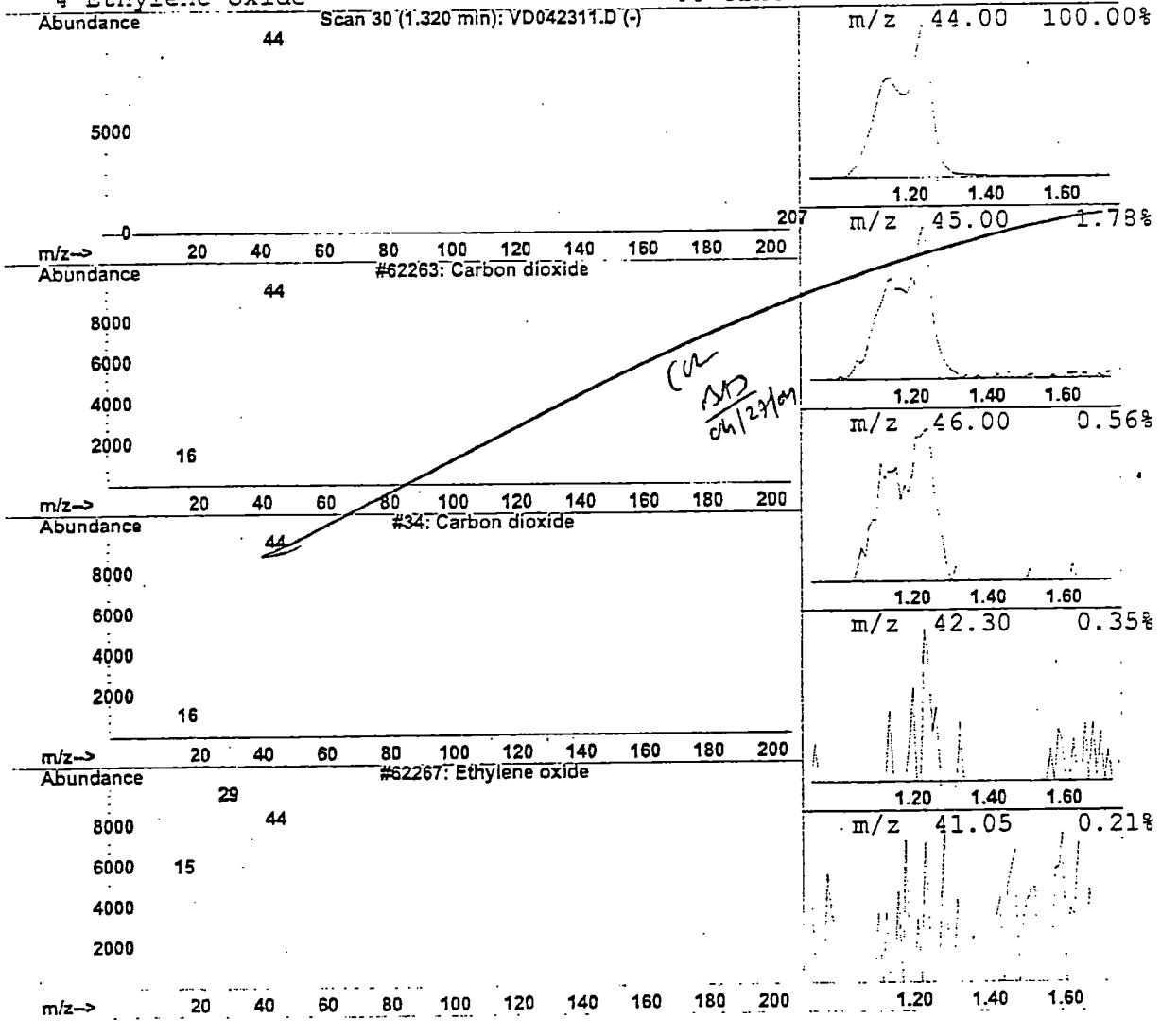
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.32	21.79 ug/l	4442900	Pentafluorobenzene	4.41

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



CW SD 04/29/04

Tentatively Identified Compound (LSC) summary

Operator ID: BRIJ Date Acquired: 23 Apr 2004 1:19 pm
Data File: F:\1\DATA\MSVOAD\VD042304\VD042311.D
Name: S2186-08
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.24	22.1	ug/l	4507600	ISTD01	4.41	2038840	10.0
Carbon dioxide	1.32	21.8	ug/l	4442900	ISTD01	4.41	2038840	10.0

VD042311.D SAD0419W.M Tue Apr 27 13:23:10 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-09

Client ID: MW-12

Date Collected: 4/13/2004

Date Received: 4/15/2004

Date Analyzed: 4/23/2004

Matrix: WATER

File ID: VD042312.D

Analytical Run ID: VD041904

Dilution: 1

Instrument ID: MSVOAD

Analytical Method: 8260-Low

Associated Blank: VBD0423W1

Sample Wt/Vol: 25.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-09 | Client ID: MW-12

Date Collected: 4/13/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042312.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Wol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.65	117 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.15	102 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	8.96	90 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	7.96	80 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	320356	4.42			
1,4-Difluorobenzene	540-36-3	543343	5.13			
Chlorobenzene-d5	3114-55-4	421664	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	229004	10.50			
TENTITIVE IDENTIFIED COMPOUNDS						
Acetaldehyde	75070	24	J	1.32		ug/L

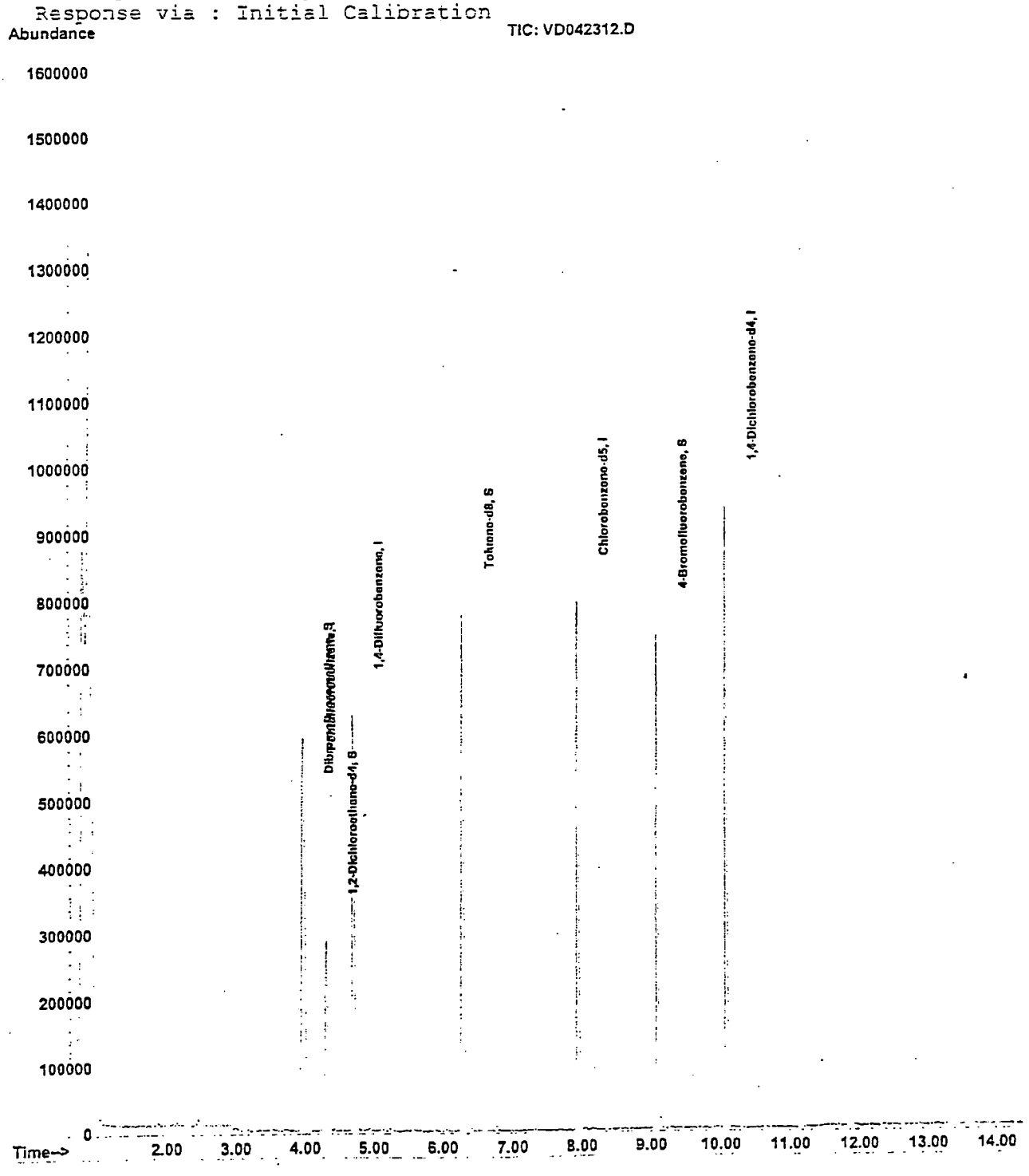
Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042312.D
Acq On : 23 Apr 2004 1:58 pm
Sample : S2186-09
Misc : 25mL
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:25 2004

Vial: 12
Operator: ERIC
Inst : 5970 MSD
Multiplr: 1.00

Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042312.D Vial: 12
Acq On : 23 Apr 2004 1:58 pm Operator: BRIJ
Sample : S2186-09 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:25 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	320356	10.00 ug/l	-0.02
31) 1,4-Difluorobenzene	5.13	114	543343	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	421664	10.00 ug/l	-0.01
66) 1,4-Dichlorobenzene-	10.50	152	229004	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	261532	11.65 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 116.50%	
32) Dibromofluoromethane	4.39	113	222266	10.15 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 101.50%	
43) Toluene-d8	6.71	98	596721	8.96 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 89.60%	
56) 4-Bromofluorobenzene	9.50	95	224450	7.96 ug/l	0.00
Spiked Amount 10.000			Recovery	= 79.60%	

Target Compounds : Qvalue

Analyst Signature: MD Analyst Name: _____ Date: 4/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042312.D
Acq On : 23 Apr 2004 1:58 pm
Sample : S2196-09
Misc : 25mL
MS Integration Params: LSTINT.P

Vial: 12
Operator: BRIC
Inst : 5970 MSD
Multiplr: 1.00

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

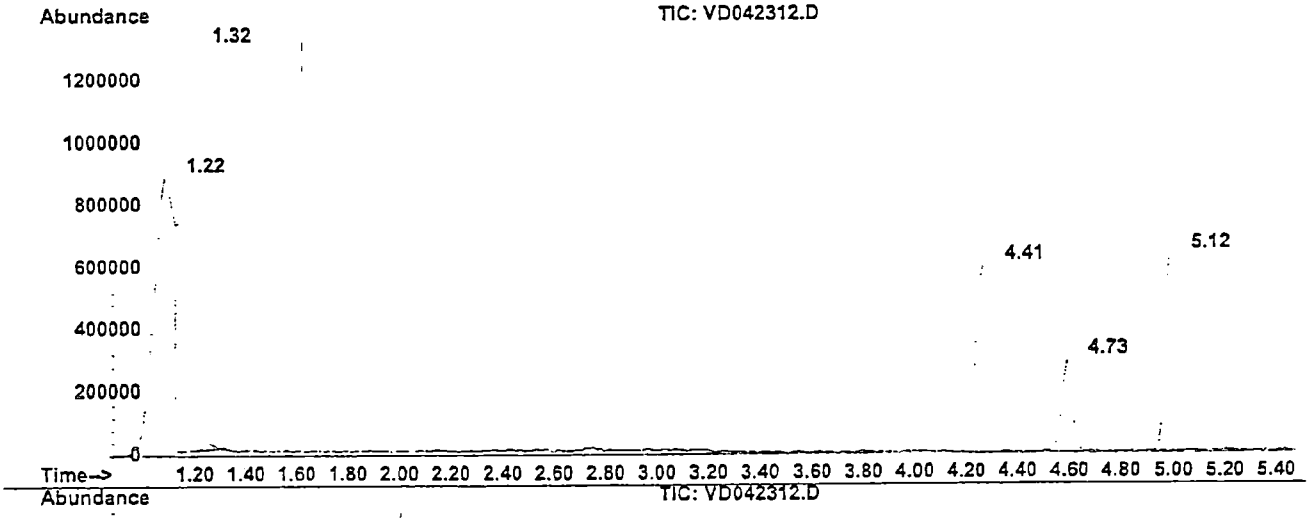
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.218	5	20	24	rBV	888198	4800084	95.13%	22.620%
2	1.322	25	30	42	rVB	1353704	5045574	100.00%	23.777%
3	4.406	319	327	338	rBV3	594065	2122666	42.07%	10.003%
4	4.728	351	358	366	rBV2	287908	797179	15.80%	3.757%
5	5.124	390	396	405	rBV	626111	1684470	33.39%	7.938%
6	6.714	543	549	554	rBV	776557	1970560	39.06%	9.287%
7	8.369	702	708	715	rBV	797359	1683623	33.37%	7.934%
8	9.505	813	817	821	rBV	744383	1343367	26.62%	6.331%
9	10.504	908	913	917	rBV	935824	1772467	35.13%	8.353%

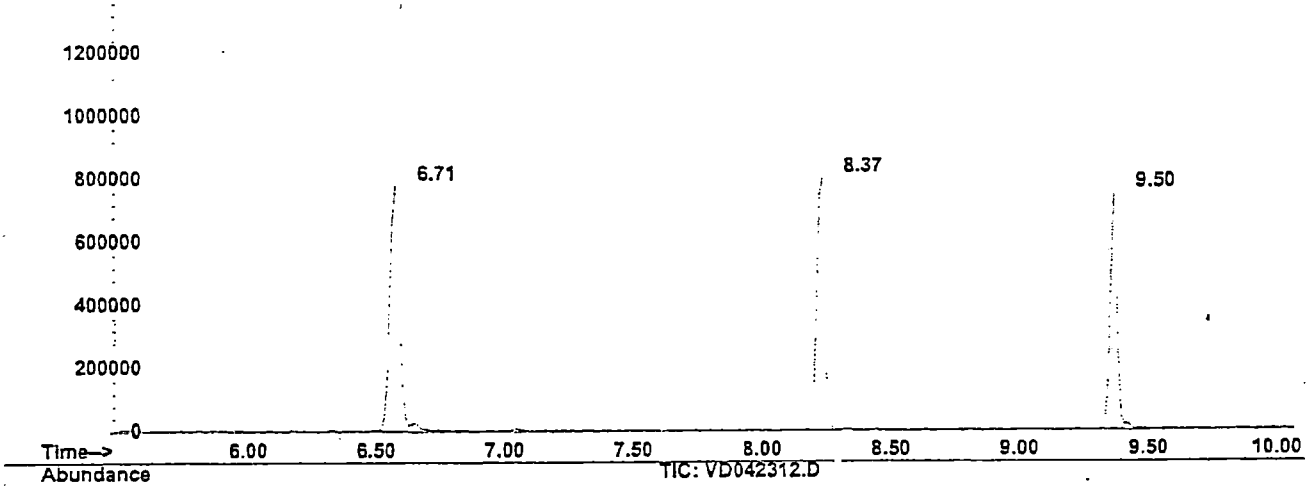
Sum of corrected areas: 21220090

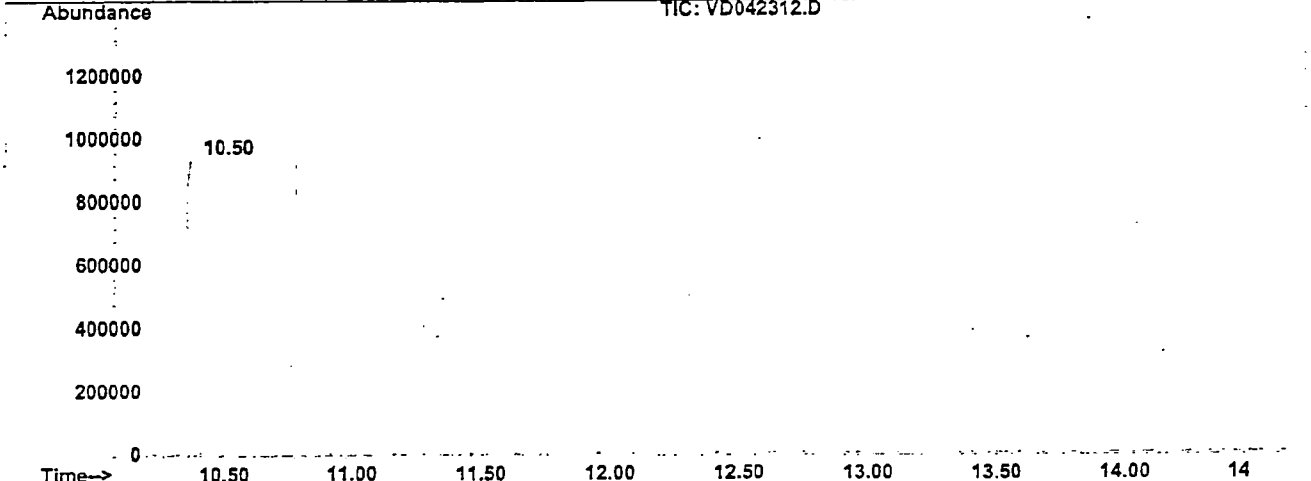
VD042312.D SAD0419W.M Tue Apr 27 13:23:45 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042312.D
Operator : BRIJ
Acquired : 23 Apr 2004 1:58 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-09
Misc Info : 25mL
Vial Number: 12
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042312.D Vial: 12
Acq On : 23 Apr 2004 1:58 pm Operator: BRIJ
Sample : S2186-09 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

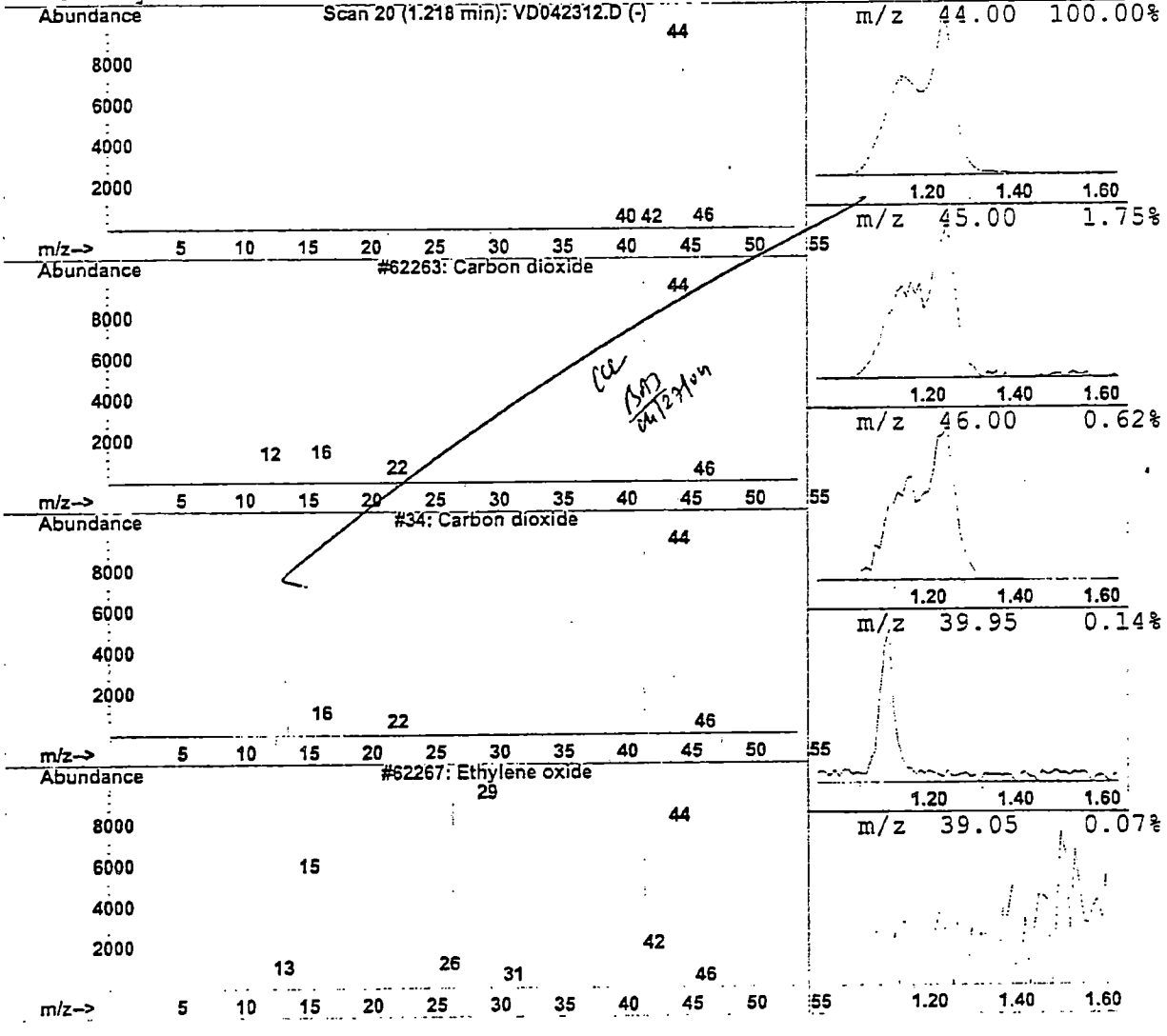
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.22	22.61 ug/l	4800080	Pentaflucrobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



CC SMD 04/27/04

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042312.D
Acq On : 23 Apr 2004 1:53 pm
Sample : S2136-09
Misc : 25mL
MS Integration Params: LSTINT.P

Vial: 12
Operator: BPIC
Inst : 5970 MSD
Multiplr: 1.00

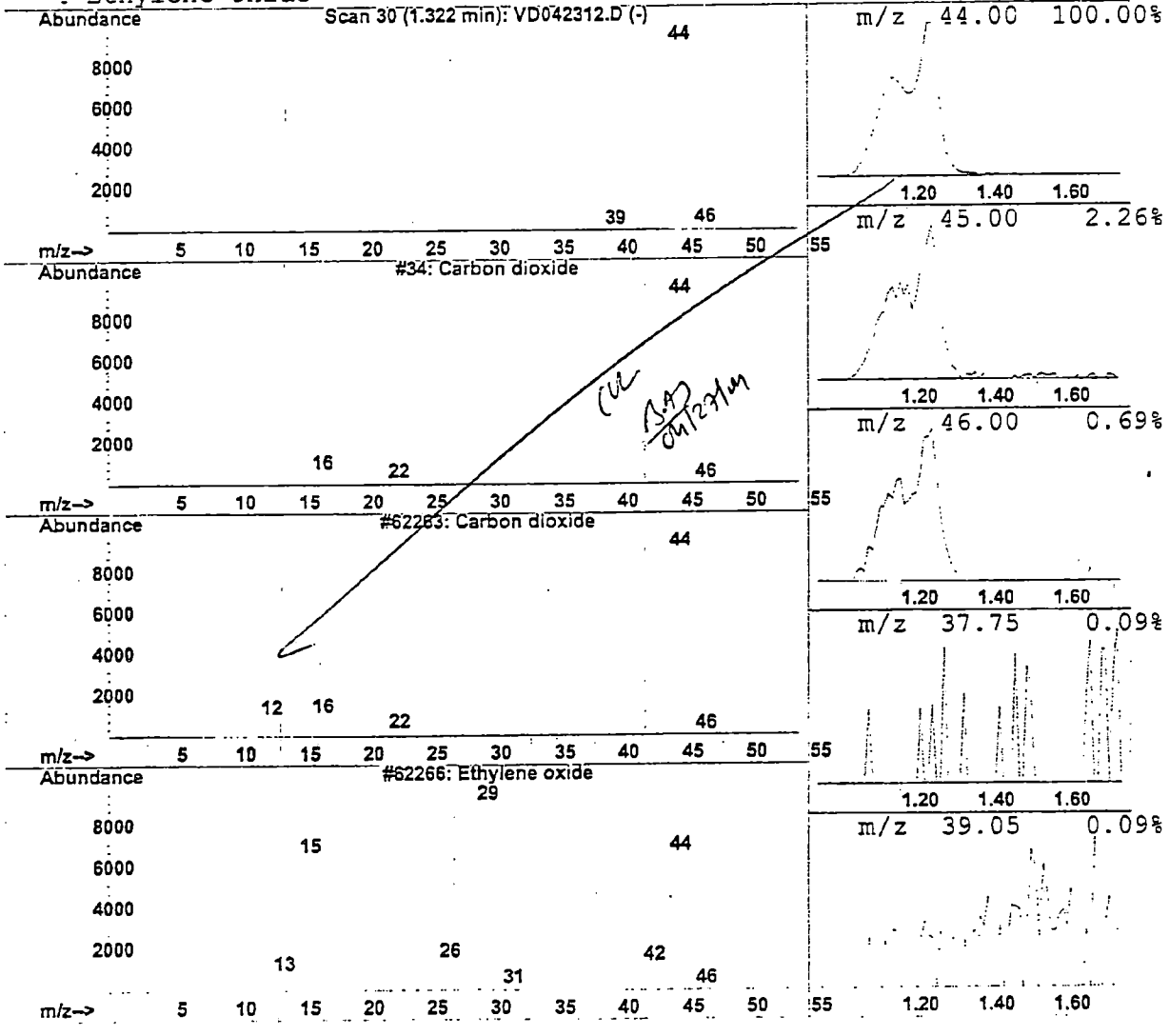
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.32	23.77 ug/l	5045570	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	4
4	Ethylene oxide	44	C2H4O	000075-21-8	3



CW SAD 04/27/04

Tentatively Identified Compound (LSC summary

Operator ID: BPCJ Date Acquired: 23 Apr 2004 1:59 pm
Data File: F:\1\DATA\MSVOAD\VD042304\VD042312.D
Name: S2186-09
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.22	22.6	ug/l	4800080	ISTD01	4.42	2122670	10.0
Carbon dioxide	1.32	23.8	ug/l	5045570	ISTD01	4.42	2122670	10.0

VD042312.D SAD0419W.M Tue Apr 27 13:23:46 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-10

Client ID: MW-10

Date Collected: 4/14/2004

Date Received: 4/15/2004

Date Analyzed: 4/23/2004

Matrix: WATER

File ID: VD042313.D

Analytical Run ID: VD041904

Dilution: 1

Instrument ID: MSVOAD

Analytical Method: 8260-Low

Associated Blank: VBD0423W1

Sample Wt/Wol: 25.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-10 | Client ID: MW-10

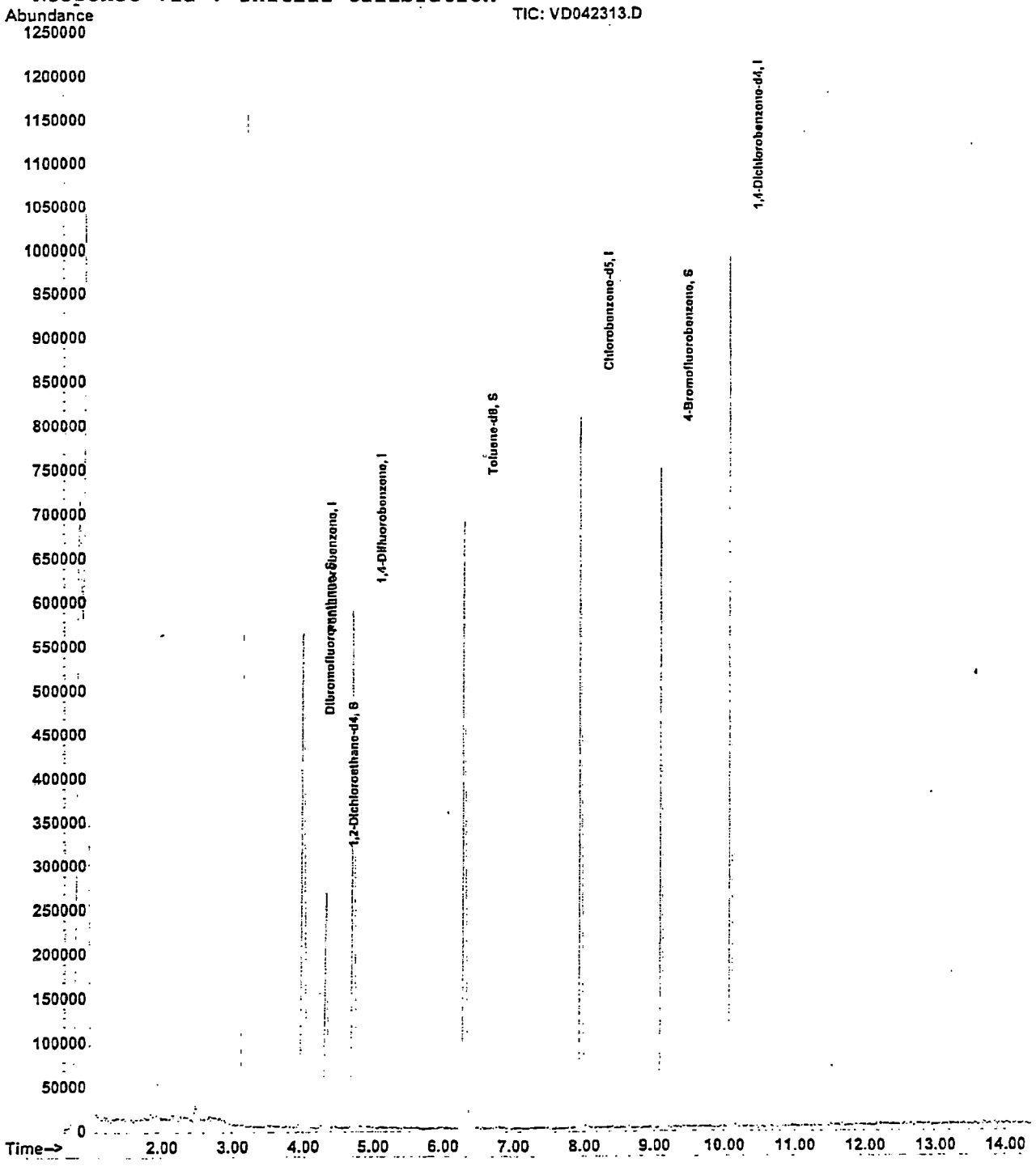
Date Collected: 4/14/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042313.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Wol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.6	116 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.43	104 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.02	90 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	8.97	90 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	312896	4.42			
1,4-Difluorobenzene	540-36-3	512326	5.14			
Chlorobenzene-d5	3114-55-4	427490	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	226635	10.50			
TENTITIVE IDENTIFIED COMPOUNDS						
Acetaldehyde	75070	18	J	1.33		ug/L

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042313.D Vial: 13
Acq On : 23 Apr 2004 2:39 pm Operator: BRIJ
Sample : S2186-10 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:25 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



VD042313.D SAD0419W.M Tue Apr 27 13:24:39 2004 MSVOAPRO3

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042313.D Vial: 13
Acq On : 13 Apr 2004 2:39 pm Operator: BRIJ
Sample : S2186-10 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:25 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	312896	10.00 ug/l	-0.01
31) 1,4-Difluorobenzene	5.14	114	512326	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	427490	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.50	152	226635	10.00 ug/l	-0.01
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.74	65	254427	11.60 ug/l	0.00
Spiked Amount 10.000			Recovery	= 116.00%	
32) Dibromofluoromethane	4.39	113	215476	10.43 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 104.30%	
43) Toluene-d8	6.72	98	566842	9.02 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 90.20%	
56) 4-Bromofluorobenzene	9.50	95	238375	8.97 ug/l	0.00
Spiked Amount 10.000			Recovery	= 89.70%	

Target Compounds Qvalue

Analyst Signature: BM Analyst Name: _____ Date: 04/29/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042313.D Vial: 13
Acq On : 23 Apr 2004 2:39 pm Operator: BRIT
Sample : S2186-10 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

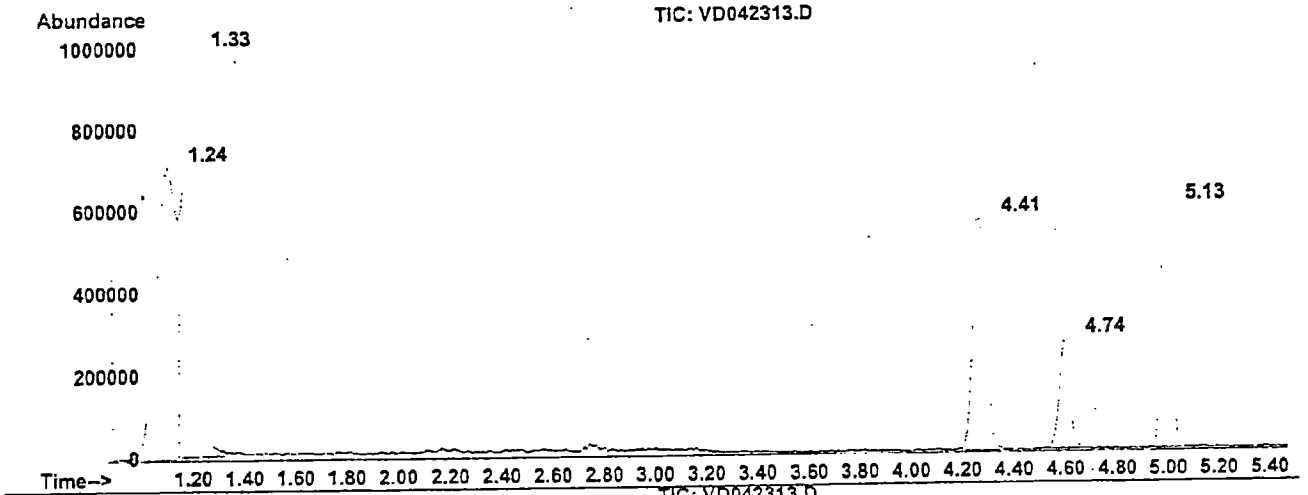
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.240	5	22	26	rBV	712683	4002335	100.00%	21.137%
2	1.332	27	31	44	rVV	1039852	3677316	91.88%	19.421%
3	4.412	316	327	337	rBV4	563816	2037658	50.91%	10.761%
4	4.735	352	358	365	rVB	265625	774282	19.35%	4.089%
5	5.129	391	396	407	rVB	587476	1595581	39.87%	8.427%
6	6.721	543	549	554	rBV	688029	1870687	46.74%	9.880%
7	6.803	554	557	562	rVB	32449	76332	1.91%	0.403%
8	8.372	703	708	714	rBV	807185	1718370	42.93%	9.075%
9	9.504	813	817	832	rBV	748725	1403028	35.06%	7.410%
10	10.504	908	913	918	rBV	990088	1779259	44.46%	9.397%

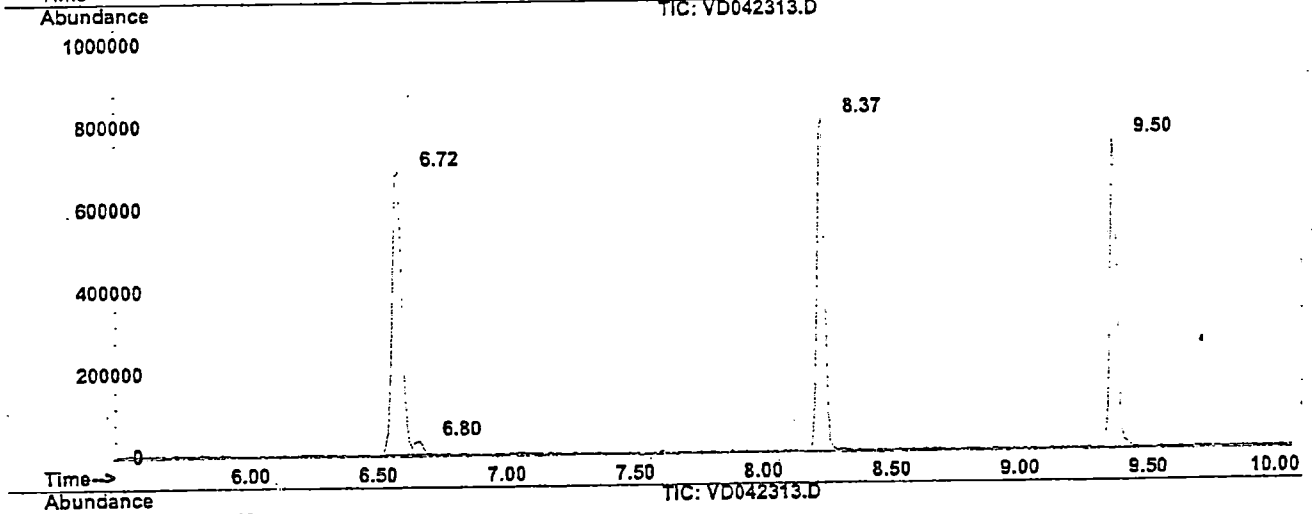
Sum of corrected areas: 18934848

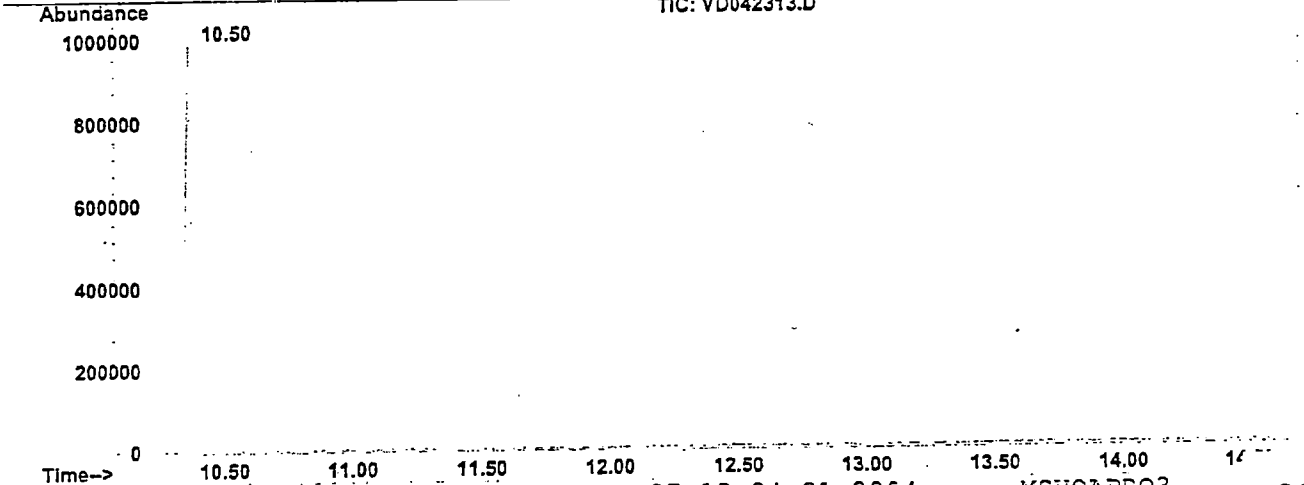
VD042313.D SAD0419W.M Tue Apr 27 13:24:21 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042313.D
Operator : BRIJ
Acquired : 23 Apr 2004 2:39 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-10
Misc Info : 25mL
Vial Number: 13
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042313.D Vial: 13
Acq On : 23 Apr 2004 2:39 pm Operator: BRIT
Sample : S2186-10 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

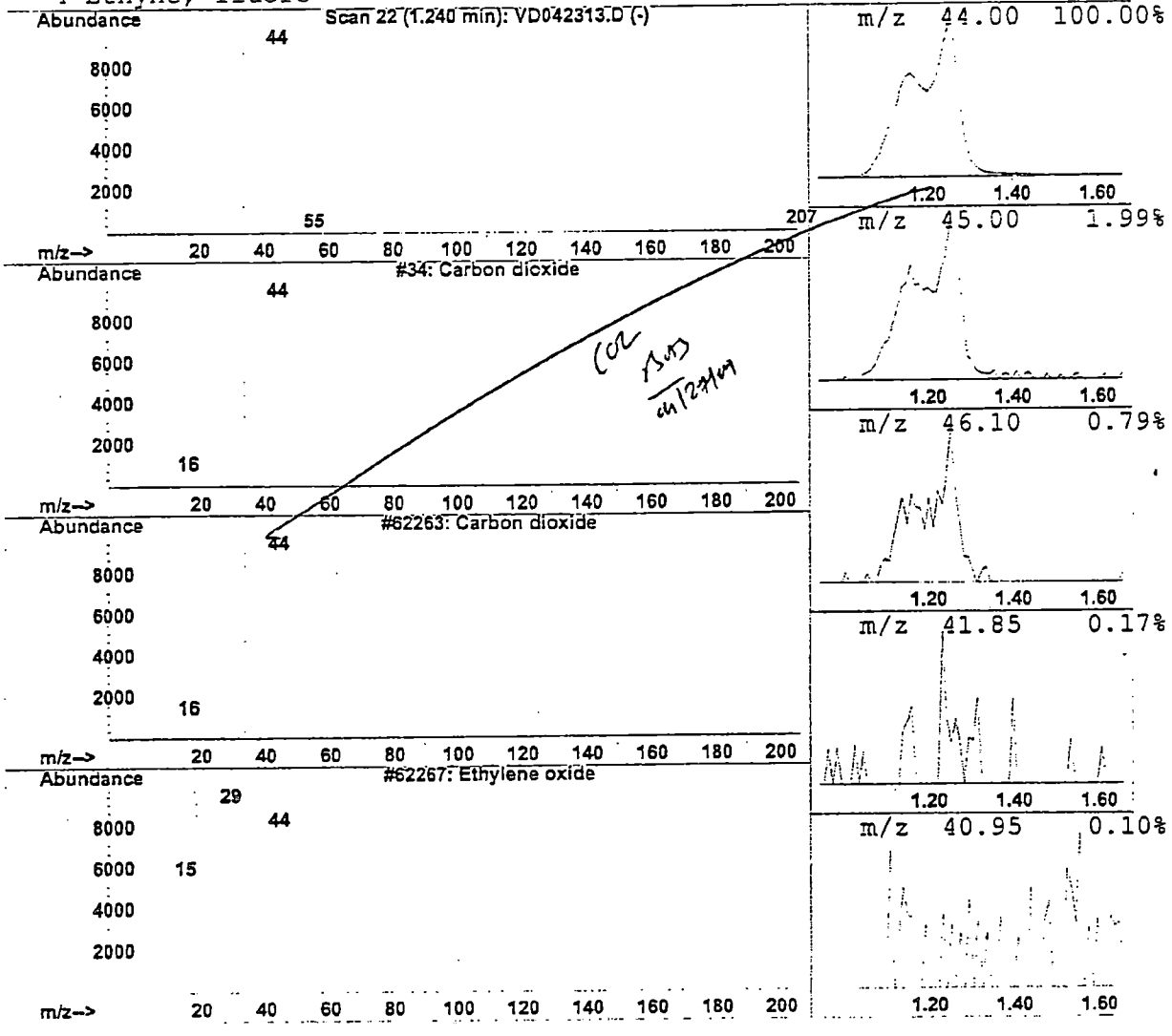
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.24	19.64 ug/l	4002340	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



CO2 ISTD 4/23/04

VD042313.D SAD0419W.M Tue Apr 27 13:24:22 2004 MSVOAPRO3 P

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042313.D
Acq On : 23 Apr 2004 2:39 pm
Sample : S2186-10
Misc : 25mL
MS Integration Params: LSTINT.P

Vial: 13
Operator: BRIT
Inst : 5970 MSD
Multiplr: 1.00

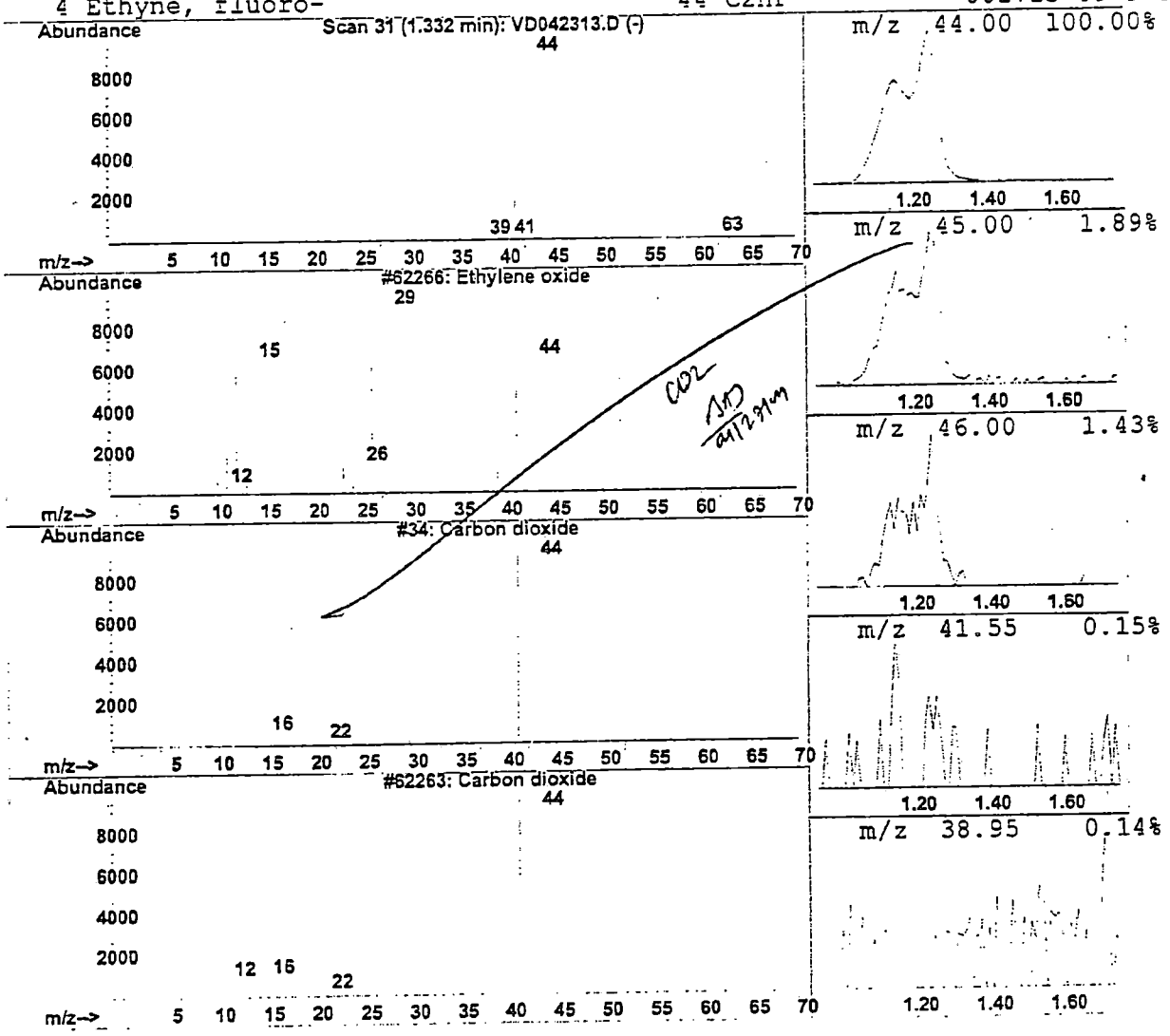
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.33	18.05 ug/l	3677320	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Carbon dioxide	44	CO2	000124-38-9	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Tentatively Identified Compound (LSC) summary

Operator ID: BRIT Date Acquired: 23 Apr 2004 2:39 pm
Data File: F:\1\DATA\MSVOAD\VD042304\VD042313.D
Name: S2186-10
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.24	19.6	ug/l	4002340	ISTD01	4.42	2037660	10.0
Ethylene oxide	1.33	18.0	ug/l	3677320	ISTD01	4.42	2037660	10.0

VD042313.D SAD0419W.M Tue Apr 27 13:24:22 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-11 | Client ID: MW-9

Date Collected: 4/14/2004 | Date Received: 4/15/2004
Date Analyzed: 4/23/2004 | Matrix: WATER
File ID: VD042314.D | Analytical Run ID: VD041904
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0423W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
ı&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

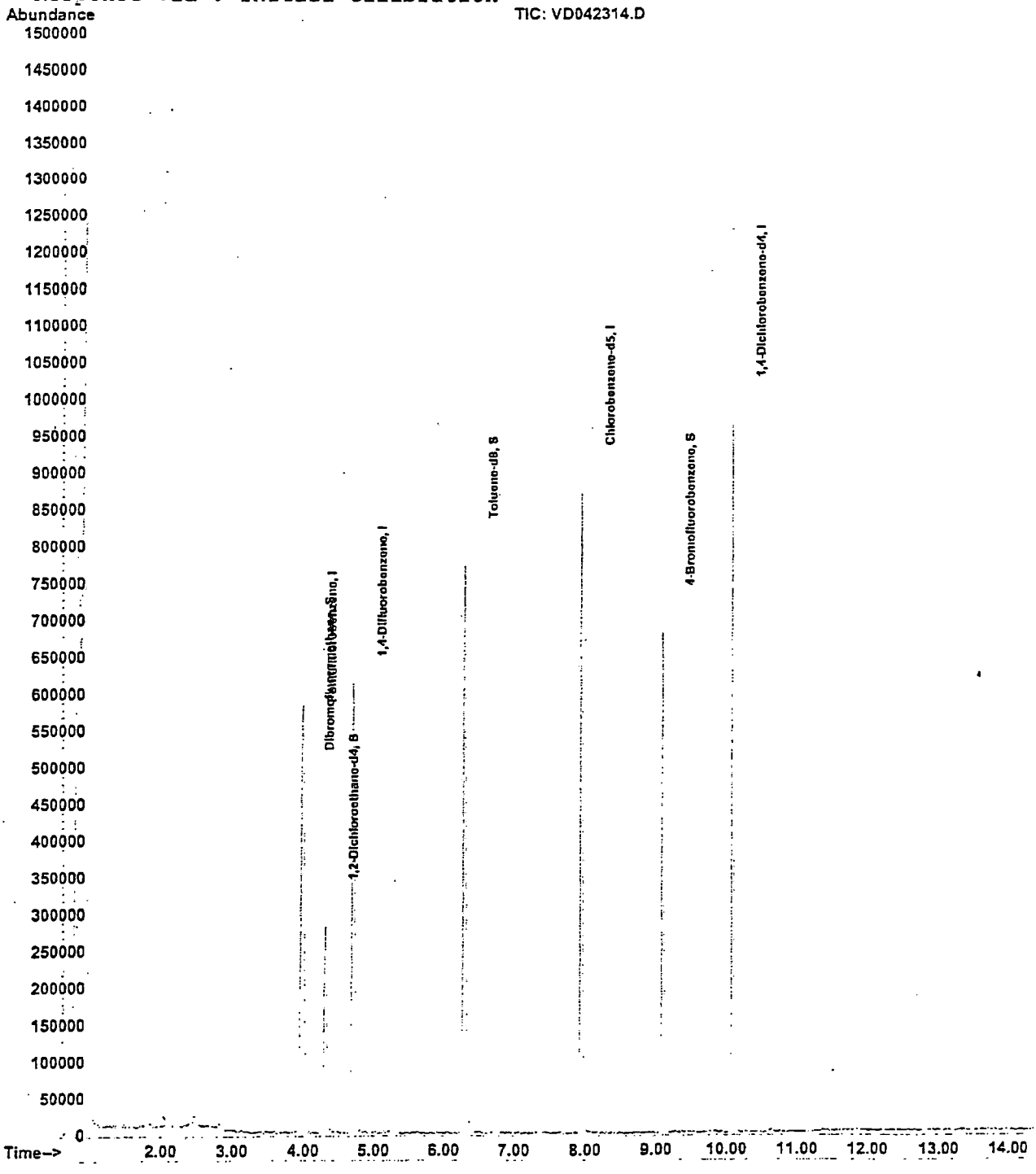
Sample ID:	S2186-11	Client ID:	MW-9
Date Collected:	4/14/2004	Date Received:	4/15/2004
Date Analyzed:	4/23/2004	Matrix:	WATER
File ID:	VD042314.D	Analytical Run ID:	VD041904
Dilution:	1	Instrument ID:	MSVOAD
Analytical Method:	8260-Low	Associated Blank:	VBD0423W1
Sample Wt/Vol:	25.0 Units: mL	Soil Extract Vol:	
Soil Aliquot Vol:		% Moisture:	100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.35	114 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	9.89	99 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	9.07	91 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	7.95	79 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	322789	4.42			
1,4-Difluorobenzene	540-36-3	544270	5.14			
Chlorobenzene-d5	3114-55-4	443293	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	223288	10.50			
TENTITIVE IDENTIFIED COMPOUNDS						
Acetaldehyde	75070	21	J	1.32		ug/L

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042314.D Vial: 14
Acq On : 23 Apr 2004 3:20 pm Operator: BRIJ
Sample : S2186-11 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:26 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042304\VD042314.D Vial: 14
Acq On : 23 Apr 2004 3:20 pm Operator: BRIJ
Sample : S2186-11 Inst : 5973 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:26 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	322789	10.00 ug/l	-0.01
31) 1,4-Difluorobenzene	5.14	114	544270	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	443293	10.00 ug/l	-0.01
66) 1,4-Dichlorobenzene-	10.50	152	223288	10.00 ug/l	-0.01
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	256812	11.35 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 113.50%	
32) Dibromofluoromethane	4.39	113	216968	9.89 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 98.90%	
43) Toluene-d8	6.72	98	605181	9.07 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 90.70%	
56) 4-Bromofluorobenzene	9.50	95	224580	7.95 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 79.50%	

Target Compounds Qvalue

Analyst Signature: BM Analyst Name: _____ Date: 04/29/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042314\VD042314.D Vial: 14
Acq On : 13 Apr 2004 3:20 pm Operator: BFIJ
Sample : S2186-11 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

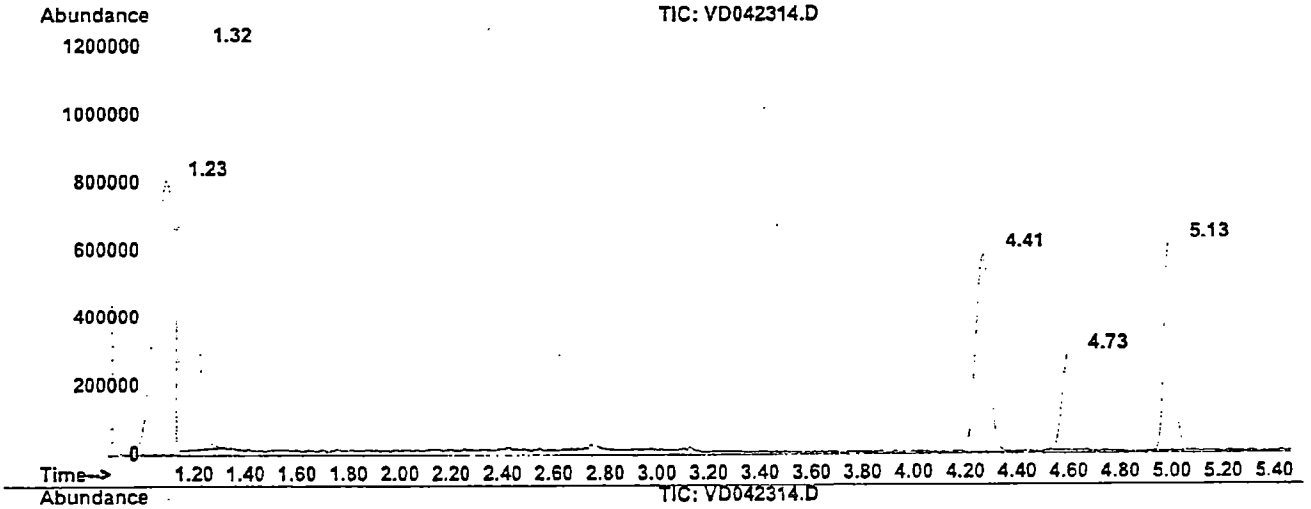
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.229	5	21	25	rBV	807082	4516537	100.00%	22.235%
2	1.323	26	30	42	rVB	1243326	4411405	97.67%	21.717%
3	4.410	319	327	337	rVB2	584196	2108602	46.69%	10.381%
4	4.731	351	358	364	rBV	278517	770240	17.05%	3.792%
5	5.126	390	396	404	rBV	611613	1682936	37.26%	8.285%
6	6.715	543	549	555	rBV	771709	1998729	44.25%	9.840%
7	8.368	703	708	716	rBV	871397	1768019	39.15%	8.704%
8	9.502	810	817	822	rBV	681544	1345777	29.80%	6.625%
9	10.502	908	913	918	rBV	961809	1710758	37.88%	8.422%

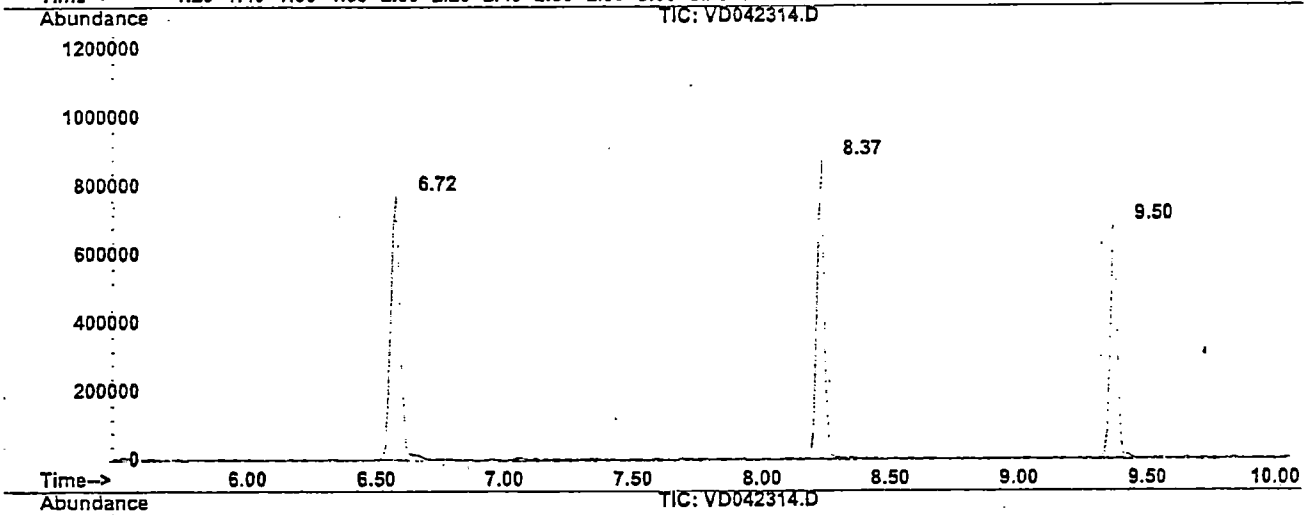
Sum of corrected areas: 20313003

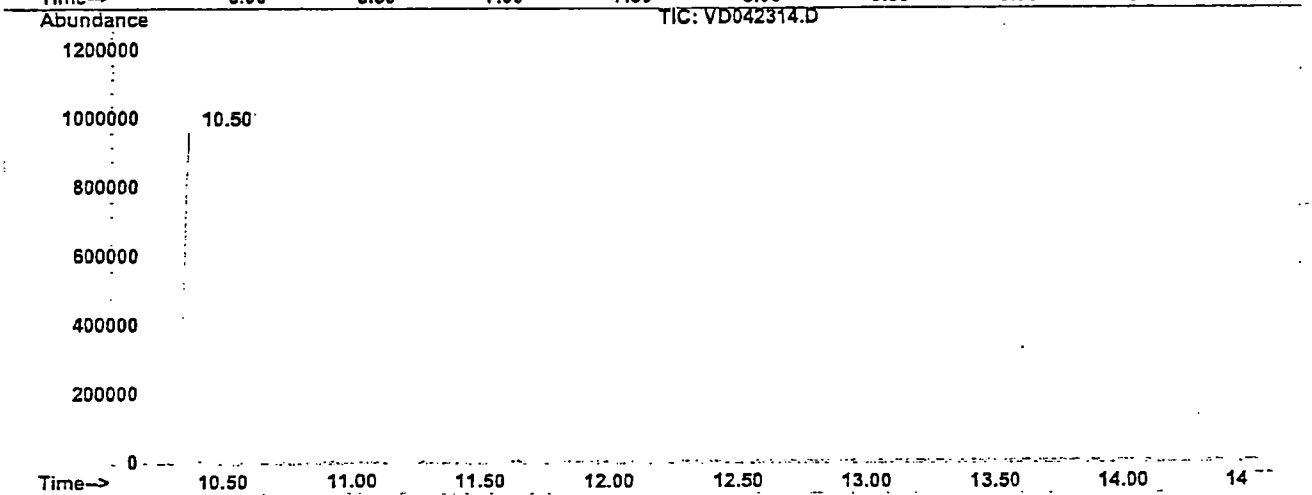
VD042314.D SAD0419W.M Tue Apr 27 13:24:59 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042314.D
Operator : BRIJ
Acquired : 23 Apr 2004 3:20 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-11
Misc Info : 25mL
Vial Number: 14
Quant File :SAD0419W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042314.D
Acq On : 23 Apr 2004 3:20 pm
Sample : S2186-11
Misc : 25mL
MS Integration Params: LSTINT.P

Vial: 14
Operator: BRIT
Inst : 5970 MSD
Multiplr: 1.00

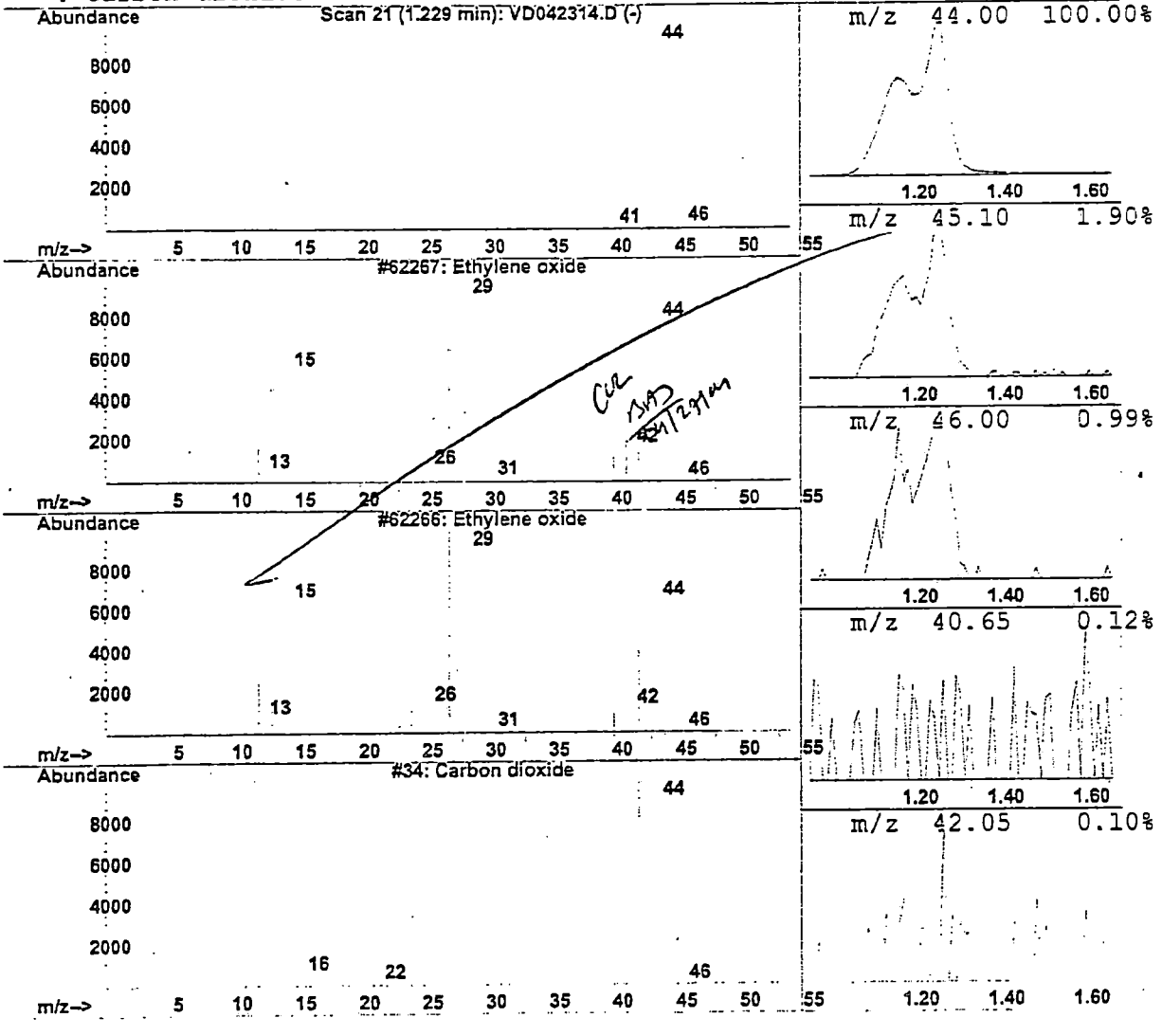
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Ethylene oxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.23	21.42 ug/l	4516540	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Library Search Compound Report

Data File : F: 1\DATA\MSVOAD\VD042314\VD042314.D Vial: 14
Acq On : 13 Apr 2004 3:20 pm Operator: BRIJ
Sample : S2186-11 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

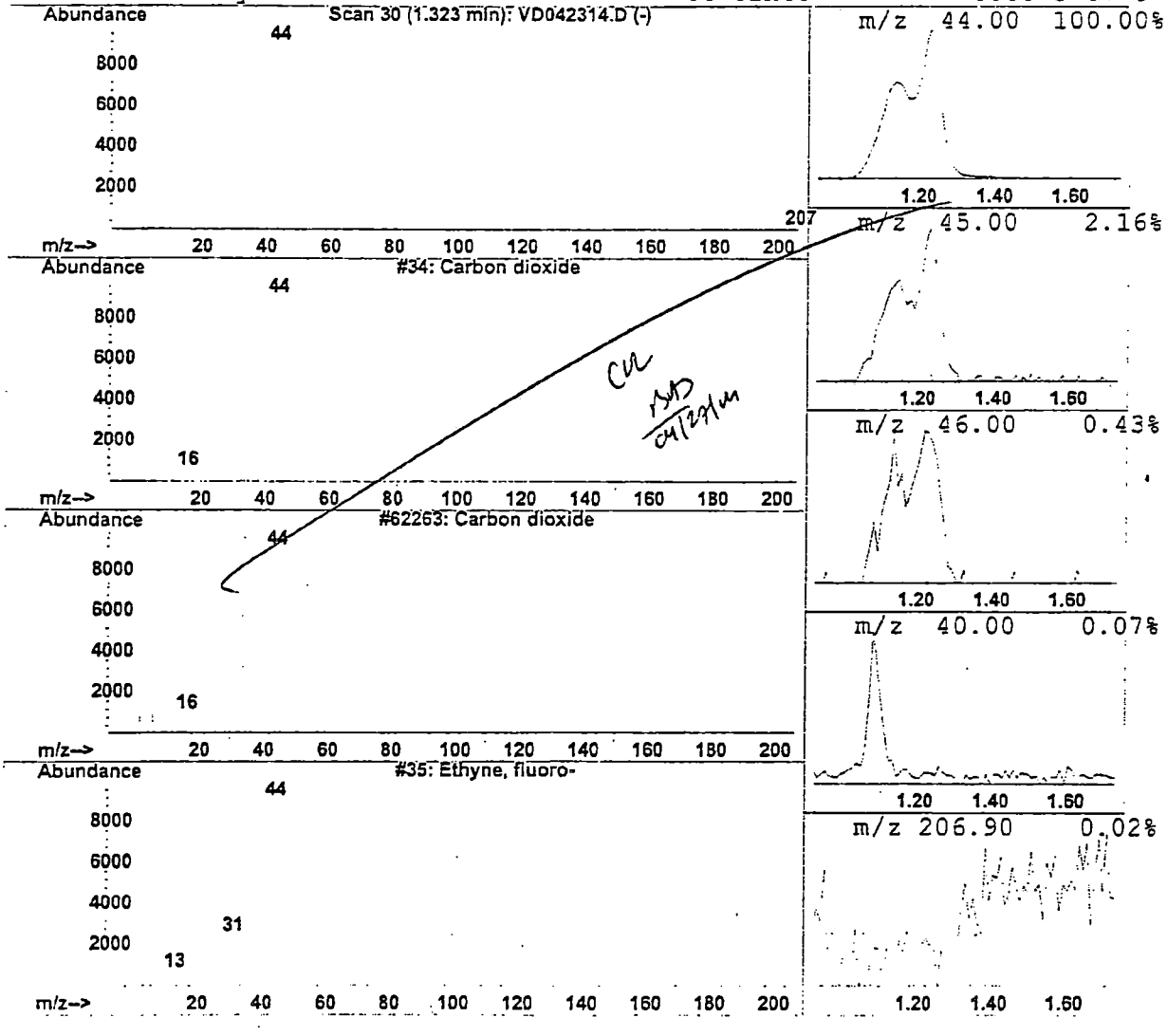
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.32	20.92 ug/l	4411410	Pentaflvorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethyne, fluoro-	44	C2HF	002713-09-9	3
4	Acetaldehyde	44	C2H4O	000075-07-0	3



CR
AD
04/29/04

Tentatively Identified Compound (TIC) summary

Operator ID: BRIT Date Acquired: 23 Apr 2004 3:20 pm
Data File: F:\1\DATA\MSVOAD\VD042304\VD042314.D
Name: S2186-11
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Ethylene oxide	1.23	21.4	ug/l	4516540	ISTD01	4.42	2108600	10.0
Carbon dioxide	1.32	20.9	ug/l	4411410	ISTD01	4.42	2108600	10.0

VD042314.D SAD0419W.M Tue Apr 27 13:25:00 2004 MSVOAPRO3

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-14 | Client ID: AMW-1

Date Collected: 4/14/2004 | Date Received: 4/15/2004
Date Analyzed: 4/26/2004 | Matrix: WATER
File ID: VD042616.D | Analytical Run ID: VD042604
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0426W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	1.9		1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	1.0		1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	0.76	J	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	1.2		1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	32		1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	20		1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

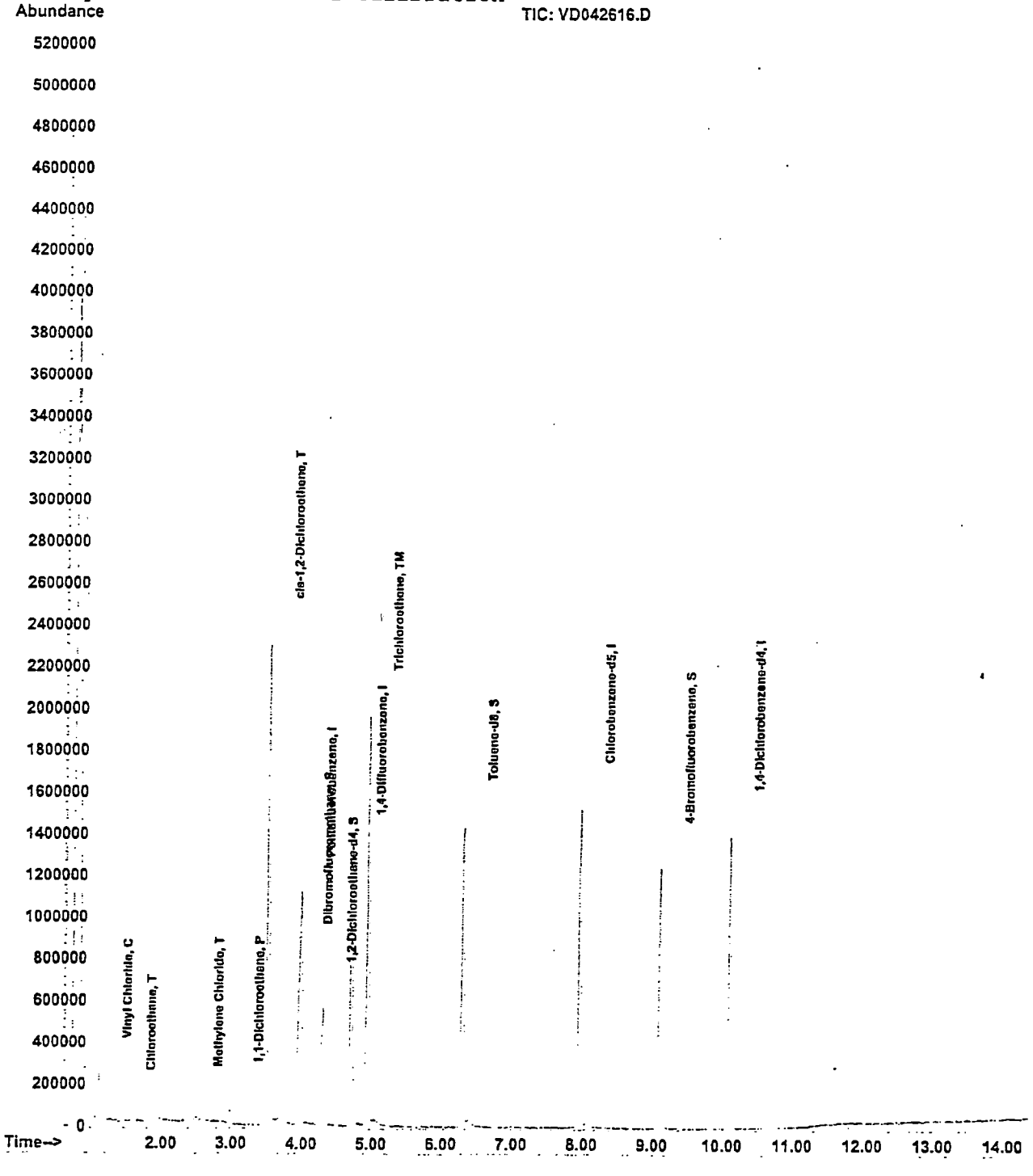
Sample ID:	S2186-14	Client ID:	AMW-1
Date Collected:	4/14/2004	Date Received:	4/15/2004
Date Analyzed:	4/26/2004	Matrix:	WATER
File ID:	VD042616.D	Analytical Run ID:	VD042604
Dilution:	1	Instrument ID:	MSVOAD
Analytical Method:	8260-Low	Associated Blank:	VBD0426W1
Sample Wt/Vol:	25.0 Units: mL	Soil Extract Vol:	
Soil Aliquot Vol:		% Moisture:	100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.26	113 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	11.14	111 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	11.02	110 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	10.66	107 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	631777	4.40			
4-Difluorobenzene	540-36-3	1055874	5.12			
hlorobenzene-d5	3114-55-4	872067	8.38			
1,4-Dichlorobenzene-d4	3855-82-1	389052	10.51			
TENTITIVE IDENTIFIED COMPOUNDS						
Acetaldehyde	75070	34	J	1.20		ug/L
Methane, chlorodifluoro-	75456	2.8	J	1.31		ug/L
Ether	60297	1.8	J	2.22		ug/L

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042614\VD042616.D Vial: 7
Acq On : 26 Apr 2004 10:44 pm Operator: BRIO
Sample : S2196-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 12:18 2004 Quant Results File: SAD0426W.RES

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Mon Apr 26 17:04:02 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042604\VD042616.D Vial: 7
Acq On : 26 Apr 2004 10:44 pm Operator: ERIJ
Sample : S2186-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 12:18 2004 Quant Results File: SAD0426W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 27 11:41:27 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

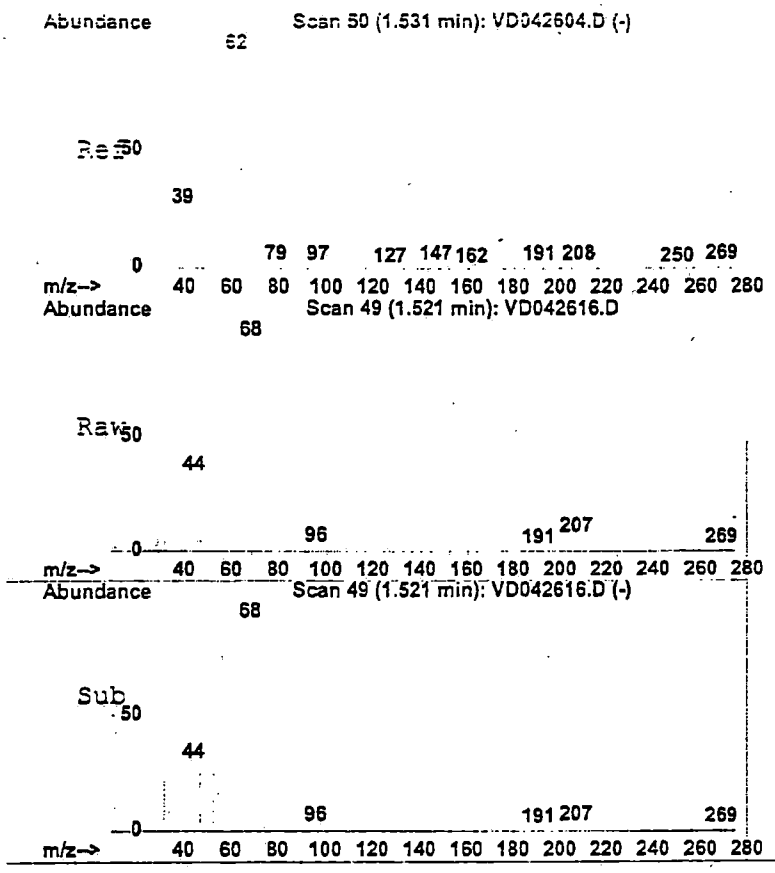
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.40	168	631777	10.00 ug/l	0.02
31) 1,4-Difluorobenzene	5.12	114	1055874	10.00 ug/l	0.01
57) Chlorobenzene-d5	8.38	117	872067	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	389052	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.71	65	347537	11.26 ug/l	0.01
Spiked Amount 10.000			Recovery	= 112.60%	
32) Dibromofluoromethane	4.36	113	405591	11.14 ug/l	0.00
Spiked Amount 10.000			Recovery	= 111.40%	
43) Toluene-d8	6.72	98	1162250	11.02 ug/l	0.01
Spiked Amount 10.000			Recovery	= 110.20%	
56) 4-Bromofluorobenzene	9.52	95	427148	10.66 ug/l	0.01
Spiked Amount 10.000			Recovery	= 106.60%	
Target Compounds					Qvalue
4) Vinyl Chloride	1.52	62	60892	1.90 ug/l	90
6) Chloroethane	1.87	64	21808	1.01 ug/l	99
19) Methylene Chloride	2.82	84	23312	0.76 ug/l	95
22) 1,1-Dichloroethane	3.39	63	61818	1.16 ug/l	95
25) cis-1,2-Dichloroethe	3.91	96	1086741	32.21 ug/l	88
38) Trichloroethene	5.35	130	756847	19.81 ug/l	94

Analyst Signature: RID Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

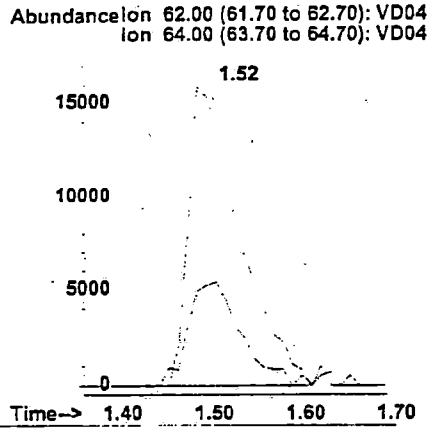
(#) = qualifier out of range (m) = manual integration

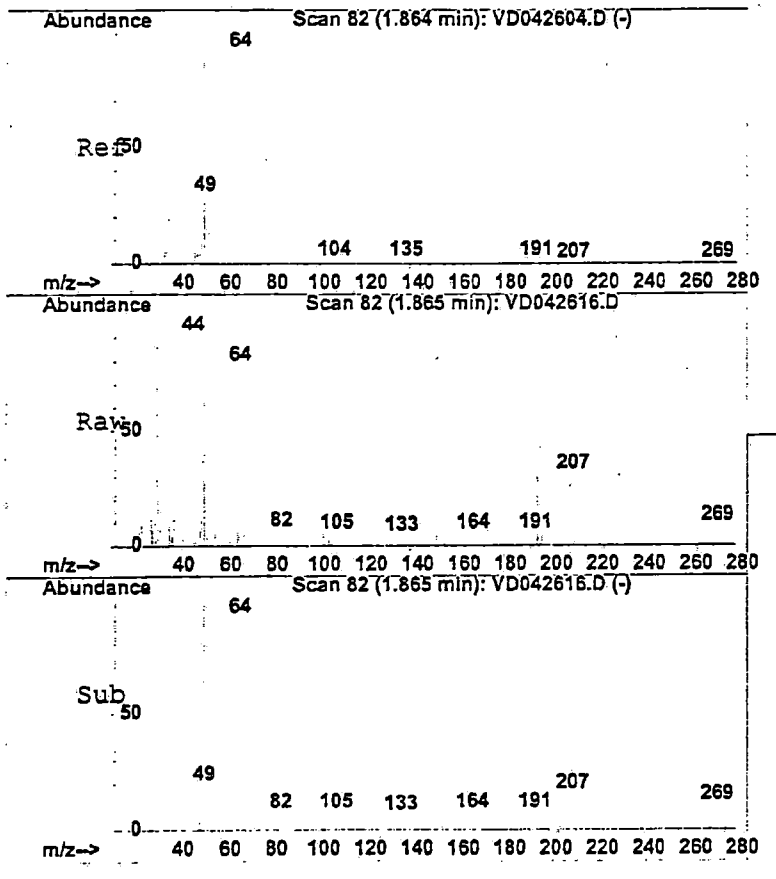


#4
Vinyl Chloride
Concen: 1.00 ug/l
RT: 1.52 min Scan# 49
Delta R.T. -0.01 min
Lab File: VD042616.D
Acq: 26 Apr 2004 10:44 pm

Tgt Ion: 62 Resp: 60892

Ion	Ratio	Lower	Upper
62	100		
64	31.1	29.6	44.4

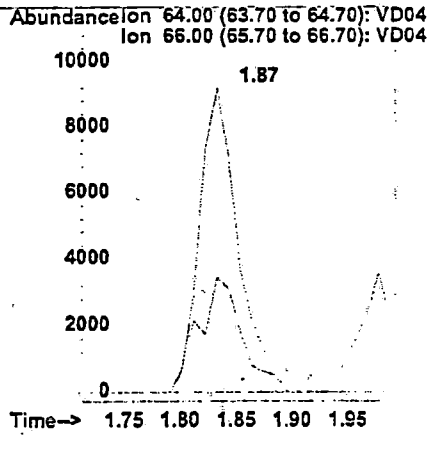


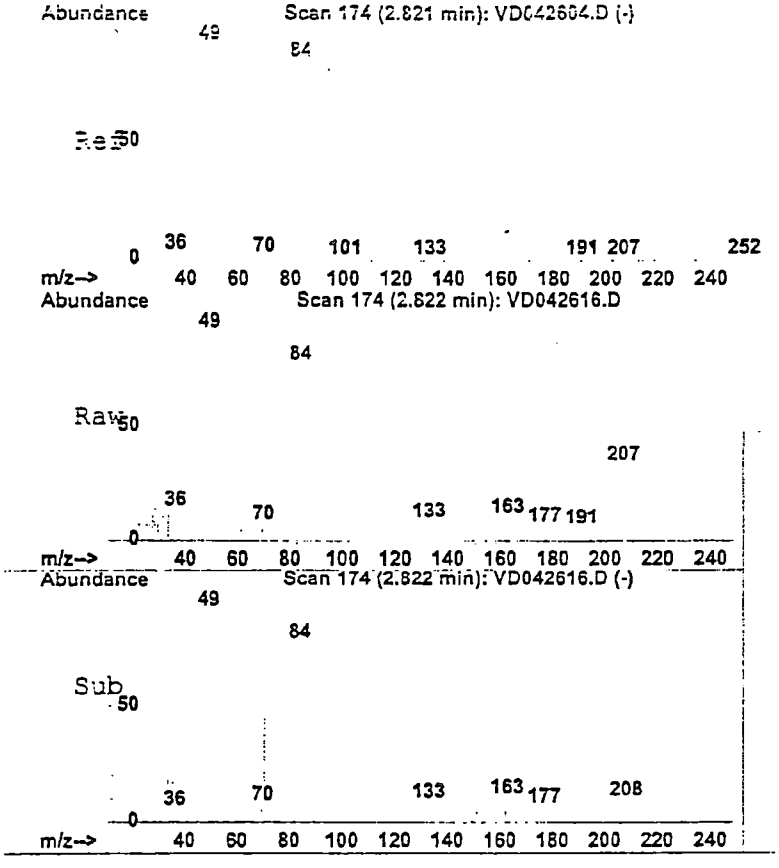


#6
Chloroethane
Concen: 1.01 ug/l
RT: 1.87 min Scan# 82
Delta R.T. 0.00 min
Lab File: VD042616.D
Acq: 26 Apr 2004 10:44 pm

Tgt Ion: 64 Resp: 21808

Ion	Ratio	Lower	Upper
64	100		
66	37.6	29.5	44.3

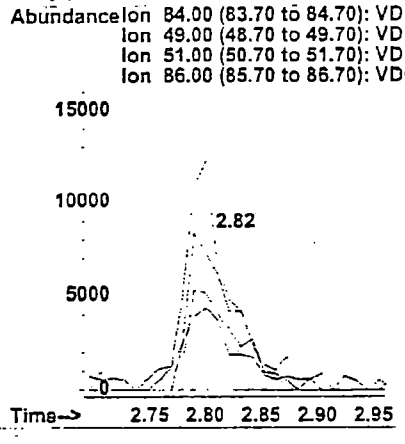


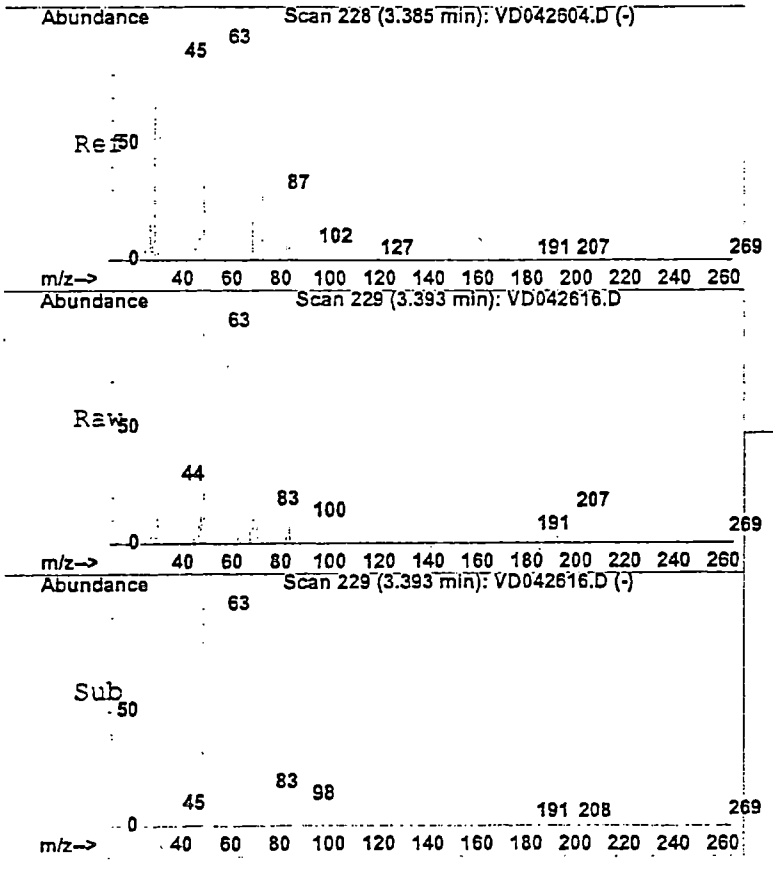


#19
Methylene Chloride
Concen: 0.76 ug/l
RT: 2.82 min Scan# 174
Delta R.T. 0.00 min
Lab File: VD042616.D
Acq: 26 Apr 2004 10:44 pm

Tgt Ion: 84 Resp: 23312

Ion	Ratio	Lower	Upper
84	100		
49	123.9	95.4	143.2
51	39.7	34.2	51.4
86	63.4	54.3	81.5

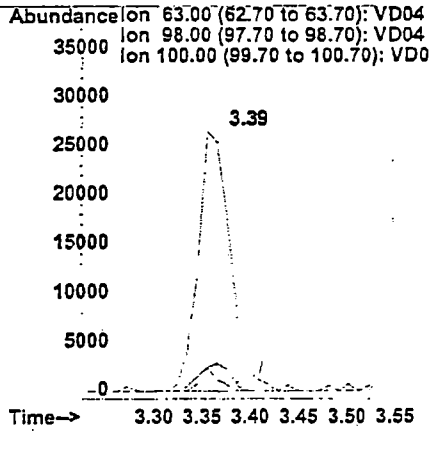


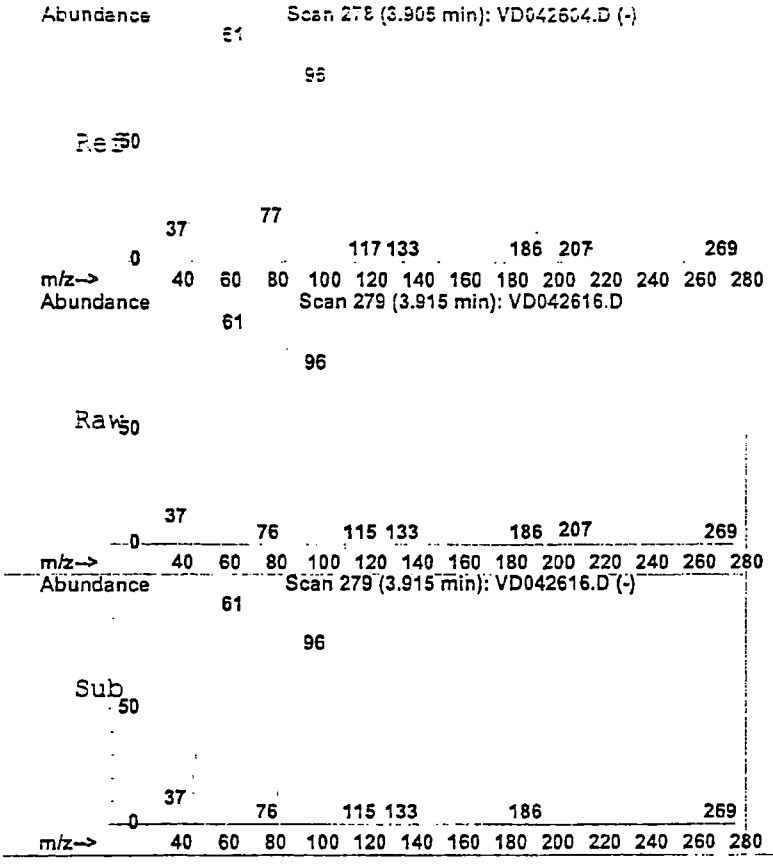


#22
1,1-Dichloroethane
Concen: 1.16 ug/l
RT: 3.39 min Scan# 229
Delta R.T. 0.01 min
Lab File: VD042616.D
Acq: 26 Apr 2004 10:44 pm

Tgt Ion: 63 Resp: 61818

Ion	Ratio	Lower	Upper
63	100		
98	9.4	5.3	15.8
100	9.3	3.2	9.6

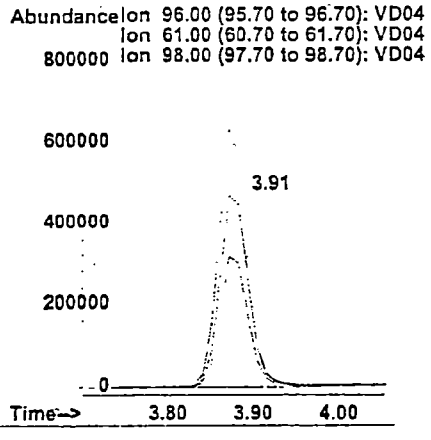


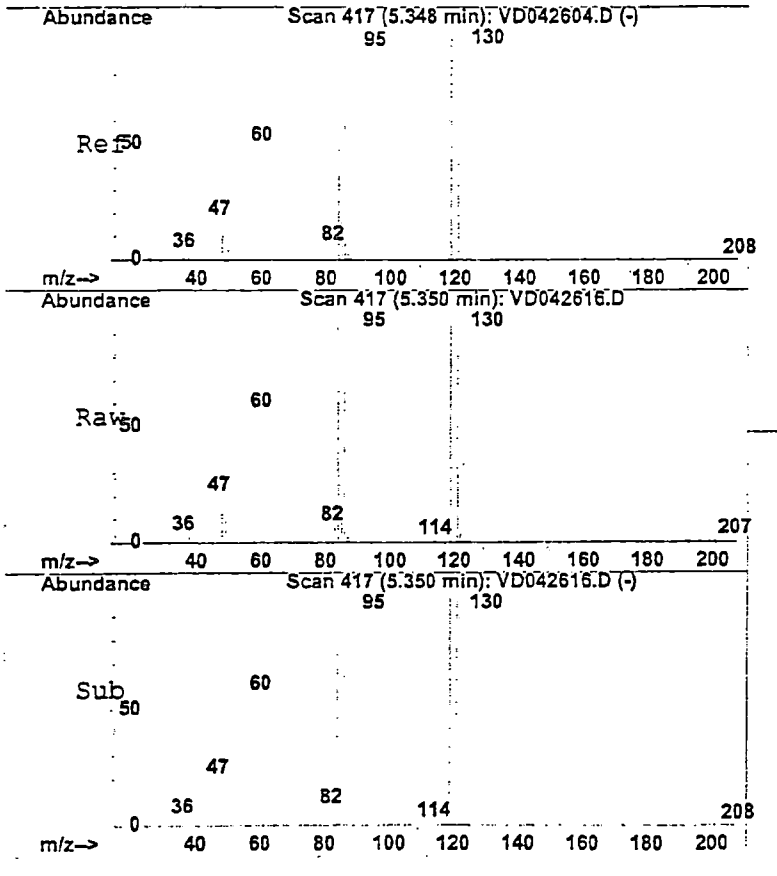


#23
cis-1,2-Dichloroethene
Concen: 33.11 ug/l
RT: 3.91 min Scan# 279
Delta R.T. 0.01 min
Lab File: VD042616.D
Acq: 26 Apr 2004 10:44 pm

Tgt Ion: 96 Resp: 1086741

Ion	Ratio	Lower	Upper
96	100		
61	133.0	0.0	308.6
98	67.0	0.0	136.4

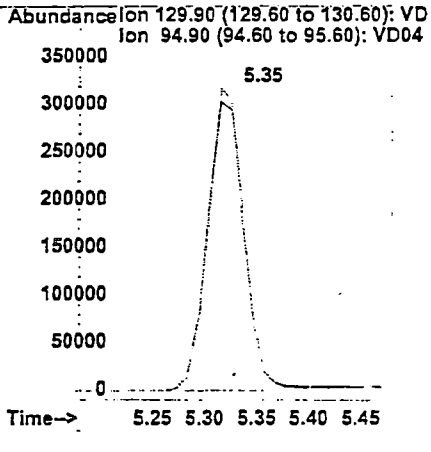




#38
Trichloroethene
Concen: 19.81 ug/l
RT: 5.35 min Scan# 417
Delta R.T. 0.00 min
Lab File: VD042616.D
Acq: 26 Apr 2004 10:44 pm

Tgt Ion:130 Resp: 756847

Ion	Ratio	Lower	Upper
130	100		
95	95.5	0.0	179.4



LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD041604\VD042616.D Vial: 7
Acq On : 16 Apr 2004 10:44 pm Operator: BRIJ
Sample : S2186-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

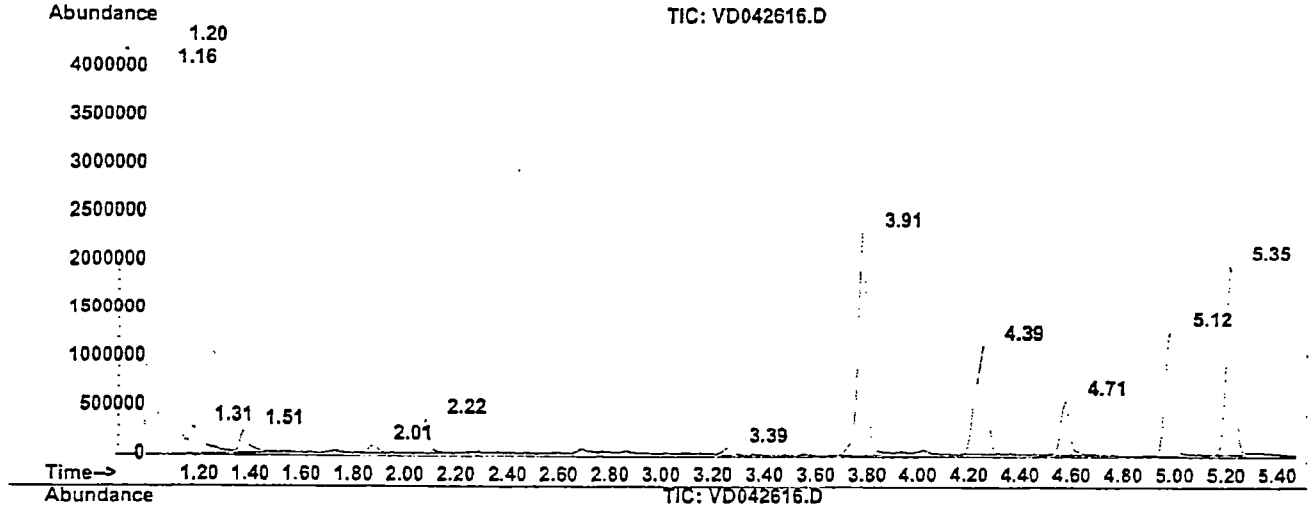
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.156	9	14	16	rBV	3976398	10389535	80.70%	18.374%
2	1.198	16	18	27	rVV	4415653	12874863	100.00%	22.769%
3	1.313	27	29	44	rVV	271022	1057470	8.21%	1.870%
4	1.510	44	48	61	rVB2	222219	592441	4.60%	1.048%
5	2.010	92	96	102	rBV3	77727	205603	1.60%	0.364%
6	2.219	112	116	122	rBV	345815	662991	5.15%	1.172%
7	3.393	225	229	237	rVB3	70940	191845	1.49%	0.339%
8	3.915	269	279	288	rBV	2301402	5522946	42.90%	9.767%
9	4.390	318	325	332	rBV2	1110095	3780076	29.36%	6.685%
10	4.714	348	356	365	rBV	555237	1389090	10.79%	2.457%
11	5.120	389	395	402	rBV	1270810	3025831	23.50%	5.351%
12	5.350	412	417	424	rBV	1950886	4686656	36.40%	8.288%
13	6.720	542	549	555	rBV	1445097	3633110	28.22%	6.425%
14	8.375	703	708	716	rBV	1526177	3257926	25.30%	5.762%
15	9.520	813	818	822	rBV	1243264	2474180	19.22%	4.376%
16	10.508	909	913	921	rBV	1395072	2801613	21.76%	4.955%

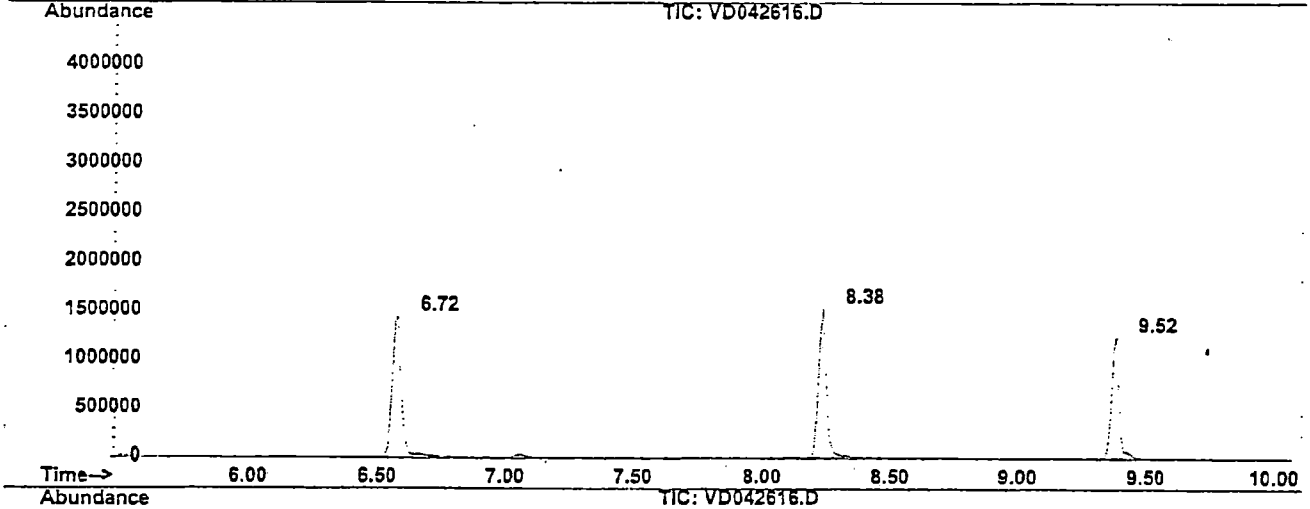
Sum of corrected areas: 56546176

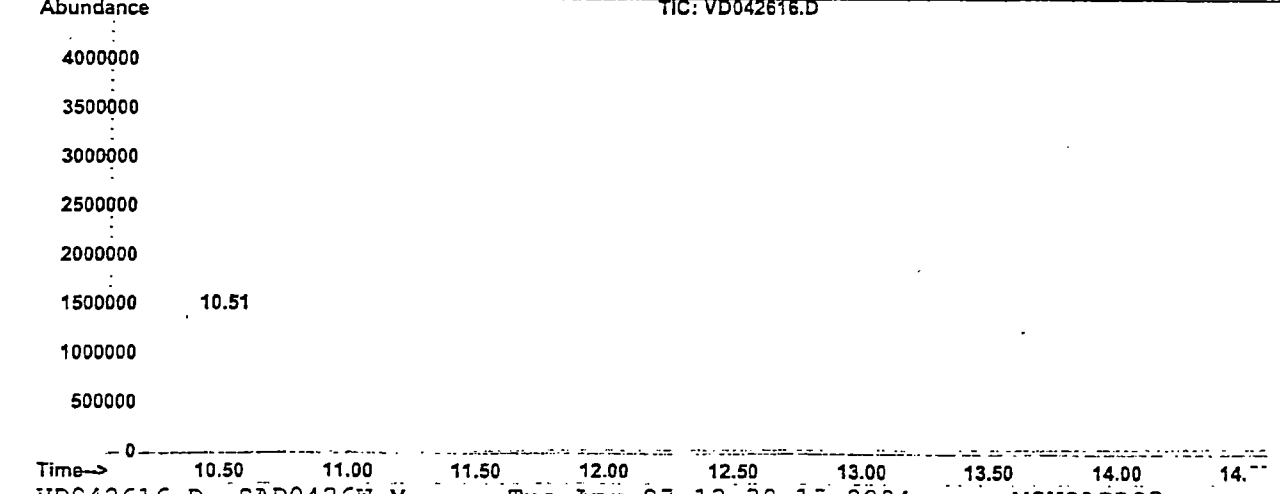
VD042616.D SAD0426W.M Tue Apr 27 13:39:14 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042604\VD042616.D
Operator : BRIJ
Acquired : 26 Apr 2004 10:44 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-14
Misc Info : 25mL
Vial Number: 7
Quant File :SAD0426W.RES (RTE Integrator)







VD042616.D SAD0426W.M Tue Apr 27 13:39:15 2004 MSVOAPRO3

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042616.D Vial: 7
Acq On : 26 Apr 2004 10:44 pm Operator: BRIJ
Sample : S2186-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

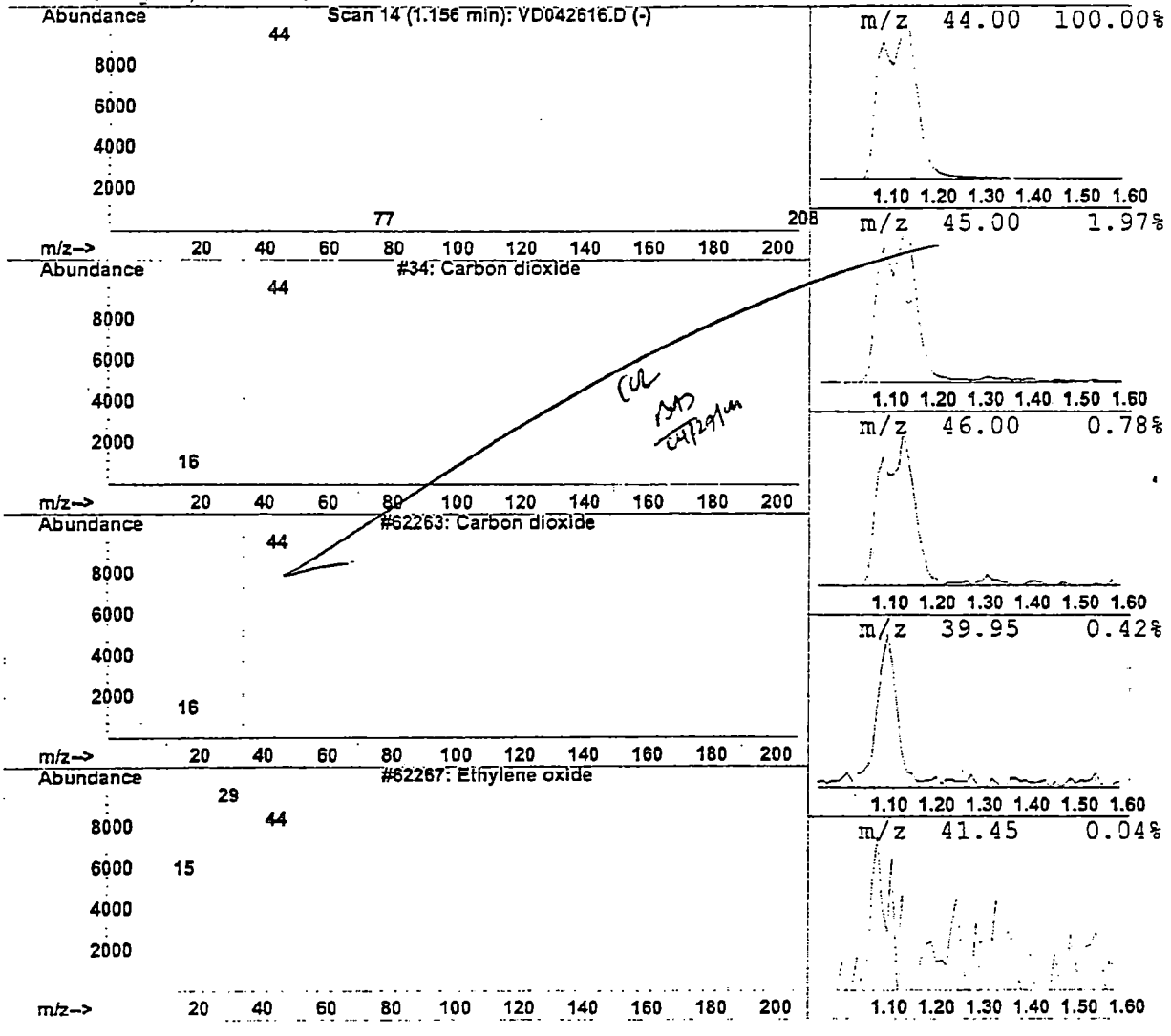
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.16	27.49 ug/l	10389500	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042616.D Vial: 7
Acq On : 26 Apr 2004 10:44 pm Operator: BRIJ
Sample : S2186-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

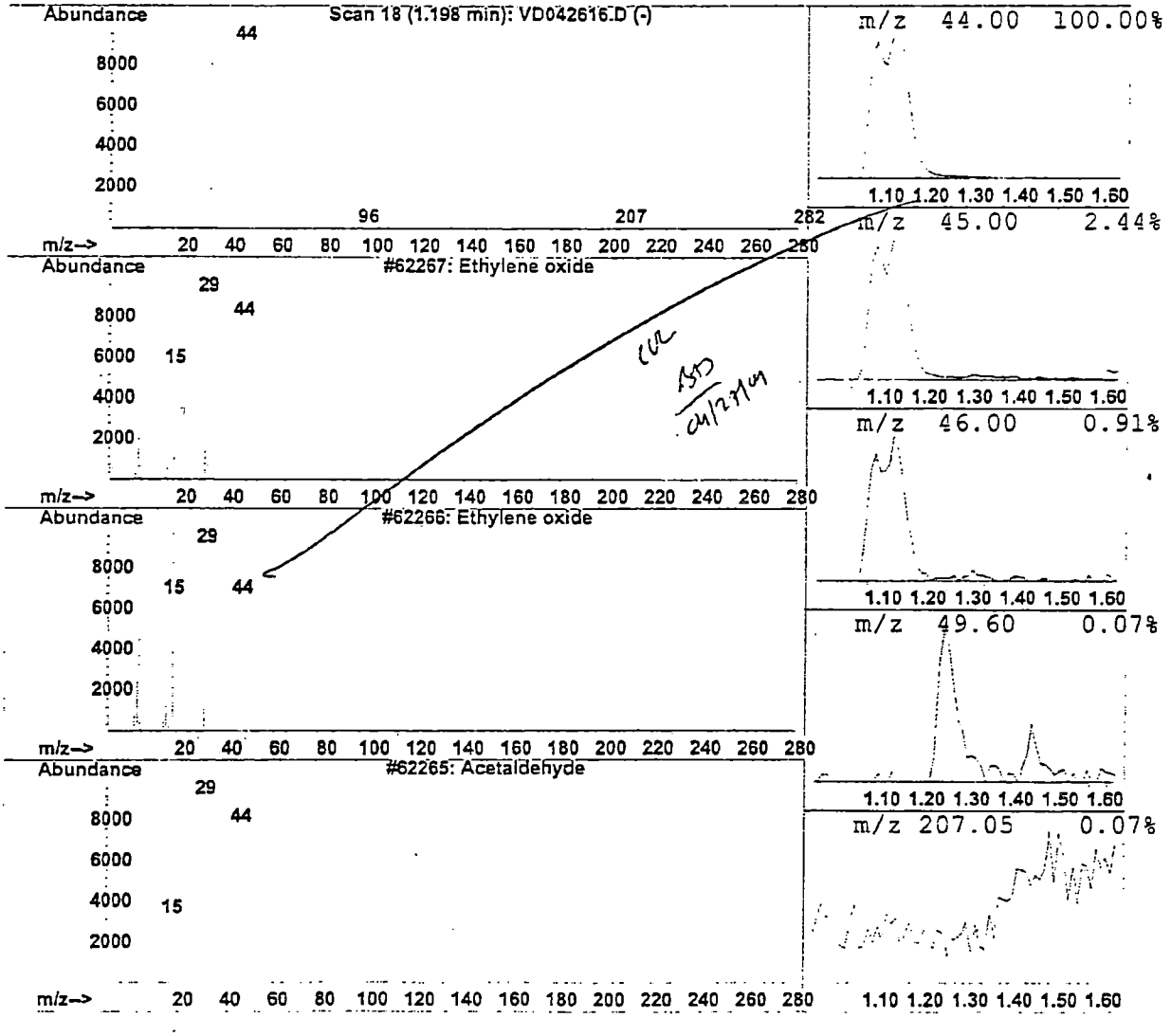
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.20	34.06 ug/l	12874900	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	4
2	Ethylene oxide	44	C2H4O	000075-21-8	4
3	Acetaldehyde	44	C2H4O	000075-07-0	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042616.D Vial: 7
Acq On : 26 Apr 2004 10:44 pm Operator: BRIC
Sample : S2156-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

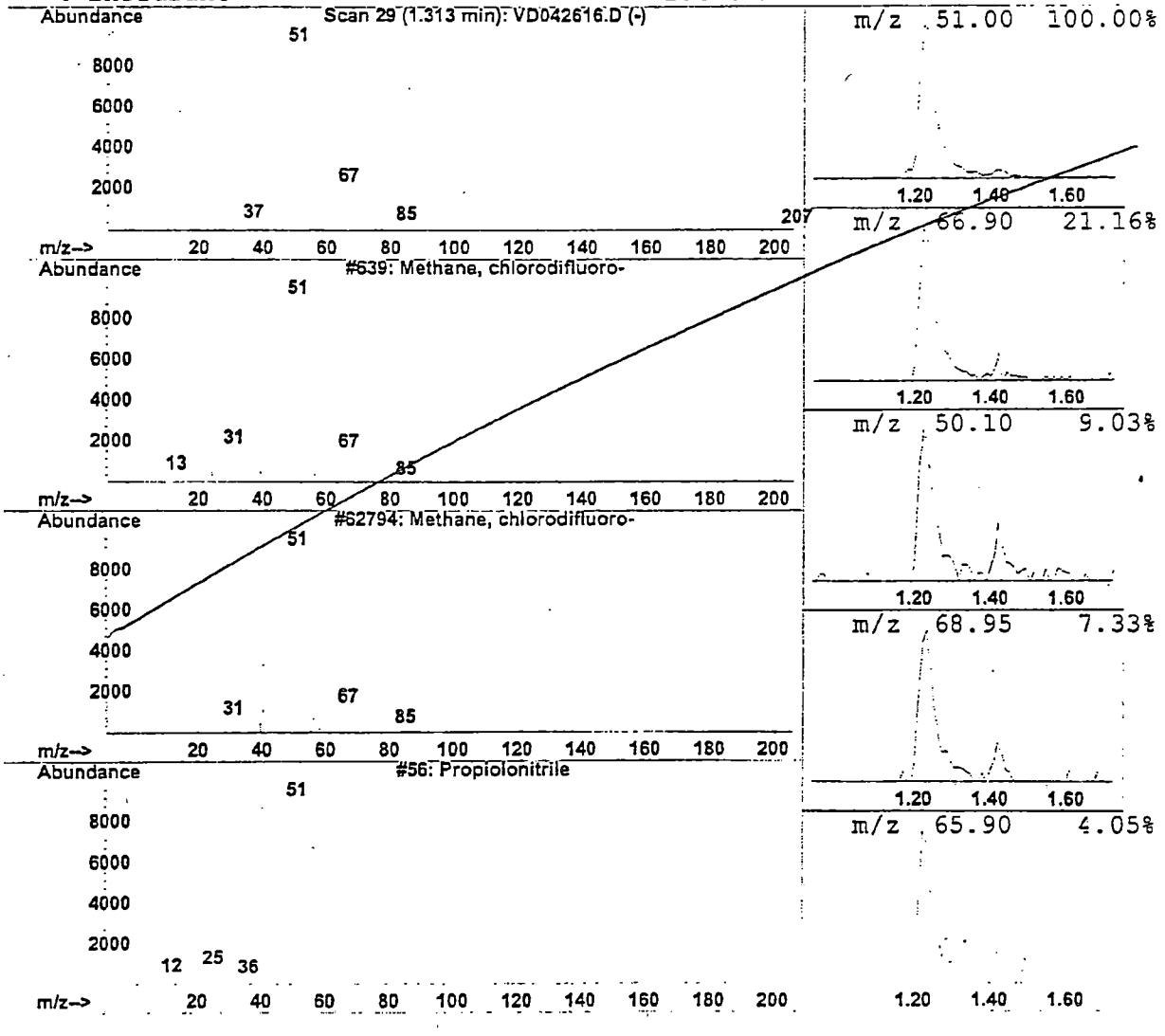
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Methane, chlorodifluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.31	2.80 ug/l	1057470	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	83
2	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	78
3	Propiolonitrile	51	C3HN	001070-71-9	9
4	Enflurane	184	C3H2ClF5O	013838-16-9	2



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042616.D Vial: 7
Acq On : 26 Apr 2004 10:44 pm Operator: BRIJ
Sample : S2186-14 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

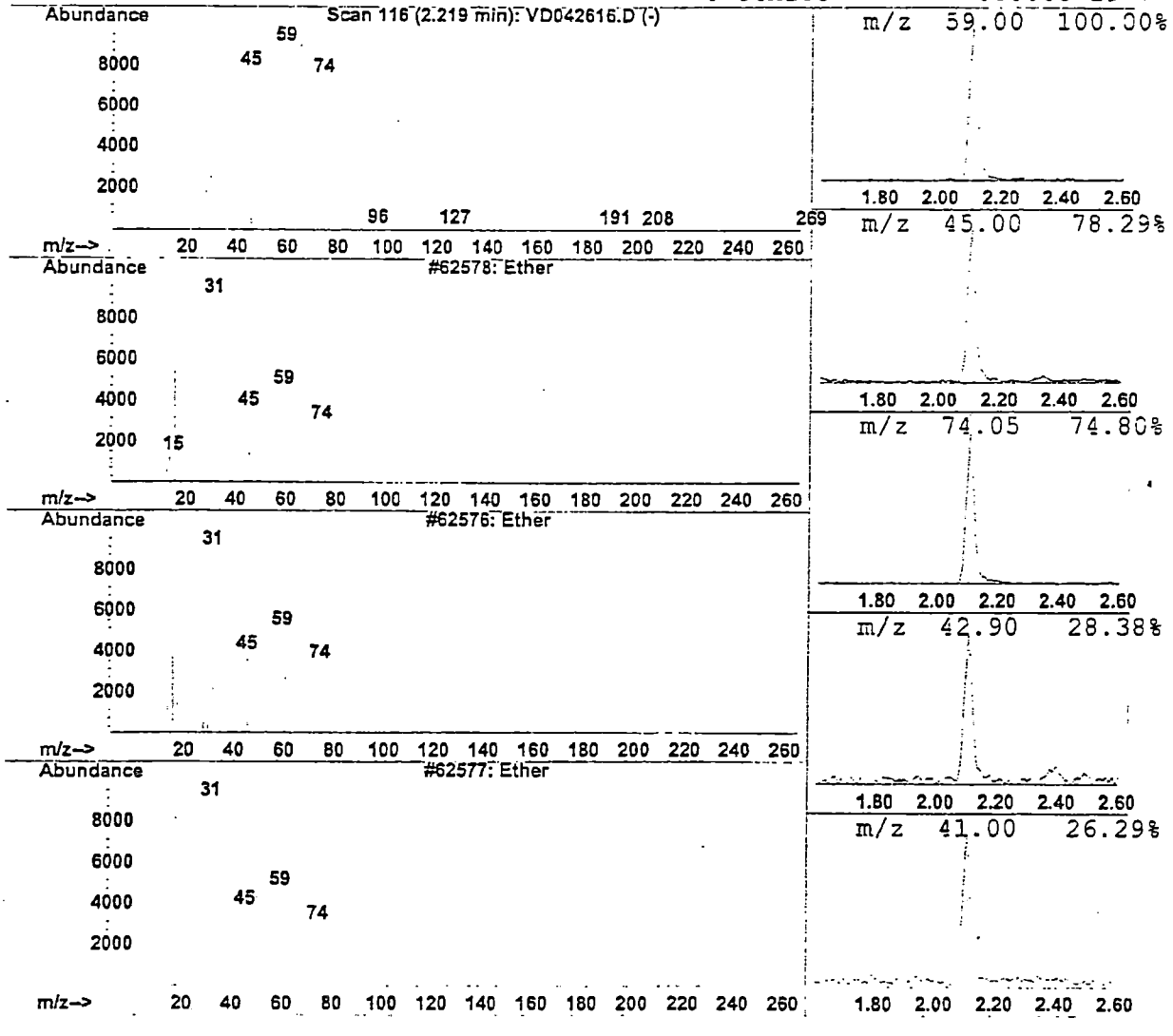
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Ether Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.22	1.75 ug/l	662991	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ether	74	C4H10O	000060-29-7	90
2	Ether	74	C4H10O	000060-29-7	90
3	Ether	74	C4H10O	000060-29-7	83
4	Ether	74	C4H10O	000060-29-7	83



Tentatively Identified Compound (LSC) summary

Operator ID: BRIT Date Acquired: 26 Apr 2004 10:44 pm
Data File: F:\1\DATA\MSVOAD\VD042604\VD042616.D
Name: S2186-14
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.16	27.5	ug/l	10389500	ISTD01	4.40	3780080	10.0
Ethylene oxide	1.20	34.1	ug/l	12874900	ISTD01	4.40	3780080	10.0
Methane, chlorodiflu	1.31	2.8	ug/l	1057470	ISTD01	4.40	3780080	10.0
Ether	2.22	1.8	ug/l	662991	ISTD01	4.40	3780080	10.0

VD042616.D SAD0426W.M Tue Apr 27 13:39:17 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-15

Client ID: AMW-1DUP

Date Collected: 4/14/2004
Date Analyzed: 4/26/2004
File ID: VD042617.D
Dilution: 1
Analytical Method: 8260-Low
Sample Wt/Wol: 25.0 Units: mL
Soil Aliquot Vol:

Date Received: 4/15/2004
Matrix: WATER
Analytical Run ID: VD042604
Instrument ID: MSVOAD
Associated Blank: VBD0426W1
Soil Extract Vol:
% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	1.8		1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	0.95	J	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	0.72	J	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	1.1		1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	31		1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	20		1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-15

Client ID: AMW-1DUP

Date Collected: 4/14/2004
Date Analyzed: 4/26/2004
File ID: VD042617.D
Dilution: 1
Analytical Method: 8260-Low
Sample Wt/Wol: 25.0 Units: mL
Soil Aliquot Vol:

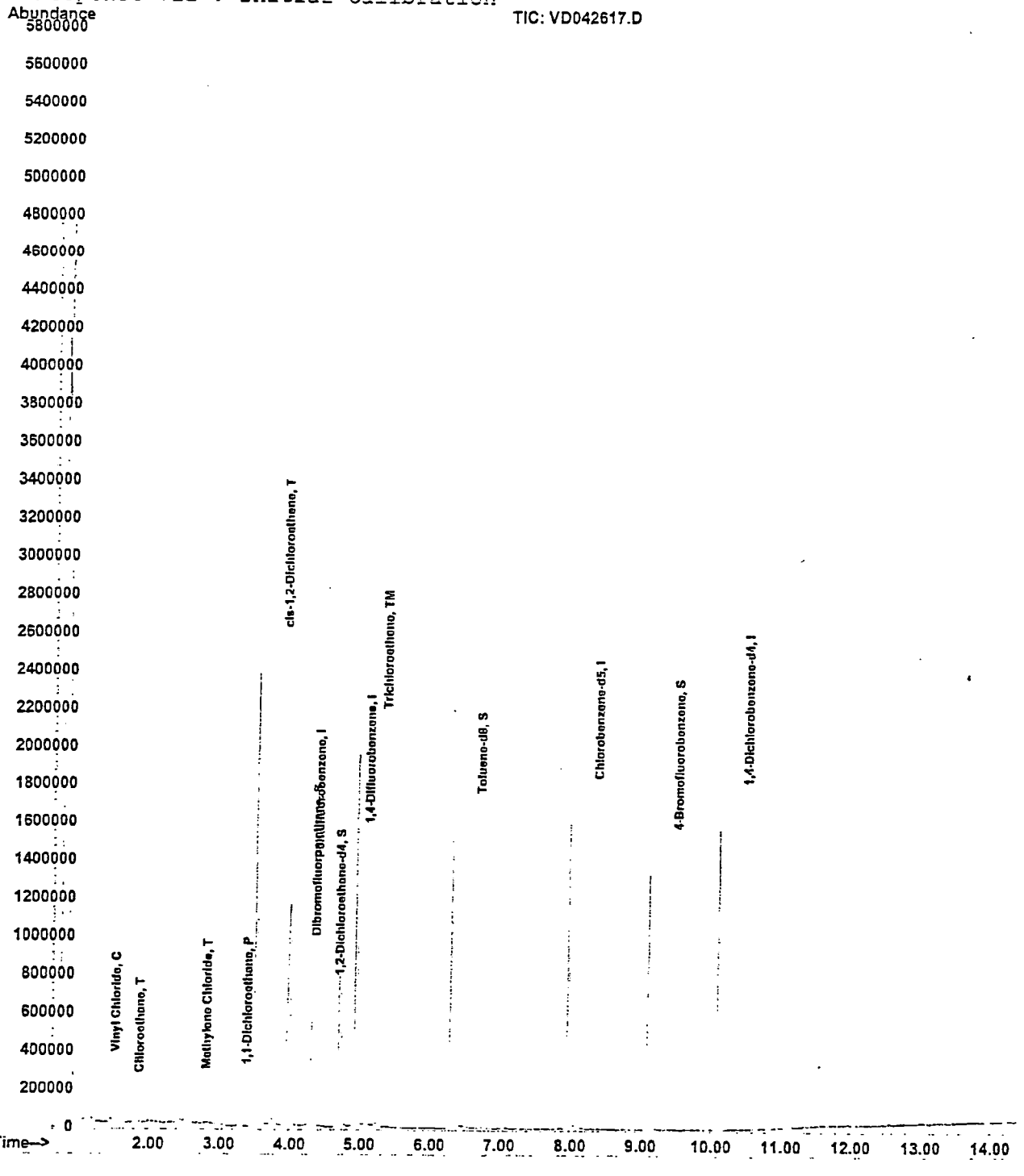
Date Received: 4/15/2004
Matrix: WATER
Analytical Run ID: VD042604
Instrument ID: MSVOAD
Associated Blank: VBD0426W1
Soil Extract Vol:
% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.94	119 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.79	108 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	11.05	111 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	11.13	111 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	662502	4.40			
1,4-Difluorobenzene	540-36-3	1063538	5.12			
Chlorobenzene-d5	3114-55-4	908883	8.38			
1,4-Dichlorobenzene-d4	3855-82-1	401004	10.51			
TENTITIVE IDENTIFIED COMPOUNDS						
Methane, chlorodifluoro-	75456	2.1	J	1.31		ug/L
Ether	60297	1.8	J	2.22		ug/L

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042617.D Vial: 8
Acq On : 26 Apr 2004 11:25 pm Operator: ERIJ
Sample : S2186-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 12:19 2004 Quant Results File: SAD0426W.RES

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Mon Apr 26 17:04:02 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042604\VD042617.D Vial: 9
Acq On : 26 Apr 2004 11:25 pm Operator: ERIC
Sample : S2166-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 12:19 2004 Quant Results File: SAD0426W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Mon Apr 26 17:04:02 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

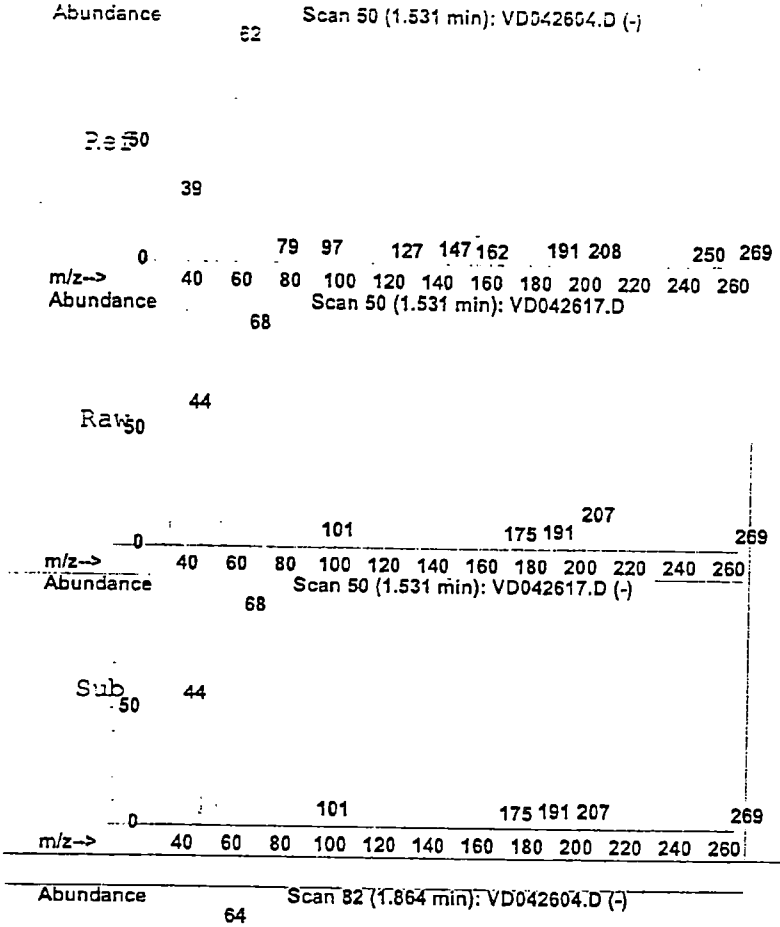
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.40	168	662502	10.00 ug/l	0.02
31) 1,4-Difluorobenzene	5.12	114	1063538	10.00 ug/l	0.01
57) Chlorobenzene-d5	8.38	117	908883	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	401004	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.71	65	386491	11.94 ug/l	0.00
Spiked Amount 10.000			Recovery	= 119.40%	
32) Dibromofluoromethane	4.37	113	395690	10.79 ug/l	0.01
Spiked Amount 10.000			Recovery	= 107.90%	
43) Toluene-d8	6.71	98	1173981	11.05 ug/l	0.00
Spiked Amount 10.000			Recovery	= 110.50%	
56) 4-Bromofluorobenzene	9.52	95	449286	11.13 ug/l	0.01
Spiked Amount 10.000			Recovery	= 111.30%	
Target Compounds					Qvalue
4) Vinyl Chloride	1.53	62	61455	1.83 ug/l	93
6) Chloroethane	1.87	64	21389	0.95 ug/l	97
19) Methylene Chloride	2.83	84	22991	0.72 ug/l	91
22) 1,1-Dichloroethane	3.40	63	63342	1.13 ug/l	94
25) cis-1,2-Dichloroethe	3.92	96	1113169	31.47 ug/l	88
38) Trichloroethene	5.36	130	772145	20.06 ug/l	94

Analyst Signature: BD Analyst Name: _____ Date: 4/29/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
___Peak integrated by software incorrectly. Compound #: _____
___OTHER: _____ Compound #: _____

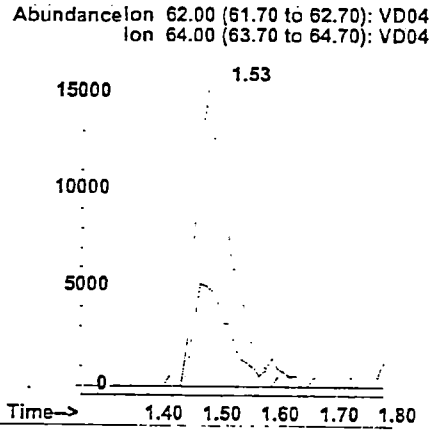
(#) = qualifier out of range (m) = manual integration

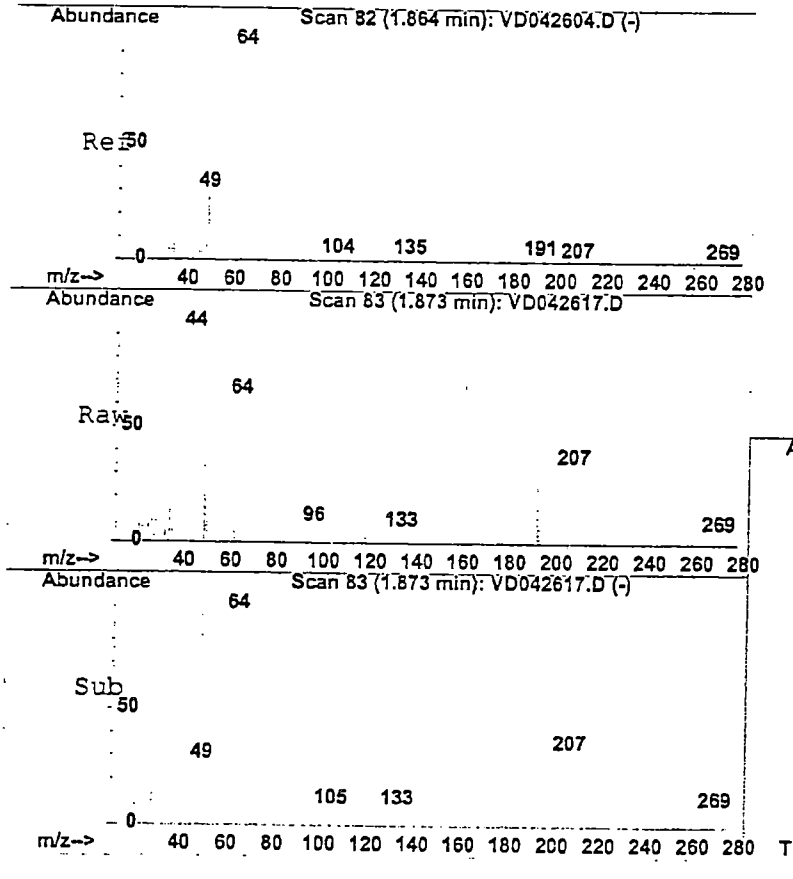


#4
Vinyl Chloride
Concen: 1.83 ug/l
RT: 1.53 min Scan# 50
Delta R.T. 0.00 min
Lab File: VD042617.D
Acq: 26 Apr 2004 11:25 pm

Tgt Ion: 62 Resp: 61455

Ion	Ratio	Lower	Upper
62	100		
64	33.1	29.6	44.4

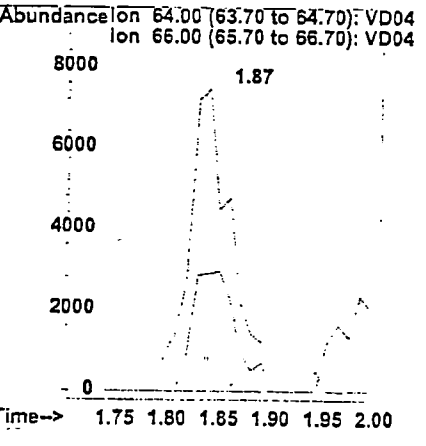


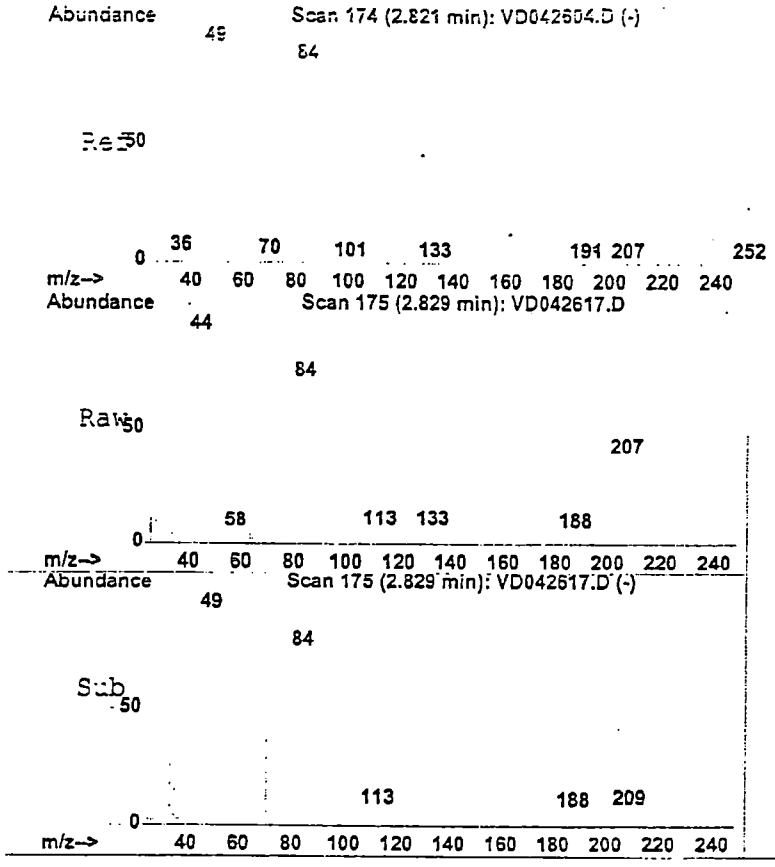


#6
Chloroethane
Concen: 0.95 ug/l
RT: 1.87 min Scan# 83
Delta R.T. 0.01 min
Lab File: VD042617.D
Acq: 26 Apr 2004 11:25 pm

Tgt Ion: 64 Resp: 21389

Ion	Ratio	Lower	Upper
64	100		
66	38.7	29.5	44.3

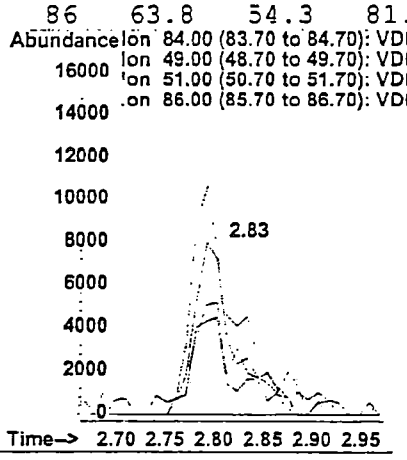


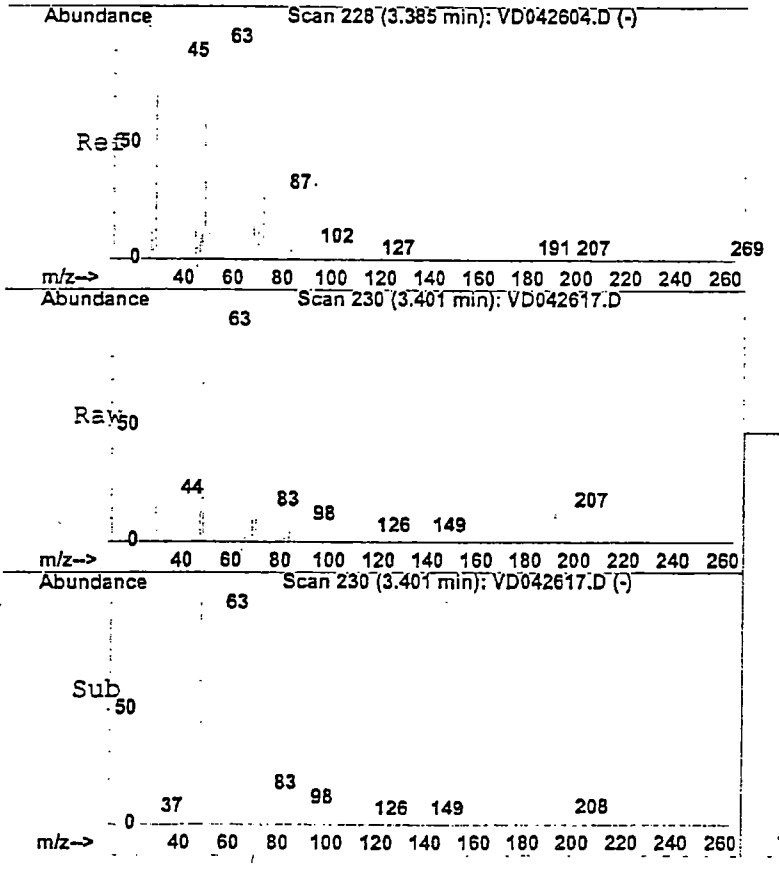


#19
Methylene Chloride
Concen: 0.72 ug/l
RT: 2.83 min Scan# 175
Delta R.T. 0.01 min
Lab File: VD042617.D
Acq: 26 Apr 2004 11:25 pm

Tgt Ion: 84 Resp: 22991

Ion	Ratio	Lower	Upper
84	100		
49	133.4	95.4	143.2
51	45.5	34.2	51.4
86	63.8	54.3	81.5

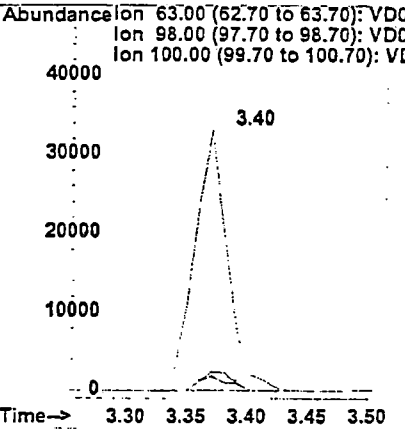


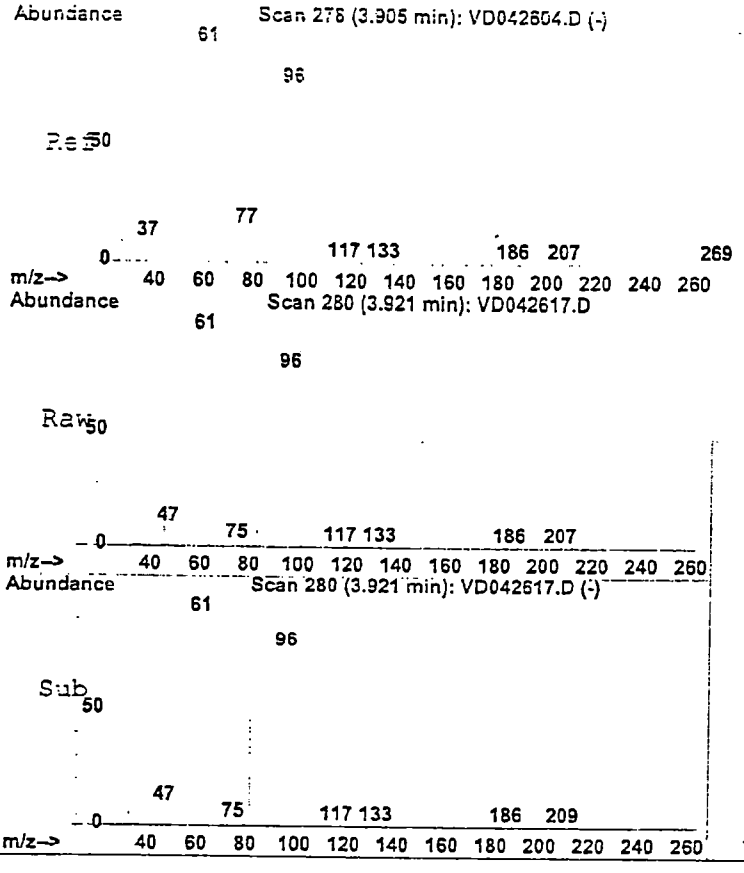


#22
1,1-Dichloroethane
Concen: 1.13 ug/l
RT: 3.40 min Scan# 230
Delta R.T. 0.02 min
Lab File: VD042617.D
Acq: 26 Apr 2004 11:25 pm

Tgt Ion: 63 Resp: 63342

Ion	Ratio	Lower	Upper
63	100		
98	7.5	5.3	15.8
100	5.9	3.2	9.6

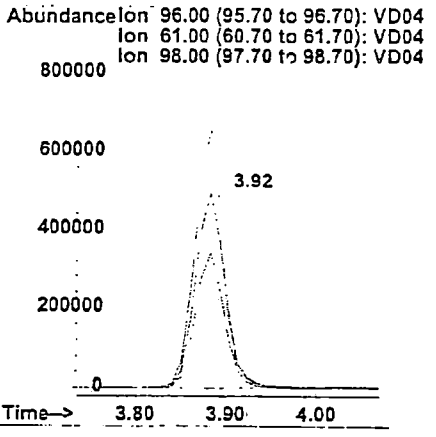


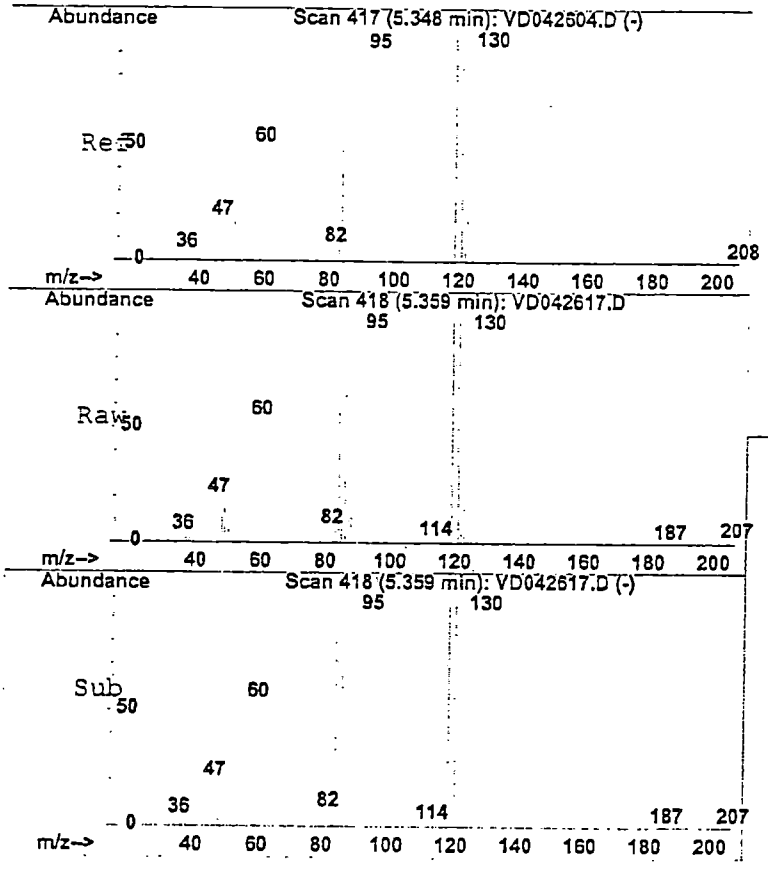


#25
cis-1,2-Dichloroethene
Concen: 31.47 ug/l
RT: 3.92 min Scan# 280
Delta R.T. 0.02 min
Lab File: VD042617.D
Acq: 26 Apr 2004 11:25 pm

Tgt Ion: 96 Resp: 1113169

Ion	Ratio	Lower	Upper
96	100		
61	131.2	0.0	308.6
98	68.1	0.0	136.4

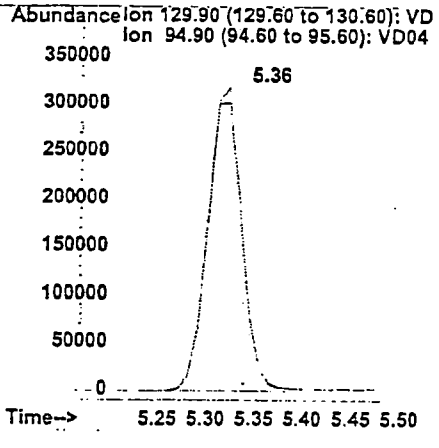




#38
Trichloroethene
Concen: 20.06 ug/l
RT: 5.36 min Scan# 418
Delta R.T. 0.01 min
Lab File: VD042617.D
Acq: 26 Apr 2004 11:25 pm

Tgt Ion:130 Resp: 772145

Ion	Ratio	Lower	Upper
130	100		
95	95.0	0.0	179.4



LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042617.D Vial: 9
Acq On : 26 Apr 2004 11:25 pm Operator: ERIC
Sample : S2186-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

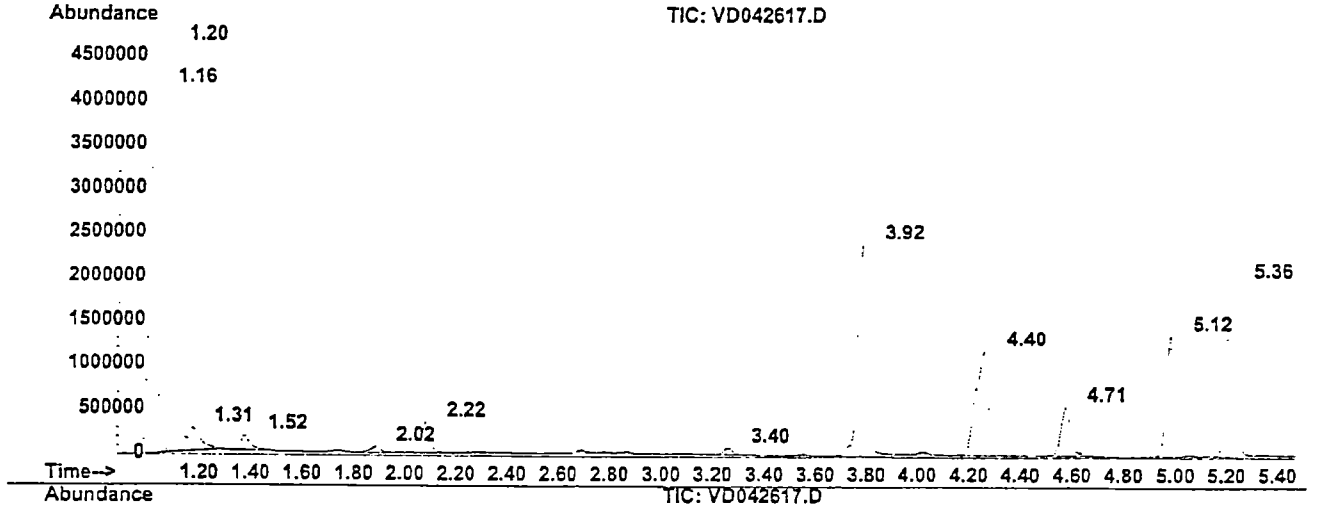
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.156	9	14	16	rBV	4139400	10554336	72.48%	17.883%
2	1.198	16	18	27	rVV	4827437	14562052	100.00%	24.673%
3	1.313	27	29	40	rVB	246713	812122	5.58%	1.376%
4	1.521	46	49	57	rBV2	169493	400484	2.75%	0.679%
5	2.019	92	97	104	rVB2	62945	194925	1.34%	0.330%
6	2.217	113	116	125	rBV	344775	703191	4.83%	1.191%
7	3.401	225	230	234	rVB2	72263	173924	1.19%	0.295%
8	3.921	271	280	293	rBV	2386531	5683263	39.03%	9.629%
9	4.398	316	326	336	rBV2	1161448	3900340	26.78%	6.609%
10	4.712	350	356	365	rVB	546679	1371178	9.42%	2.323%
11	5.119	389	395	401	rBV	1350619	3076475	21.13%	5.213%
12	5.359	411	418	425	rBV	1956478	4813096	33.05%	8.155%
13	6.713	541	548	561	rBV	1519724	3835708	26.34%	6.499%
14	8.378	703	708	716	rBV	1597093	3381798	23.22%	5.730%
15	9.518	813	818	822	rBV	1333756	2623076	18.01%	4.444%
16	10.511	910	914	922	rVB	1570929	2933390	20.14%	4.970%

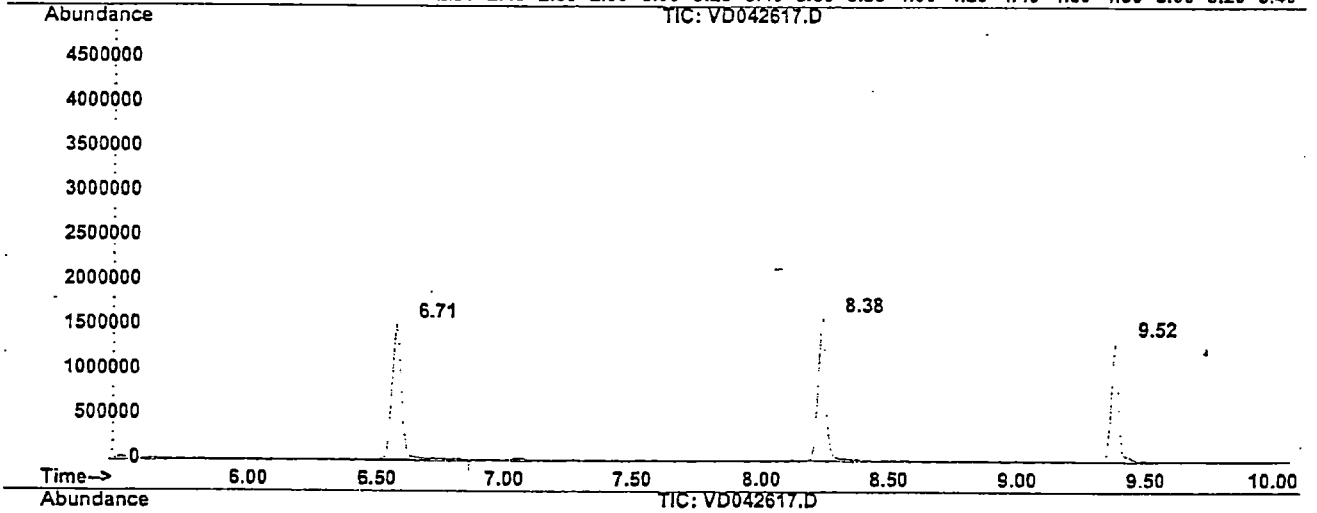
Sum of corrected areas: 59019358

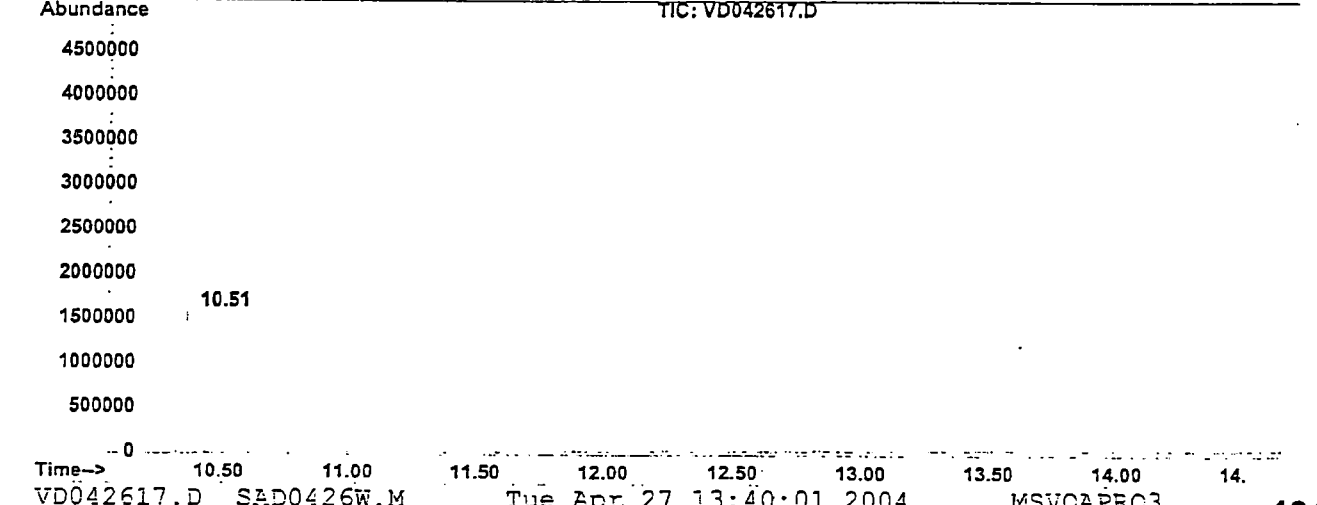
VD042617.D SAD0426W.M Tue Apr 27 13:40:00 2004 MSVOAPRO3

ISC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042604\VD042617.D
Operator : BRIJ
Acquired : 26 Apr 2004 11:25 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-15
Misc Info : 25mL
Vial Number: 8
Quant File :SAD0426W.RES (RTE Integrator)







Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042617.D Vial: 8
Acq On : 26 Apr 2004 11:25 pm Operator: BRIJ
Sample : S2186-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

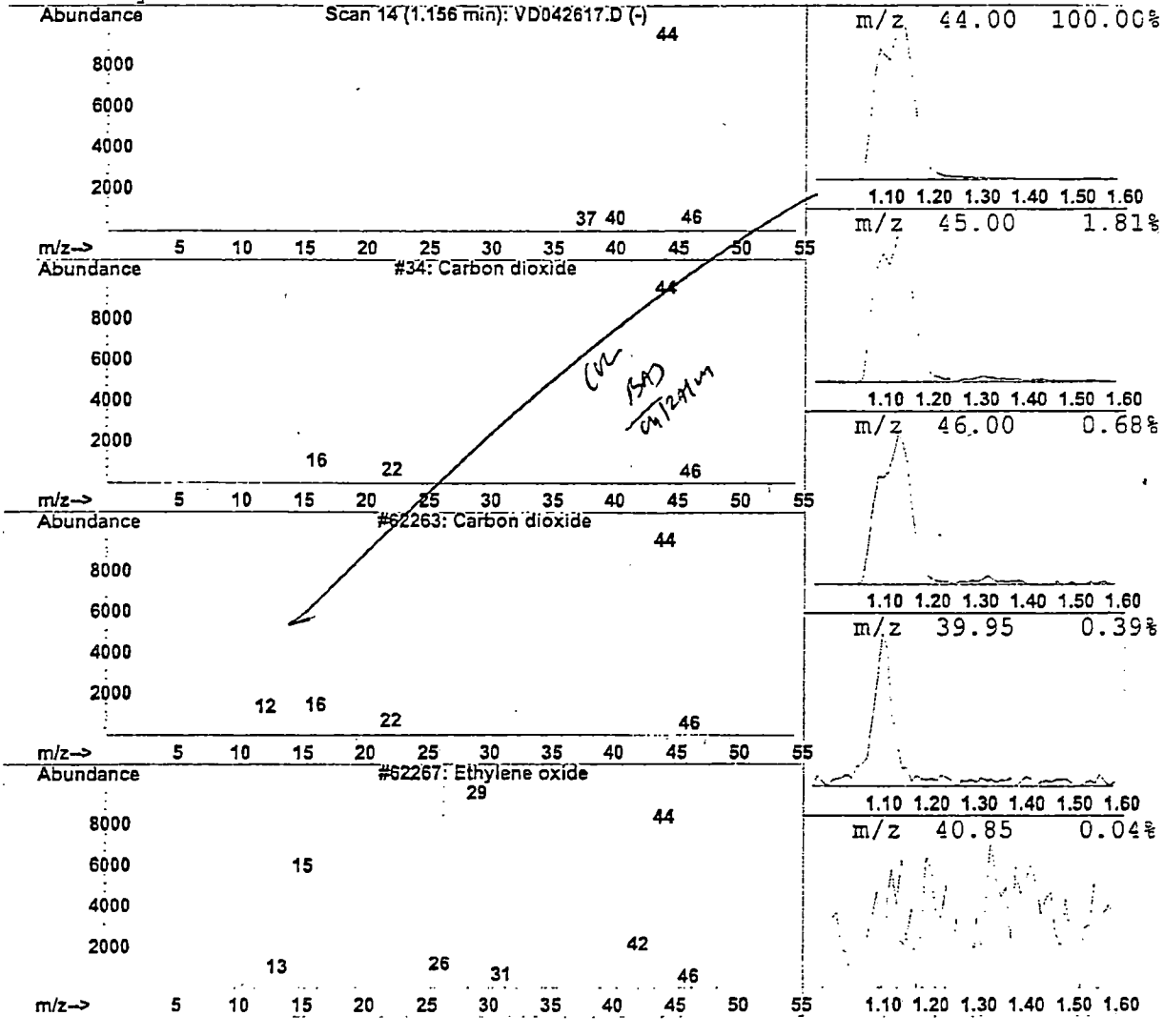
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.16	27.06 ug/l	10554300	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042617.D Vial: 3
Acq On : 26 Apr 2004 11:25 pm Operator: BRIJ
Sample : S2186-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

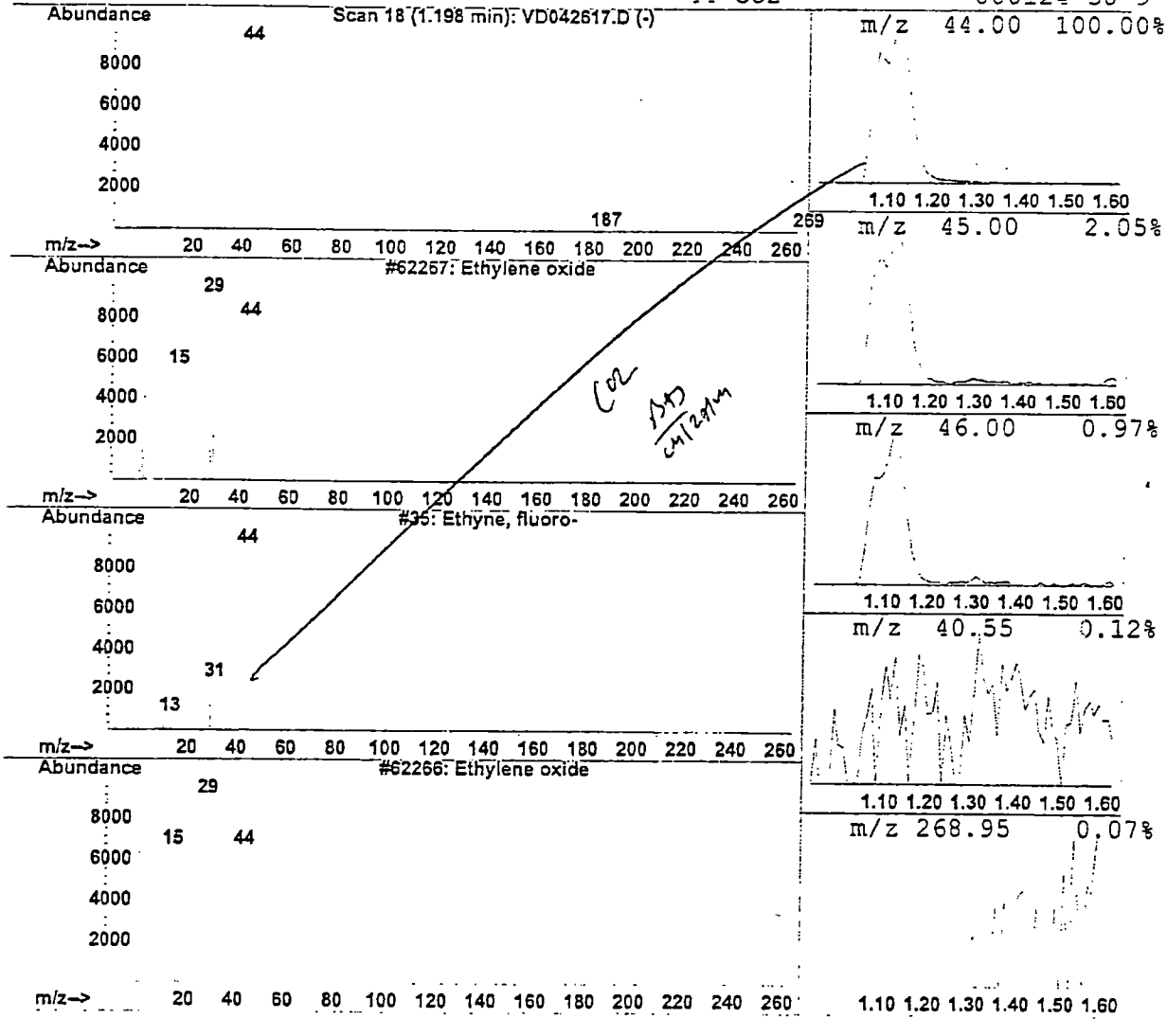
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.20	37.34 ug/l	14562100	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethyne, fluoro-	44	C2HF	002713-09-9	3
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Carbon dioxide	44	CO2	000124-38-9	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042617.D Vial: 9
Acq On : 26 Apr 2004 11:25 pm Operator: BRIJ
Sample : S2186-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

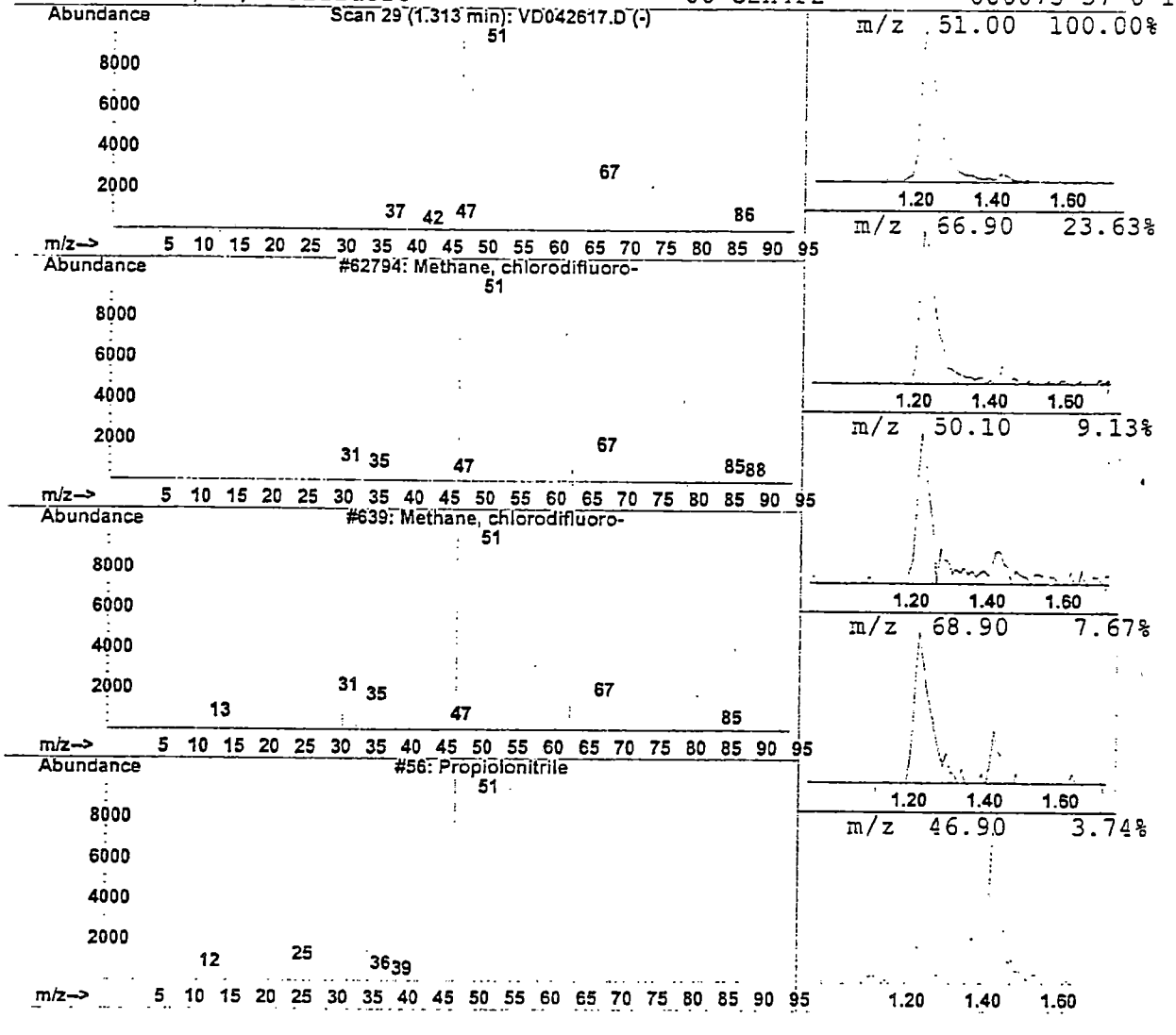
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Methane, chlorodifluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.31	2.08 ug/l	812122	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	90
2	Methane, chlorodifluoro-	86	CHClF2	000075-45-6	83
3	Propiolonitrile	51	C3HN	001070-71-9	5
4	Ethane, 1,1-difluoro-	66	C2H4F2	000075-37-6	1



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042614\VD042617.D Vial: 8
Acq On : 26 Apr 2004 11:28 pm Operator: BRIJ
Sample : S2186-15 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

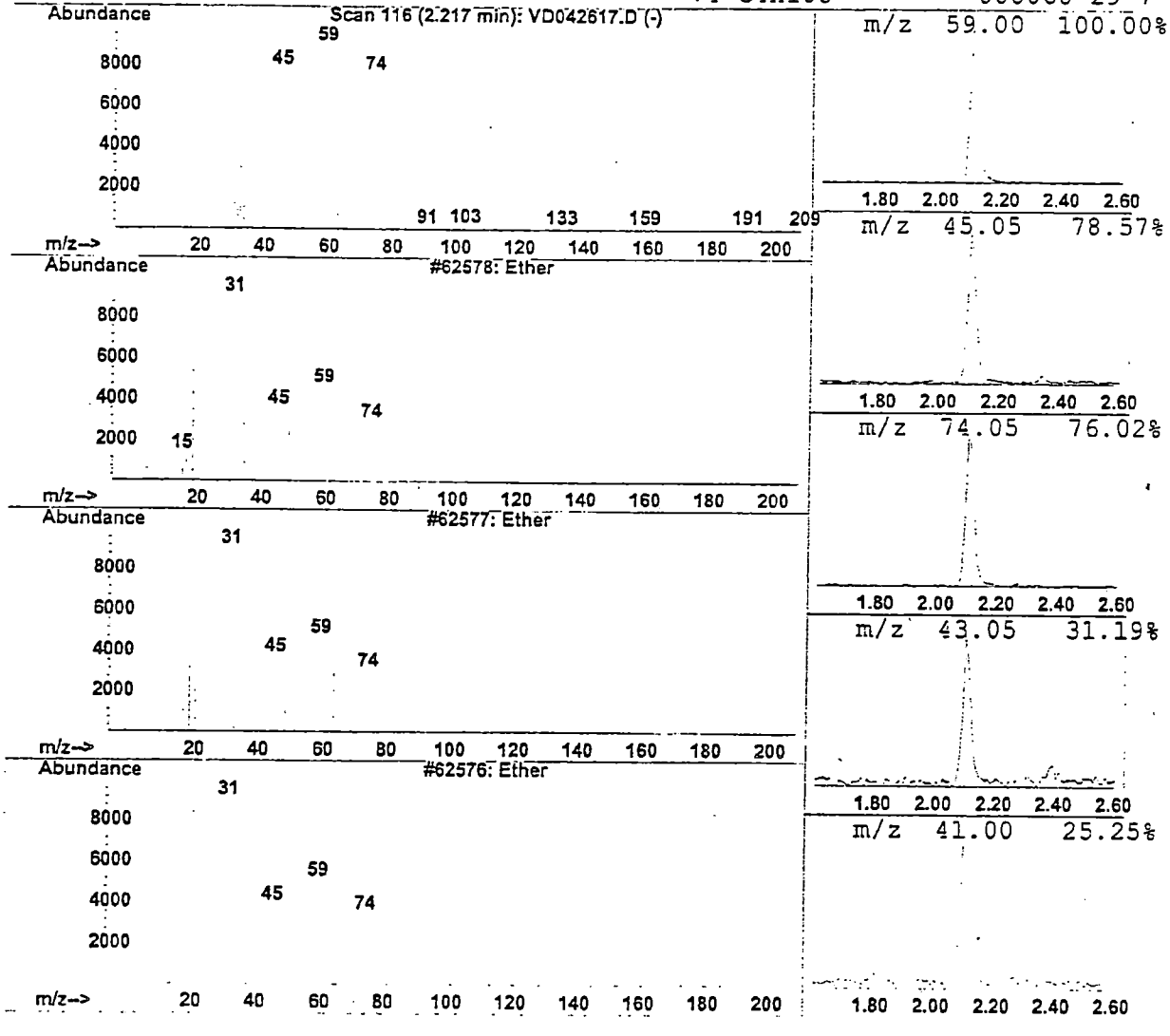
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Ether Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.22	1.80 ug/l	703191	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ether	74	C4H10O	000060-29-7	86
2	Ether	74	C4H10O	000060-29-7	83
3	Ether	74	C4H10O	000060-29-7	78
4	Ether	74	C4H10O	000060-29-7	78



Tentatively Identified Compound (LSC) summary

Operator ID: BRIJ Date Acquired: 26 Apr 2004 11:25 pm
Data File: F:\1\DATA\MSVOAD\VD042604\VD042617.D
Name: S2186-15
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.16	27.1	ug/l	10554300	ISTD01	4.40	3900340	10.0
Ethylene oxide	1.20	37.3	ug/l	14562100	ISTD01	4.40	3900340	10.0
Methane, chlorodiflu	1.31	2.1	ug/l	812122	ISTD01	4.40	3900340	10.0
Ether	2.22	1.8	ug/l	703191	ISTD01	4.40	3900340	10.0

VD042617.D SAD0426W.M Tue Apr 27 13:40:02 2004 MSVOAPRO3

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: S2186-16 | Client ID: MW-6

Date Collected: 4/14/2004 | Date Received: 4/15/2004
Date Analyzed: 4/27/2004 | Matrix: WATER
File ID: VD042618.D | Analytical Run ID: VD042604
Dilution: 1 | Instrument ID: MSVOAD
Analytical Method: 8260-Low | Associated Blank: VBD0426W1
Sample Wt/Vol: 25.0 Units: mL | Soil Extract Vol:
Soil Aliquot Vol: | % Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	0.67	J	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc.

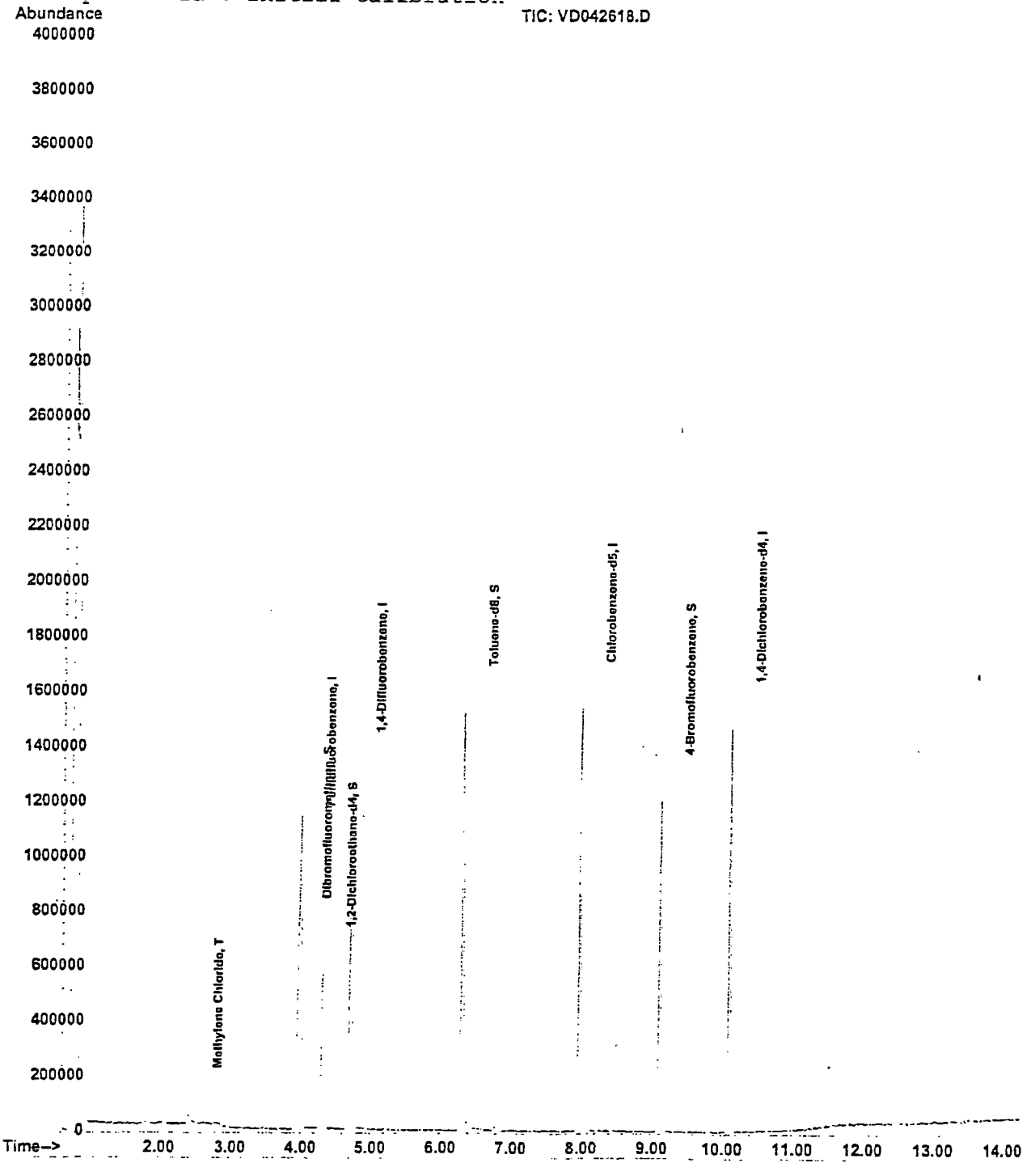
Sample ID:	S2186-16	Client ID:	MW-6
Date Collected:	4/14/2004	Date Received:	4/15/2004
Date Analyzed:	4/27/2004	Matrix:	WATER
File ID:	VD042618.D	Analytical Run ID:	VD042604
Dilution:	1	Instrument ID:	MSVOAD
Analytical Method:	8260-Low	Associated Blank:	VBD0426W1
Sample Wt/Vol:	25.0 Units: mL	Soil Extract Vol:	
Soil Aliquot Vol:		% Moisture:	100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	11.62	116 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	11.26	113 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	11.54	115 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	11.03	110 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	648113	4.40			
1,4-Difluorobenzene	540-36-3	1014846	5.12			
Chlorobenzene-d5	3114-55-4	898050	8.38			
1,4-Dichlorobenzene-d4	3855-82-1	373366	10.51			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042618.D Vial: 9
Acq On : 27 Apr 2004 12:06 am Operator: BRIT
Sample : S2156-16 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 12:20 2004 Quant Results File: SAD0426W.RES

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Mon Apr 26 17:04:02 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042604\VD042618.D Vial: 9
Acq On : 27 Apr 2004 12:16 am Operator: BRIT
Sample : S2186-16 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 12:20 2004 Quant Results File: SAD0426W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 27 11:48:32 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

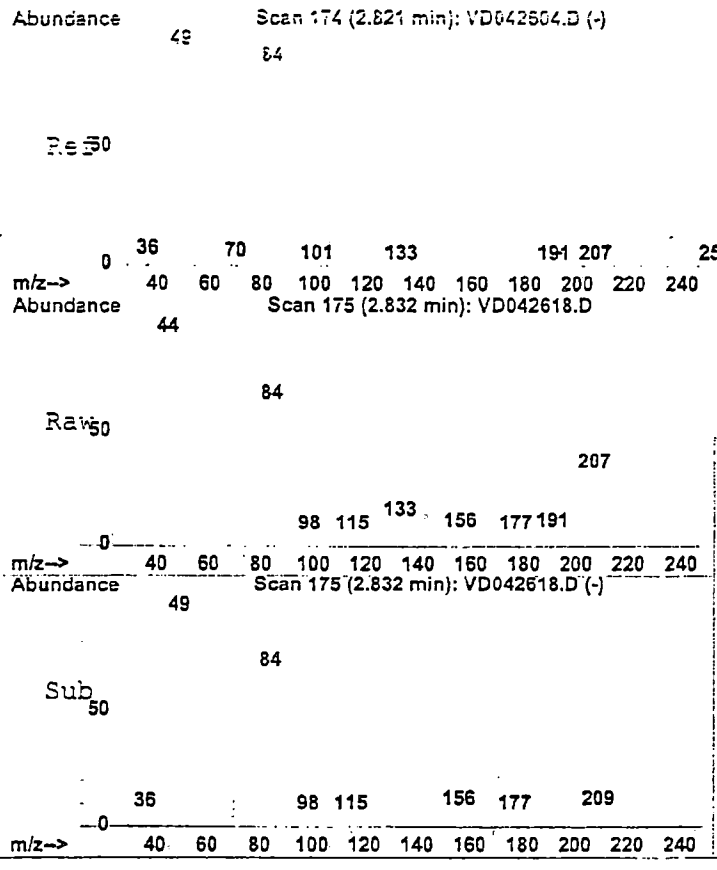
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.40	168	648113	10.00 ug/l	0.02
31) 1,4-Difluorobenzene	5.12	114	1014846	10.00 ug/l	0.01
57) Chlorobenzene-d5	8.38	117	898050	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	373366	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.72	65	368151	11.62 ug/l	0.01
Spiked Amount 10.000			Recovery	= 116.20%	
32) Dibromofluoromethane	4.36	113	393903	11.26 ug/l	0.00
Spiked Amount 10.000			Recovery	= 112.60%	
43) Toluene-d8	6.71	98	1169796	11.54 ug/l	0.00
Spiked Amount 10.000			Recovery	= 115.40%	
56) 4-Bromofluorobenzene	9.51	95	424729	11.03 ug/l	0.00
Spiked Amount 10.000			Recovery	= 110.30%	
Target Compounds					Qvalue
19) Methylene Chloride	2.83	84	21027	0.67 ug/l #	81

Analyst Signature: BD Analyst Name: _____ Date: 4/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

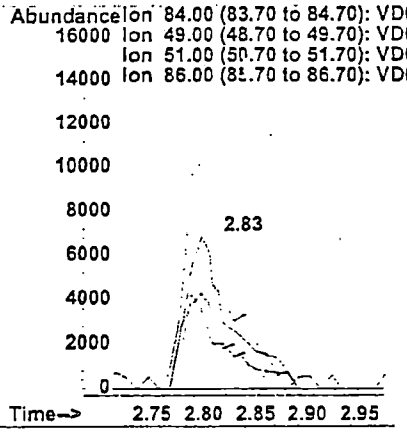
(#) = qualifier out of range (m) = manual integration



#13
Methylene Chloride
Concen: 0.67 ug/l
RT: 2.83 min Scan# 175
Delta R.T. 0.01 min
Lab File: VD042618.D
Acq: 27 Apr 2004 12:06 am

Tgt Ion: 84 Resp: 21027

Ion	Ratio	Lower	Upper
84	100		
49	149.9	95.4	143.2#
51	52.3	34.2	51.4#
86	62.5	54.3	81.5



LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042618.D Vial: 5
Acq On : 27 Apr 2004 12:06 am Operator: ERIC
Sample : S2136-16 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Smoothing : CFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

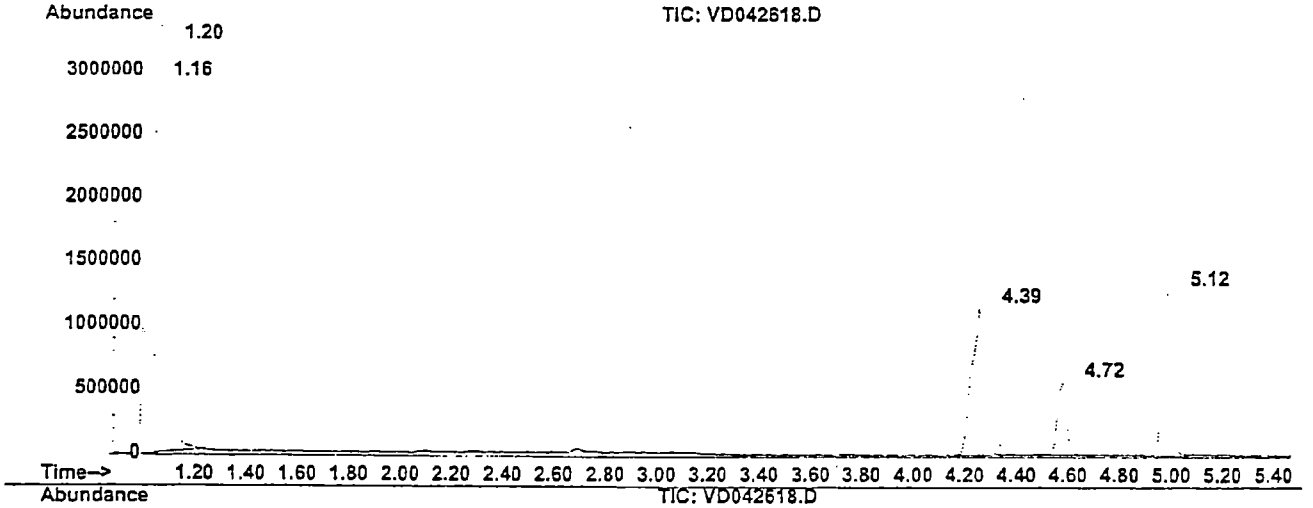
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.156	9	14	16	rBV	2914956	7461009	76.98%	19.920%
2	1.198	16	18	34	rVB	3343595	9692591	100.00%	25.878%
3	4.394	317	325	334	rBV2	1138761	3826042	39.47%	10.215%
4	4.716	350	356	363	rVB	559200	1344495	13.87%	3.590%
5	5.122	389	395	403	rBV	1278493	2998348	30.93%	8.005%
6	6.714	543	548	554	rBV	1521282	3653664	37.70%	9.755%
7	8.378	703	708	719	rBV	1542421	3317209	34.22%	8.857%
8	9.513	813	817	822	rBV	1204776	2440948	25.18%	6.517%
9	10.513	908	913	920	rBV	1467433	2720281	28.07%	7.263%

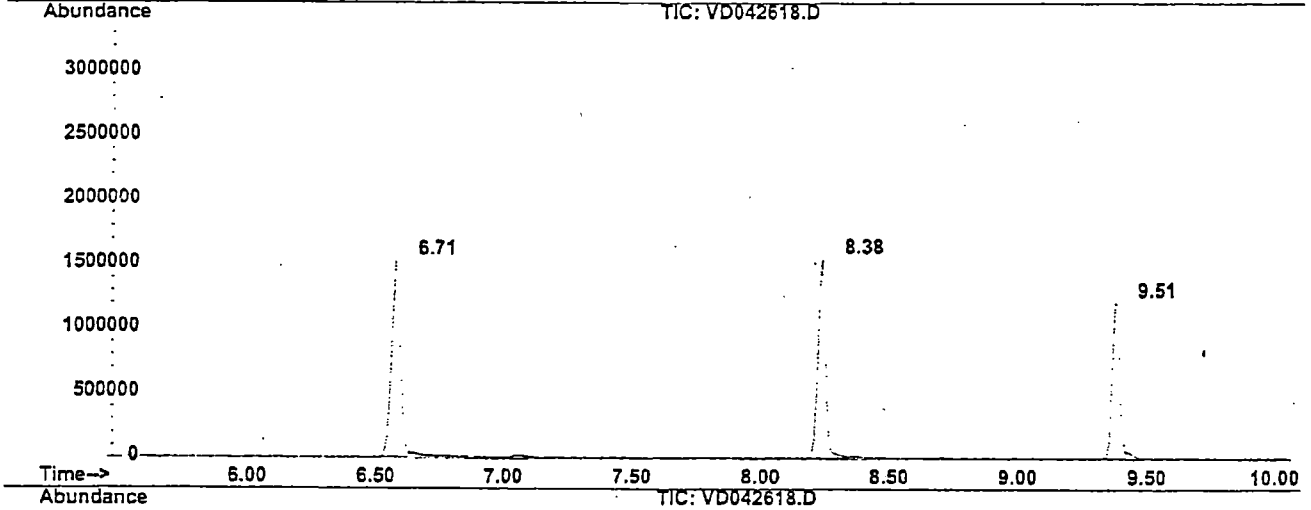
Sum of corrected areas: 37454587

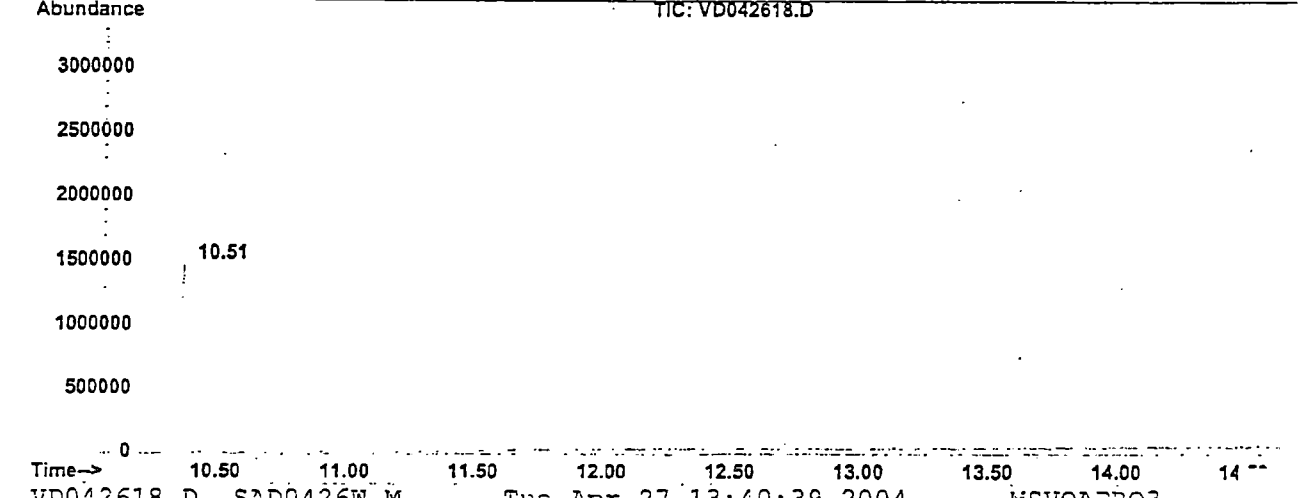
VD042618.D SAD0426W.M Tue Apr 27 13:40:39 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042604\VD042618.D
Operator : BRIJ
Acquired : 27 Apr 2004 12:06 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: S2186-16
Misc Info : 25mL
Vial Number: 9
Quant File :SAD0426W.RES (RTE Integrator)







VD042618.D SAD0426W.M Tue Apr 27 13:40:39 2004 MSVOAPRO3

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042618.D Vial: 9
Acq On : 27 Apr 2004 12:06 am Operator: BRIJ
Sample : S2186-16 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

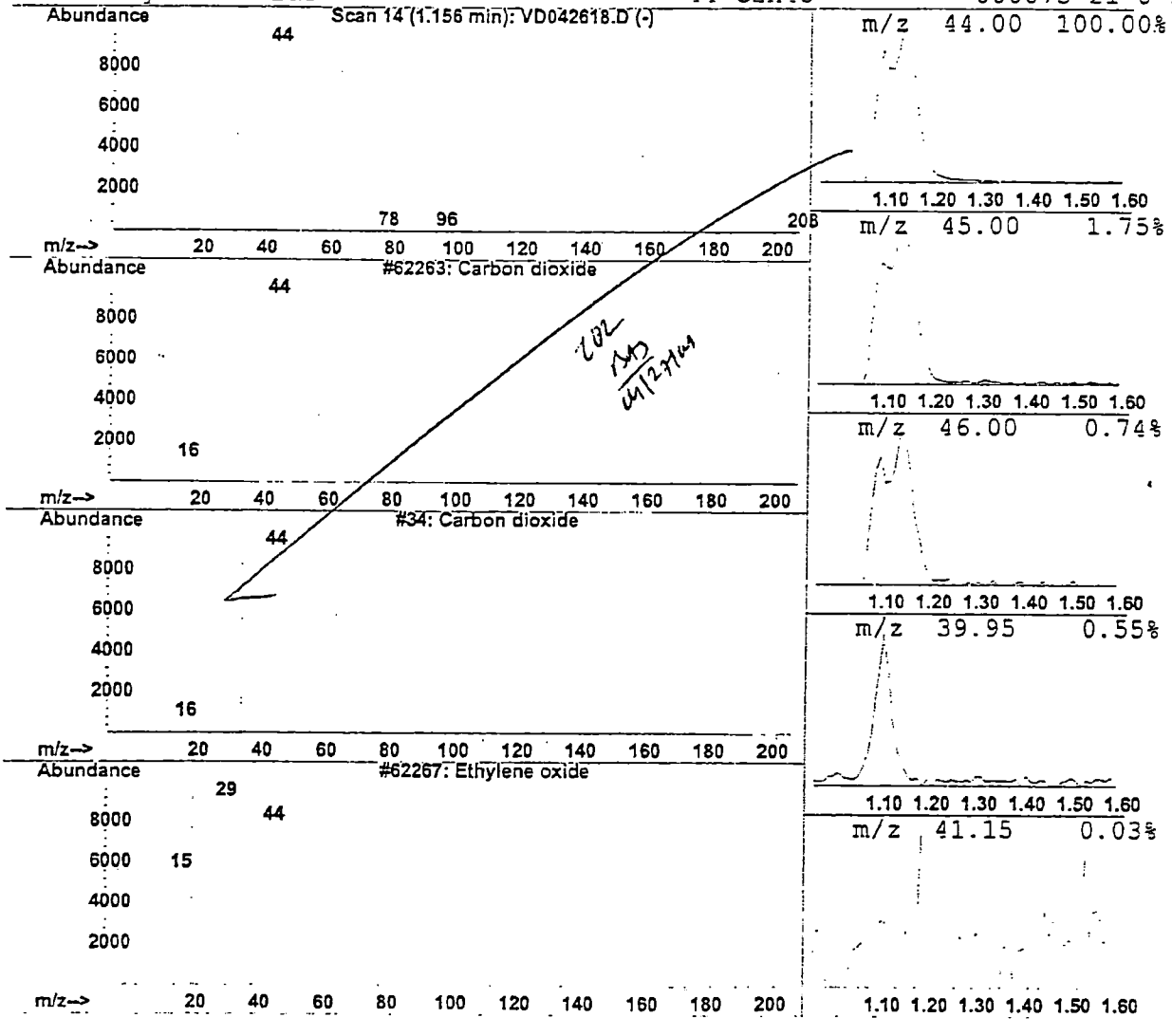
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.16	19.50 ug/l	7461010	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042618.D Vial: 9
Acq On : 27 Apr 2004 12:06 am Operator: BRIT
Sample : S2186-16 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

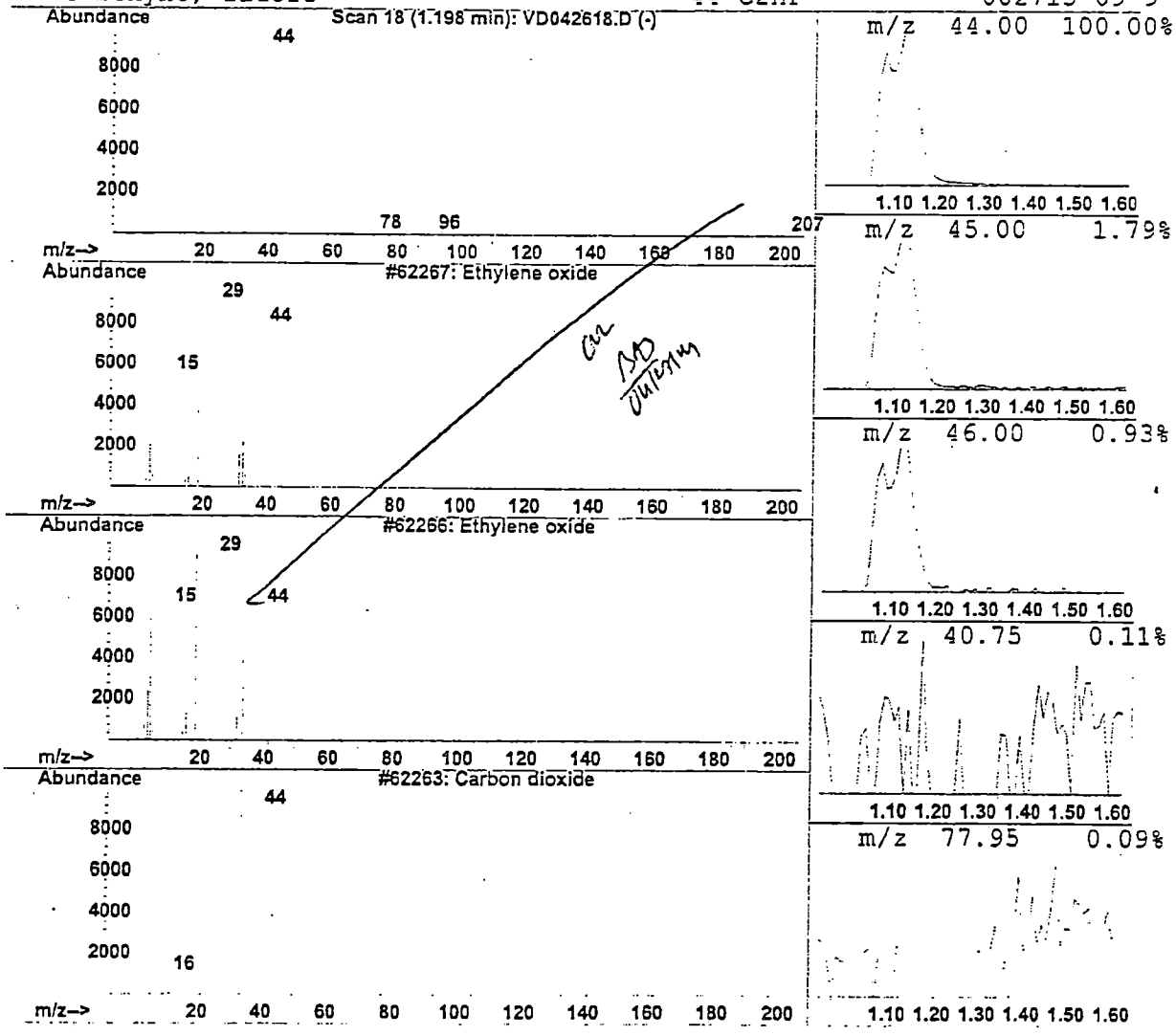
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Ethylene oxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.20	25.33 ug/l	9692590	Pentafluorobenzene	4.40

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene oxide	44	C2H4O	000075-21-8	3
2	Ethylene oxide	44	C2H4O	000075-21-8	3
3	Carbon dioxide	44	CO2	000124-38-9	3
4	Ethyne, fluoro-	44	C2HF	002713-09-9	3



ca
BD
outlying

Tentatively Identified Compound (LSC) summary

Operator ID: BRIJ Date Acquired: 27 Apr 2004 11:06 am
Data File: F:\1\DATA\MSVOAD\VD042604\VD042618.D
Name: S2196-16
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.16	19.5	ug/l	7461010	ISTD01	4.40	3826040	10.0
Ethylene oxide	1.20	25.3	ug/l	9692590	ISTD01	4.40	3826040	10.0

VD042618.D SAD0426W.M Tue Apr 27 13:40:40 2004 MSVOAPRO3

4.1 VOLATILE BLANK RESULTS

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLK01

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG NO.: S2186

Lab File ID: VD042303.D Lab Sample ID: VBD0423W1

Date Analyzed: 4/23/2004 Time Analyzed: 07:50

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOAD

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TRIPBLANK	S2186-05	VD042305.D	09:12
MW-1	S2186-01	VD042306.D	09:53
MW-7	S2186-02	VD042307.D	10:34
MW-8	S2186-04	VD042308.D	11:15
MW-5	S2186-06	VD042309.D	11:56
MW-8DUP	S2186-07	VD042310.D	12:37
MW-11	S2186-08	VD042311.D	13:18
MW-12	S2186-09	VD042312.D	13:58
MW-10	S2186-10	VD042313.D	14:39
MW-9	S2186-11	VD042314.D	15:20
VBLK01MS	VBD0423W1MS	VD042315.D	16:01
VBLK01MSD	VBD0423W1MSD	VD042316.D	16:41
VLCS01	BSD0423W1	VD042317.D	17:22

COMMENTS:

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: VBD0423W1

Client ID: VBLK01

Date Collected:

Date Analyzed: 4/23/2004

File ID: VD042303.D

Dilution: 1

Analytical Method: 8260-Low

Sample Wt/Vol: 25.0 Units: mL

Soil Aliquot Vol:

Date Received:

Matrix: WATER

Analytical Run ID: VD041904

Instrument ID: MSVOAD

Associated Blank:

Soil Extract Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: VBD0423W1

Client ID: VBLK01

Date Collected:

Date Analyzed: 4/23/2004

File ID: VD042303.D

Dilution: 1

Analytical Method: 8260-Low

Sample Wt/Wol: 25.0 Units: mL

Soil Aliquot Vol:

Date Received:

Matrix: WATER

Analytical Run ID: VD041904

Instrument ID: MSVOAD

Associated Blank:

Soil Extract Vol:

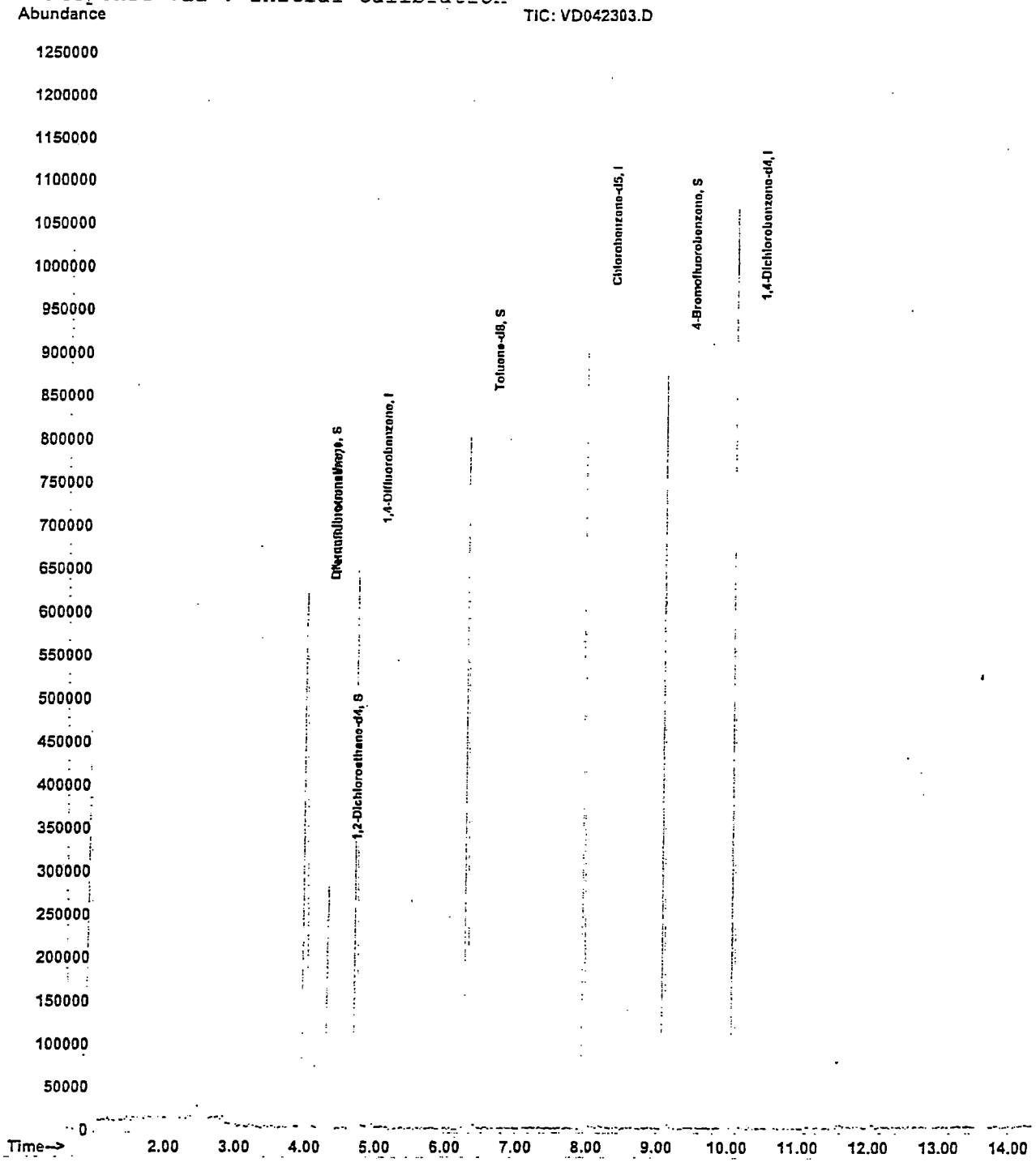
% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	10.92	109 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	9.89	99 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	8.87	89 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	9.18	92 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	354331	4.42			
1,4-Difluorobenzene	540-36-3	583064	5.14			
Chlorobenzene-d5	3114-55-4	503215	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	259734	10.50			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042303.D Vial: 3
Acq On : 23 Apr 2004 7:50 am Operator: BRIT
Sample : VBD0423W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:18 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Thu Apr 22 13:50:15 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042314\VD042303.D Vial: 3
Acq On : 23 Apr 2004 7:50 am Operator: BPIJ
Sample : VBD0423W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 15:18 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	354331	10.00 ug/l	-0.01
31) 1,4-Difluorobenzene	5.14	114	583064	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	503215	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.50	152	259734	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.74	65	271137	10.92 ug/l	0.00
Spiked Amount 10.000			Recovery = 109.20%		
32) Dibromofluoromethane	4.40	113	232449	9.89 ug/l	0.00
Spiked Amount 10.000			Recovery = 98.90%		
43) Toluene-d8	6.72	98	634142	8.87 ug/l	-0.01
Spiked Amount 10.000			Recovery = 88.70%		
56) 4-Bromofluorobenzene	9.51	95	277682	9.18 ug/l	0.00
Spiked Amount 10.000			Recovery = 91.80%		

Target Compounds Qvalue

Analyst Signature: BPJ Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #: _____
___Peak integrated by software incorrectly.Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042304\VD042303.D Vial: 3
Acq On : 23 Apr 2004 7:50 am Operator: BRIT
Sample : VBD0423W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

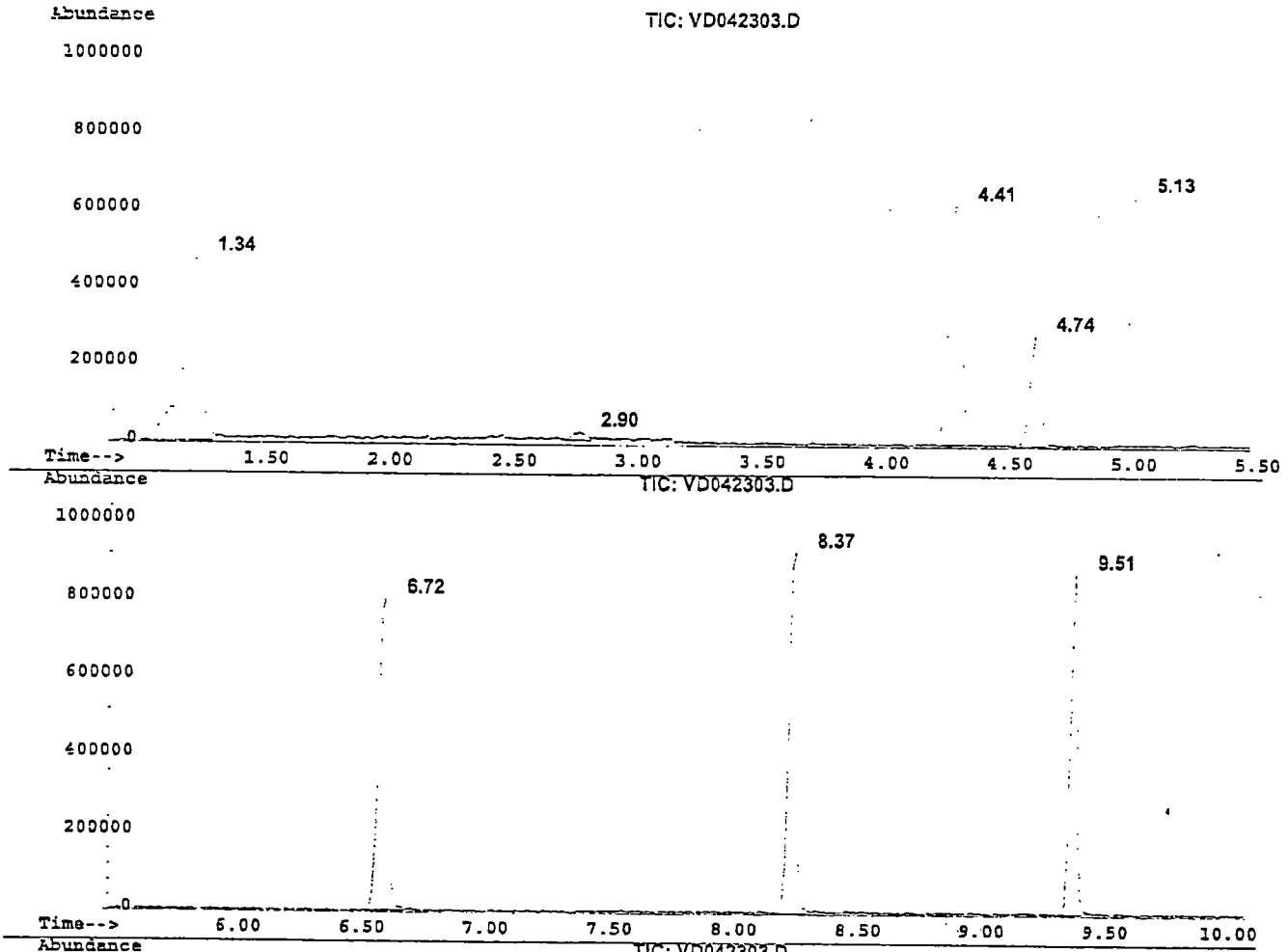
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.343	13	32	41	rBV	475476	2315882	100.00%	15.440%
2	2.903	177	182	187	rBV4	21763	80310	3.47%	0.535%
3	4.413	318	327	337	rBV2	618777	2234916	96.50%	14.900%
4	4.735	349	358	364	rBV	281898	823943	35.58%	5.493%
5	5.132	390	396	403	rBV	644764	1772025	76.52%	11.814%
6	6.720	543	549	559	rBV	800541	2152654	92.95%	14.352%
7	8.371	702	708	716	rBV	926514	2022095	87.31%	13.481%
8	9.507	813	817	822	rBV	873019	1604659	69.29%	10.698%
9	10.504	908	913	920	rVV	1067789	1992955	86.06%	13.287%

Sum of corrected areas: 14999439

VD042303.D SAD0419W.M Tue Apr 27 13:18:53 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042304\VD042303.D
Operator : ERIJ
Acquired : 23 Apr 2004 7:50 am using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: VBD0423W1
Misc Info : 25mL
Vial Number: 3
Quant File :SAD0419W.RES (RTE Integrator)



Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042314.VD042303.D Vial: 3
Acq On : 23 Apr 2004 7:50 am Operator: EPCT
Sample : VSD0423W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

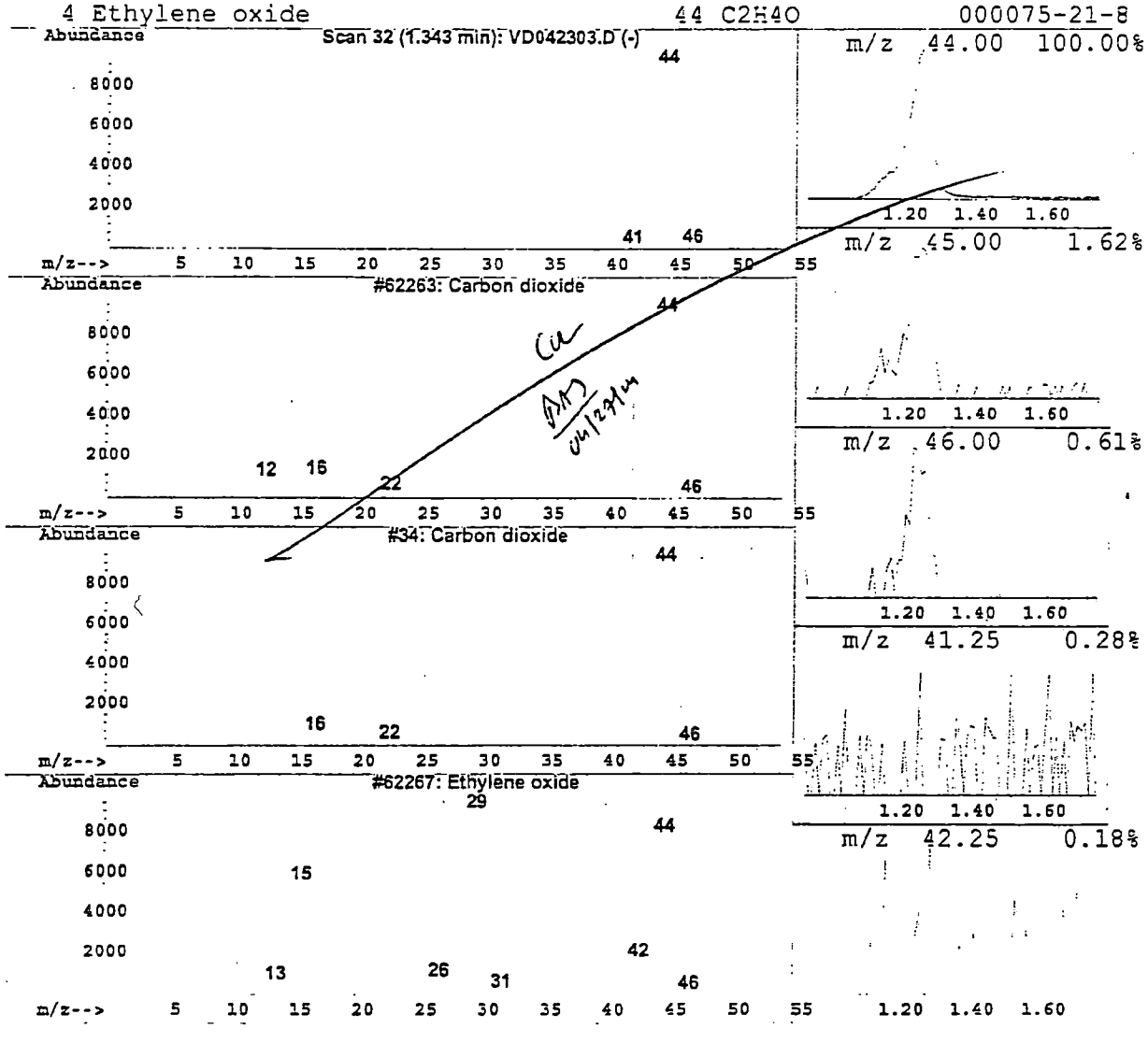
Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.34	10.36 ug/l	2315880	Pentafluorobenzene	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Tentatively Identified Compound (LSC) summary

Operator ID: BPII Date Acquired: 13 Apr 2004 7:51 am
Data File: F:\1\DATA\MSVOAD\VD042304\VD042303.D
Name: VBD0423W1
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.34	10.4	ug/l	2315880	ISTD01	4.42	2234920	10.0

VD042303.D SAD0419W.M Tue Apr 27 13:18:54 2004 MSVOAPRO3

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLK02

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG NO.: S2186

Lab File ID: VD042612.D Lab Sample ID: VBD0426W1

Date Analyzed: 4/26/2004 Time Analyzed: 19:59

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOAD

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
AMW-1	S2186-14	VD042616.D	22:44
AMW-1DUP	S2186-15	VD042617.D	23:25
MW-6	S2186-16	VD042618.D	00:06

COMMENTS:

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: VBD0426W1

Client ID: VBLK02

Date Collected:

Date Received:

Date Analyzed: 4/26/2004

Matrix: WATER

File ID: VD042612.D

Analytical Run ID: VD042604

Dilution: 1

Instrument ID: MSVOAD

Analytical Method: 8260-Low

Associated Blank:

Sample Wt/Wol: 25.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Chloromethane	74-87-3	< 0.16	U	1.0	0.16	ug/L
Vinyl chloride	75-01-4	< 0.11	U	1.0	0.11	ug/L
Bromomethane	74-83-9	< 0.12	U	1.0	0.12	ug/L
Chloroethane	75-00-3	< 0.18	U	1.0	0.18	ug/L
1,1-Dichloroethene	75-35-4	< 0.20	U	1.0	0.20	ug/L
Acetone	67-64-1	< 1.2	U	5.0	1.2	ug/L
Carbon disulfide	75-15-0	< 0.21	U	1.0	0.21	ug/L
Methylene Chloride	75-09-2	< 0.36	U	1.0	0.36	ug/L
trans-1,2-Dichloroethene	156-60-5	< 0.25	U	1.0	0.25	ug/L
1,1-Dichloroethane	75-34-3	< 0.21	U	1.0	0.21	ug/L
2-Butanone	78-93-3	< 0.92	U	5.0	0.92	ug/L
Carbon Tetrachloride	56-23-5	< 0.17	U	1.0	0.17	ug/L
cis-1,2-Dichloroethene	156-59-2	< 0.27	U	1.0	0.27	ug/L
Chloroform	67-66-3	< 0.23	U	1.0	0.23	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.22	U	1.0	0.22	ug/L
Benzene	71-43-2	< 0.20	U	1.0	0.20	ug/L
1,2-Dichloroethane	107-06-2	< 0.21	U	1.0	0.21	ug/L
Trichloroethene	79-01-6	< 0.19	U	1.0	0.19	ug/L
1,2-Dichloropropane	78-87-5	< 0.18	U	1.0	0.18	ug/L
Bromodichloromethane	75-27-4	< 0.17	U	1.0	0.17	ug/L
4-Methyl-2-Pentanone	108-10-1	< 0.77	U	5.0	0.77	ug/L
Toluene	108-88-3	< 0.19	U	1.0	0.19	ug/L
t-1,3-Dichloropropene	10061-02-6	< 0.15	U	1.0	0.15	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.19	U	1.0	0.19	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.20	U	1.0	0.20	ug/L
2-Hexanone	591-78-6	< 0.58	U	5.0	0.58	ug/L
Dibromochloromethane	124-48-1	< 0.21	U	1.0	0.21	ug/L
Tetrachloroethene	127-18-4	< 0.20	U	1.0	0.20	ug/L
Chlorobenzene	108-90-7	< 0.16	U	1.0	0.16	ug/L
Ethyl Benzene	100-41-4	< 0.18	U	1.0	0.18	ug/L
m&p-Xylenes	136777-61-2	< 0.36	U	1.0	0.36	ug/L
o-Xylene	95-47-6	< 0.17	U	1.0	0.17	ug/L
Styrene	100-42-5	< 0.17	U	1.0	0.17	ug/L
Bromoform	75-25-2	< 0.37	U	1.0	0.37	ug/L

Chemtech Consulting Group

Volatiles
SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Sample ID: VBD0426W1

Client ID: VBLK02

Date Collected:

Date Analyzed: 4/26/2004

File ID: VD042612.D

Dilution: 1

Analytical Method: 8260-Low

Sample Wt/Vol: 25.0 Units: mL

Soil Aliquot Vol:

Date Received:

Matrix: WATER

Analytical Run ID: VD042604

Instrument ID: MSVOAD

Associated Blank:

Soil Extract Vol:

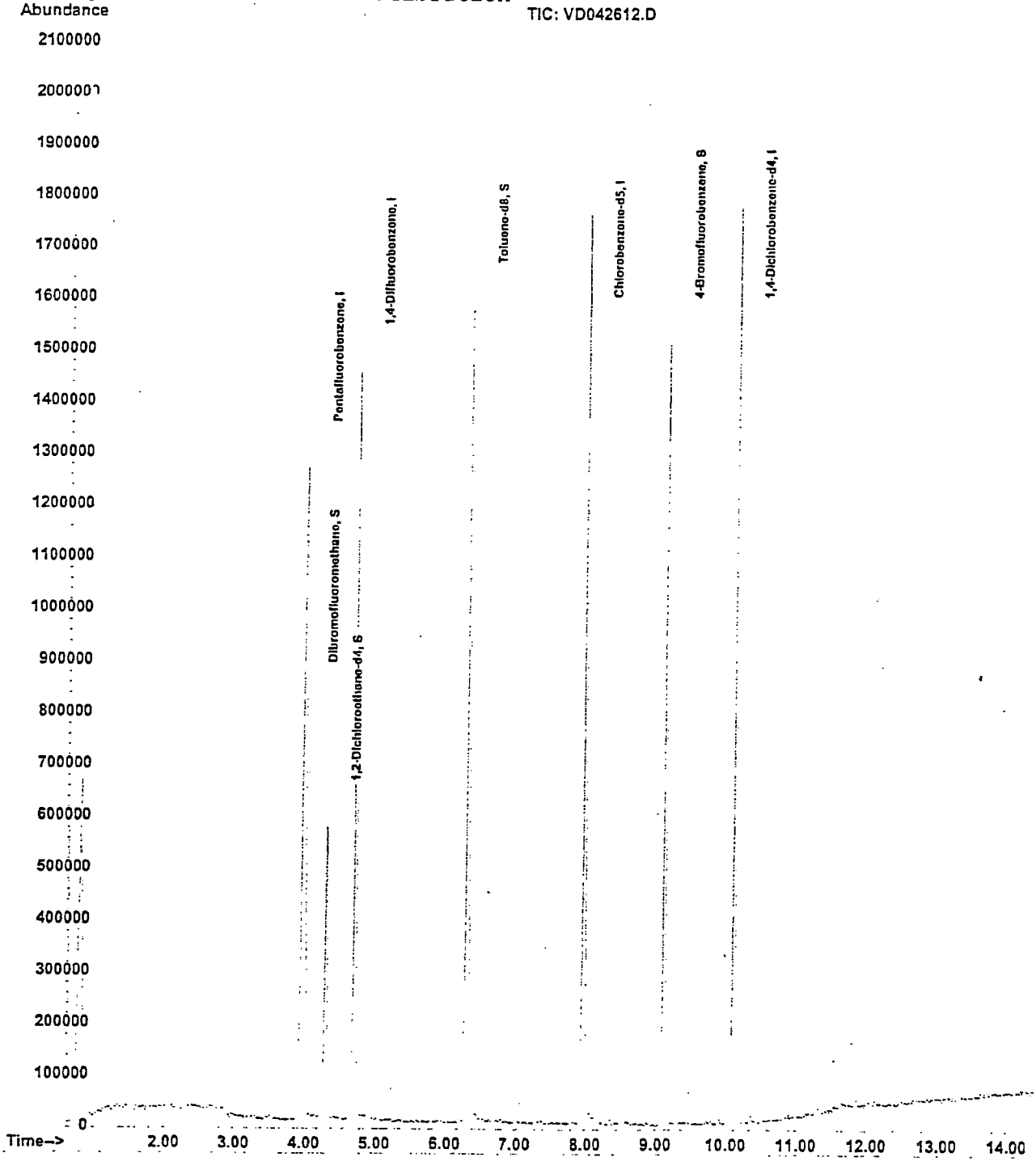
% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
1,1,2,2-Tetrachloroethane	79-34-5	< 0.13	U	1.0	0.13	ug/L
SURROGATES						
1,2-Dichloroethane-d4	17060-07-0	9.62	96 %	72 - 119		SPK: 10
Dibromofluoromethane	1868-53-7	10.75	108 %	85 - 115		SPK: 10
Toluene-d8	2037-26-5	11.14	111 %	81 - 120		SPK: 10
4-Bromofluorobenzene	460-00-4	11.2	112 %	76 - 119		SPK: 10
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	733545	4.39			
1,4-Difluorobenzene	540-36-3	1165706	5.11			
Chlorobenzene-d5	3114-55-4	1007959	8.37			
1,4-Dichlorobenzene-d4	3855-82-1	467764	10.51			

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042612.D Vial: 3
Acq On : 26 Apr 2004 7:59 pm Operator: BRIT
Sample : VBD0426W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 11:31 2004 Quant Results File: SAD0426W.RES

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Mon Apr 26 17:04:02 2004
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD042604\VD042612.D Vial: 3
Acq On : 26 Apr 2004 7:59 pm Operator: ERIJ
Sample : VBD0426W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 27 11:31 2004 Quant Results File: SAD0426W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Last Update : Mon Apr 26 17:04:02 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.39	168	733545	10.00	ug/l	0.01
31) 1,4-Difluorobenzene	5.11	114	1165706	10.00	ug/l	0.00
57) Chlorobenzene-d5	8.37	117	1007959	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	467764	10.00	ug/l	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d	4.71	65	344842	9.62	ug/l	0.00
Spiked Amount 10.000			Recovery = 96.20%			
32) Dibromofluoromethane	4.36	113	432138	10.75	ug/l	0.00
Spiked Amount 10.000			Recovery = 107.50%			
43) Toluene-d8	6.72	98	1297705	11.14	ug/l	0.00
Spiked Amount 10.000			Recovery = 111.40%			
56) 4-Bromofluorobenzene	9.51	95	495152	11.20	ug/l	0.00
Spiked Amount 10.000			Recovery = 112.00%			

Target Compounds Qvalue

Analyst Signature: KD Analyst Name: _____ Date: 04/27/04

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #: _____
___Peak integrated by software incorrectly.Compound #: _____
___OTHER: _____ Compound #: _____

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

LSC Area Percent Report

Data File : F:\1\DATA\MSVOAD\VD042604\VD042612.D Vial: 3
Acq On : 14 Apr 2004 7:59 pm Operator: BRIJ
Sample : VBD0426W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

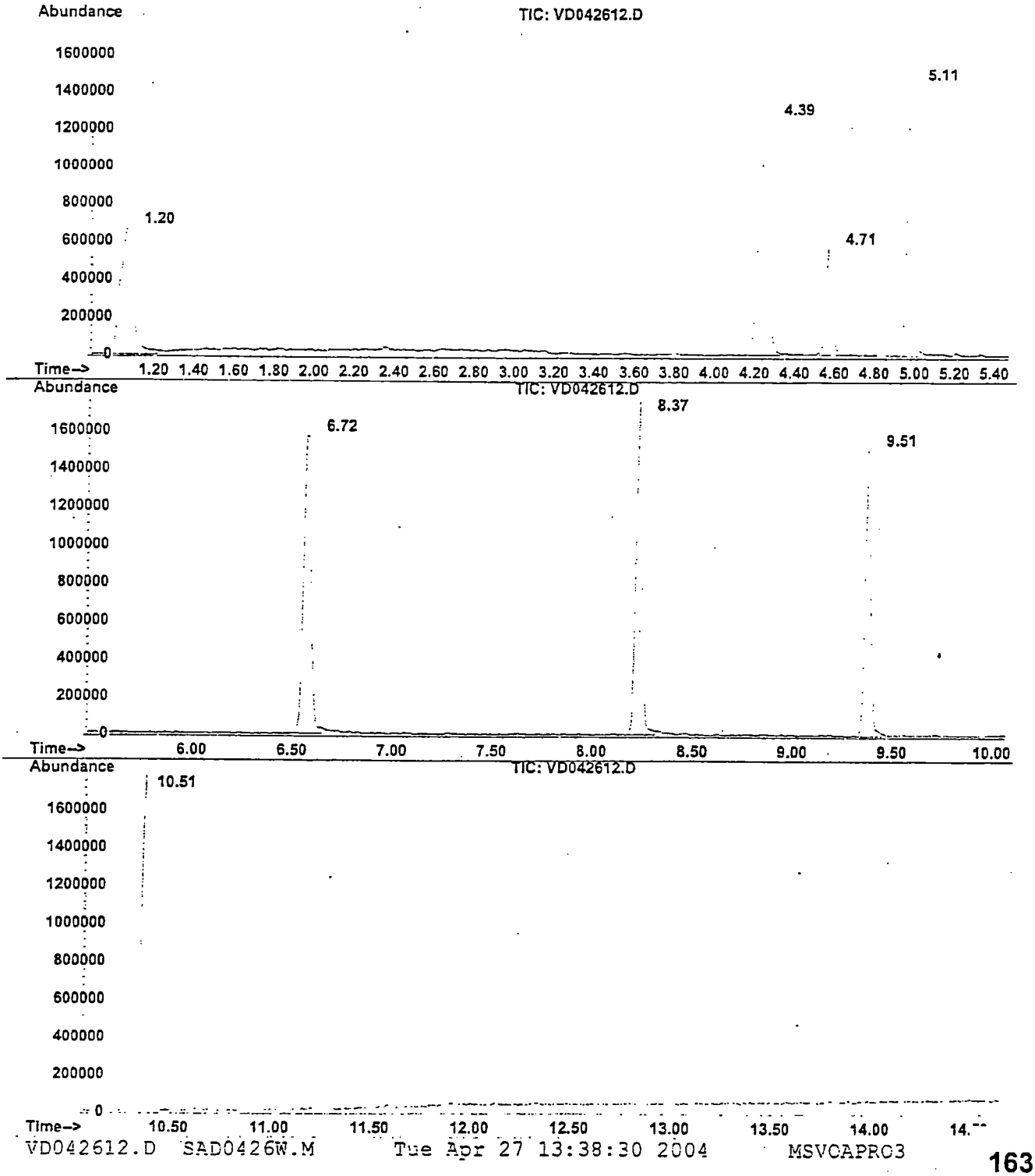
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.198	9	18	34	rBV	664091	2931988	69.10%	11.343%
2	4.394	315	325	333	rBV2	1258429	4243352	100.00%	16.416%
3	4.707	348	355	363	rVB	561936	1332715	31.41%	5.156%
4	5.113	389	394	403	rBV	1446574	3344957	78.83%	12.940%
5	6.716	542	548	555	rBV	1568595	4052066	95.49%	15.676%
6	8.369	702	707	716	rBV	1756709	3648586	85.98%	14.115%
7	9.513	812	817	828	rBV	1510171	2899452	68.33%	11.217%
8	10.512	908	913	925	rVB	1771807	3395671	80.02%	13.137%

Sum of corrected areas: 25848787

VD042612.D SAD0426W.M Tue Apr 27 13:38:30 2004 MSVOAPRO3

LSC Report - Integrated Chromatogram

File : F:\1\DATA\MSVOAD\VD042604\VD042612.D
Operator : ERIJ
Acquired : 26 Apr 2004 7:59 pm using AcqMethod VD_VOC
Instrument : 5970 MSD
Sample Name: VBD0426W1
Misc Info : 25mL
Vial Number: 3
Quant File :SAD0426W.RES (RTE Integrator)



VD042612.D SAD0426W.M Tue Apr 27 13:38:30 2004 MSVOAPRO3

Library Search Compound Report

Data File : F:\1\DATA\MSVOAD\VD042614\VD042612.D Vial: 3
Acq On : 26 Apr 2004 7:39 pm Operator: BRIJ
Sample : VBD0426W1 Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: LSTINT.P

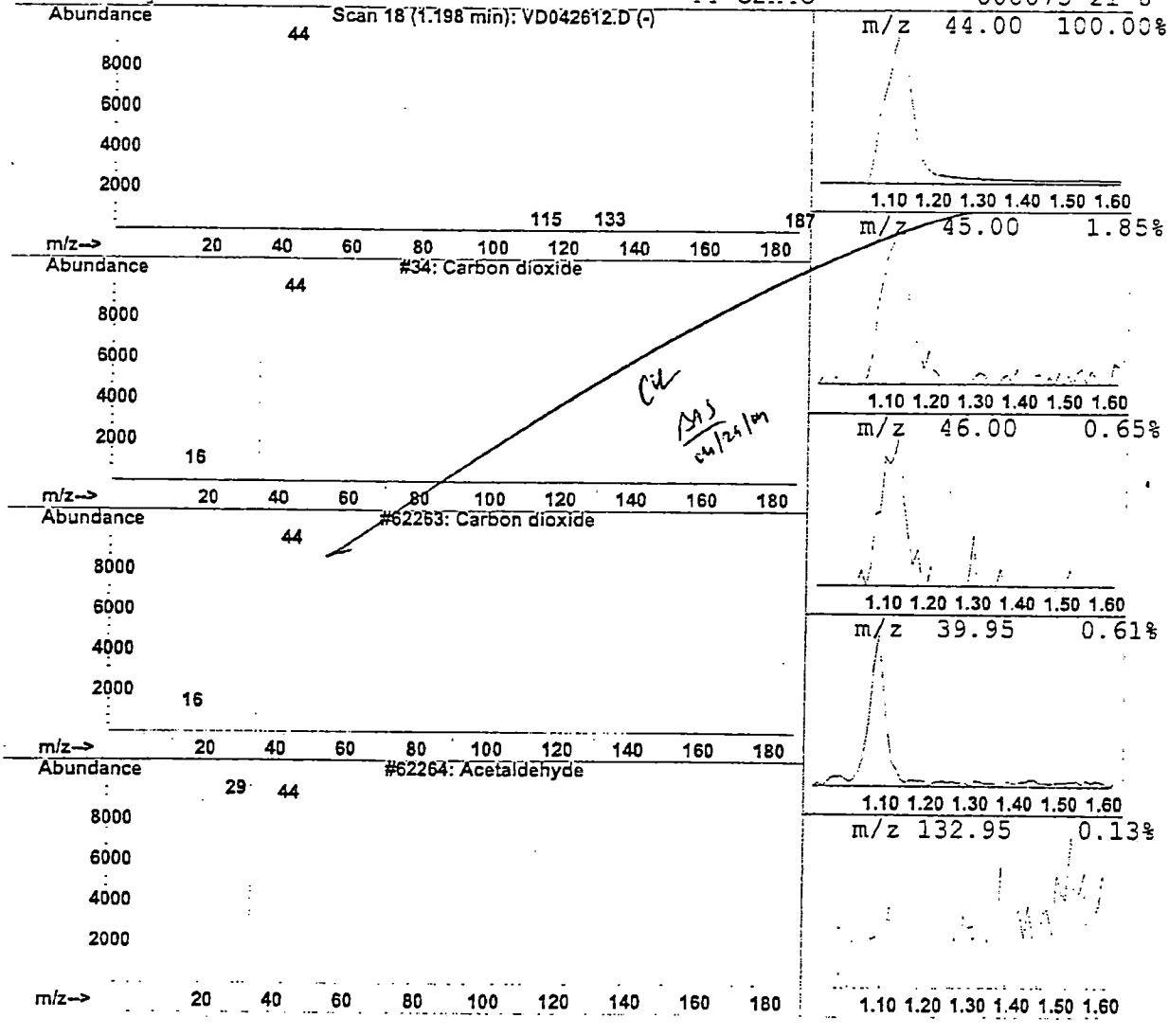
Quant Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.20	6.91 ug/l	2931990	Pentafluorobenzene	4.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Acetaldehyde	44	C2H4O	000075-07-0	4
4	Ethylene oxide	44	C2H4O	000075-21-8	3



Tentatively Identified Compound (TIC) summary

Operator ID: BRIT Date Acquired: 16 Apr 2004 7:59 pm
Data File: F:\1\DATA\MSVOAD\VD042604\VD042612.D
Name: VBD0426W1
Misc: 25mL
Method: F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title: SW846 8260
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.20	6.9	ug/l	2931990	ISTD01	4.39	4243350	10.0

VD042612.D SAD0426W.M Tue Apr 27 13:38:31 2004 MSVOAPRO3

4.2 VOLATILE QA/QC SUMMARY

Surrogate Summary
SW-846

SDG No.: S2186
Client: Tetra Tech FW Inc..

Analytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
BSD0423W1	VLCS01	1,2-Dichloroethane-d4	10	11.13	111		72.00	119.00
		Dibromofluoromethane	10	10.31	103		85.00	115.00
		Toluene-d8	10	8.84	88		81.00	120.00
		4-Bromofluorobenzene	10	9.38	94		76.00	119.00
S2186-01	MW-1	1,2-Dichloroethane-d4	10	10.7	107		72.00	119.00
		Dibromofluoromethane	10	10.18	102		85.00	115.00
		Toluene-d8	10	9.46	95		81.00	120.00
		4-Bromofluorobenzene	10	8.96	90		76.00	119.00
S2186-02	MW-7	1,2-Dichloroethane-d4	10	11	110		72.00	119.00
		Dibromofluoromethane	10	10.08	101		85.00	115.00
		Toluene-d8	10	9.33	93		81.00	120.00
		4-Bromofluorobenzene	10	8.6	86		76.00	119.00
S2186-04	MW-8	1,2-Dichloroethane-d4	10	11.55	116		72.00	119.00
		Dibromofluoromethane	10	10.26	103		85.00	115.00
		Toluene-d8	10	9.3	93		81.00	120.00
		4-Bromofluorobenzene	10	8.47	85		76.00	119.00
S2186-05	TRIPBLANK	1,2-Dichloroethane-d4	10	11.07	111		72.00	119.00
		Dibromofluoromethane	10	9.79	98		85.00	115.00
		Toluene-d8	10	9.02	90		81.00	120.00
		4-Bromofluorobenzene	10	8.14	81		76.00	119.00
S2186-06	MW-5	1,2-Dichloroethane-d4	10	11.45	115		72.00	119.00
		Dibromofluoromethane	10	10.24	102		85.00	115.00
		Toluene-d8	10	9.25	93		81.00	120.00
		4-Bromofluorobenzene	10	8.67	87		76.00	119.00
S2186-07	MW-8DUP	1,2-Dichloroethane-d4	10	11.3	113		72.00	119.00
		Dibromofluoromethane	10	10.11	101		85.00	115.00
		Toluene-d8	10	8.51	85		81.00	120.00
		4-Bromofluorobenzene	10	8.69	87		76.00	119.00
S2186-08	MW-11	1,2-Dichloroethane-d4	10	11.36	114		72.00	119.00
		Dibromofluoromethane	10	10.39	104		85.00	115.00
		Toluene-d8	10	8.9	89		81.00	120.00
		4-Bromofluorobenzene	10	9.14	91		76.00	119.00
S2186-09	MW-12	1,2-Dichloroethane-d4	10	11.65	117		72.00	119.00
		Dibromofluoromethane	10	10.15	102		85.00	115.00
		Toluene-d8	10	8.96	90		81.00	120.00
		4-Bromofluorobenzene	10	7.96	80		76.00	119.00
S2186-10	MW-10	1,2-Dichloroethane-d4	10	11.6	116		72.00	119.00
		Dibromofluoromethane	10	10.43	104		85.00	115.00
		Toluene-d8	10	9.02	90		81.00	120.00
		4-Bromofluorobenzene	10	8.97	90		76.00	119.00
S2186-11	MW-9	1,2-Dichloroethane-d4	10	11.35	114		72.00	119.00
		Dibromofluoromethane	10	9.89	99		85.0(	

Surrogate Summary
SW-846

SDG No.: S2186
Client: Tetra Tech FW Inc..

Analytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
S2186-11	MW-9	Toluene-d8	10	9.07	91		81.00	120.00
		4-Bromofluorobenzene	10	7.95	79		76.00	119.00
S2186-14	AMW-1	1,2-Dichloroethane-d4	10	11.26	113		72.00	119.00
		Dibromofluoromethane	10	11.14	111		85.00	115.00
		Toluene-d8	10	11.02	110		81.00	120.00
		4-Bromofluorobenzene	10	10.66	107		76.00	119.00
S2186-15	AMW-1DUP	1,2-Dichloroethane-d4	10	11.94	119		72.00	119.00
		Dibromofluoromethane	10	10.79	108		85.00	115.00
		Toluene-d8	10	11.05	111		81.00	120.00
		4-Bromofluorobenzene	10	11.13	111		76.00	119.00
S2186-16	MW-6	1,2-Dichloroethane-d4	10	11.62	116		72.00	119.00
		Dibromofluoromethane	10	11.26	113		85.00	115.00
		Toluene-d8	10	11.54	115		81.00	120.00
		4-Bromofluorobenzene	10	11.03	110		76.00	119.00
VBD0423W1	VBLK01	1,2-Dichloroethane-d4	10	10.92	109		72.00	119.00
		Dibromofluoromethane	10	9.89	99		85.00	115.00
		Toluene-d8	10	8.87	89		81.00	120.00
		4-Bromofluorobenzene	10	9.18	92		76.00	119.00
VBD0423W1M	VBLK01MS	1,2-Dichloroethane-d4	10	11.34	113		72.00	119.00
		Dibromofluoromethane	10	9.99	100		85.00	115.00
		Toluene-d8	10	8.95	90		81.00	120.00
		4-Bromofluorobenzene	10	9.45	95		76.00	119.00
VBD0423W1M	VBLK01MSD	1,2-Dichloroethane-d4	10	11.49	115		72.00	119.00
		Dibromofluoromethane	10	9.92	99		85.00	115.00
		Toluene-d8	10	9.09	91		81.00	120.00
		4-Bromofluorobenzene	10	8.75	88		76.00	119.00
VBD0426W1	VBLK02	1,2-Dichloroethane-d4	10	9.62	96		72.00	119.00
		Dibromofluoromethane	10	10.75	108		85.00	115.00
		Toluene-d8	10	11.14	111		81.00	120.00
		4-Bromofluorobenzene	10	11.2	112		76.00	119.00

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG NO.: S2186

Lab File ID: VD041901.D BFB Injection Date: 4/19/2004

Instrument ID: MSVOAD BFB Injection Time: 14:36

GC Column: RTX502. ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.7
75	30.0 - 60.0% of mass 95	56.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.6
173	Less than 2.0% of mass 174	0.0(0.0) 1
174	50.0 - 100.0% of mass 95	73.2
175	5.0 - 9.0% of mass 174	6.5 (8.8) 1
176	95.0 - 101.0% of mass 174	69.6 (95.1) 1
177	5.0 - 9.0% of mass 176	4.1 (5.9 2

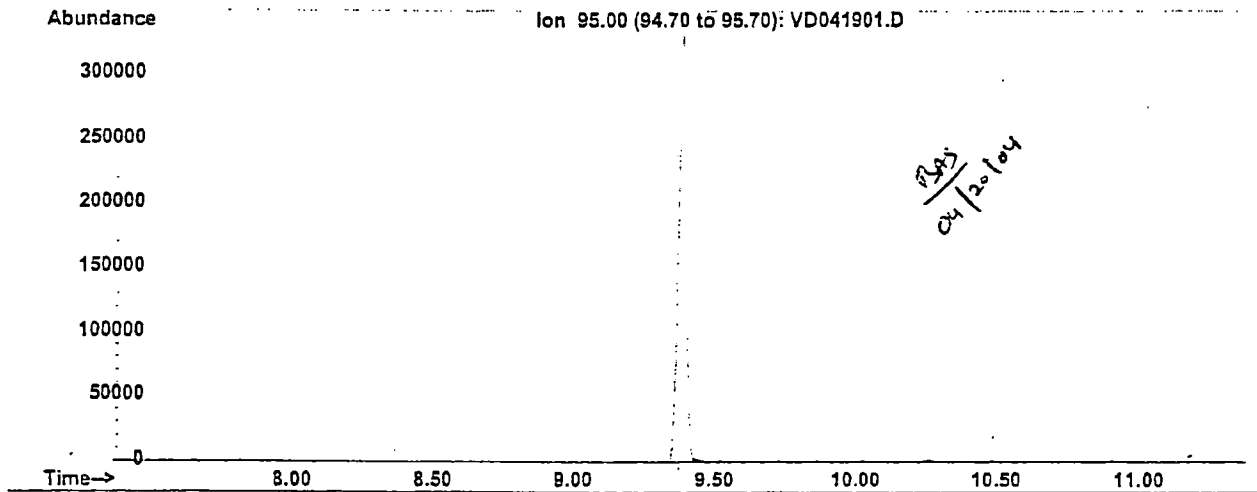
1-Value is % mass 174 2-Value is % mass 176

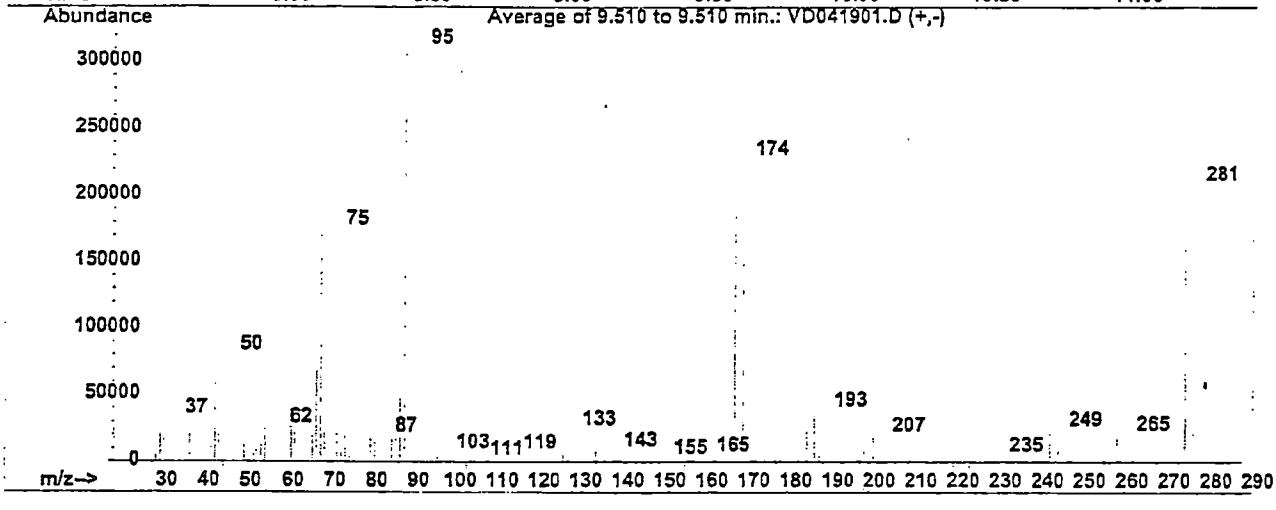
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	1 PPB ICC	VD041902.D	4/19/2004	15:17
VSTD004	4 PPB ICC	VD041903.D	4/19/2004	15:58
VSTD010	10 PPB ICC	VD041904.D	4/19/2004	16:39
VSTD020	20 PPB ICC	VD041905.D	4/19/2004	17:20
35 PPB ICC	35 PPB ICC	VD041906.D	4/19/2004	18:01

BFB

Data File : F:\1\DATA\MSVOAD\VD041904\VD041901.D Vial: 1
Acq On : 19 Apr 2004 2:36 pm Operator: BRIJ
Sample : BFB TUNE CHECK Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260





Spectrum Information: Average of 9.510 to 9.510 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.7	79564	PASS
75	95	30	60	56.1	173722	PASS
95	95	100	100	100.0	309808	PASS
96	95	5	9	5.6	17340	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	73.2	226751	PASS
175	174	5	9	8.8	19985	PASS
176	174	95	101	95.1	215720	PASS
177	176	5	9	5.9	12750	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG NO.: S2186

Lab File ID: VD042301.D BFB Injection Date: 4/23/2004

Instrument ID: MSVOAD BFB Injection Time: 06:28

GC Column: RTX502. ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	29.0
75	30.0 - 60.0% of mass 95	59.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.7
173	Less than 2.0% of mass 174	0.0(0.0) 1
174	50.0 - 100.0% of mass 95	69.8
175	5.0 - 9.0% of mass 174	6.1 (8.7) 1
176	95.0 - 101.0% of mass 174	66.6 (95.4) 1
177	5.0 - 9.0% of mass 176	4.8 (7.3) 2

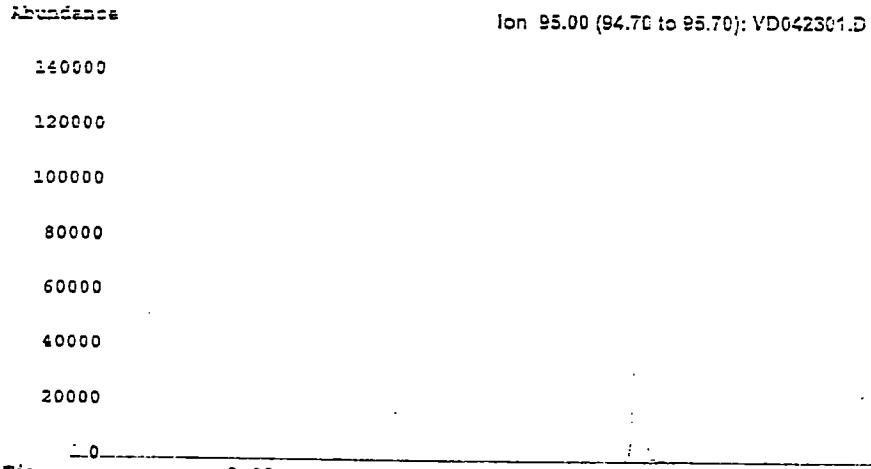
1-Value is % mass 174 2-Value is % mass 176

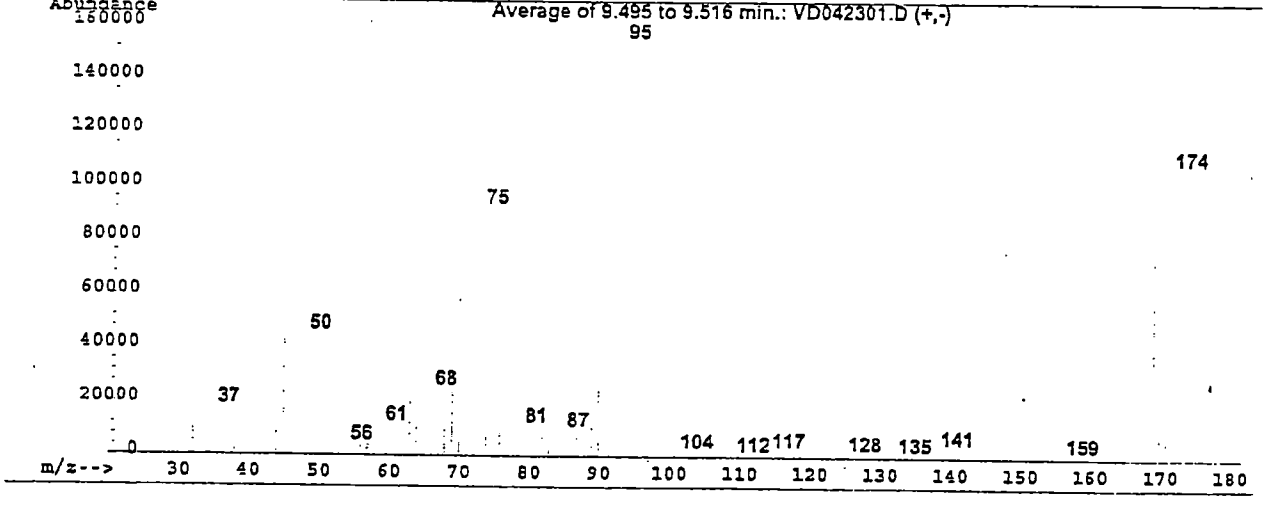
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VD042302.D	4/23/2004	07:09
VBLK01	VBD0423W1	VD042303.D	4/23/2004	07:50
TRIPBLANK	S2186-05	VD042305.D	4/23/2004	09:12
MW-1	S2186-01	VD042306.D	4/23/2004	09:53
MW-7	S2186-02	VD042307.D	4/23/2004	10:34
MW-8	S2186-04	VD042308.D	4/23/2004	11:15
MW-5	S2186-06	VD042309.D	4/23/2004	11:56
MW-8DUP	S2186-07	VD042310.D	4/23/2004	12:37
MW-11	S2186-08	VD042311.D	4/23/2004	13:18
MW-12	S2186-09	VD042312.D	4/23/2004	13:58
MW-10	S2186-10	VD042313.D	4/23/2004	14:39
MW-9	S2186-11	VD042314.D	4/23/2004	15:20
VBLK01MS	VBD0423W1MS	VD042315.D	4/23/2004	16:01
VBLK01MSD	VBD0423W1MSD	VD042316.D	4/23/2004	16:41
VLCS01	BSD0423W1	VD042317.D	4/23/2004	17:22

BFB

Data File : F:\DATA\MS\SAD\D[illegible]\VD[illegible].D Vial: [illegible]
Acq On : 28 Apr 2004 6:29 am Operator: BRIT
Sample : BFB TUNE CHECK Inst : 5971 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260





Spectrum Information: Average of 9.495 to 9.516 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.0	44602	PASS
75	95	30	60	59.7	91832	PASS
95	95	100	100	100.0	153762	PASS
96	95	5	9	5.7	8784	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.8	107357	PASS
175	174	5	9	8.7	9360	PASS
176	174	95	101	95.4	102377	PASS
177	176	5	9	7.3	7436	PASS

VD042301.D SAD0426W.M Wed Apr 28 12:09:14 2004 MSVOAPRO3

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG NO.: S2186

Lab File ID: VD042601.D BFB Injection Date: 4/26/2004

Instrument ID: MSVOAD BFB Injection Time: 12:03

GC Column: RTX502. ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	55.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.0(0.0) 1
174	50.0 - 100.0% of mass 95	85.3
175	5.0 - 9.0% of mass 174	7.6 (8.9) 1
176	95.0 - 101.0% of mass 174	84.2 (98.6 1
177	5.0 - 9.0% of mass 176	6.8 (8.1 2

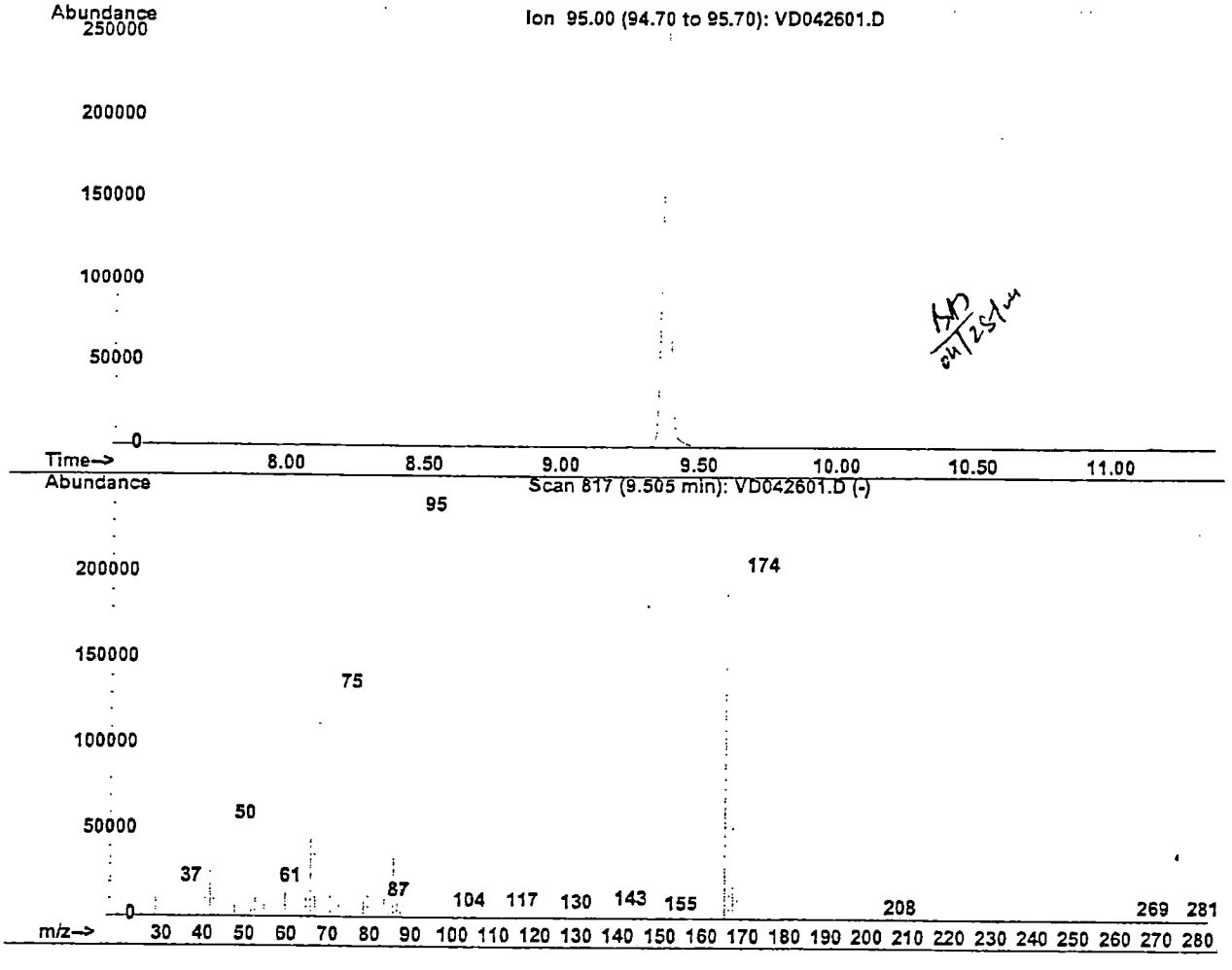
1-Value is % mass 174 2-Value is % mass 176

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
VSTD001	1 PPB ICC	VD042602.D	4/26/2004	12:44
VSTD004	4 PPB ICC	VD042603.D	4/26/2004	13:25
VSTD010	10 PPB ICC	VD042604.D	4/26/2004	14:06
VSTD020	20 PPB ICC	VD042605.D	4/26/2004	14:48
VSTD040	40 PPB ICC	VD042607.D	4/26/2004	16:10

BFB

Data File : F:\1\DATA\MSVOAD\VD042604\VD042601.D Vial: 1
Acq On : 26 Apr 2004 12:03 pm Operator: BRIJ
Sample : BFB TUNE CHECK Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260



Spectrum Information: Scan 817

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.7	53078	PASS
75	95	30	60	55.7	130158	PASS
95	95	100	100	100.0	233484	PASS
96	95	5	9	8.6	20112	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.3	199240	PASS
175	174	5	9	8.9	17694	PASS
176	174	95	101	98.6	196502	PASS
177	176	5	9	8.1	15902	PASS

VD042601.D SAD0426W.M Mon Apr 26 17:06:15 2004 MSVOAPRO3

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG NO.: S2186

Lab File ID: VD042610.D BFB Injection Date: 4/26/2004

Instrument ID: MSVOAD BFB Injection Time: 18:36

GC Column: RTX502. ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.8
75	30.0 - 60.0% of mass 95	60.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.7
173	Less than 2.0% of mass 174	0.0(0.0) 1
174	50.0 - 100.0% of mass 95	66.5
175	5.0 - 9.0% of mass 174	5.8 (8.7) 1
176	95.0 - 101.0% of mass 174	63.4 (95.3 1
177	5.0 - 9.0% of mass 176	4.8 (7.5 2

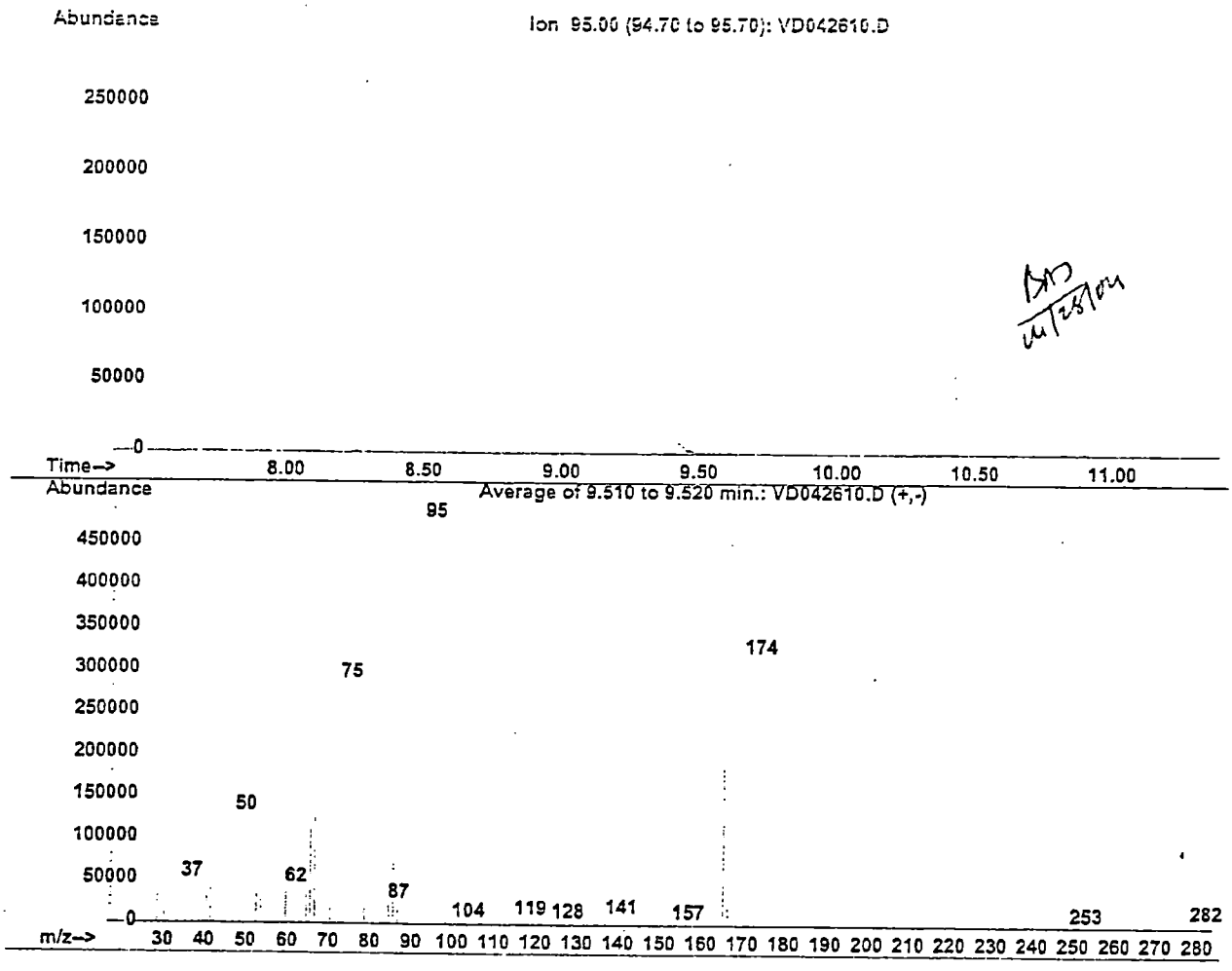
1-Value is % mass 174 2-Value is % mass 176

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
VSTD010	10 PPB CCC	VD042611.D	4/26/2004	19:17
VBLK02	VBD0426W1	VD042612.D	4/26/2004	19:59
AMW-1	S2186-14	VD042616.D	4/26/2004	22:44
AMW-1DUP	S2186-15	VD042617.D	4/26/2004	23:25
MW-6	S2186-16	VD042618.D	4/27/2004	00:06

BFB

Data File : F:\1\DATA\MSVOA\VD[illegible] Vial: 1
Acq On : 16 Apr 2004 6:36 pm Operator: BFB
Sample : BFB TUNE CHECK Inst : BFB MSD
Misc : 10mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : F:\1\METHODS\VOAD\SAD0426W.M (RTE Integrator)
Title : SW846 8260



Spectrum Information: Average of 9.510 to 9.520 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.8	127462	PASS
75	95	30	60	60.0	285329	PASS
95	95	100	100	100.0	475636	PASS
96	95	5	9	7.7	36847	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.5	316518	PASS
175	174	5	9	8.7	27404	PASS
176	174	95	101	95.3	301702	PASS
177	176	5	9	7.5	22776	PASS

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Consulting Group Contract FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG No.: S2186

Lab File ID: VD042302.D Date Analyzed: 4/23/2004

Instrument ID: MSVOAD Time Analyzed: 07:09

GC Column: RTX~~VMS~~ 502.2 MJ ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	370947	4.42	580150	5 13	533125	8.37
UPPER LIMIT	741894	4.92	1160300	5.63	1066250	8.87
LOWER LIMIT	185474	3.92	290075	4.63	266563	7.87
SAMPLE NO.						
VBLK01	354331	4.42	583064	5.14	503215	8.37
TRIPBLANK	335104	4.41	568872	5.13	466368	8.36
MW-1	352393	4.42	566592	5.13	470873	8.36
MW-7	337564	4.43	546321	5.13	466338	8.37
MW-8	332531	4.41	549283	5.13	472676	8.37
MW-5	327565	4.41	550475	5.13	464453	8.37
MW-8DUP	320951	4.42	535046	5.13	445093	8.37
MW-11	314819	4.41	514171	5.13	439363	8.36
MW-12	320356	4.42	543343	5.13	421664	8.37
MW-10	312896	4.42	512326	5.14	427490	8.37
MW-9	322789	4.42	544270	5.14	443293	8.37
VBLK01MS	338057	4.41	542770	5.13	456953	8.37
VBLK01MSD	352064	4.42	585226	5.14	486586	8.37
VLCS01	358386	4.42	566921	5.13	475253	8.36

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No. S2186 SAS No.: S2186 SDG No.: S2186

Lab File ID: VD042302.D Date Analyzed: 4/23/2004

Instrument ID: MSVOAD Time Analyzed: 07:09

GC Column: RTX~~VMS~~ 502.2 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT#				
12 HOUR STD	300959	10.50				
UPPER LIMIT	601918	11.00				
LOWER LIMIT	150480	10.00				
SAMPLE NO.						
VBLK01	259734	10.50				
TRIPBLANK	235565	10.50				
MW-1	252660	10.50				
MW-7	230781	10.50				
MW-8	237057	10.50				
MW-5	228103	10.51				
MW-8DUP	235000	10.50				
MW-11	231759	10.50				
MW-12	229004	10.50				
MW-10	226635	10.50				
MW-9	223288	10.50				
VBLK01MS	259128	10.50				
VBLK01MSD	248556	10.51				
VLCS01	262227	10.50				

IS4 = 1,4-Dichlorobenzene-d4

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 UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Consulting Group Contract FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG No.: S2186

Lab File ID: VD042611.D Date Analyzed: 4/26/2004

Instrument ID: MSVOAD Time Analyzed: 19:17

GC Column: mg RTX~~VMS~~ 502.2 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	716026	4.40	1138806	5.12	952763	8.38
UPPER LIMIT	1432052	4.90	2277612	5.62	1905526	8.88
LOWER LIMIT	358013	3.90	569403	4.62	476382	7.88
SAMPLE NO.						
VBLK02	733545	4.39	1165706	5.11	1007959	8.37
AMW-1	631777	4.40	1055874	5.12	872067	8.38
AMW-1DUP	662502	4.40	1063538	5.12	908883	8.38
MW-6	648113	4.40	1014846	5.12	898050	8.38

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No. S2186 SAS No.: S2186 SDG No.: S2186

Lab File ID: VD042611.D Date Analyzed: 4/26/2004

Instrument ID: MSVOAD Time Analyzed: 19:17

GC Column: RTX~~VMS~~ 502.2 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT#				
12 HOUR STD	444615	10.52				
UPPER LIMIT	889230	11.02				
LOWER LIMIT	222308	10.02				
SAMPLE NO.						
VBLK02	467764	10.51				
AMW-1	389052	10.51				
AMW-1DUP	401004	10.51				
MW-6	373366	10.51				

IS4 = 1,4-Dichlorobenzene-d4

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 UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

4.3 VOLATILE MS/MSD SUMMARY

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Analytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec	RPD	Qual	Limits Low	Limits High	RPD
Client Sample ID:	VBLK01MS									
VBD0423W1MS	1,1-Dichloroethene	10	0.0	12	120			68	131	
	Benzene	10	0.0	11	110			74	125	
	Trichloroethene	10	0.0	10	100			76	123	
	Toluene	10	0.0	9.6	96			73	129	
	Chlorobenzene	10	0.0	10	100			72	135	
Client Sample ID:	VBLK01MSD									
VBD0423W1MSD	1,1-Dichloroethene	10	0.0	11	110	9		68	131	21
	Benzene	10	0.0	11	110	0		74	125	17
	Trichloroethene	10	0.0	10	100	0		76	123	20
	Toluene	10	0.0	10	100	4		73	129	20
	Chlorobenzene	10	0.0	10	100	0		72	135	21

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: S2186

Client: Tetra Tech FW Inc..

Analytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Limits Low	Limits High	RPD
BSD0423W1	1,1-Dichloroethene	10	12	120			74	126	
	Benzene	10	12	120			80	127	
	Trichloroethene	10	11	110			76	126	
	Toluene	10	10	100			80	124	
	Chlorobenzene	10	11	110			76	135	

4.4 VOLATILE CALIBRATIONS SUMMARY

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG No.: S2186

Instrument ID: MSVOAD Calibration Date(s): 4/19/2004 4/19/2004

Heated Purge: (Y/N) N Calibration Time(s): 15:17 18:01

GC Column: RTX502.2 ID: 0.18 (mm)

LAB FILE ID:

RRF001 = VD041902.D RRF004 = VD041903.D

RRF010 = VD041904.D RRF020 = VD041905.D RRF040 = VD041906.D

COMPOUND		RRF001	RRF004	RRF010	RRF020	RRF040	$\overline{RRF}$	% RSD	
Chloromethane	*	0.874	0.572	0.661	0.536	0.573	0.643	21.3	*
Vinyl Chloride	*	0.689	0.536	0.581	0.513	0.544	0.573	12.1	*
Bromomethane		0.493	0.383	0.368	0.308	0.291	0.369	21.6	
Chloroethane		0.515	0.413	0.409	0.333	0.318	0.398	19.7	
1,1-Dichloroethene	*	0.540	0.391	0.455	0.372	0.368	0.425	17.2	*
Acetone		0.146	0.110	0.104	0.084	0.076	0.104	26.3	
Carbon Disulfide		0.876	0.675	0.874	0.694	0.724	0.769	12.8	
Methylene Chloride		0.625	0.503	0.535	0.454	0.450	0.513	14.0	
trans-1,2-Dichloroethen		0.594	0.463	0.529	0.439	0.427	0.490	14.3	
1,1-Dichloroethane	*	1.199	0.976	1.146	0.971	0.970	1.052	10.6	*
2-Butanone		0.266	0.230	0.253	0.216	0.220	0.237	9.1	
Carbon Tetrachloride	*	0.534	0.468	0.558	0.509	0.521	0.518	6.4	*
cis-1,2-Dichloroethene		0.684	0.599	0.652	0.563	0.599	0.619	7.8	
Chloroform	*	1.179	1.016	1.181	1.032	1.086	1.099	7.1	*
1,1,1-Trichloroethane	*	1.003	0.864	1.015	0.899	0.992	0.955	7.2	*
Benzene	*	1.352	1.184	1.276	1.180	1.170	1.232	6.4	*
1,2-Dichloroethane	*	0.481	0.459	0.473	0.427	0.433	0.455	5.3	*
Trichloroethene	*	0.384	0.345	0.376	0.348	0.357	0.362	4.8	*
1,2-Dichloropropane	*	0.378	0.362	0.375	0.342	0.350	0.361	4.3	*
Bromodichloromethane	*	0.467	0.475	0.523	0.469	0.489	0.485	4.8	*
4-Methyl-2-Pentanone		0.234	0.234	0.244	0.218	0.217	0.229	5.1	
Toluene	*	0.922	0.825	0.868	0.798	0.804	0.843	6.1	*
t-1,3-Dichloropropene	*	0.401	0.407	0.447	0.415	0.431	0.420	4.5	*
cis-1,3-Dichloropropene	*	0.513	0.500	0.537	0.510	0.510	0.514	2.7	*
1,1,2-Trichloroethane	*	0.248	0.247	0.255	0.229	0.229	0.242	4.9	*
2-Hexanone		0.152	0.162	0.166	0.156	0.153	0.158	3.8	
Dibromochloromethane	*	0.273	0.282	0.320	0.289	0.307	0.294	6.5	*
Tetrachloroethene	*	0.408	0.349	0.386	0.383	0.412	0.388	6.5	*
Chlorobenzene	*	1.148	1.000	1.089	0.940	0.964	1.028	8.5	*
Ethyl Benzene	*	0.624	0.551	0.593	0.519	0.542	0.566	7.4	*
m&p-Xylenes		0.732	0.637	0.697	0.605	0.606	0.655	8.7	
o-Xylene	*	0.737	0.685	0.718	0.645	0.670	0.691	5.3	*
Styrene	*	1.110	1.044	1.177	1.052	1.085	1.094	4.9	*
Bromoform	*	0.167	0.183	0.205	0.189	0.205	0.190	8.4	*
1,1,2,2-Tetrachloroetha	*	0.638	0.654	0.668	0.584	0.593	0.627	5.9	*
1,2-Dichloroethane-d4		0.848	0.628	0.715	0.637	0.678	0.701	12.7	
Dibromofluoromethane		0.496	0.379	0.393	0.376	0.372	0.403	13.0	

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

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Consulting Group Contract: FOST01

Lab Code: CTECH Case No.: S2186 SAS No.: S2186 SDG No.: S2186

Instrument ID: MSVOAD Calibration Date(s): 4/19/2004 4/19/2004

Heated Purge: (Y/N) N Calibration Time(s): 15:17 18:01

GC Column: RTX502.2 ID: 0.18 (mm)

LAB FILE ID:

RRF001 = VD041902.D RRF004 = VD041903.D

RRF010 = VD041904.D RRF020 = VD041905.D RRF040 = VD041906.D

COMPOUND	RRF001	RRF004	RRF010	RRF020	RRF040	$\overline{RRF}$	% RSD
Toluene-d8	1.514	1.159	1.176	1.128	1.155	1.226	13.2
4-Bromofluorobenzene *	0.638	0.479	0.507	0.489	0.482	0.519	13.0 *

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

This calibration can be used for all compounds meeting criteria
MVR 4/21/04

Response Factor Report 5970 MSD

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:52:10 2004
Response via : Initial Calibration

Calibration Files
1 =VD041902.D 4 =VD041903.D 10 =VD041904.D
20 =VD041905.D 35 =VD041906.D

		Compound	1	4	10	20	35	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluorometha	0.717	0.558	0.654	0.519	0.593	0.608	12.90
3)	P	Chloromethane	0.874	0.572	0.661	0.536	0.573	0.643	21.31
4)	C	Vinyl Chloride	0.689	0.536	0.581	0.512	0.544	0.572	12.14#
5)	T	Bromomethane	0.493	0.383	0.368	0.307	0.291	0.369	21.66
6)	T	Chloroethane	0.515	0.413	0.409	0.333	0.318	0.398	19.82
7)	T	Trichlorofluoromethan	1.127	0.859	0.925	0.775	0.770	0.891	16.46
8)	T	1,1,2-Trichlorotriflu	0.571	0.488	0.584	0.482	0.474	0.520	10.24
9)		Ethanol						0.000#	-1.00
10)	T	Tert butyl alcohol	0.038	0.038	0.037	0.031	0.026	0.034	16.47
11)	CM	1,1-Dichloroethene	0.540	0.391	0.455	0.372	0.368	0.425	17.18#
12)	T	Iodomethane	0.728	0.647	0.757	0.626	0.633	0.678	8.88
13)	T	Acrolein	0.315	0.233	0.272	0.232	0.250	0.260	13.22
14)	T	Acrylonitrile	0.110	0.106	0.114	0.101	0.094	0.105	7.45
15)	T	Acetone	0.146	0.110	0.104	0.084	0.076	0.104	26.24
16)	T	Carbon Disulfide	0.876	0.675	0.873	0.694	0.724	0.769	12.82
17)	T	Methyl Acetate	0.361	0.374	0.406	0.325	0.320	0.357	9.95
18)	T	Methyl tert-butyl Eth	1.413	1.218	1.393	1.165	1.179	1.274	9.42
19)	T	Methylene Chloride	0.625	0.503	0.535	0.454	0.450	0.513	14.00
20)	T	trans-1,2-Dichloroeth	0.594	0.463	0.529	0.439	0.427	0.491	14.28
21)	T	Vinyl Acetate	0.980	0.895	0.976	0.798	0.761	0.882	11.39
22)	P	1,1-Dichloroethane	1.199	0.976	1.146	0.971	0.970	1.052	10.56
23)	T	2-Butanone	0.266	0.230	0.253	0.216	0.220	0.237	9.18
24)	T	2,2-Dichloropropane	0.997	0.850	0.978	0.843	0.900	0.914	7.81
25)	T	cis-1,2-Dichloroethen	0.684	0.599	0.652	0.563	0.598	0.619	7.75
26)	T	Bromochloromethane	0.628	0.588	0.665	0.621	0.542	0.609	7.62
27)	C	Chloroform	1.179	1.016	1.181	1.032	1.086	1.099	7.16#
28)	T	Cyclohexane	1.343	0.953	1.098	0.907	0.974	1.055	16.66
29)	T	1,1,1-Trichloroethane	1.003	0.864	1.015	0.899	0.992	0.955	7.14
30)	S	1,2-Dichloroethane-d4	0.848	0.628	0.715	0.637	0.678	0.701	12.72
31)	I	1,4-Difluorobenzene	----------ISTD----------						
32)	S	Dibromofluoromethane	0.496	0.379	0.393	0.376	0.371	0.403	13.02
33)	T	1,1-Dichloropropene	0.515	0.451	0.483	0.450	0.459	0.472	5.86
34)	T	Carbon Tetrachloride	0.534	0.468	0.558	0.509	0.521	0.518	6.47
35)	T	Methylcyclohexane	0.699	0.548	0.592	0.532	0.541	0.582	11.86
36)	TM	Benzene	1.352	1.184	1.276	1.180	1.170	1.232	6.46
37)	TM	1,2-Dichloroethane	0.481	0.459	0.473	0.427	0.433	0.455	5.27
38)	TM	Trichloroethene	0.384	0.345	0.376	0.348	0.357	0.362	4.80
39)	C	1,2-Dichloropropane	0.378	0.362	0.375	0.342	0.350	0.361	4.28#
40)	T	Dibromomethane	0.201	0.169	0.193	0.180	0.184	0.186	6.58
41)		1,4-Dioxane	0.001	0.002	0.002	0.002	0.001	0:002#	15.60
42)	T	Bromodichloromethane	0.467	0.475	0.523	0.469	0.489	0.484	4.76

(#) = Out of Range

Response Factor Report 5970 MSD

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:52:10 2004
Response via : Initial Calibration

Calibration Files
1 =VD041902.D 4 =VD041903.D 10 =VD041904.D
20 =VD041905.D 35 =VD041906.D

		Compound	1	4	10	20	35	Avg	%RSD
43)	S	Toluene-d8	1.514	1.159	1.176	1.128	1.155	1.226	13.19
44)	T	4-Methyl-2-Pentanone	0.234	0.234	0.244	0.218	0.217	0.229	5.11
45)	T	t-1,4-Dichloro-2-bute	0.093	0.122	0.130	0.120	0.120	0.117	11.98
46)	CM	Toluene	0.922	0.825	0.868	0.798	0.804	0.844	6.14#
47)	T	t-1,3-Dichloropropene	0.400	0.407	0.447	0.415	0.431	0.420	4.47
48)	T	cis-1,3-Dichloroprope	0.513	0.499	0.537	0.510	0.510	0.514	2.73
49)	T	Ethyl Methacrylate	0.310	0.326	0.356	0.337	0.346	0.335	5.33
50)	T	1,1,2-Trichloroethane	0.248	0.247	0.255	0.229	0.228	0.242	5.02
51)	T	1,3-Dichloropropane	0.440	0.442	0.454	0.425	0.420	0.436	3.18
52)	T	2-Chloroethyl vinyl e	0.154	0.151	0.162	0.148	0.147	0.153	4.03
53)	T	2-Hexanone	0.152	0.162	0.166	0.156	0.153	0.158	3.83
54)	T	Dibromochloromethane	0.273	0.282	0.320	0.289	0.307	0.294	6.47
55)	T	1,2-Dibromoethane	0.234	0.238	0.246	0.225	0.233	0.235	3.23
56)	S	4-Bromofluorobenzene	0.638	0.479	0.507	0.489	0.482	0.519	12.98
57)	I	Chlorobenzene-d5	----------ISTD----------						
58)	T	Tetrachloroethene	0.408	0.349	0.386	0.383	0.412	0.388	6.42
59)	PM	Chlorobenzene	1.148	1.000	1.088	0.940	0.964	1.028	8.49
60)	T	1,1,1,2-Tetrachloroet	0.406	0.412	0.428	0.375	0.403	0.405	4.76
61)	C	Ethyl Benzene	0.623	0.551	0.593	0.519	0.542	0.566	7.42#
62)	T	m&p-Xylenes	0.732	0.637	0.697	0.605	0.606	0.655	8.68
63)	T	o-Xylene	0.737	0.685	0.718	0.645	0.669	0.691	5.35
64)	T	Styrene	1.110	1.044	1.177	1.052	1.085	1.094	4.89
65)	P	Bromoform	0.167	0.183	0.205	0.189	0.205	0.190	8.57
66)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
67)	T	Isopropylbenzene	3.496	3.167	3.494	3.074	3.160	3.278	6.13
68)	P	1,1,2,2-Tetrachloroet	0.638	0.654	0.668	0.584	0.593	0.627	5.92
69)	T	1,2,3-Trichloropropan	0.683	0.674	0.743	0.656	0.677	0.687	4.82
70)	T	Bromobenzene	0.828	0.770	0.882	0.757	0.797	0.807	6.22
71)	T	n-propylbenzene	4.360	3.841	4.183	3.713	3.814	3.982	6.92
72)	T	2-Chlorotoluene	2.889	2.529	2.729	2.382	2.505	2.607	7.72
73)	T	1,3,5-Trimethylbenzen	2.993	2.745	3.021	2.670	2.757	2.837	5.60
74)	T	4-Chlorotoluene	3.240	2.901	3.225	2.813	2.928	3.022	6.53
75)	T	tert-Butylbenzene	2.610	2.267	2.533	2.280	2.405	2.419	6.27
76)	T	1,2,4-Trimethylbenzen	3.042	2.918	3.096	2.743	2.763	2.912	5.47
77)	T	sec-Butylbenzene	3.679	3.459	3.795	3.334	3.408	3.535	5.49
78)	T	4-Isopropyltoluene	3.081	2.938	3.107	2.682	2.769	2.916	6.43
79)	T	1,3-Dichlorobenzene	1.662	1.539	1.686	1.423	1.456	1.553	7.61
80)	T	1,4-Dichlorobenzene	1.838	1.529	1.723	1.505	1.577	1.634	8.68
81)	T	n-Butylbenzene	3.073	2.778	3.125	2.700	2.760	2.887	6.81
82)	T	1,2-Dichlorobenzene	1.463	1.346	1.537	1.300	1.377	1.405	6.76
83)	T	1,2-Dibromo-3-Chlorop	0.117	0.110	0.125	0.113	0.125	0.118	5.62
84)	T	1,2,4-Trichlorobenzen	0.993	0.962	1.079	0.947	0.972	0.990	5.26

(#) = Out of Range

Response Factor Report 5970 MSD

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:52:10 2004
Response via : Initial Calibration

Calibration Files
1 =VD041902.D 4 =VD041903.D 10 =VD041904.D
20 =VD041905.D 35 =VD041906.D

		Compound	1	4	10	20	35	Avg	%RSD
85)	T	Hexachlorobutadiene	0.536	0.478	0.535	0.460	0.477	0.497	7.18
86)	T	Naphthalene	1.526	1.516	1.685	1.480	1.537	1.549	5.12
87)	T	1,2,3-Trichlorobenzen	0.880	0.814	0.925	0.774	0.811	0.841	7.22

(#) = Out of Range

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:21 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	441707	10.00 ug/l	-0.01
31) 1,4-Difluorobenzene	5.14	114	698264	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	606419	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	339103	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.73	65	37458	1.19 ug/l	-0.01
32) Dibromofluoromethane	4.39	113	34623	1.26 ug/l	-0.01
43) Toluene-d8	6.73	98	105707	1.29 ug/l	0.00
56) 4-Bromofluorobenzene	9.51	95	44528	1.26 ug/l	0.00
Target Compounds					Qvalue
2) Dichlorodifluorometh	1.46	85	31665	1.10 ug/l	92
3) Chloromethane	1.60	50	38613	1.32 ug/l	91
4) Vinyl Chloride	1.70	62	30419	1.19 ug/l #	84
5) Bromomethane	1.94	94	21788	1.34 ug/l	93
6) Chloroethane	1.93	64	22764	1.26 ug/l	98
7) Trichlorofluorometha	2.16	101	49769m	1.22 ug/l	
8) 1,1,2-Trichlorotrifl	2.50	101	25228	0.98 ug/l #	46
10) Tert butyl alcohol	3.00	59	8463m	5.15 ug/l	
11) 1,1-Dichloroethene	2.49	96	23836	1.19 ug/l	98
12) Iodomethane	2.63	142	32142	0.96 ug/l	99
13) Acrolein	4.48	56	69514	5.79 ug/l #	67
14) Acrylonitrile	3.15	53	24316	4.81 ug/l #	35
15) Acetone	2.57	43	32252	7.02 ug/l #	89
16) Carbon Disulfide	2.66	76	38692	1.00 ug/l #	94
17) Methyl Acetate	2.79	43	15963	0.89 ug/l	96
18) Methyl tert-butyl Et	3.07	73	62424	1.01 ug/l	93
19) Methylene Chloride	2.90	84	27617	1.17 ug/l	89
20) trans-1,2-Dichloroet	3.08	96	26252	1.12 ug/l	96
21) Vinyl Acetate	3.47	43	216499	5.02 ug/l	96
22) 1,1-Dichloroethane	3.46	63	52967	1.05 ug/l	97
23) 2-Butanone	3.99	43	58688	5.25 ug/l #	89
24) 2,2-Dichloropropane	3.96	77	44058	1.02 ug/l	95
25) cis-1,2-Dichloroethe	3.98	96	30214	1.05 ug/l	94
26) Bromochloromethane	4.19	49	27719	0.94 ug/l	92

Analyst Signature: BJS Analyst Name: _____ Date: 04/20/04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 7,10
___ Peak integrated by software incorrectly. Compound #: _____
___ OTHER: _____ Compound #: _____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:21 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
27)	Chloroform	4.25	83	52092	1.00 ug/l		96
28)	Cyclohexane	4.38	56	59315	1.22 ug/l		96
29)	1,1,1-Trichloroethan	4.38	97	44306	0.99 ug/l	#	20
33)	1,1-Dichloropropene	4.53	75	35962	1.07 ug/l		97
34)	Carbon Tetrachloride	4.51	117	37270	0.96 ug/l		93
35)	Methylcyclohexane	5.49	83	48795	1.18 ug/l	#	83
36)	Benzene	4.72	78	94430	1.06 ug/l		100
37)	1,2-Dichloroethane	4.83	62	33614	1.02 ug/l		94
38)	Trichloroethene	5.38	130	26836	1.02 ug/l		74
39)	1,2-Dichloropropane	5.66	63	26399	1.01 ug/l	#	82
40)	Dibromomethane	5.79	93	14035	1.04 ug/l		96
41)	1,4-Dioxane	5.80	88	2050	15.13 ug/l		90
42)	Bromodichloromethane	5.97	83	32577	0.89 ug/l	#	92
44)	4-Methyl-2-Pentanone	6.66	43	81767	4.79 ug/l		99
45)	t-1,4-Dichloro-2-but	9.73	53	6490m	0.72 ug/l		
46)	Toluene	6.80	92	64380	1.06 ug/l		99
47)	t-1,3-Dichloropropen	7.17	75	27964	0.90 ug/l	#	83
48)	cis-1,3-Dichloroprop	6.48	75	35839	0.96 ug/l		100
49)	Ethyl Methacrylate	7.21	69	21642	0.87 ug/l		91
50)	1,1,2-Trichloroethan	7.39	97	17339	0.97 ug/l	#	90
51)	1,3-Dichloropropane	7.58	76	30707	0.97 ug/l		89
52)	2-Chloroethyl vinyl	6.31	63	53894	4.76 ug/l		95
53)	2-Hexanone	7.65	43	53048	4.57 ug/l		96
54)	Dibromochloromethane	7.79	129	19056	0.85 ug/l		95
55)	1,2-Dibromoethane	7.93	107	16359	0.95 ug/l		93
58)	Tetrachloroethene	7.42	164	24727	1.06 ug/l	#	85
59)	Chlorobenzene	8.41	112	69587	1.05 ug/l		95
60)	1,1,1,2-Tetrachloroe	8.50	131	24608	0.95 ug/l		97
61)	Ethyl Benzene	8.48	106	37810	1.05 ug/l		100
62)	m&p-Xylenes	8.60	106	88809	2.10 ug/l		97
63)	o-Xylene	8.99	106	44679	1.03 ug/l		92
64)	Styrene	9.02	104	67304	0.94 ug/l		98
65)	Bromoform	9.23	173	10103	0.81 ug/l		88
67)	Isopropylbenzene	9.32	105	118544	1.00 ug/l		99
68)	1,1,2,2-Tetrachloroe	9.68	83	21631	0.96 ug/l		96
69)	1,2,3-Trichloropropa	9.72	75	23163	0.92 ug/l	#	100

Analyst Signature:_____ Analyst Name:_____ Date:_____

REASONS FOR MANUAL INTEGRATIONS

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
✓ Peak integrated by software incorrectly.Compound #: 45
___OTHER:_____Compound #:_____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:21 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
70) Bromobenzene	9.64	156	28091	0.94 ug/l	95
71) n-propylbenzene	9.70	91	147848	1.04 ug/l	98
72) 2-Chlorotoluene	9.80	91	97966	1.06 ug/l	93
73) 1,3,5-Trimethylbenze	9.86	105	101482	0.99 ug/l	97
74) 4-Chlorotoluene	9.91	91	109861	1.00 ug/l	96
75) tert-Butylbenzene	10.13	119	88496	1.03 ug/l	94
76) 1,2,4-Trimethylbenze	10.19	105	103143	0.98 ug/l	99
77) sec-Butylbenzene	10.31	105	124760	0.97 ug/l	99
78) 4-Isopropyltoluene	10.44	119	104494	0.99 ug/l	99
79) 1,3-Dichlorobenzene	10.45	146	56362	0.99 ug/l	96
80) 1,4-Dichlorobenzene	10.53	146	62319	1.07 ug/l	93
81) n-Butylbenzene	10.77	91	104209	0.98 ug/l	95
82) 1,2-Dichlorobenzene	10.84	146	49616	0.95 ug/l	97
83) 1,2-Dibromo-3-Chloro	11.46	75	3961	0.93 ug/l	94
84) 1,2,4-Trichlorobenze	12.07	180	33656	0.92 ug/l	94
85) Hexachlorobutadiene	12.14	225	18188	1.00 ug/l	98
86) Naphthalene	12.28	128	51758	0.91 ug/l	100
87) 1,2,3-Trichlorobenze	12.48	180	29836	0.95 ug/l	94

Analyst Signature:_____ Analyst Name:_____ Date:_____

REASONS FOR MANUAL INTEGRATIONS

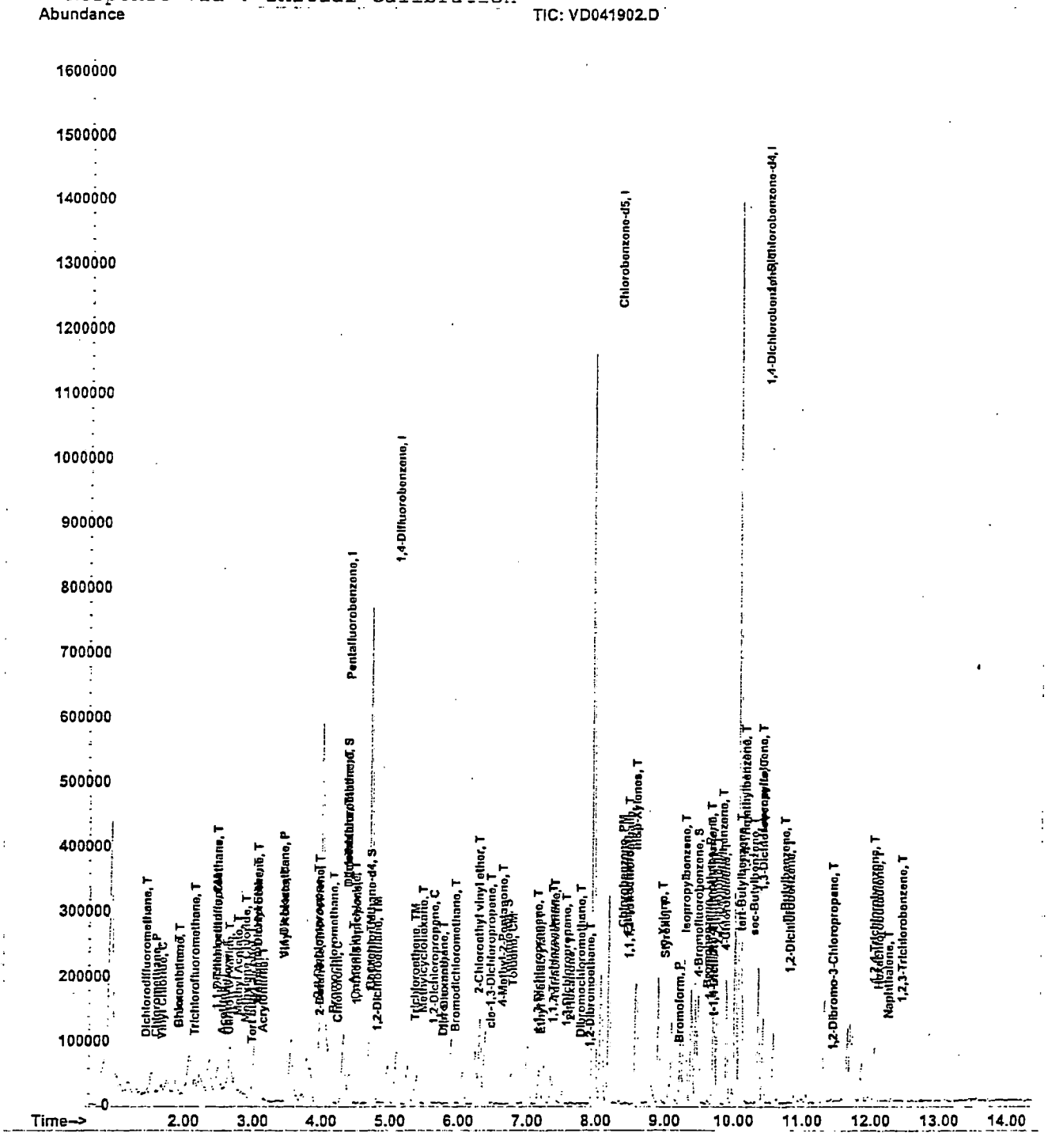
___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

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

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:21 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration

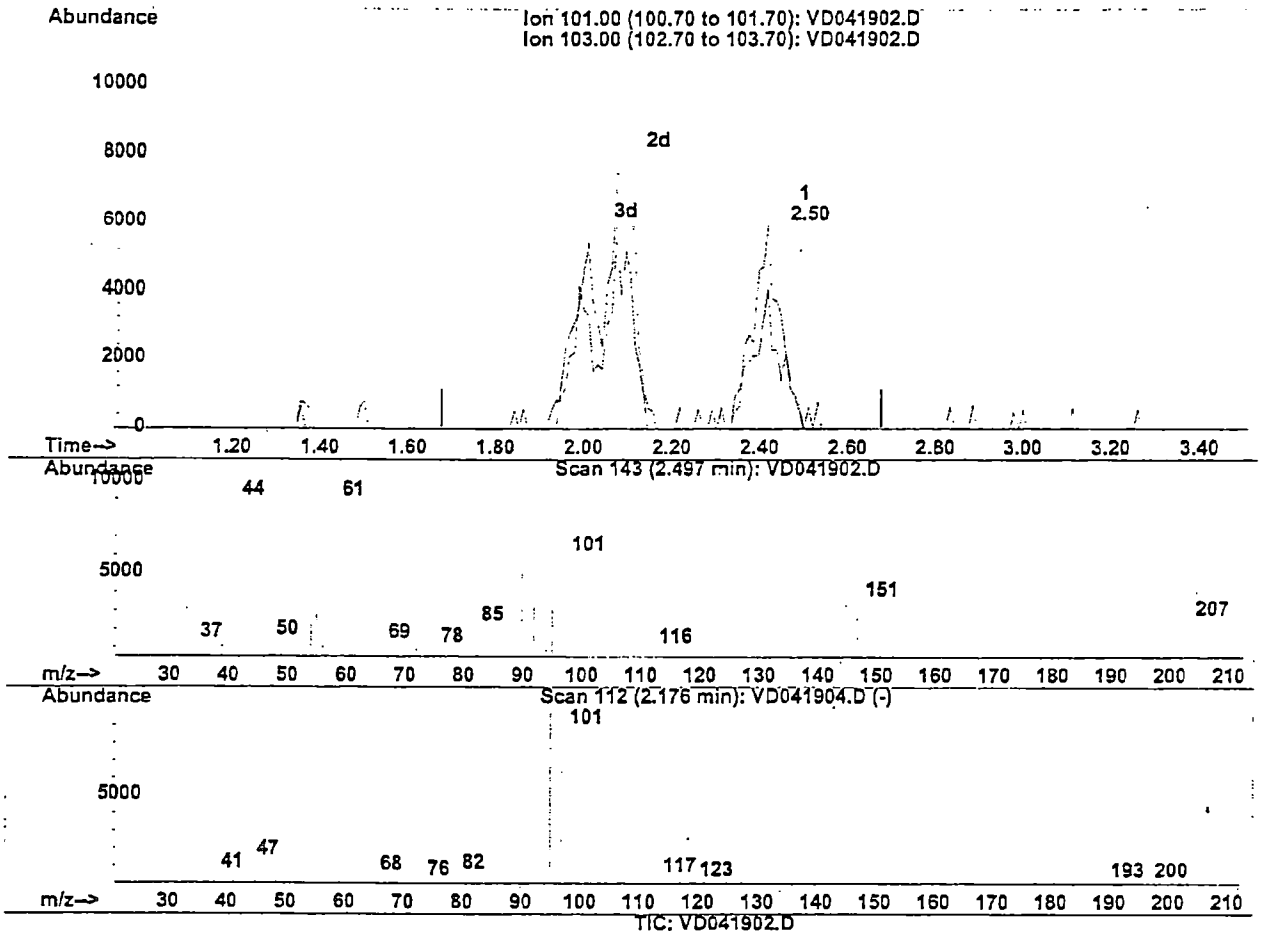


VD041902.D SAD0419W.M Tue Apr 20 11:13:19 2004 MSVOAPRC3

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIC
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:20 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.50min 0.62ug/l

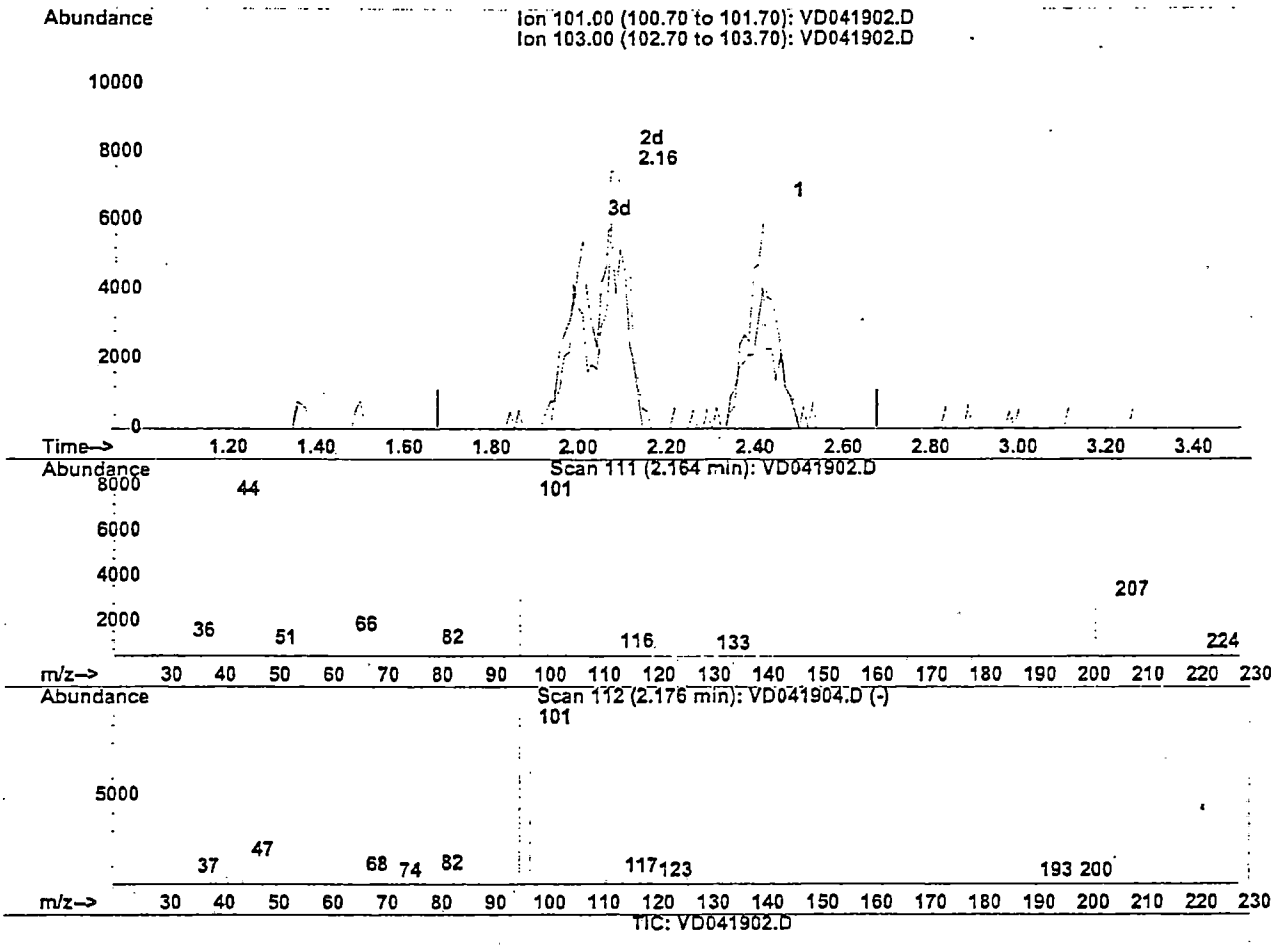
response 25228

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	68.33
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:20 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.16min 1.22ug/l m

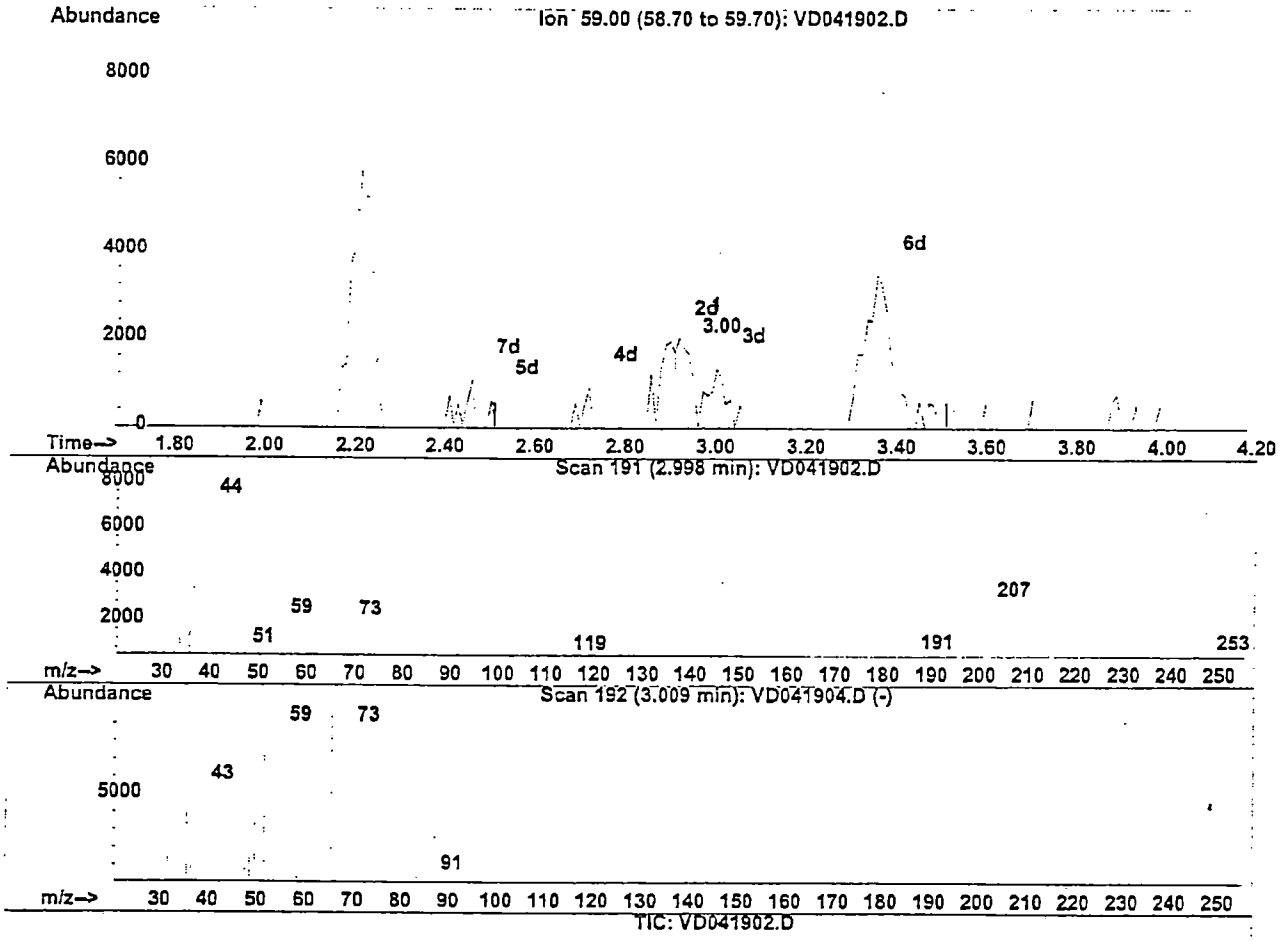
response 49769

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	52.07#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:20 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(10) Tert butyl alcohol (T)

3.00min 2.53ug/l

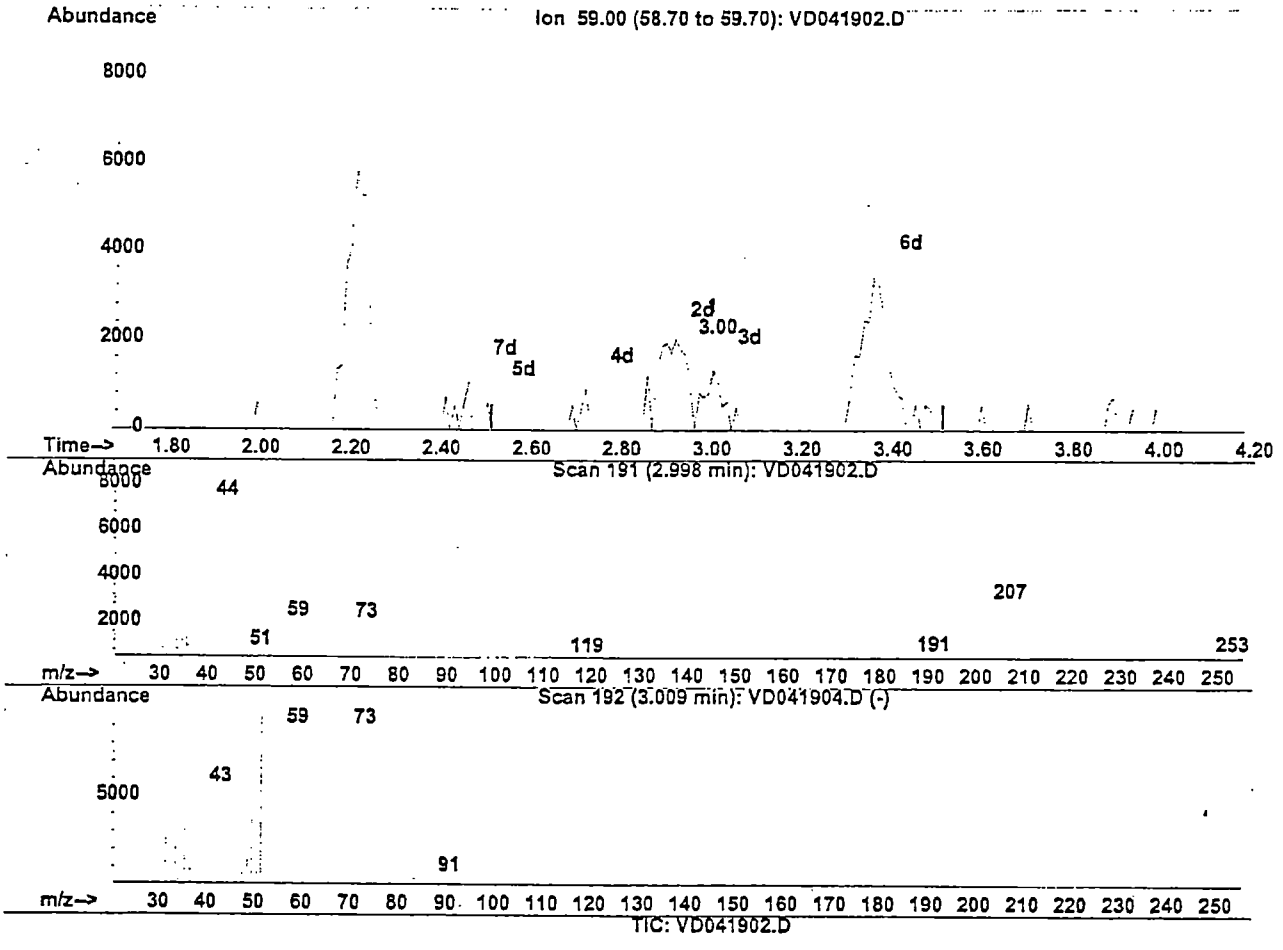
response 4157

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:20 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(10) Tert butyl alcohol (T)

3.00min 5.15ug/l m

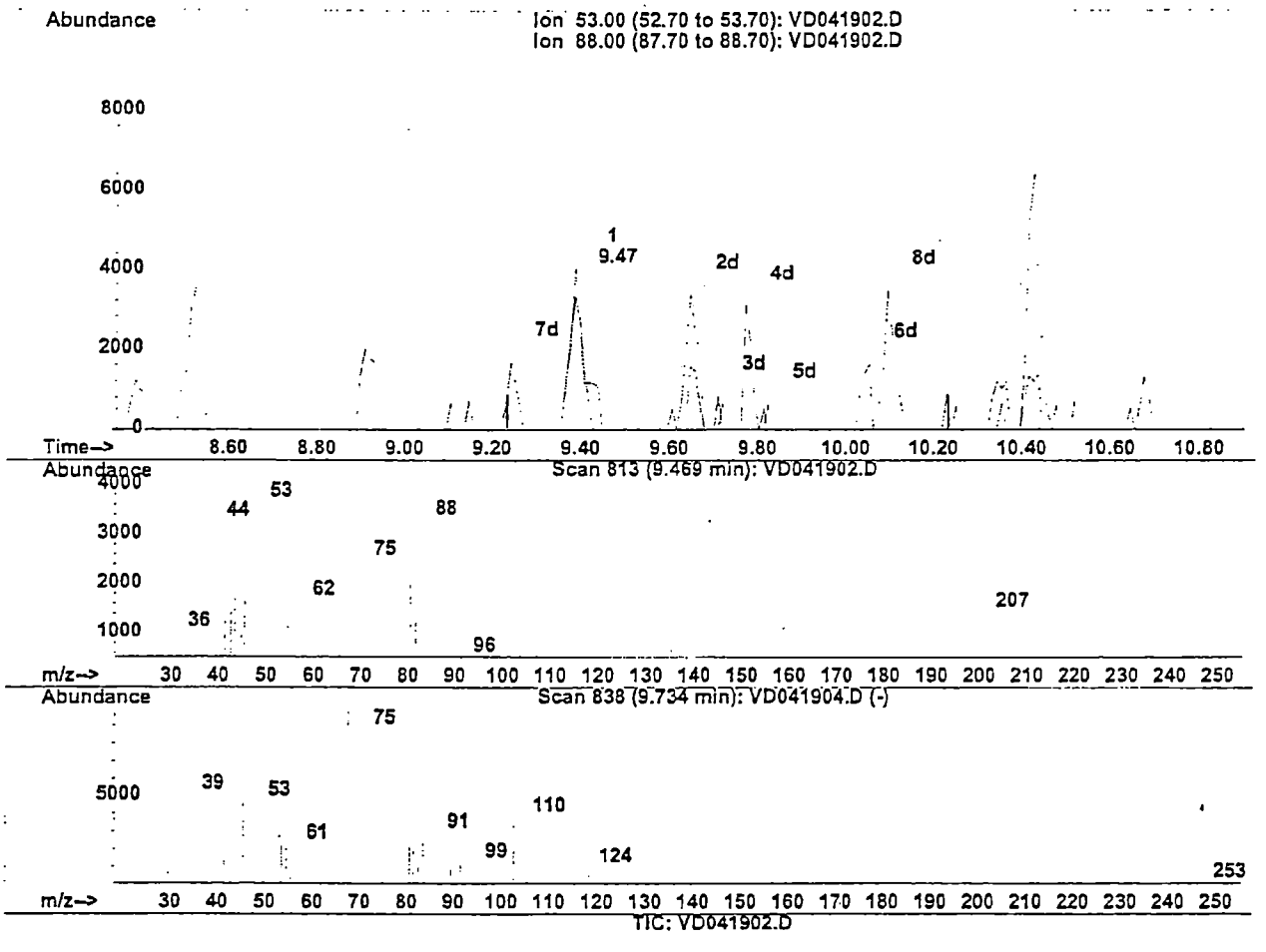
response 8463

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:20 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(45) t-1,4-Dichloro-2-butene (T)

9.47min 0.83ug/l

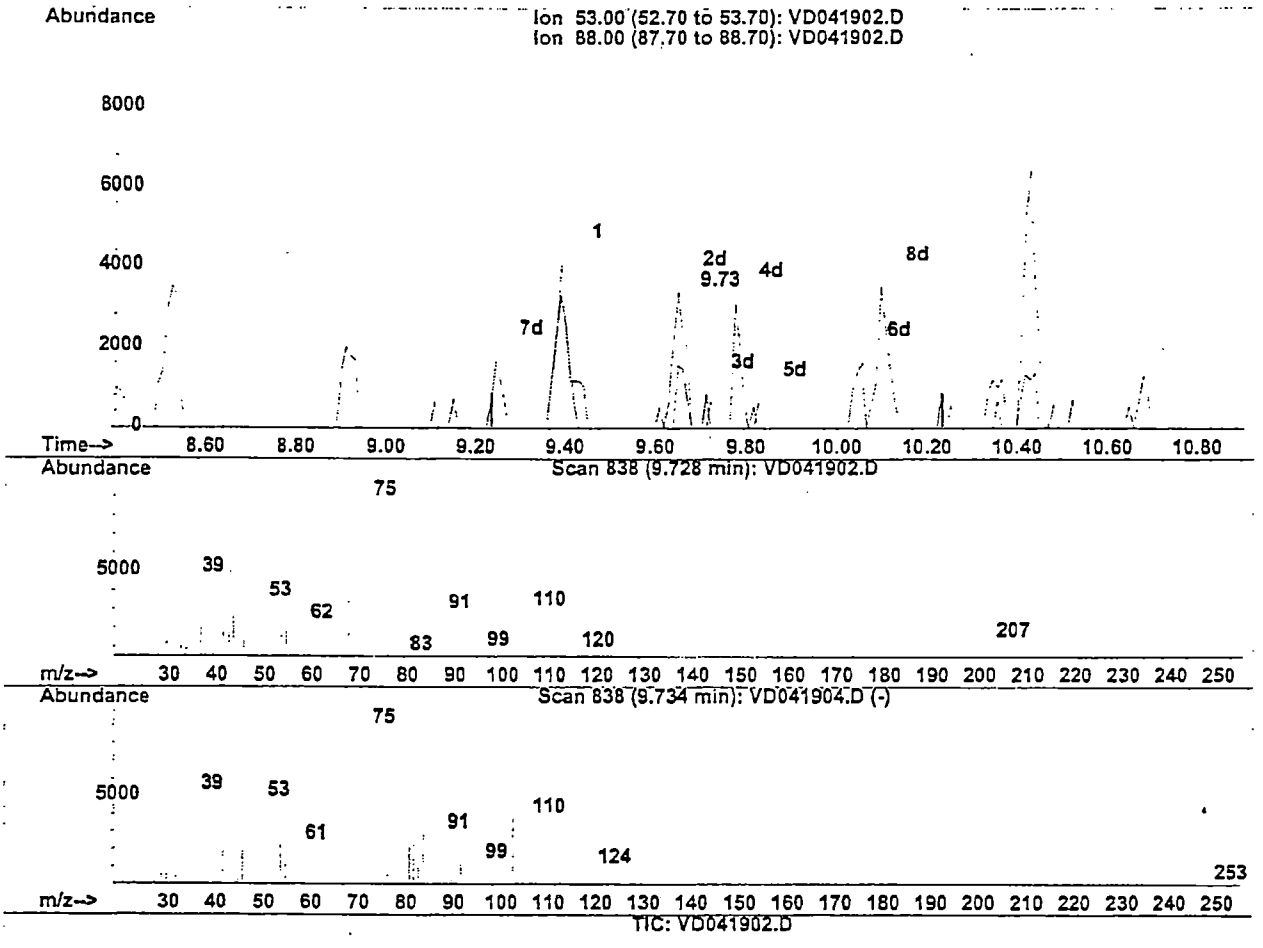
response 7560

Ion	Exp%	Act%
53.00	100	100
88.00	111.20	114.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041902.D Vial: 2
Acq On : 19 Apr 2004 3:17 pm Operator: BRIJ
Sample : 1 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:21 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(45) t-1,4-Dichloro-2-butene (T)

9.73min 0.72ug/l m

response 6490

Ion	Exp%	Act%
53.00	100	100
88.00	111.20	133.22
0.00	0.00	0.00
0.00	0.00	0.00

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:23 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.42	168	409195	10.00 ug/l	0.00
31) 1,4-Difluorobenzene	5.14	114	629391	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.37	117	557239	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	301848	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.75	65	102732	3.51 ug/l	0.00
32) Dibromofluoromethane	4.39	113	95382	3.86 ug/l	0.00
43) Toluene-d8	6.73	98	291797	3.94 ug/l	0.00
56) 4-Bromofluorobenzene	9.52	95	120593	3.78 ug/l	0.00
Target Compounds					Qvalue
2) Dichlorodifluorometh	1.45	85	91403	3.42 ug/l	89
3) Chloromethane	1.59	50	93557	3.46 ug/l	93
4) Vinyl Chloride	1.70	62	87679	3.69 ug/l	89
5) Bromomethane	1.94	94	62642	4.16 ug/l	96
6) Chloroethane	1.94	64	67650	4.04 ug/l	92
7) Trichlorofluorometha	2.16	101	140608m	3.71 ug/l	
8) 1,1,2-Trichlorotrifl	2.49	101	79794	3.34 ug/l	99
10) Tert butyl alcohol	3.00	59	31388	20.61 ug/l	100
11) 1,1-Dichloroethene	2.49	96	63934	3.43 ug/l	94
12) Iodomethane	2.62	142	105881	3.42 ug/l	99
13) Acrolein	4.48	56	191074	17.18 ug/l	95
14) Acrylonitrile	3.15	53	86393	18.44 ug/l	97
15) Acetone	2.57	43	89930	21.12 ug/l #	81
16) Carbon Disulfide	2.67	76	110449m	3.09 ug/l	
17) Methyl Acetate	2.79	43	61249	3.69 ug/l	100
18) Methyl tert-butyl Et	3.07	73	199305	3.50 ug/l	96
19) Methylene Chloride	2.90	84	82357	3.76 ug/l #	95
20) trans-1,2-Dichloroet	3.07	96	75839	3.50 ug/l	94
21) Vinyl Acetate	3.47	43	732840	18.34 ug/l	100
22) 1,1-Dichloroethane	3.45	63	159805	3.41 ug/l	98
23) 2-Butanone	3.99	43	188070	18.15 ug/l	97
24) 2,2-Dichloropropane	3.95	77	139183	3.48 ug/l	99
25) cis-1,2-Dichloroethe	3.96	96	97986	3.68 ug/l	95
26) Bromochloromethane	4.19	49	96279	3.54 ug/l	98

Analyst Signature: BM Analyst Name: _____ Date: 04/20/04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 7, 16
___ Peak integrated by software incorrectly. Compound #: _____
___ OTHER: _____ Compound #: _____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:23 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
27) Chloroform	4.25	83	166256	3.44 ug/l	99
28) Cyclohexane	4.37	56	156000	3.47 ug/l #	86
29) 1,1,1-Trichloroethan	4.38	97	141489	3.41 ug/l #	89
33) 1,1-Dichloropropene	4.53	75	113577	3.74 ug/l	99
34) Carbon Tetrachloride	4.51	117	117782	3.35 ug/l	95
35) Methylcyclohexane	5.51	83	137999	3.70 ug/l	96
36) Benzene	4.72	78	298037	3.71 ug/l	100
37) 1,2-Dichloroethane	4.82	62	115587	3.88 ug/l	99
38) Trichloroethene	5.38	130	86751	3.67 ug/l	86
39) 1,2-Dichloropropane	5.67	63	91082	3.86 ug/l	91
40) Dibromomethane	5.80	93	42574	3.50 ug/l	90
41) 1,4-Dioxane	5.80	88	9612	78.72 ug/l	96
42) Bromodichloromethane	5.97	83	119644	3.64 ug/l	98
44) 4-Methyl-2-Pentanone	6.66	43	294138	19.13 ug/l	99
45) t-1,4-Dichloro-2-but	9.73	53	30681m	3.76 ug/l	
46) Toluene	6.80	92	207790	3.80 ug/l	98
47) t-1,3-Dichloropropen	7.18	75	102375	3.64 ug/l	95
48) cis-1,3-Dichloroprop	6.48	75	125744	3.72 ug/l	100
49) Ethyl Methacrylate	7.22	69	81975	3.66 ug/l	95
50) 1,1,2-Trichloroethan	7.39	97	62276	3.88 ug/l	96
51) 1,3-Dichloropropane	7.58	76	111339	3.89 ug/l	98
52) 2-Chloroethyl vinyl	6.31	63	190529	18.67 ug/l	97
53) 2-Hexanone	7.64	43	203511	19.46 ug/l	97
54) Dibromochloromethane	7.79	129	71089	3.53 ug/l	95
55) 1,2-Dibromoethane	7.92	107	59820	3.87 ug/l	100
58) Tetrachloroethene	7.43	164	77878	3.62 ug/l	93
59) Chlorobenzene	8.40	112	222918	3.68 ug/l	98
60) 1,1,1,2-Tetrachloroe	8.50	131	91730	3.84 ug/l	99
61) Ethyl Benzene	8.48	106	122793	3.72 ug/l	100
62) m&p-Xylenes	8.60	106	283950	7.31 ug/l	98
63) o-Xylene	9.00	106	152616	3.82 ug/l	95
64) Styrene	9.02	104	232777	3.55 ug/l	98
65) Bromoform	9.22	173	40769	3.57 ug/l #	96
67) Isopropylbenzene	9.33	105	382397	3.63 ug/l	98
68) 1,1,2,2-Tetrachloroe	9.68	83	78977	3.92 ug/l	97
69) 1,2,3-Trichloropropa	9.72	75	81433	3.63 ug/l #	100

Analyst Signature:_____ Analyst Name:_____ Date:_____

----------REASONS FOR MANUAL INTEGRATIONS----------

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
✓Peak integrated by software incorrectly.Compound #: 45
___OTHER:_____Compound #:_____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:23 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
70) Bromobenzene	9.64	156	92958	3.49 ug/l	96
71) n-propylbenzene	9.70	91	463703	3.67 ug/l	100
72) 2-Chlorotoluene	9.80	91	305307	3.71 ug/l	100
73) 1,3,5-Trimethylbenze	9.86	105	331424	3.63 ug/l	100
74) 4-Chlorotoluene	9.90	91	350282	3.60 ug/l	100
75) tert-Butylbenzene	10.13	119	273713	3.58 ug/l	98
76) 1,2,4-Trimethylbenze	10.18	105	352337	3.77 ug/l	98
77) sec-Butylbenzene	10.32	105	417697	3.65 ug/l	100
78) 4-Isopropyltoluene	10.44	119	354756	3.78 ug/l	100
79) 1,3-Dichlorobenzene	10.45	146	185767	3.65 ug/l	99
80) 1,4-Dichlorobenzene	10.52	146	184554	3.55 ug/l	96
81) n-Butylbenzene	10.76	91	335371	3.55 ug/l	99
82) 1,2-Dichlorobenzene	10.84	146	162544	3.50 ug/l	95
83) 1,2-Dibromo-3-Chloro	11.47	75	13331	3.52 ug/l	89
84) 1,2,4-Trichlorobenze	12.07	180	116122	3.57 ug/l	98
85) Hexachlorobutadiene	12.15	225	57756	3.58 ug/l	99
86) Naphthalene	12.28	128	183069	3.60 ug/l	100
87) 1,2,3-Trichlorobenze	12.47	180	98244	3.52 ug/l	99

Analyst Signature:_____ Analyst Name:_____ Date:_____

REASONS FOR MANUAL INTEGRATIONS

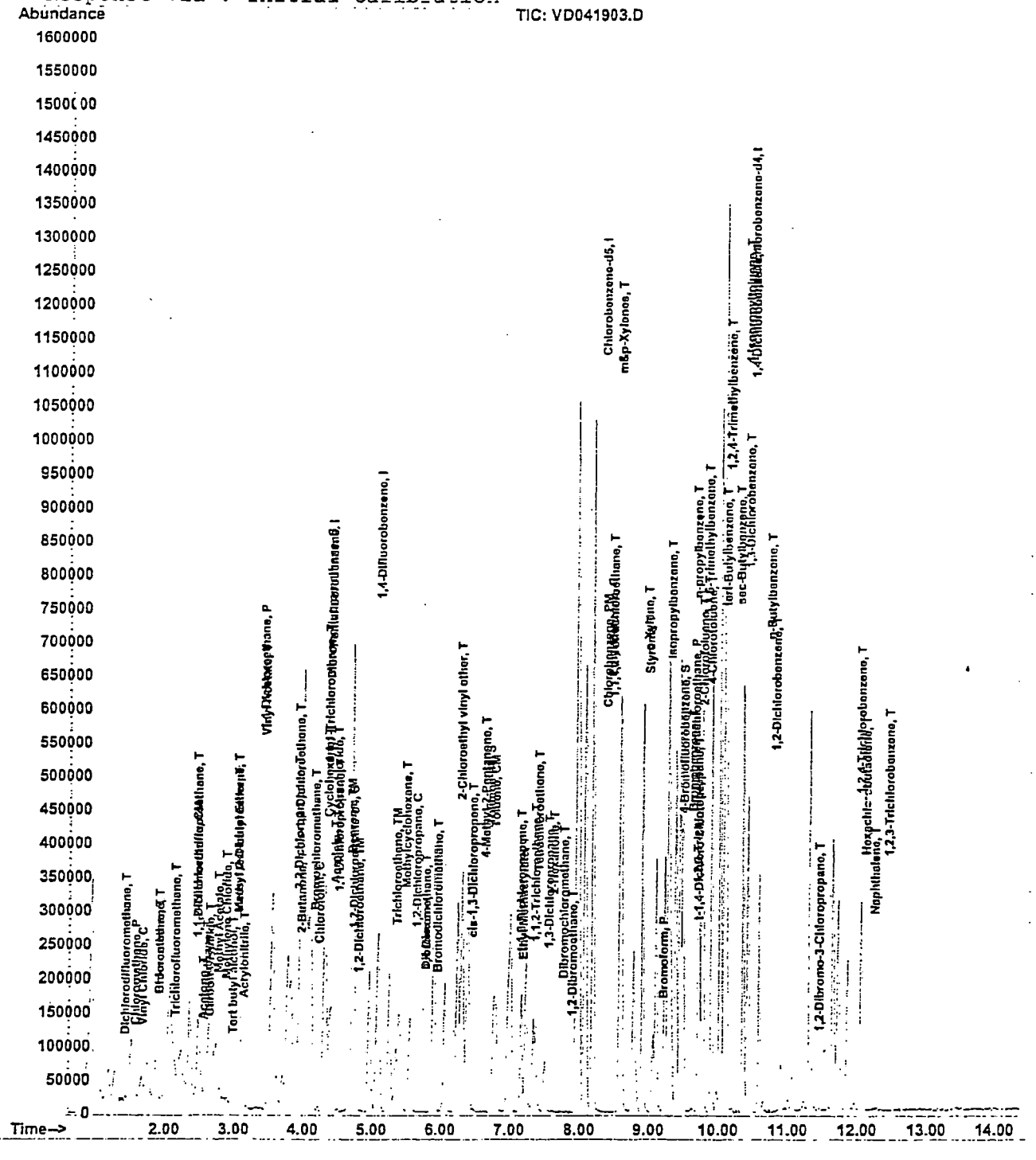
___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

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

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:23 2004 Quant Results File: SAD0419W.RES

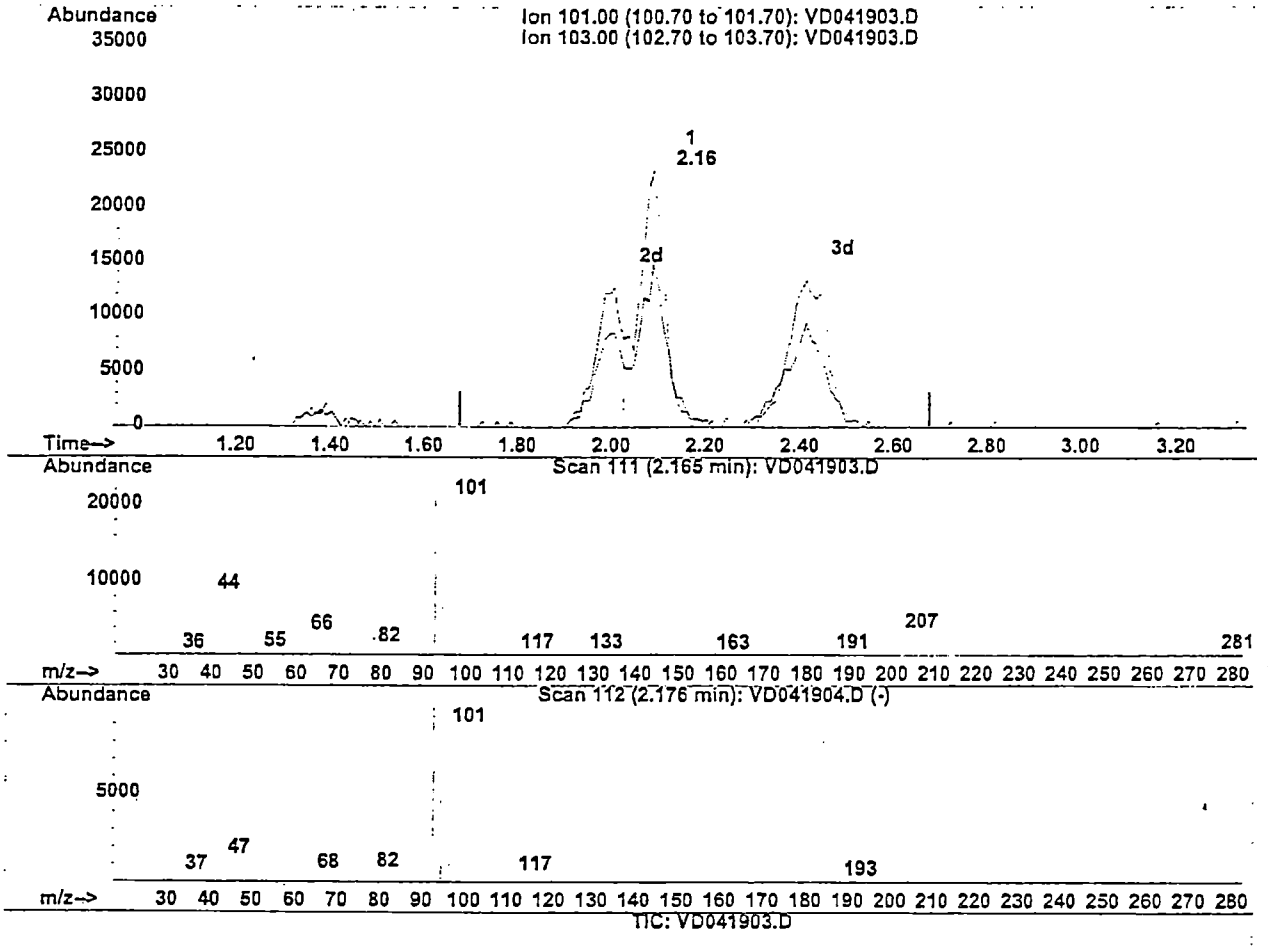
Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration



Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:22 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.16min 2.40ug/l

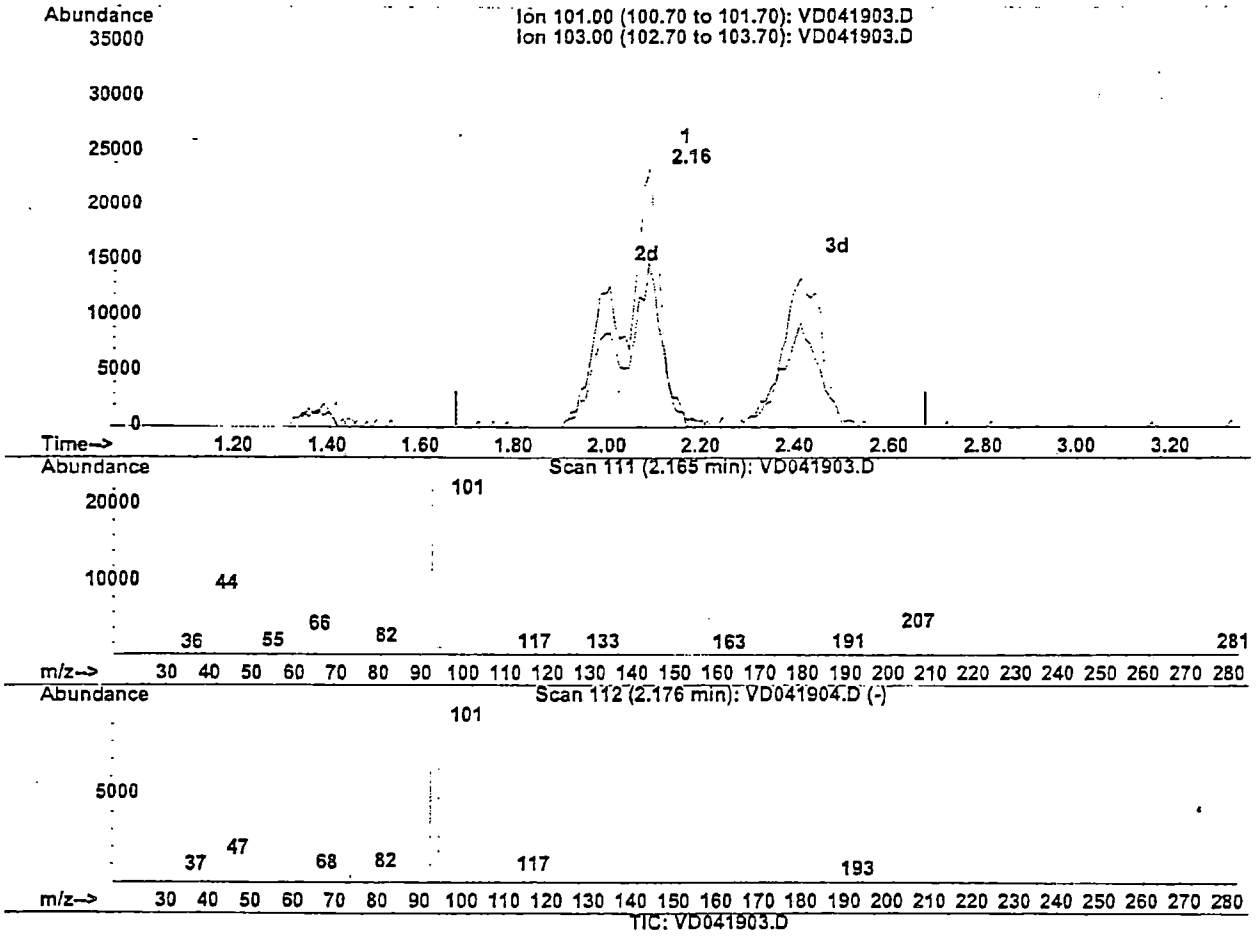
response 90918

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	63.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIT
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:22 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.16min 3.71ug/l m

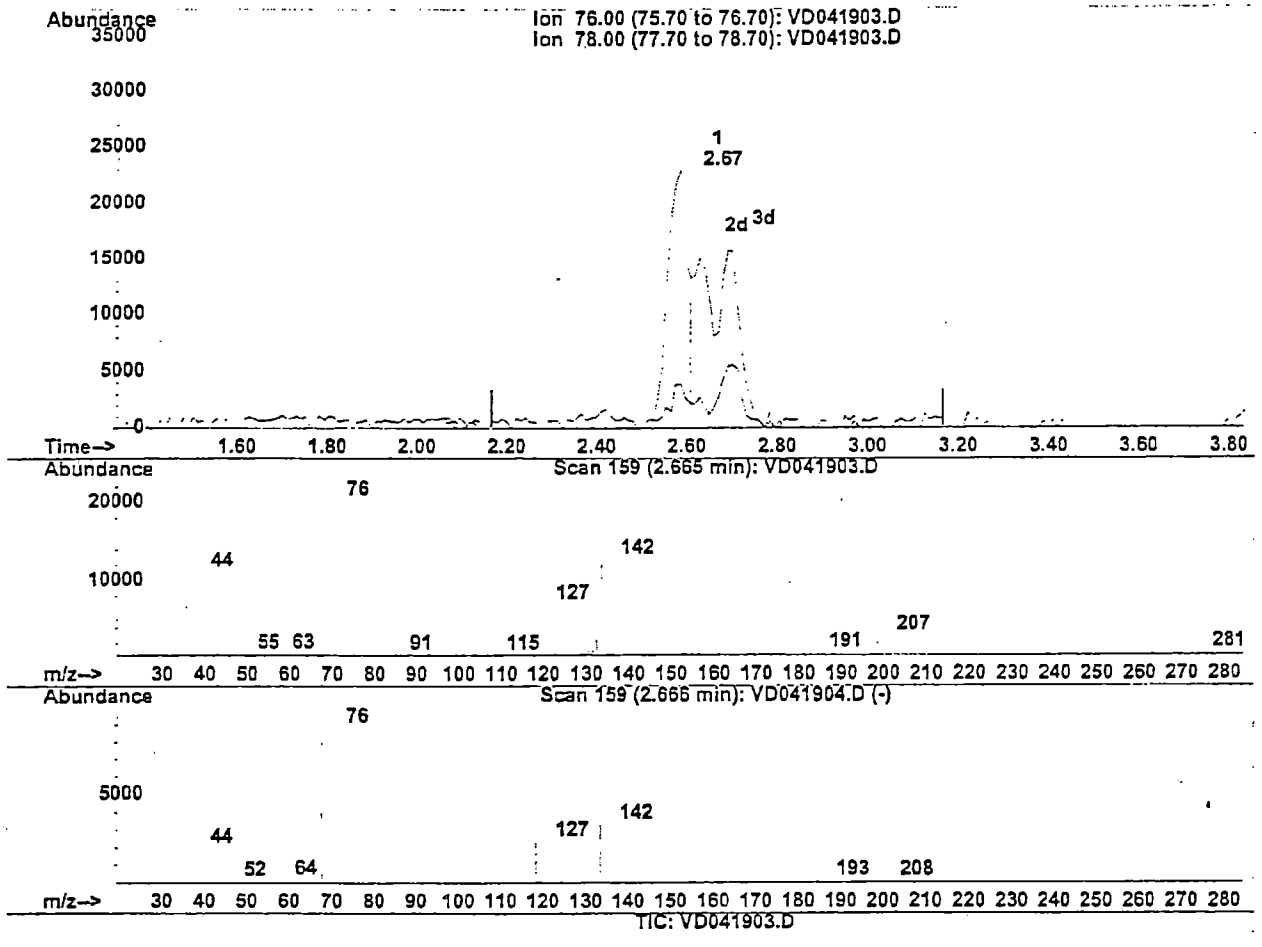
response 140608

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	63.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:22 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(16) Carbon Disulfide (T)

2.67min 2.00ug/l

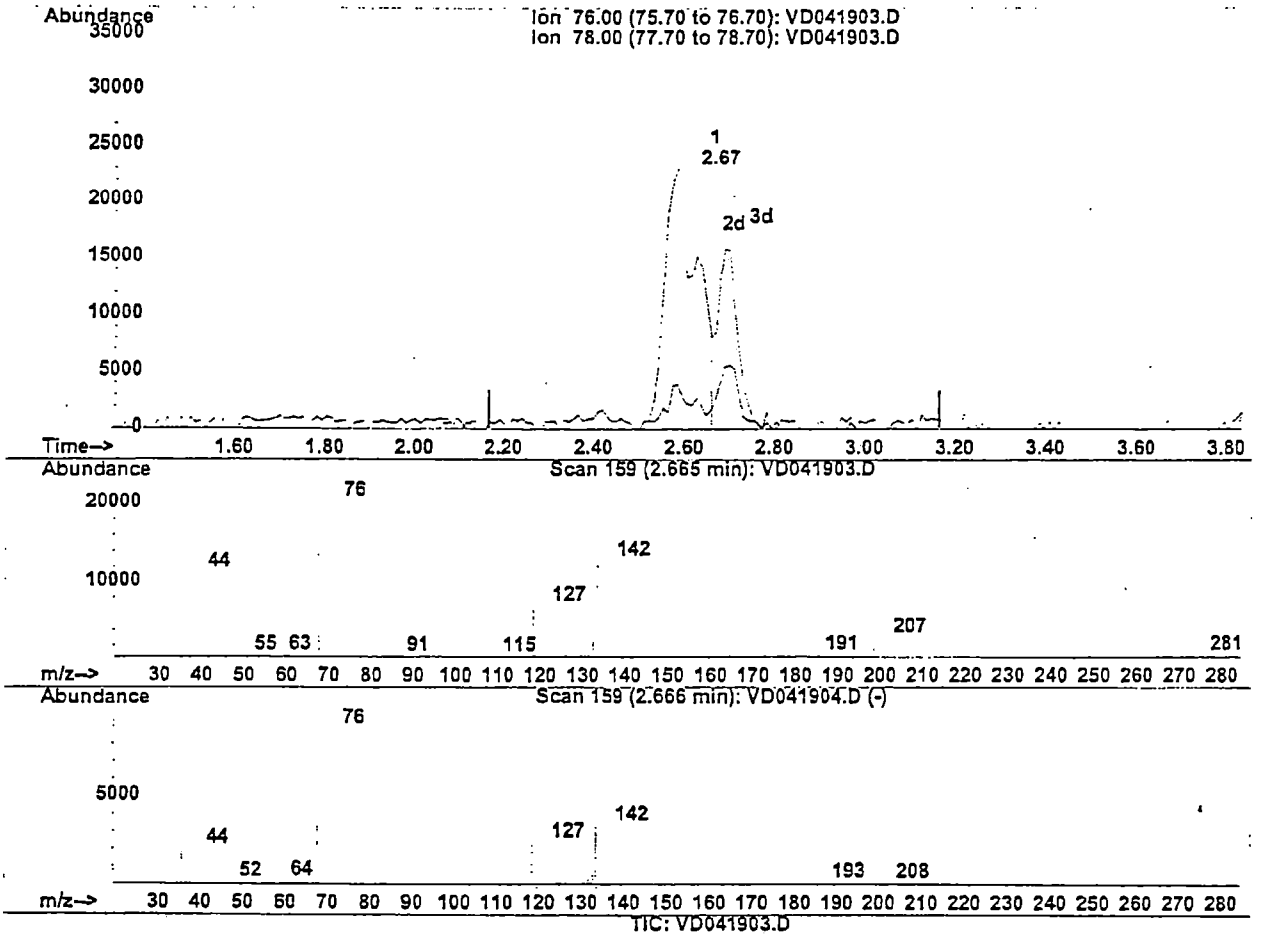
response 71365

Ion	Exp%	Act%
76.00	100	100
78.00	10.20	16.99#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIT
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:22 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(16) Carbon Disulfide (T)

2.67min 3.09ug/l m

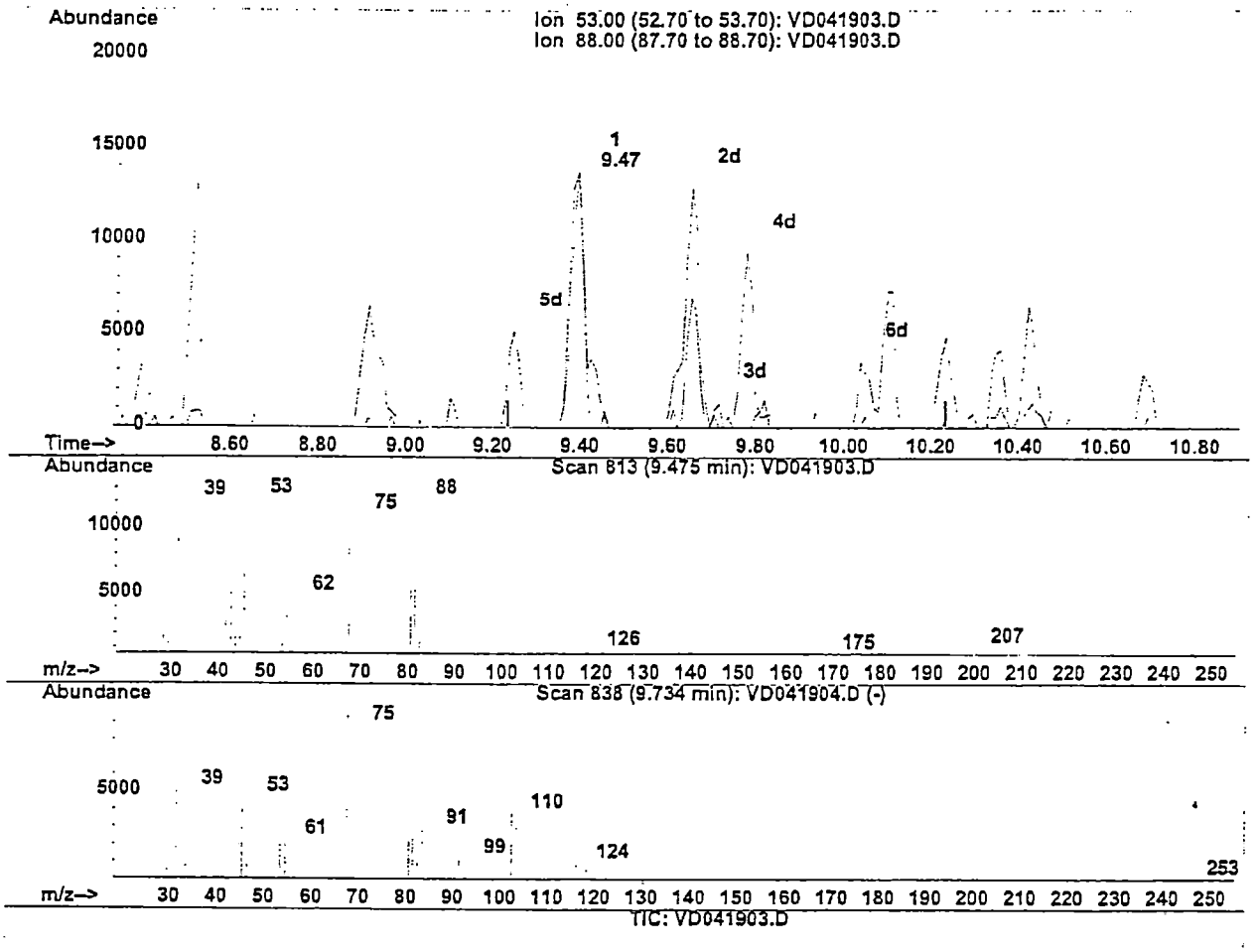
response 110449

Ion	Exp%	Act%
76.00	100	100
78.00	10.20	16.99#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:22 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(45) t-1,4-Dichloro-2-butene (T)

9.47min 3.57ug/l

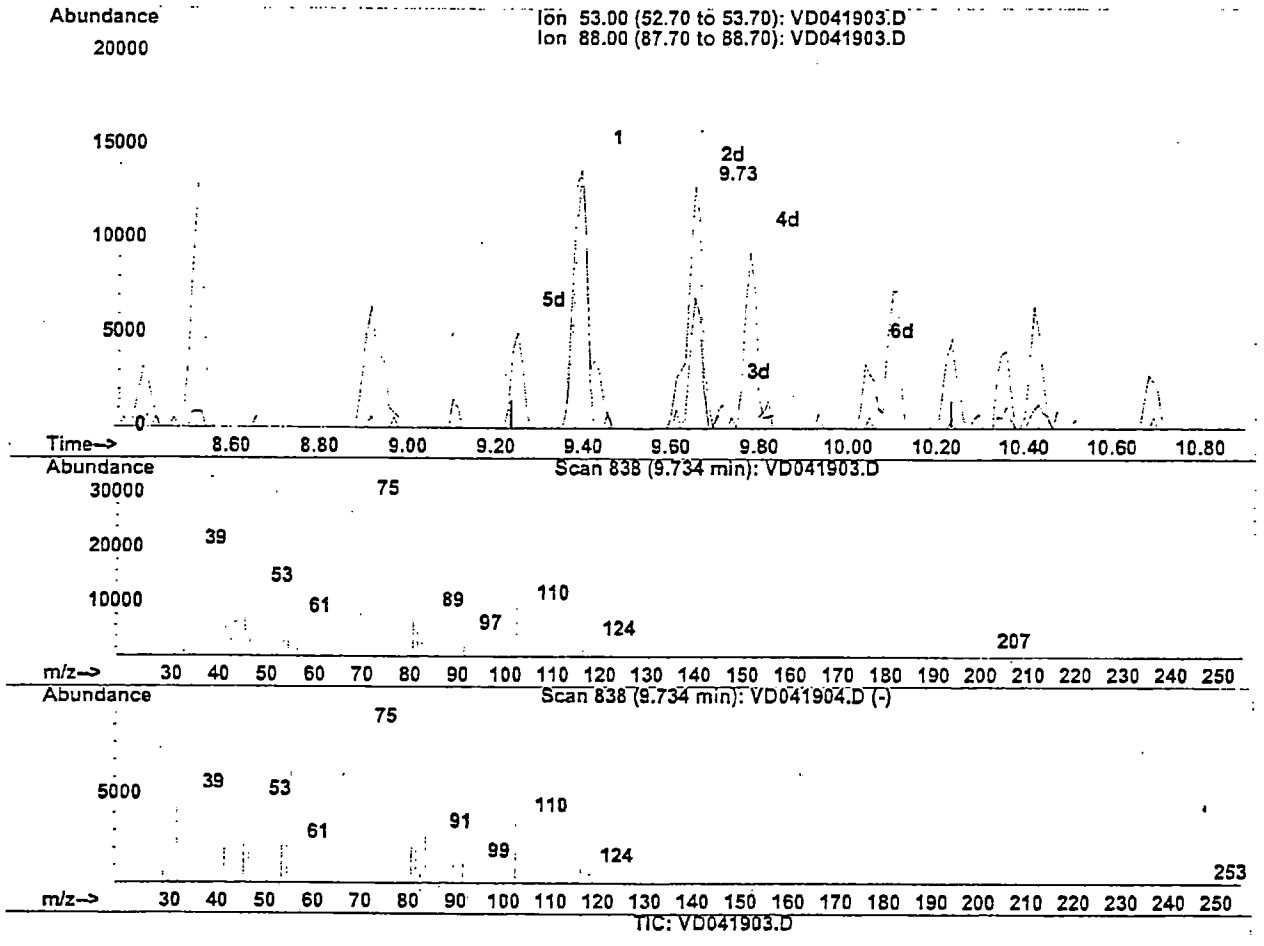
response 29135

Ion	Exp%	Act%
53.00	100	100
88.00	111.20	106.58
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041903.D Vial: 3
Acq On : 19 Apr 2004 3:58 pm Operator: BRIJ
Sample : 4 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:23 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(45) t-1,4-Dichloro-2-butene (T)

9.73min 3.76ug/l m

response 30681

Ion	Exp%	Act%
53.00	100	100
88.00	111.20	101.21
0.00	0.00	0.00
0.00	0.00	0.00

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: ERIC
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:19 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.43	168	365741	10.00 ug/l	0.00
31) 1,4-Difluorobenzene	5.14	114	613403	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.38	117	536092	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	288215	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.75	65	261426	10.00 ug/l	0.00
32) Dibromofluoromethane	4.40	113	241074	10.00 ug/l	0.00
43) Toluene-d8	6.73	98	721438	10.00 ug/l	0.00
56) 4-Bromofluorobenzene	9.51	95	310994	10.00 ug/l	0.00
Target Compounds					Qvalue
2) Dichlorodifluorometh	1.45	85	239141	10.00 ug/l	100
3) Chloromethane	1.60	50	241897	10.00 ug/l	100
4) Vinyl Chloride	1.70	62	212469	10.00 ug/l	100
5) Bromomethane	1.94	94	134696	10.00 ug/l	100
6) Chloroethane	1.96	64	149582	10.00 ug/l	100
7) Trichlorofluorometha	2.18	101	338383m	10.00 ug/l	
8) 1,1,2-Trichlorotrifl	2.50	101	213625	10.00 ug/l	100
10) Tert butyl alcohol	3.01	59	68056	50.00 ug/l	100
11) 1,1-Dichloroethene	2.50	96	166488	10.00 ug/l	100
12) Iodomethane	2.63	142	276973	10.00 ug/l	100
13) Acrolein	4.48	56	496927	50.00 ug/l	100
14) Acrylonitrile	3.16	53	209345	50.00 ug/l	100
15) Acetone	2.57	43	190320	50.00 ug/l	100
16) Carbon Disulfide	2.67	76	319465	10.00 ug/l	100
17) Methyl Acetate	2.79	43	148363	10.00 ug/l	100
18) Methyl tert-butyl Et	3.07	73	509549	10.00 ug/l	100
19) Methylene Chloride	2.91	84	195641	10.00 ug/l	100
20) trans-1,2-Dichloroet	3.08	96	193615	10.00 ug/l	100
21) Vinyl Acetate	3.47	43	1785598	50.00 ug/l	100
22) 1,1-Dichloroethane	3.46	63	419009	10.00 ug/l	100
23) 2-Butanone	4.00	43	463129	50.00 ug/l	100
24) 2,2-Dichloropropane	3.95	77	357657	10.00 ug/l	100
25) cis-1,2-Dichloroethe	3.97	96	238314	10.00 ug/l	100
26) Bromochloromethane	4.19	49	243370	10.00 ug/l	100

Analyst Signature: bm Analyst Name: _____ Date: 04/20/04

----------REASONS FOR MANUAL INTEGRATIONS----------

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 7

___ Peak integrated by software incorrectly. Compound #: _____

___ OTHER: _____ Compound #: _____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: BRIJ
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:19 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
27) Chloroform	4.25	83	431814	10.00 ug/l	100
28) Cyclohexane	4.38	56	401642	10.00 ug/l	100
29) 1,1,1-Trichloroethan	4.39	97	371112	10.00 ug/l #	100
33) 1,1-Dichloropropene	4.53	75	296238	10.00 ug/l	100
34) Carbon Tetrachloride	4.52	117	342512	10.00 ug/l	100
35) Methylcyclohexane	5.52	83	363418	10.00 ug/l	100
36) Benzene	4.72	78	782832	10.00 ug/l	100
37) 1,2-Dichloroethane	4.82	62	290073	10.00 ug/l	100
38) Trichloroethene	5.38	130	230628	10.00 ug/l	100
39) 1,2-Dichloropropane	5.67	63	229821	10.00 ug/l	100
40) Dibromomethane	5.81	93	118445	10.00 ug/l	100
41) 1,4-Dioxane	5.81	88	23800	200.00 ug/l	100
42) Bromodichloromethane	5.97	83	320633	10.00 ug/l	100
44) 4-Methyl-2-Pentanone	6.66	43	749163	50.00 ug/l	100
45) t-1,4-Dichloro-2-but	9.73	53	79600m	10.00 ug/l	
46) Toluene	6.81	92	532592	10.00 ug/l	100
47) t-1,3-Dichloropropen	7.18	75	274061	10.00 ug/l	100
48) cis-1,3-Dichloroprop	6.48	75	329623	10.00 ug/l	100
49) Ethyl Methacrylate	7.21	69	218213	10.00 ug/l	100
50) 1,1,2-Trichloroethan	7.39	97	156336	10.00 ug/l	100
51) 1,3-Dichloropropane	7.59	76	278736	10.00 ug/l	100
52) 2-Chloroethyl vinyl	6.32	63	497369	50.00 ug/l	100
53) 2-Hexanone	7.65	43	509610	50.00 ug/l	100
54) Dibromochloromethane	7.80	129	196407	10.00 ug/l	100
55) 1,2-Dibromoethane	7.92	107	150693	10.00 ug/l	100
58) Tetrachloroethene	7.43	164	207114	10.00 ug/l	100
59) Chlorobenzene	8.41	112	583524	10.00 ug/l	100
60) 1,1,1,2-Tetrachloroe	8.51	131	229703	10.00 ug/l	100
61) Ethyl Benzene	8.48	106	317703	10.00 ug/l	100
62) m&p-Xylenes	8.61	106	747309	20.00 ug/l	100
63) o-Xylene	8.99	106	384709	10.00 ug/l	100
64) Styrene	9.02	104	630938	10.00 ug/l	100
65) Bromoform	9.23	173	109993	10.00 ug/l	100
67) Isopropylbenzene	9.33	105	1006881	10.00 ug/l	100
68) 1,1,2,2-Tetrachloroe	9.68	83	192444	10.00 ug/l	100
69) 1,2,3-Trichloropropa	9.72	75	214216	10.00 ug/l #	100

Analyst Signature: BAD Analyst Name: _____ Date: 04/20/04

----------REASONS FOR MANUAL INTEGRATIONS----------

___Poor resolution of peaks exhibited on chromatogram. Compound #: _____
✓ Peak integrated by software incorrectly. Compound #: 45
___OTHER: _____ Compound #: _____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: BRIJ
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:19 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
70) Bromobenzene	9.64	156	254148	10.00 ug/l	100
71) n-propylbenzene	9.70	91	1205705	10.00 ug/l	100
72) 2-Chlorotoluene	9.81	91	786551	10.00 ug/l	100
73) 1,3,5-Trimethylbenze	9.86	105	870651	10.00 ug/l	100
74) 4-Chlorotoluene	9.90	91	929614	10.00 ug/l	100
75) tert-Butylbenzene	10.13	119	730003	10.00 ug/l	100
76) 1,2,4-Trimethylbenze	10.19	105	892240	10.00 ug/l	100
77) sec-Butylbenzene	10.32	105	1093773	10.00 ug/l	100
78) 4-Isopropyltoluene	10.44	119	895521	10.00 ug/l	100
79) 1,3-Dichlorobenzene	10.45	146	485815	10.00 ug/l	100
80) 1,4-Dichlorobenzene	10.53	146	496677	10.00 ug/l	100
81) n-Butylbenzene	10.77	91	900779	10.00 ug/l	100
82) 1,2-Dichlorobenzene	10.84	146	442987	10.00 ug/l	100
83) 1,2-Dibromo-3-Chloro	11.47	75	36111	10.00 ug/l	100
84) 1,2,4-Trichlorobenze	12.08	180	310897	10.00 ug/l	100
85) Hexachlorobutadiene	12.15	225	154073	10.00 ug/l	100
86) Naphthalene	12.27	128	485755	10.00 ug/l	100
87) 1,2,3-Trichlorobenze	12.48	180	266582	10.00 ug/l	100

Analyst Signature:_____ Analyst Name:_____ Date:_____

REASONS FOR MANUAL INTEGRATIONS

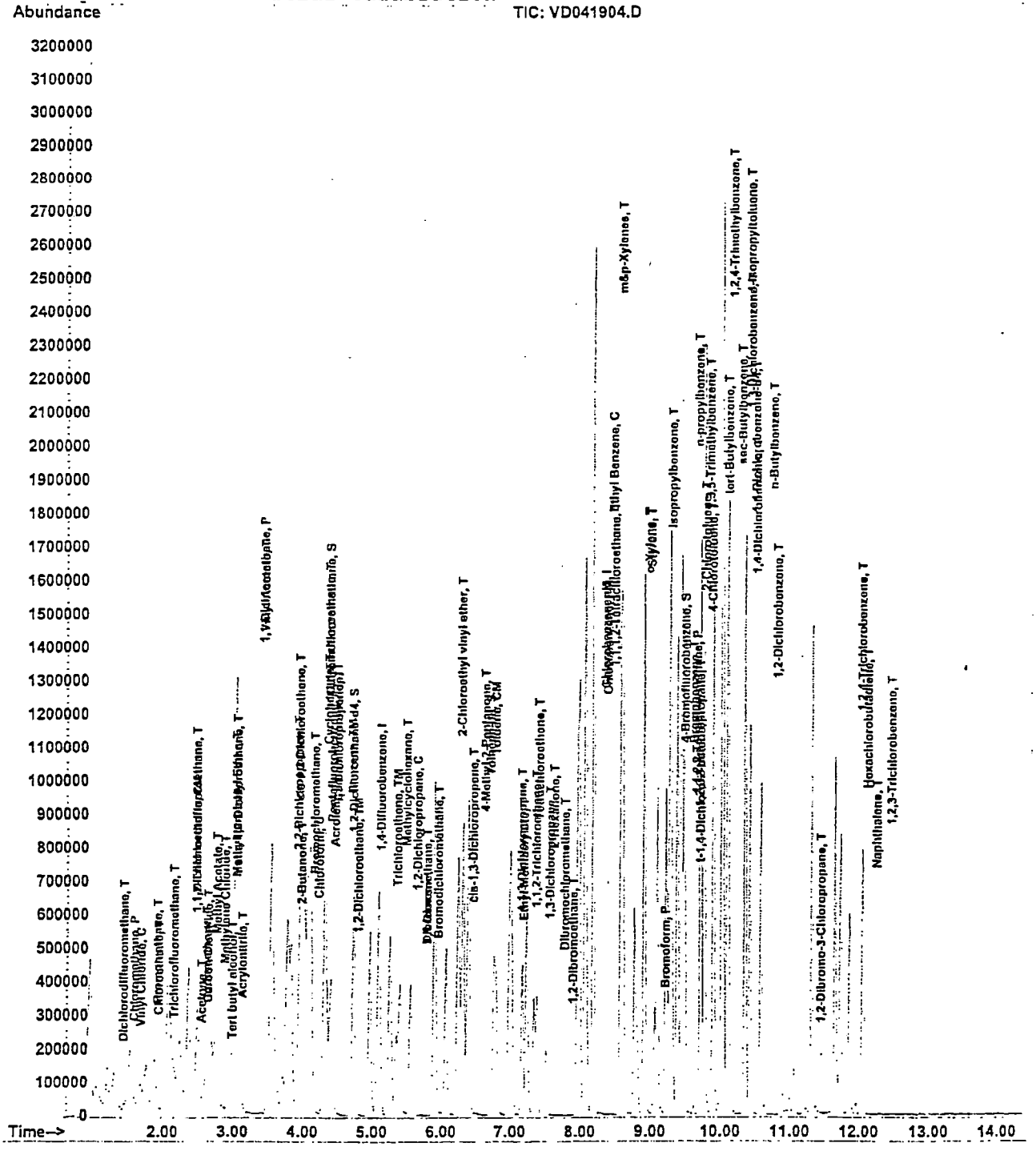
___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

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

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: BRIJ
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:19 2004 Quant Results File: SAD0419W.RES

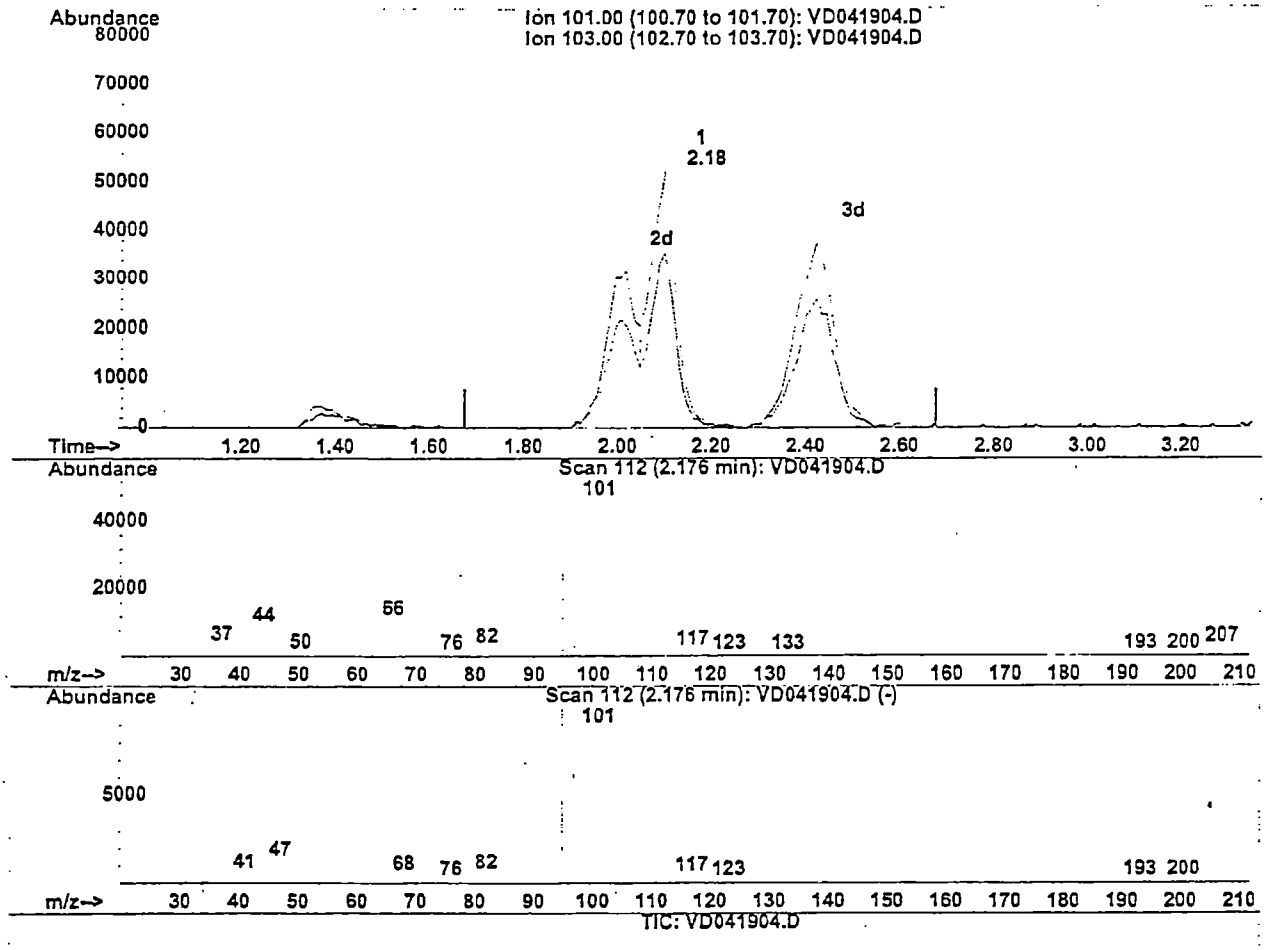
Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration



Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: BRIJ
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:18 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.18min 5.80ug/l

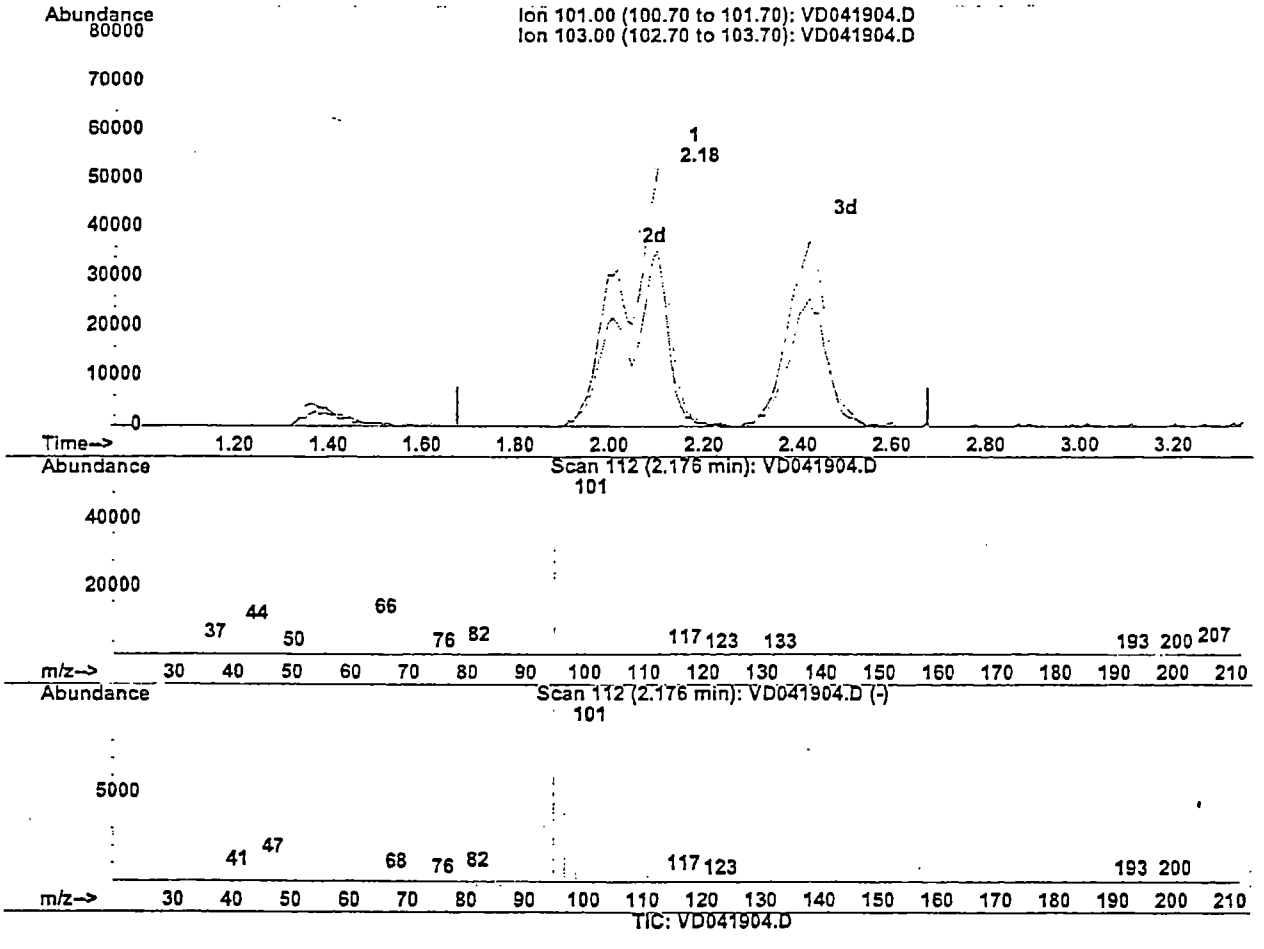
response 196288

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	66.25
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: BRIJ
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:18 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.18min 10.00ug/l m

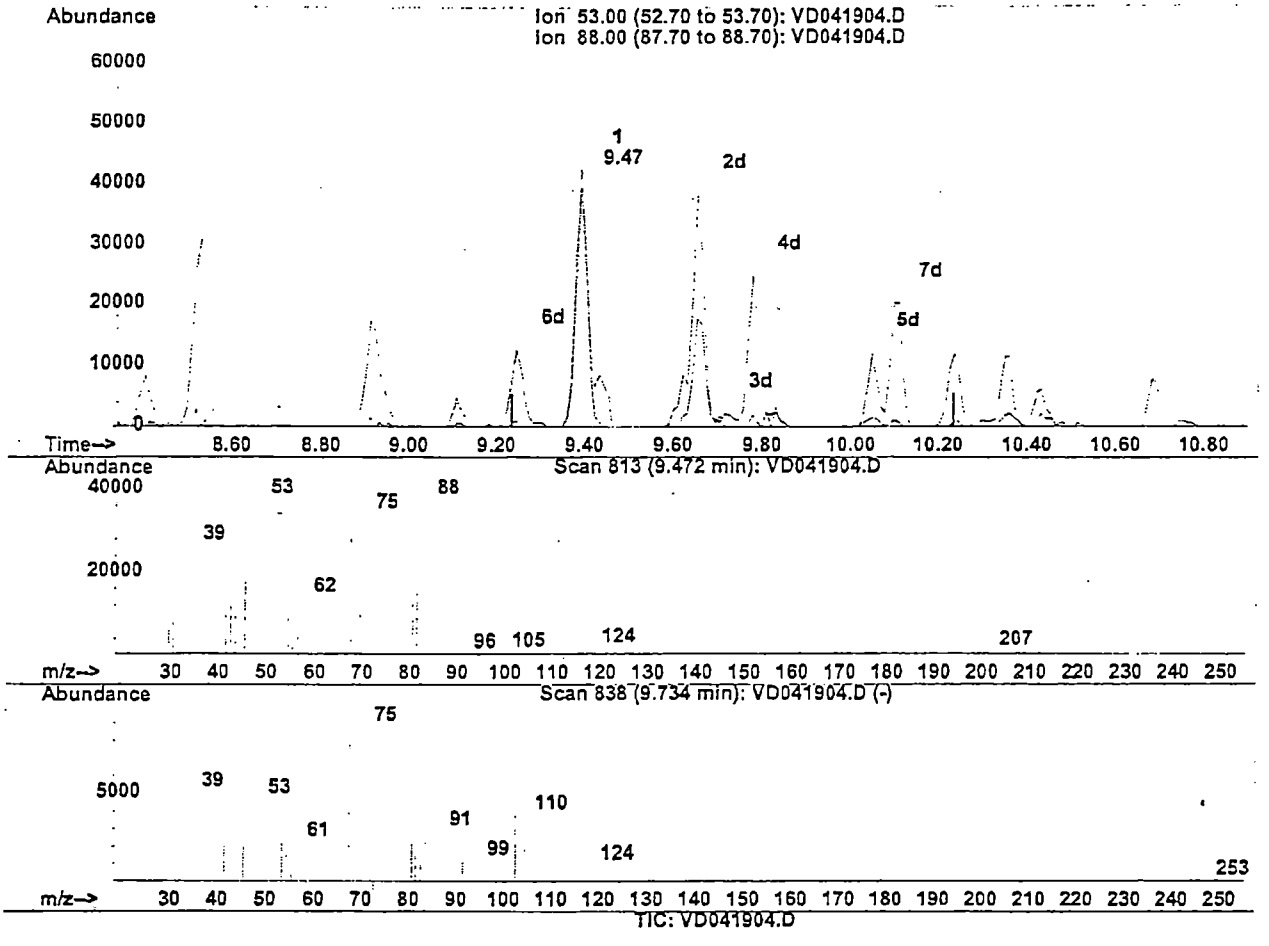
response 338383

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	67.78
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: ERIC
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:18 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(45) t-1,4-Dichloro-2-butene (T)

9.47min 9.54ug/l

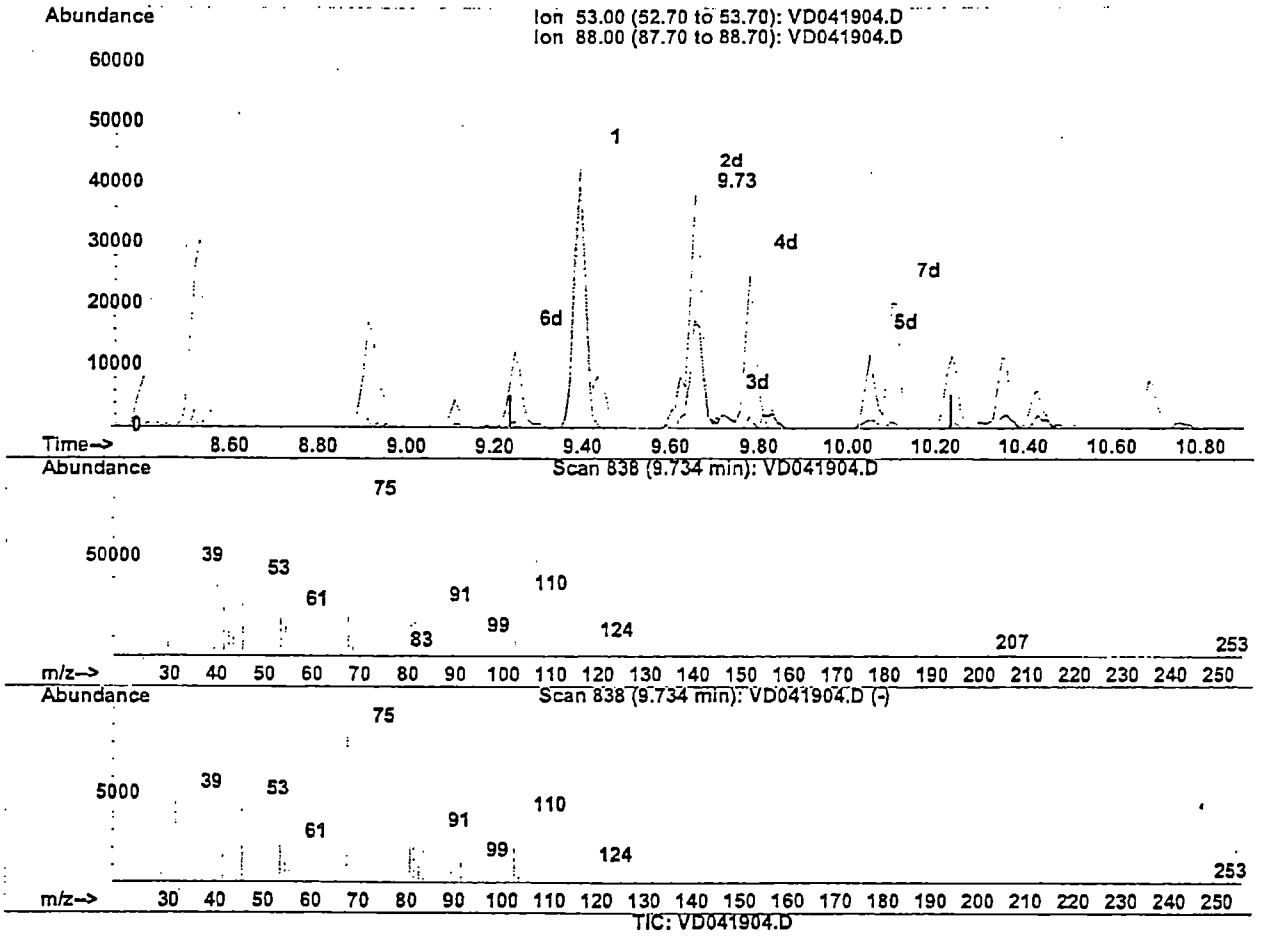
response 75911

Ion	Exp%	Act%
53.00	100	100
88.00	111.20	116.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041904.D Vial: 4
Acq On : 19 Apr 2004 4:39 pm Operator: BRIJ
Sample : 10 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:19 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(45) t-1,4-Dichloro-2-butene (T)

9.73min 10.00ug/l m

response 79600

Ion	Exp%	Act%
53.00	100	100
88.00	111.20	111.20
0.00	0.00	0.00
0.00	0.00	0.00

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041905.D Vial: 5
Acq On : 19 Apr 2004 5:20 pm Operator: BPIC
Sample : 20 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:27 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	4.43	168	400035	10.00 ug/l	0.00
31) 1,4-Difluorobenzene	5.15	114	630933	10.00 ug/l	0.00
57) Chlorobenzene-d5	8.38	117	570966	10.00 ug/l	0.00
66) 1,4-Dichlorobenzene-	10.51	152	306561	10.00 ug/l	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d	4.74	65	509609	17.82 ug/l	0.00
32) Dibromofluoromethane	4.41	113	474802	19.15 ug/l	0.00
43) Toluene-d8	6.73	98	1422772	19.17 ug/l	0.00
56) 4-Bromofluorobenzene	9.52	95	617005	19.29 ug/l	0.00
Target Compounds					Qvalue
2) Dichlorodiflucrometh	1.45	85	415040	15.87 ug/l	99
3) Chloromethane	1.61	50	428819	16.21 ug/l	97
4) Vinyl Chloride	1.70	62	410030	17.64 ug/l	97
5) Bromomethane	1.94	94	246002	16.70 ug/l	95
6) Chloroethane	1.95	64	266328	16.28 ug/l	90
7) Trichlorofluorometha	2.17	101	619702m	16.74 ug/l	
8) 1,1,2-Trichlorotrifl	2.50	101	385860	16.51 ug/l	99
10) Tert butyl alcohol	3.01	59	124005	83.29 ug/l	100
11) 1,1-Dichloroethene	2.50	96	297765	16.35 ug/l	93
12) Iodomethane	2.63	142	500712	16.53 ug/l	99
13) Acrolein	4.48	56	926968	85.27 ug/l	99
14) Acrylonitrile	3.15	53	403451	88.10 ug/l	92
15) Acetone	2.58	43	334711	80.40 ug/l	92
16) Carbon Disulfide	2.66	76	555329m	15.89 ug/l	
17) Methyl Acetate	2.79	43	260339	16.04 ug/l	97
18) Methyl tert-butyl Et	3.08	73	932393	16.73 ug/l	99
19) Methylene Chloride	2.90	84	363192	16.97 ug/l	96
20) trans-1,2-Dichloroet	3.08	96	351492	16.60 ug/l	96
21) Vinyl Acetate	3.46	43	3193338	81.75 ug/l	99
22) 1,1-Dichloroethane	3.45	63	776691	16.95 ug/l	98
23) 2-Butanone	4.00	43	863234	85.21 ug/l	99
24) 2,2-Dichloropropane	3.95	77	674243	17.24 ug/l	100
25) cis-1,2-Dichloroethe	3.98	96	450752	17.29 ug/l	99
26) Bromochloromethane	4.19	49	497235	18.68 ug/l	97

Analyst Signature: MD Analyst Name: _____ Date: 04/20/04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 7/16
___ Peak integrated by software incorrectly. Compound #: _____
___ OTHER: _____ Compound #: _____

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

VD041905.D SAD0419W.M Tue Apr 20 11:13:58 2004 MSVOAPRO3

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041905.D Vial: 5
Acq On : 19 Apr 2004 5:20 pm Operator: BRIJ
Sample : 20 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:27 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
27) Chloroform	4.25	83	825496	17.48 ug/l	95
28) Cyclohexane	4.38	56	725786	16.52 ug/l	95
29) 1,1,1-Trichloroethan	4.39	97	719207	17.72 ug/l #	93
33) 1,1-Dichloropropene	4.53	75	567854	18.64 ug/l	99
34) Carbon Tetrachloride	4.51	117	641768	18.22 ug/l	95
35) Methylcyclohexane	5.51	83	671468	17.96 ug/l	98
36) Benzene	4.72	78	1488606	18.49 ug/l	100
37) 1,2-Dichloroethane	4.83	62	538978	18.06 ug/l	99
38) Trichloroethene	5.38	130	439374	18.52 ug/l	98
39) 1,2-Dichloropropane	5.68	63	432013	18.28 ug/l	95
40) Dibromomethane	5.60	93	227368	18.66 ug/l	97
41) 1,4-Dioxane	5.80	88	40234	328.71 ug/l	99
42) Bromodichloromethane	5.97	83	591822	17.95 ug/l	98
44) 4-Methyl-2-Pentanone	6.67	43	1375355	89.24 ug/l	97
45) t-1,4-Dichloro-2-but	9.74	53	152036m	18.58 ug/l	
46) Toluene	6.81	92	1007054	18.38 ug/l	94
47) t-1,3-Dichloropropen	7.19	75	524237	18.60 ug/l	100
48) cis-1,3-Dichloroprop	6.48	75	643946	18.99 ug/l	100
49) Ethyl Methacrylate	7.22	69	425849	18.97 ug/l	94
50) 1,1,2-Trichloroethan	7.39	97	288818	17.96 ug/l	97
51) 1,3-Dichloropropane	7.59	76	535770	18.69 ug/l	100
52) 2-Chloroethyl vinyl	6.31	63	934783	91.36 ug/l	98
53) 2-Hexanone	7.65	43	982827	93.75 ug/l	99
54) Dibromochloromethane	7.80	129	365227	18.08 ug/l	96
55) 1,2-Dibromoethane	7.92	107	283702	18.30 ug/l	99
58) Tetrachloroethene	7.42	164	436840	19.80 ug/l	95
59) Chlorobenzene	8.41	112	1073900	17.28 ug/l	97
60) 1,1,1,2-Tetrachloroe	8.51	131	428515	17.52 ug/l	98
61) Ethyl Benzene	8.49	106	592323	17.51 ug/l	100
62) m&p-Xylenes	8.61	106	1382463	34.74 ug/l	100
63) o-Xylene	9.00	106	736155	17.97 ug/l	97
64) Styrene	9.03	104	1201190	17.88 ug/l	98
65) Bromoform	9.23	173	216300	18.46 ug/l #	96
67) Isopropylbenzene	9.33	105	1884889	17.60 ug/l	100
68) 1,1,2,2-Tetrachloroe	9.69	83	357903	17.48 ug/l	100
69) 1,2,3-Trichloropropa	9.73	75	402260	17.65 ug/l #	100

Analyst Signature:_____ Analyst Name:_____ Date:_____

----------REASONS FOR MANUAL INTEGRATIONS----------

___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
✓ Peak integrated by software incorrectly.Compound #: 45
___OTHER:_____Compound #:_____

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

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : F:\1\DATA\MSVOAD\VD041904\VD041905.D Vial: 5
Acq On : 19 Apr 2004 5:20 pm Operator: BRIJ
Sample : 20 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:27 2004 Quant Results File: SAD0419W.RES

Quant Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:18:01 2004
Response via : Initial Calibration
DataAcq Meth : VD_VOC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
70) Bromobenzene	9.64	156	463915	17.16 ug/l	99
71) n-propylbenzene	9.71	91	2276624	17.75 ug/l	99
72) 2-Chlorotoluene	9.80	91	1460251	17.45 ug/l	99
73) 1,3,5-Trimethylbenze	9.86	105	1636851	17.68 ug/l	98
74) 4-Chlorotoluene	9.90	91	1724947	17.45 ug/l	100
75) tert-Butylbenzene	10.13	119	1397625	18.00 ug/l	97
76) 1,2,4-Trimethylbenze	10.19	105	1681707	17.72 ug/l	100
77) sec-Butylbenzene	10.32	105	2044090	17.57 ug/l	98
78) 4-Isopropyltoluene	10.44	119	1644653	17.27 ug/l	99
79) 1,3-Dichlorobenzene	10.46	146	872771	16.89 ug/l	98
80) 1,4-Dichlorobenzene	10.53	146	922793	17.47 ug/l	100
81) n-Butylbenzene	10.77	91	1655458	17.28 ug/l	99
82) 1,2-Dichlorobenzene	10.84	146	796969	16.91 ug/l	98
83) 1,2-Dibromo-3-Chloro	11.47	75	69532	18.10 ug/l	89
84) 1,2,4-Trichlorobenze	12.07	180	580507	17.55 ug/l	97
85) Hexachlorobutadiene	12.15	225	281848	17.20 ug/l	99
86) Naphthalene	12.28	128	907181	17.56 ug/l	100
87) 1,2,3-Trichlorobenze	12.48	180	474288	16.73 ug/l	96

Analyst Signature:_____ Analyst Name:_____ Date:_____

REASONS FOR MANUAL INTEGRATIONS

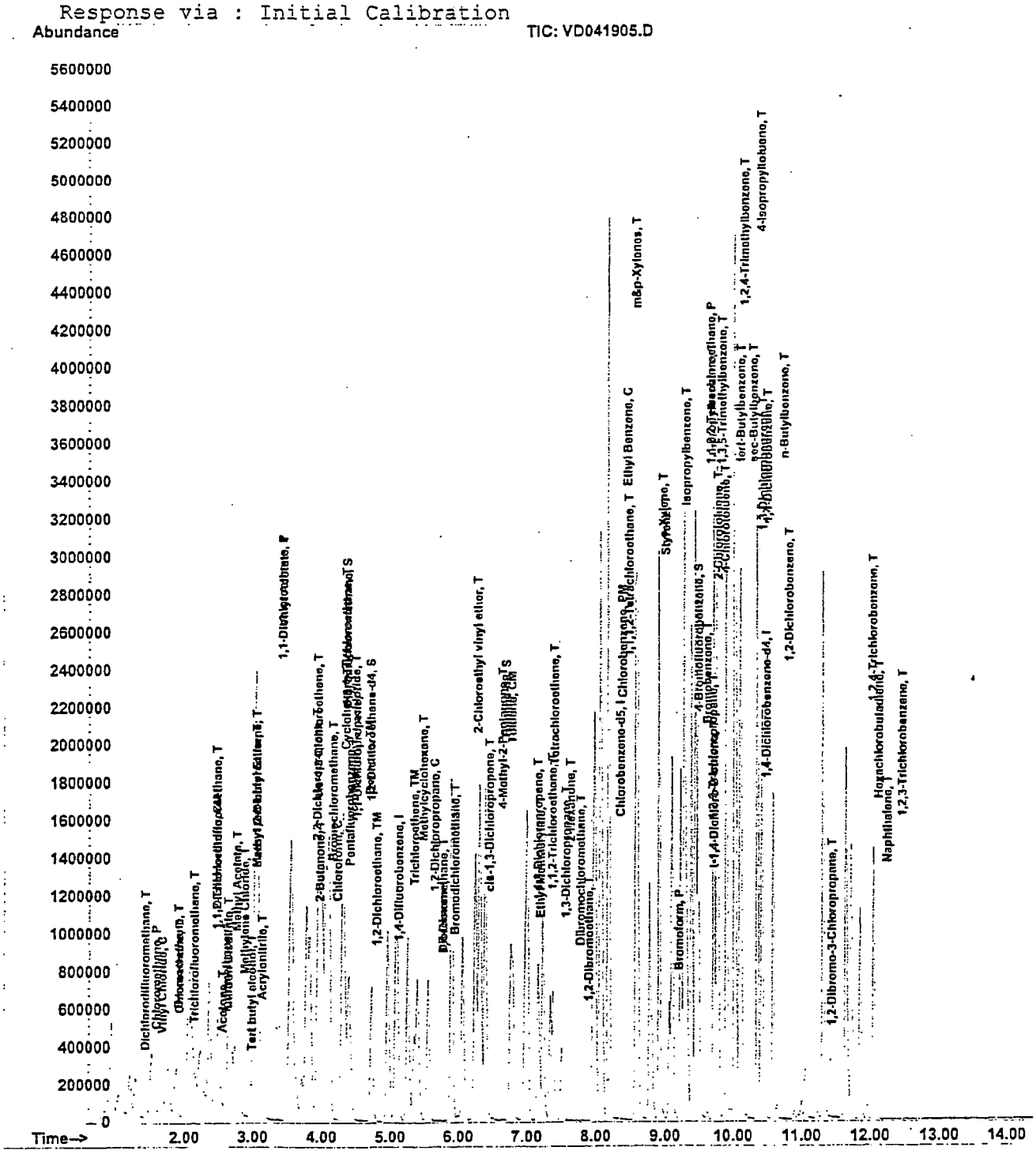
___Poor resolution of peaks exhibited on chromatogram.Compound #:_____
___Peak integrated by software incorrectly.Compound #:_____
___OTHER:_____Compound #:_____

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

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041905.D Vial: 5
Acq On : 19 Apr 2004 5:20 pm Operator: BRIJ
Sample : 20 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 20 10:27 2004 Quant Results File: SAD0419W.RES

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:51:48 2004
Response via : Initial Calibration

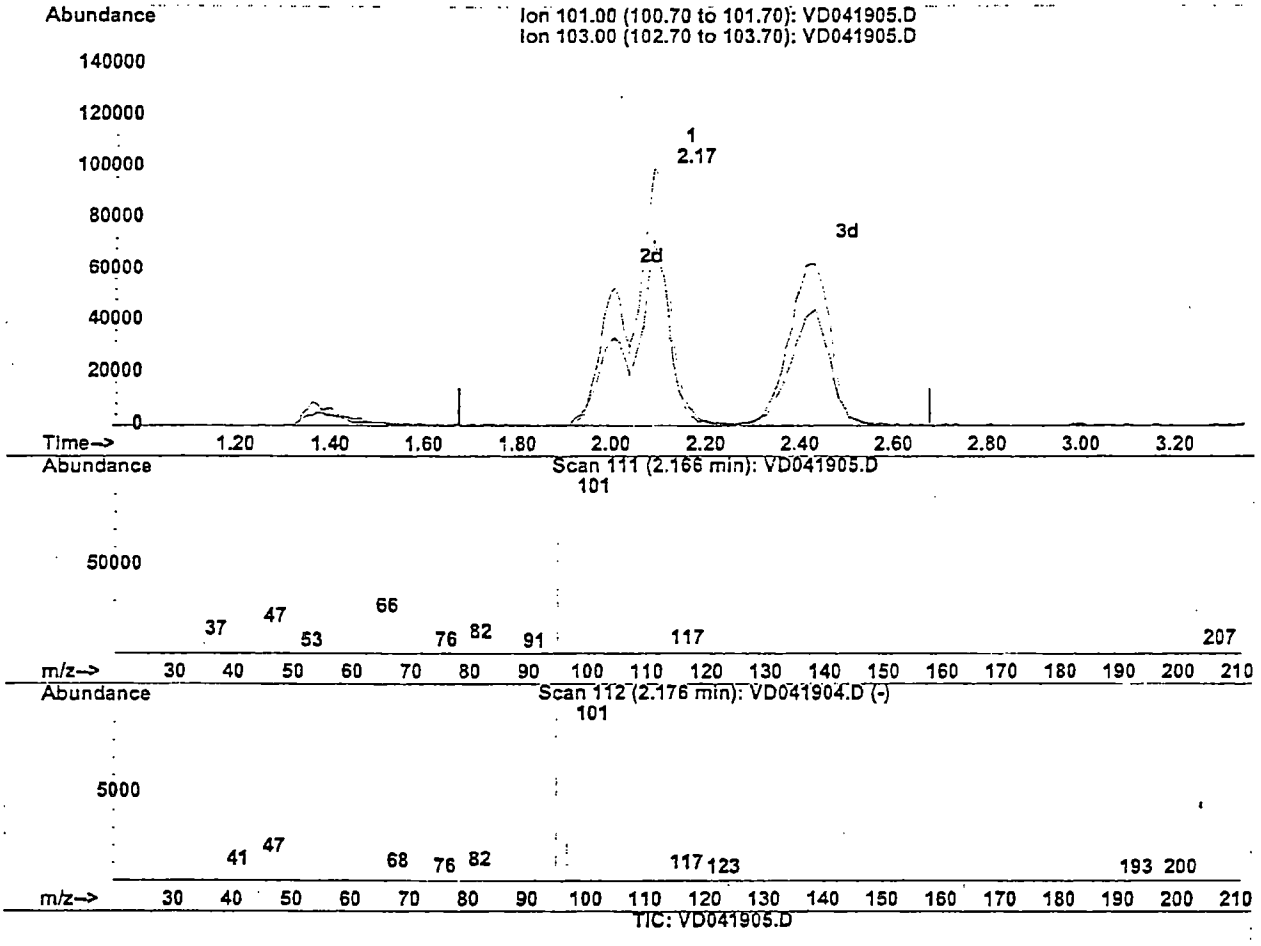


VD041905.D SAD0419W.M Tue Apr 20 11:14:06 2004 MSVOAPRO3

Quantitation Report

Data File : F:\1\DATA\MSVOAD\VD041904\VD041905.D Vial: 5
Acq On : 19 Apr 2004 5:20 pm Operator: BRIJ
Sample : 20 PPB ICC Inst : 5970 MSD
Misc : 25mL Multiplr: 1.00
Quant Time: Apr 20 10:24 2004 Quant Results File: temp.res

Method : F:\1\METHODS\VOAD\SAD0419W.M (RTE Integrator)
Title : SW846 8260
Last Update : Tue Apr 20 10:08:31 2004
Response via : Single Level Calibration



(7) Trichlorofluoromethane (T)

2.17min 11.08ug/l

response 409996

Ion	Exp%	Act%
101.00	100	100
103.00	67.80	71.34
0.00	0.00	0.00
0.00	0.00	0.00