KERAMIDA
SUSTAINABLE STRATEGIES
ENVIRONMENT • HEALTH • SAFETY
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401 North College Avenue
Indianapolis, Indiana 46202
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REMEDIATION SYSTEM EVALUATION REPORT
APRIL THROUGH JUNE 2008
FORMER GENERAL MOTORS CORPORATION
ALLISON GAS TURBINE DIVISION, PLANT 10
700 NORTH OLIN AVENUE
INDIANAPOLIS, INDIANA
IDEM VRP #6991004
KERAMIDA PROJECT NO. 2829E

Submitted to:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Ms. Erin Brittain, Project Manager
Voluntary Remediation Program
Office of Land Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

Submitted for:

GENUINE PARTS COMPANY
Mr. Bob Lewis
Environmental, Safety and DOT Compliance Manager
2999 Circle 75 Parkway
Atlanta, Georgia 30339

IDEM Office of Land Quality - Facility Stamp
VRP Project Name: Allison Plant 10 / Genuine Parts
VRP#: 6991004 File Code: 400
Description: Monitoring report
Confidential? ____ Yes X No
Deliberative? ____ Yes X No

Submitted by:

KERAMIDA INC.
401 North College Avenue
Indianapolis, Indiana 46202
(317)685-6600

Volume 2 of 2

August 13, 2008

R536256 Heritage Environmental Services, LLC Q2083007

QC Report

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
300	DICHLORODIFLUOROMETHANE	0	10	8.49		84.9	
372	TRICHLOROFLUOROMETHANE	0	10	10.9		109	
398	HEXACHLOROBUTADIENE	0	10	9.81		98.1	
432	ISOPROPYLBENZENE (CUMENE)	0	10	11.4		114	
628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	0	10	9.23		92.3	
493	NAPHTHALENE	0	10	9.82		98.2	
532	N-PROPYLBENZENE	0	10	11.4		114	
644	SEC-BUTYLBENZENE	0	10	10.2		102	
702	TERT-BUTYLBENZENE	0	10	10.8		108	
13	1,2,3-TRICHLOROBENZENE	0	10	10.2		102	
16	1,2,4-TRICHLOROBENZENE	0	10	9.34		93.4	
17	1,2,4-TRIMETHYLBENZENE	0	10	5.42	!	54.2	
25	1,3,5-TRIMETHYLBENZENE	0	10	7.23	!	72.3	
105	ACROLEIN	0	100	117		117	
99	ACETONE (2-PROPANONE)	0	50	47.2		94.4	
106	ACRYLONITRILE	0	100	125		125	
216	CARBON DISULFIDE	0	10	11.1		111	
767	VINYL ACETATE	0	10	8.48		84.8	
52	2-BUTANONE	0	50	47.9		95.8	
91	4-METHYL-2-PENTANONE	0	50	50.2		100.4	
60	2-HEXANONE	0	50	51.6		103.2	
54	2-CHLOROETHYLVINYLETHER	0	10	0	!	0	
748	TRANS-1,4-DICHLORO-2-BUTENE	0	20	17.4		87	
18	1,2-DIBROMOETHANE (EDB)	0	10	11.7		117	
19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	10	10.5		105	
422	IODOMETHANE	0	10	11.3		113	
859	METHYL-T-BUTYL ETHER (MTBE)	0	10	11.9		119	
30	1,4-DIOXANE	0	200	62.2		31.1	
709	TETRAHYDROFURAN	0	125	122		97.6	
73	3-CHLOROPROPENE (ALLYL CHLORIDE)	0	10	9.34		93.4	
1146	ETHYL CYANIDE (PROPIONITRILE)	0	100	88.2		88.2	
975	METHYLACRYLONITRILE	0	100	96		96	
1147	METHYL METHACRYLATE	0	10	7.19		71.9	
351	ETHYL METHACRYLATE	0	10	7.25		72.5	
803	XYLENES (O/M/P-XYLENE)	0	30	30.7		102.3	

Comment 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.

Qualifiers

! Outside Lab Generated Control Limits

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4588V.D
Acq On : 3 Jun 2008 10:18
Sample : A812350 MS
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 10:35:25 2008

Vial: 6
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	634254	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	199546	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	180995	10.64 UG/L	0.00
Spiked Amount 10.000			Recovery	= 106.40%	
35) 1,2-Dichloroethane-d4	5.02	65	339369	10.69 UG/L	0.00
Spiked Amount 10.000			Recovery	= 106.90%	
50) Toluene-d8	7.21	98	615598	10.22 UG/L	0.00
Spiked Amount 10.000			Recovery	= 102.20%	
69) 4-Bromofluorobenzene	10.50	174	132418	11.21 UG/L	0.00
Spiked Amount 10.000			Recovery	= 112.10%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.15	85	52500	8.49 UG/L	100
3) Chloromethane	1.29	50	85743	9.47 UG/L	100
4) VINYL CHLORIDE	1.39	62	75075	10.00 UG/L	94
5) Bromomethane	1.64	94	42615	10.84 UG/L	96
6) Chloroethane	1.74	64	46185	10.68 UG/L #	86
7) Trichlorofluoromethane	1.91	101	192219m	10.89 UG/L	
8) Acrolein	2.32	56	160352	116.63 UG/L	100
9) Acetone	2.47	43	494108	47.23 UG/L #	79
10) 1,1-DICHLOROETHENE	2.39	96	116949	11.91 UG/L	100
11) Trichlorotrifluoroethane	2.44	101	98807	11.10 UG/L	94
12) Acrylonitrile	3.13	53	637061	125.22 UG/L	100
13) Carbon Disulfide	2.58	76	217272	11.10 UG/L	97
14) Methylene Chloride	2.87	84	157669	10.23 UG/L #	71
15) Allyl Chloride	2.75	41	559935	9.34 UG/L	100
16) Vinyl Acetate	3.65	43	900336	8.48 UG/L #	96
17) MTBE	3.15	73	511206	11.93 UG/L	100
18) trans-1,2-Dichloroethene	3.14	96	178704	12.88 UG/L #	70
19) n-Hexane	3.42	57	201709	8.91 UG/L	100
20) 1,1-Dichloroethane	3.56	63	340556	10.44 UG/L	100
21) 2-Butanone	4.20	72	105026	47.87 UG/L #	52
22) Ethyl Acetate	4.27	43	328755	9.04 UG/L #	99
23) cis-1,2-Dichloroethene	4.16	96	335910	21.88 UG/L #	71
24) Ethyl Cyanide	4.26	54	323220	88.16 UG/L	100
25) CHLOROFORM	4.50	83	337413	10.86 UG/L	99
26) Methacrylonitrile	4.41	41	2561781	96.03 UG/L #	100
27) Tetrahydrofuran	4.45	42	1012549	121.60 UG/L #	87
28) Bromochloromethane	4.40	128	82073	11.45 UG/L #	42
29) 2,2-Dichloropropane	4.15	77	217128	10.57 UG/L #	85
30) Diethyl ether	2.19	59	142707	10.33 UG/L	100
31) 1,1,1-Trichloroethane	4.67	97	301686	10.77 UG/L	98
32) Iodomethane	2.53	142	171620	11.31 UG/L	100
34) 1,1-Dichloropropene	4.85	110	76262	10.52 UG/L	100
36) Carbon Tetrachloride	4.84	117	273178	11.20 UG/L	93
37) 1,2-Dichloroethane	5.10	62	388794	10.90 UG/L	100
38) Isobutanol	5.07	43	891474	670.66 UG/L #	98
39) Benzene	5.07	78	581103	10.63 UG/L	100
40) Trichloroethene	5.79	130	1609869	102.45 UG/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4588V.D
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Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 10:35:25 2008

Vial: 6
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	n-Butanol	5.80	56	395352	434.96	UG/L	#	94
42)	1,2-DICHLOROPROPANE	6.04	63	161127	10.24	UG/L		100
43)	1,4-Dioxane	6.23	88	21855	62.18	UG/L		100
44)	Methyl Methacrylate	6.23	41	213681	7.19	UG/L	#	47
45)	Bromodichloromethane	6.38	83	252177	11.21	UG/L		99
46)	Dibromomethane	6.18	93	113859	11.40	UG/L		89
47)	4-Methyl-2-Pentanone	7.12	43	1660823	50.18	UG/L		92
49)	cis-1,3-Dichloropropene	6.91	75	233701	10.02	UG/L		100
51)	TOLUENE	7.29	91	626938	10.35	UG/L		100
52)	trans-1,3-Dichloropropene	7.59	75	210726	9.74	UG/L		100
53)	1,1,2-Trichloroethane	7.81	97	142394	11.23	UG/L		100
54)	1,2-Dibromoethane	8.41	107	153451	11.72	UG/L		96
56)	2-Hexanone	8.16	43	1272855	51.61	UG/L	#	88
57)	1,3-Dichloropropane	8.01	76	247174	11.04	UG/L		100
58)	Ethyl Methacrylate	7.74	69	143842	7.25	UG/L	#	66
59)	Tetrachloroethene	7.95	166	174408	11.48	UG/L		97
60)	Dibromochloromethane	8.29	129	147337	11.52	UG/L		100
61)	Chlorobenzene	9.05	112	375297	11.61	UG/L		98
62)	1,1,1,2-Tetrachloroethane	9.17	131	136688	12.02	UG/L		100
63)	ETHYL BENZENE	9.22	106	207431	11.29	UG/L		74
64)	m,p-Xylene	9.37	106	442888	20.37	UG/L	#	46
65)	o-Xylene	9.88	106	190087	10.28	UG/L	#	63
66)	Styrene	9.90	104	116868	3.77	UG/L	#	42
67)	Bromoform	10.11	173	64254	10.32	UG/L		100
68)	1,1,2,2-Tetrachloroethane	10.70	83	123783	10.08	UG/L		99
70)	Isopropylbenzene	10.33	105	507105	11.43	UG/L		100
71)	trans-1,4-Dichloro-2-buten	10.76	53	130890	17.41	UG/L	#	1
72)	Bromobenzene	10.64	77	206719	11.63	UG/L		100
73)	1,2,3-Trichloropropane	10.72	110	48455	10.48	UG/L		100
74)	n-Propylbenzene	10.80	92	67558	11.36	UG/L		90
75)	1,3,5-Trimethylbenzene	11.00	105	271191	7.23	UG/L		100
76)	2-Chlorotoluene	10.87	126	106392	10.91	UG/L		100
77)	4-Chlorotoluene	10.99	126	103674	10.55	UG/L		100
78)	t-Butylbenzene	11.32	91	265164	10.84	UG/L	#	54
79)	1,2,4-Trimethylbenzene	11.37	105	211740	5.42	UG/L		100
80)	sec-Butylbenzene	11.54	105	469256	10.20	UG/L		100
81)	p-Isopropyltoluene	11.70	119	362790	9.23	UG/L		100
82)	1,3-Dichlorobenzene	11.63	146	196150	10.10	UG/L		100
83)	1,4-Dichlorobenzene	11.72	146	205728	10.30	UG/L		100
84)	n-Butylbenzene	12.08	92	199931	9.53	UG/L		99
85)	1,2-Dichlorobenzene	12.07	146	204779	10.55	UG/L		100
86)	1,2-Dibromo-3-chloropropan	12.79	157	35439	10.50	UG/L		100
87)	1,2,4-Trichlorobenzene	13.49	180	143654	9.34	UG/L		100
88)	Naphthalene	13.70	128	443660	9.82	UG/L		100
89)	Hexachlorobutadiene	13.64	225	84067	9.81	UG/L		100
90)	1,2,3-Trichlorobenzene	13.90	180	146558	10.21	UG/L		100

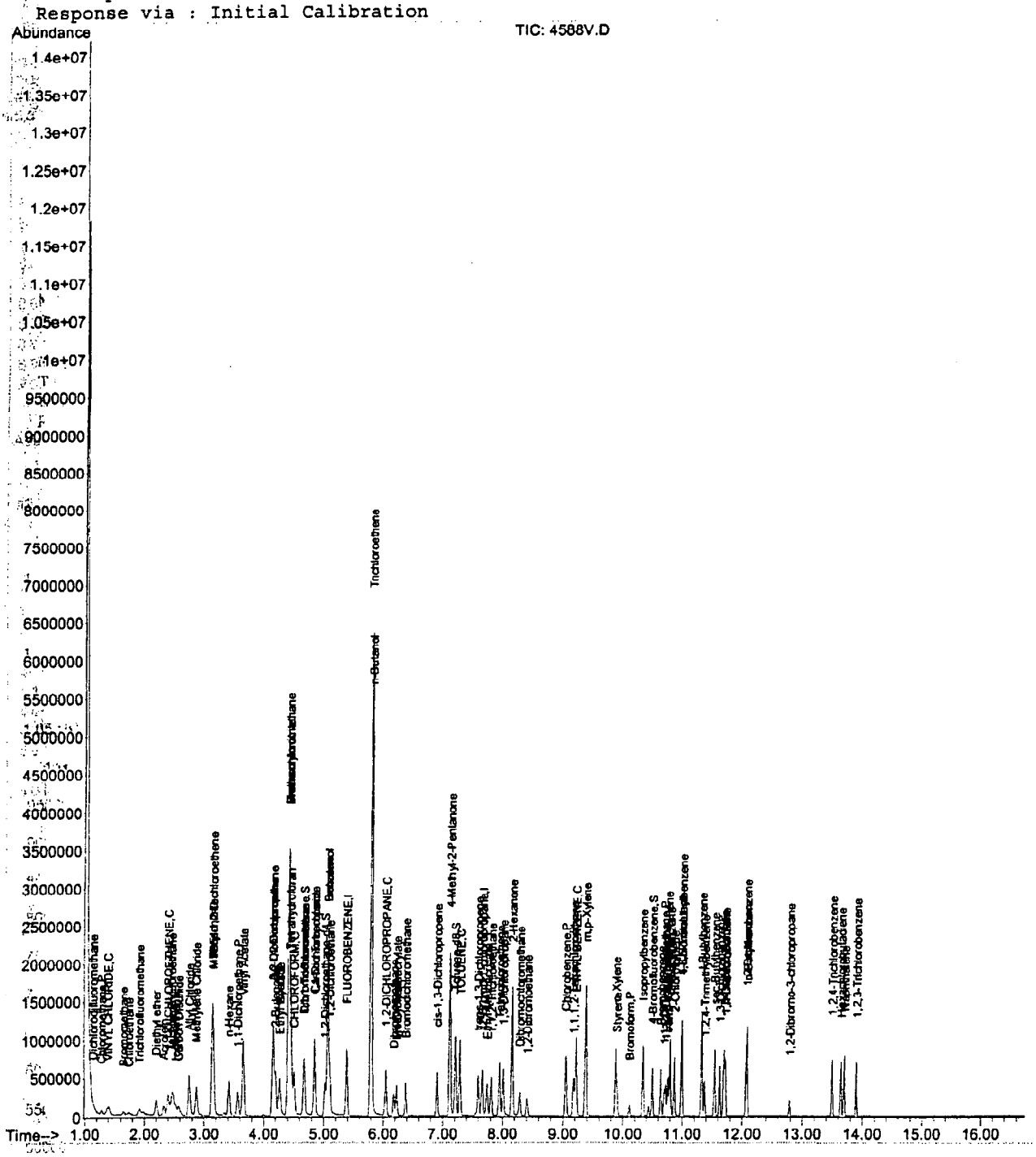
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4588V.D
Acq On : 3 Jun 2008 10:18
Sample : A812350 MS
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 10:58 2008

Vial: 6
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

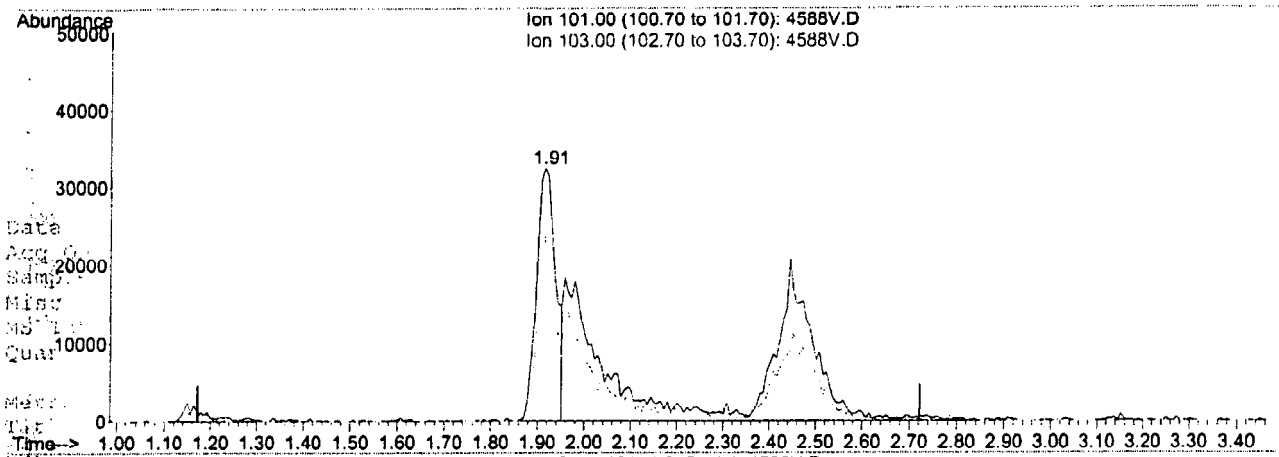
Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

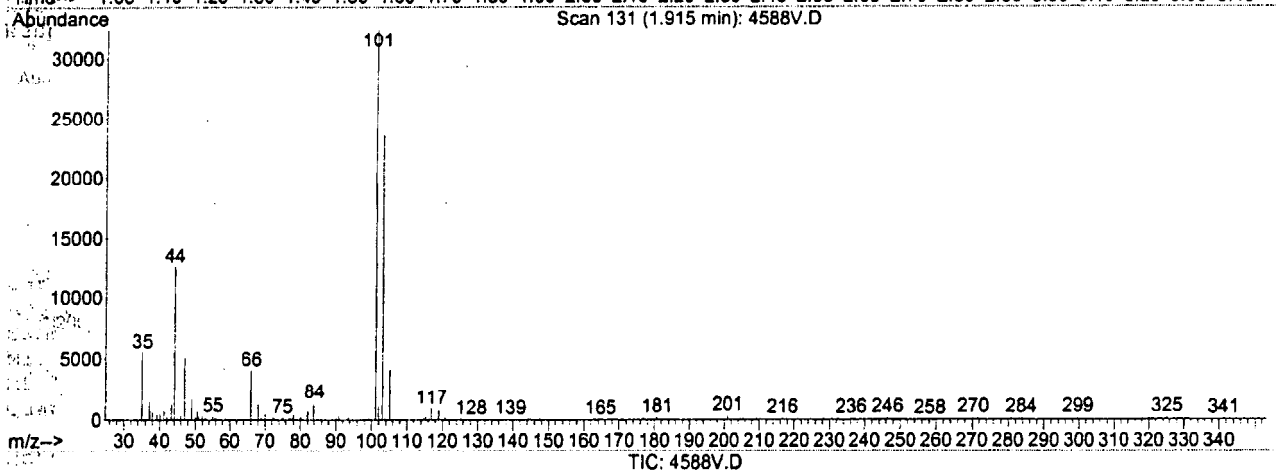


Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060308\4588V.D Vial: 6
Acq On : 3 Jun 2008 10:18 Operator: REGI
Sample : AB12350 MS Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 10:35 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 5.25UG/L

response 92722

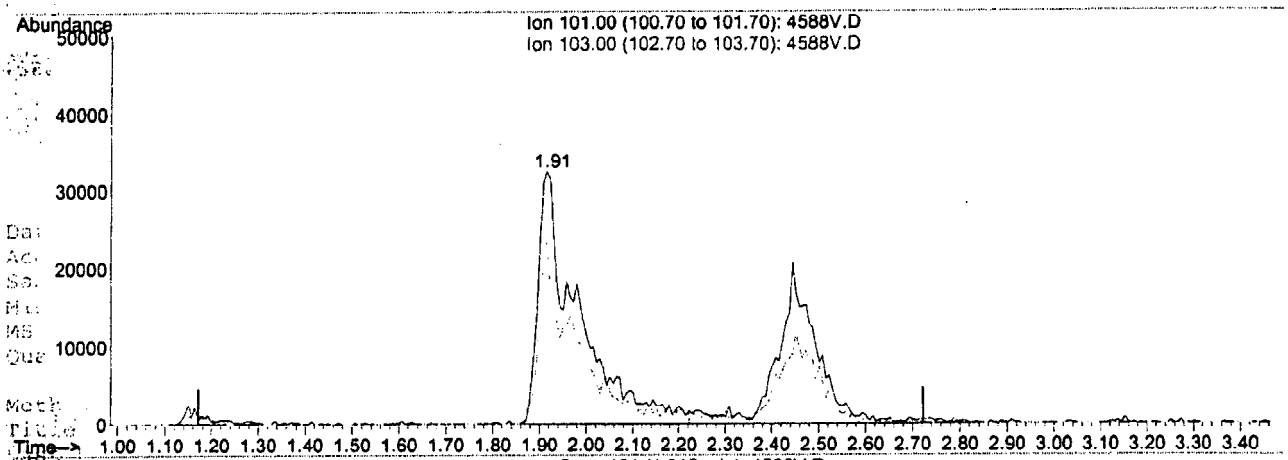
Ion	Exp%	Act%
101.00	100	100
103.00	49.20	61.56#
0.00	0.00	0.00
0.00	0.00	0.00

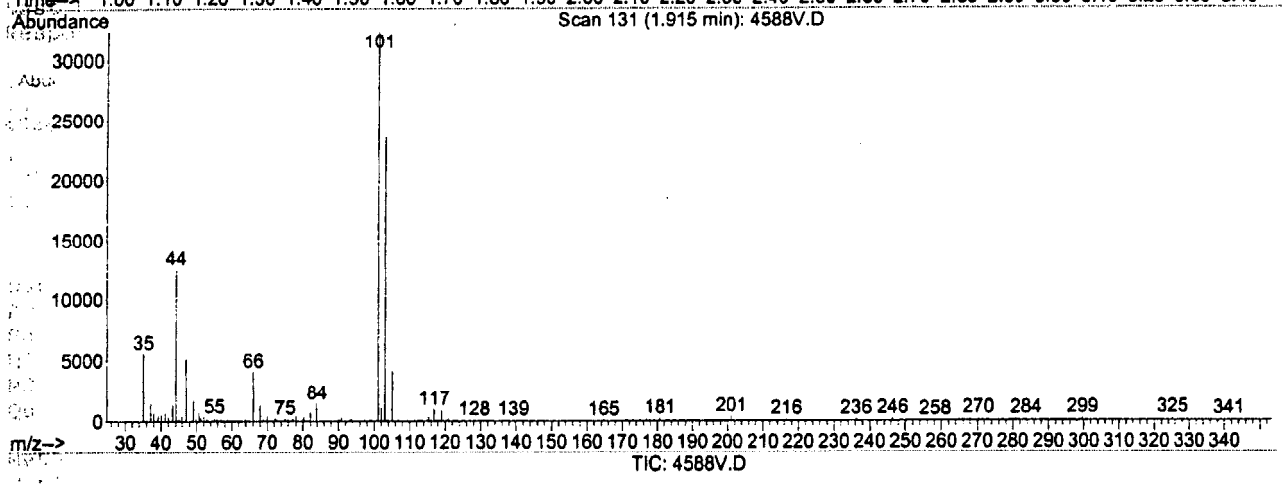
4588V.D 8260VOI.M Tue Jun 03 10:58:21 2008

Quantitation Report (QedIt)

Data File : C:\HPCHEM\DATA\V060308\4588V.D Vial: 6
Acq On : 3 Jun 2008 10:18 Operator: REGI
Sample : A812350 MS Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 10:58 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





TIC: 4588V.D

(7) Trichlorofluoromethane

1.91min 10.89UG/L m

response 192219

Ion	Exp%	Act%
101.00	100	100
103.00	49.20	29.69#
0.00	0.00	0.00
0.00	0.00	0.00

4588V.D 8260VOI.M Tue Jun 03 10:58:26 2008

R536256 Heritage Environmental Services, LLC Q2083010

QC Report

QCType DPS01 Duplicate SampleID A812350 DataFile 4589V.D
Date Entered 05Jun08 Duplicate QCSampleID Q2083007 Analyst 1062 R. SHAMP
Analysis Date/Time 03Jun08 10:44:00 Method 309 Matrix 1 Units ug/L

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
151	BENZENE	0	10	10.8		107.7	1.3
217	CARBON TETRACHLORIDE	0	10	11		109.6	2.2
29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10	9.4		94	9.1
21	1,2-DICHLOROETHANE	0	10	11		109.9	.8
8	1,1-DICHLOROETHENE	0	10	11.4		114.5	3.9
2	1,1,1-TRICHLOROETHANE	0	10	10.9		109.5	1.7
750	TRICHLOROETHENE	88.6	10	99.8		112.1	21.4
768	VINYL CHLORIDE	0	10	10.2		101.5	1.5
193	BROMOBENZENE	0	10	10.8		107.7	7.7
195	BROMODICHLOROMETHANE	0	10	11.1		111.1	.9
197	BROMOFORM	0	10	9.83		98.3	4.9
198	BROMOMETHANE	0	10	11.5		115.2	6.1
231	CHLOROBENZENE	0	10	11.1		110.9	4.6
295	DIBROMOCHLOROMETHANE	0	10	11.1		111.1	3.6
234	CHLOROETHANE	0	10	11.7		117	9.1
235	CHLOROFORM	0	10	11		110.4	1.6
236	CHLOROMETHANE	0	10	10.6		105.5	10.8
807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0	10	10.9		109.2	.1
808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0	10	9.85		98.5	6.9
296	DIBROMOMETHANE	0	10	10.7		107.1	6.2
26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	10	9.6		96	5.1
20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10	9.59		95.9	9.5
746	TRANS-1,2-DICHLOROETHENE	2	10	12.5		104.9	3.6
246	CIS-1,2-DICHLOROETHENE	10.6	10	21.4		108	4
302	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10	10.1		101.4	.9
7	1,1-DICHLOROETHANE	0	10	10.7		107.4	2.8
10	1,1-DICHLOROPROPENE	0	10	10.4		104.1	1.1
23	1,2-DICHLOROPROPANE	0	10	10.6		105.7	3.2
27	1,3-DICHLOROPROPANE	0	10	10.7		106.8	3.3
247	CIS-1,3-DICHLOROPROPENE	0	10	10.3		103.2	2.9
747	TRANS-1,3-DICHLOROPROPENE	0	10	9.58		95.8	1.7
33	2,2-DICHLOROPROPANE	0	10	9.92		99.2	6.3
349	ETHYL BENZENE	0	10	10.7		106.8	5.6
680	STYRENE	0	10	3.83		38.3	1.6
4	1,1,2-TRICHLOROETHANE	0	10	11		110.4	1.7
1	1,1,1,2-TETRACHLOROETHANE	0	10	11.7		117.4	2.4
3	1,1,2,2-TETRACHLOROETHANE	0	10	9.73		97.3	3.5
703	TETRACHLOROETHENE	0	10	10.2		102	11.8
14	1,2,3-TRICHLOROPROPANE	0	10	9.77		97.7	7
724	TOLUENE	0	10	10.7		107.2	3.5
492	M/P-XYLENE	0	20	19.3		96.6	5.3
549	O-XYLENE	0	10	9.98		99.8	3
194	BROMOCHLOROMETHANE	0	10	11.6		115.6	1
519	N-BUTYLBENZENE	0	10	8.77		87.7	8.3

JB 6-5-08

R536256 Heritage Environmental Services, LLC Q2083010

QC Report

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
300	DICHLORODIFLUOROMETHANE	0	10	9.95		99.5	15.8
372	TRICHLOROFLUOROMETHANE	0	10	10.9		109.1	.2
398	HEXACHLOROBUTADIENE	0	10	9.59		95.9	2.3
432	ISOPROPYLBENZENE (CUMENE)	0	10	11.2		112	2
628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	0	10	8.58		85.8	7.3
493	NAPHTHALENE	0	10	8.87		88.7	10.2
532	N-PROPYLBENZENE	0	10	10.7		106.9	6.1
644	SEC-BUTYLBENZENE	0	10	9.74		97.4	4.6
702	TERT-BUTYLBENZENE	0	10	9.96		99.6	8.5
13	1,2,3-TRICHLOROBENZENE	0	10	9.59		95.9	6.3
16	1,2,4-TRICHLOROBENZENE	0	10	9.26		92.6	.9
17	1,2,4-TRIMETHYLBENZENE	0	10	5.14	!	51.4	5.3
25	1,3,5-TRIMETHYLBENZENE	0	10	6.96	!	69.6	3.8
105	ACROLEIN	0	100	113		112.7	3.4
99	ACETONE (2-PROPANONE)	0	50	47.5		95	.5
106	ACRYLONITRILE	0	100	119		118.7	5.3
216	CARBON DISULFIDE	0	10	11		110.2	.7
767	VINYL ACETATE	0	10	8.76		87.6	3.2
52	2-BUTANONE	0	50	47.2		94.4	1.4
91	4-METHYL-2-PENTANONE	0	50	50.3		100.5	.1
60	2-HEXANONE	0	50	48.6		97.2	6
54	2-CHLOROETHYLVINYLETHER	0	10	0	!	0	
748	TRANS-1,4-DICHLORO-2-BUTENE	0	20	15.5		77.3	11.9
18	1,2-DIBROMOETHANE (EDB)	0	10	11.8		118.2	.8
19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	10	9.14		91.4	13.8
422	IODOMETHANE	0	10	11		109.9	2.9
859	METHYL-T-BUTYL ETHER (MTBE)	0	10	11.8		117.8	1.3
30	1,4-DIOXANE	0	200	63.8		31.9	2.5
709	TETRAHYDROFURAN	0	125	120		96	1.3
73	3-CHLOROPROPENE (ALLYL CHLORIDE)	0	10	9.1		91	2.6
1146	ETHYL CYANIDE (PROPIONITRILE)	0	100	88.9		88.9	.8
975	METHYLACRYLONITRILE	0	100	94.9		94.9	1.2
1147	METHYL METHACRYLATE	0	10	7.23		72.3	.6
351	ETHYL METHACRYLATE	0	10	7.22		72.2	.4
803	XYLENES (O/M/P-XYLENE)	0	30	29.3		97.7	4.6

Comment 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.

Qualifiers

! Outside Lab Generated Control Limits

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4589V.D Vial: 7
Acq On : 3 Jun 2008 10:44 Operator: REGI
Sample : A812350 MSD Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 03 11:01:17 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	669096	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	224427	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	194231	10.82	UG/L	0.00
Spiked Amount 10.000			Recovery	=	108.20%	
35) 1,2-Dichloroethane-d4	5.02	65	357453	10.67	UG/L	0.00
Spiked Amount 10.000			Recovery	=	106.70%	
50) Toluene-d8	7.21	98	661256	10.41	UG/L	0.00
Spiked Amount 10.000			Recovery	=	104.10%	
69) 4-Bromofluorobenzene	10.49	174	136049	10.24	UG/L	0.00
Spiked Amount 10.000			Recovery	=	102.40%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.16	85	64906	9.95	UG/L	100
3) Chloromethane	1.29	50	100775	10.55	UG/L	100
4) VINYL CHLORIDE	1.39	62	80398	10.15	UG/L	95
5) Bromomethane	1.65	94	47741	11.52	UG/L	95
6) Chloroethane	1.75	64	53349	11.70	UG/L	99
7) Trichlorofluoromethane	1.91	101	203131m	10.91	UG/L	
8) Acrolein	2.31	56	163497	112.73	UG/L	100
9) Acetone	2.47	43	524317	47.51	UG/L #	81
10) 1,1-DICHLOROETHENE	2.39	96	118667	11.45	UG/L	100
11) Trichlorotrifluoroethane	2.45	101	99902	10.64	UG/L	90
12) Acrylonitrile	3.13	53	637040	118.70	UG/L	100
13) Carbon Disulfide	2.57	76	227548	11.02	UG/L	97
14) Methylene Chloride	2.87	84	165020	10.14	UG/L #	71
15) Allyl Chloride	2.75	41	575755	9.10	UG/L	100
16) Vinyl Acetate	3.64	43	980996	8.76	UG/L #	96
17) MTBE	3.15	73	532282	11.78	UG/L	100
18) trans-1,2-Dichloroethene	3.13	96	182842	12.49	UG/L #	67
19) n-Hexane	3.41	57	213943	8.96	UG/L	100
20) 1,1-Dichloroethane	3.56	63	369373	10.74	UG/L	100
21) 2-Butanone	4.20	72	109257	47.21	UG/L #	54
22) Ethyl Acetate	4.27	43	339491	8.85	UG/L #	98
23) cis-1,2-Dichloroethene	4.16	96	347336	21.44	UG/L #	70
24) Ethyl Cyanide	4.26	54	343909	88.92	UG/L	100
25) CHLOROFORM	4.50	83	361766	11.04	UG/L	100
26) Methacrylonitrile	4.41	41	2670960	94.91	UG/L #	100
27) Tetrahydrofuran	4.45	42	1054173	120.00	UG/L #	87
28) Bromochloromethane	4.40	128	87448	11.56	UG/L #	46
29) 2,2-Dichloropropane	4.15	77	214981	9.92	UG/L #	89
30) Diethyl ether	2.19	59	152190	10.44	UG/L	100
31) 1,1,1-Trichloroethane	4.67	97	323432	10.95	UG/L	95
32) Iodomethane	2.53	142	176029	10.99	UG/L	100
34) 1,1-Dichloropropene	4.85	110	79592	10.41	UG/L	100
36) Carbon Tetrachloride	4.84	117	281814	10.96	UG/L	94
37) 1,2-Dichloroethane	5.10	62	413810	10.99	UG/L	100
38) Isobutanol	5.07	43	952753	679.44	UG/L #	95
39) Benzene	5.07	78	621155	10.77	UG/L	100
40) Trichloroethene	5.79	130	1653806	99.77	UG/L	95

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4589V.D Vial: 7
Acq On : 3 Jun 2008 10:44 Operator: REGI
Sample : A812350 MSD Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 03 11:01:17 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

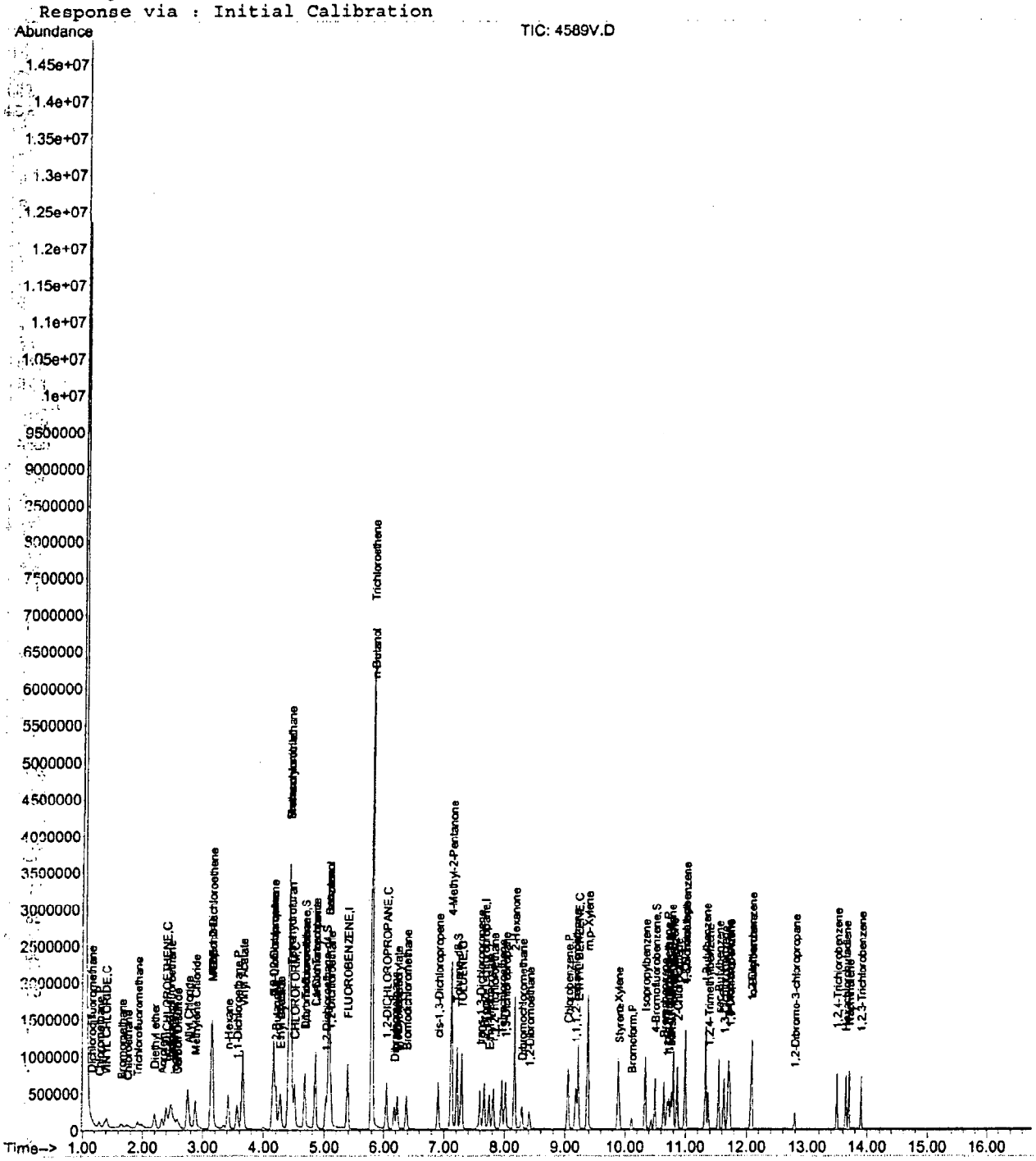
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	n-Butanol	5.80	56	420964	439.03 UG/L		98
42)	1,2-DICHLOROPROPANE	6.05	63	175449	10.57 UG/L		100
43)	1,4-Dioxane	6.22	88	23638	63.75 UG/L		100
44)	Methyl Methacrylate	6.23	41	226822	7.23 UG/L	#	50
45)	Bromodichloromethane	6.38	83	263470	11.11 UG/L		98
46)	Dibromomethane	6.18	93	112819	10.71 UG/L		94
47)	4-Methyl-2-Pentanone	7.12	43	1755267	50.27 UG/L		92
49)	cis-1,3-Dichloropropene	6.91	75	253830	10.32 UG/L		100
51)	TOLUENE	7.29	91	685160	10.72 UG/L		100
52)	trans-1,3-Dichloropropene	7.59	75	218488	9.58 UG/L		100
53)	1,1,2-Trichloroethane	7.81	97	147685	11.04 UG/L		100
54)	1,2-Dibromoethane	8.41	107	163272	11.82 UG/L		99
56)	2-Hexanone	8.16	43	1348836	48.62 UG/L	#	88
57)	1,3-Dichloropropane	8.01	76	268967	10.68 UG/L		100
58)	Ethyl Methacrylate	7.74	69	161139	7.22 UG/L	#	71
59)	Tetrachloroethene	7.95	166	174261	10.20 UG/L		97
60)	Dibromochloromethane	8.29	129	159733	11.11 UG/L		100
61)	Chlorobenzene	9.05	112	402900	11.09 UG/L		100
62)	1,1,1,2-Tetrachloroethane	9.17	131	150167	11.74 UG/L		100
63)	ETHYL BENZENE	9.21	106	220659	10.68 UG/L	#	69
64)	m,p-Xylene	9.37	106	472830	19.33 UG/L	#	46
65)	o-Xylene	9.88	106	207601	9.98 UG/L	#	66
66)	Styrene	9.90	104	133826	3.83 UG/L	#	51
67)	Bromoform	10.11	173	68853	9.83 UG/L		100
68)	1,1,2,2-Tetrachloroethane	10.70	83	134371	9.73 UG/L		100
70)	Isopropylbenzene	10.33	105	558843	11.20 UG/L		100
71)	trans-1,4-Dichloro-2-buten	10.76	53	130706	15.46 UG/L	#	1
72)	Bromobenzene	10.64	77	215449	10.77 UG/L		100
73)	1,2,3-Trichloropropane	10.72	110	50812	9.77 UG/L		100
74)	n-Propylbenzene	10.80	92	71494	10.69 UG/L		87
75)	1,3,5-Trimethylbenzene	11.00	105	293601	6.96 UG/L		100
76)	2-Chlorotoluene	10.87	126	119744	10.92 UG/L		100
77)	4-Chlorotoluene	10.99	126	108917	9.85 UG/L		100
78)	t-Butylbenzene	11.32	91	273768	9.96 UG/L	#	55
79)	1,2,4-Trimethylbenzene	11.37	105	225932	5.14 UG/L		100
80)	sec-Butylbenzene	11.54	105	503996	9.74 UG/L		100
81)	p-Isopropyltoluene	11.70	119	379538	8.58 UG/L		100
82)	1,3-Dichlorobenzene	11.63	146	209567	9.60 UG/L		100
83)	1,4-Dichlorobenzene	11.72	146	211156	9.40 UG/L		100
84)	n-Butylbenzene	12.08	92	206985	8.77 UG/L		96
85)	1,2-Dichlorobenzene	12.07	146	209314	9.59 UG/L		100
86)	1,2-Dibromo-3-chloropropan	12.79	157	34702	9.14 UG/L		100
87)	1,2,4-Trichlorobenzene	13.49	180	160198	9.26 UG/L		100
88)	Naphthalene	13.70	128	450734	8.87 UG/L		100
89)	Hexachlorobutadiene	13.64	225	92495	9.59 UG/L		100
90)	1,2,3-Trichlorobenzene	13.90	180	154860	9.59 UG/L		100

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4589V.D Vial: 7
Acq On : 3 Jun 2008 10:44 Operator: REGI
Sample : A812350 MSD Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 11:31 2008 Quant Results File: 8260VOI.RES

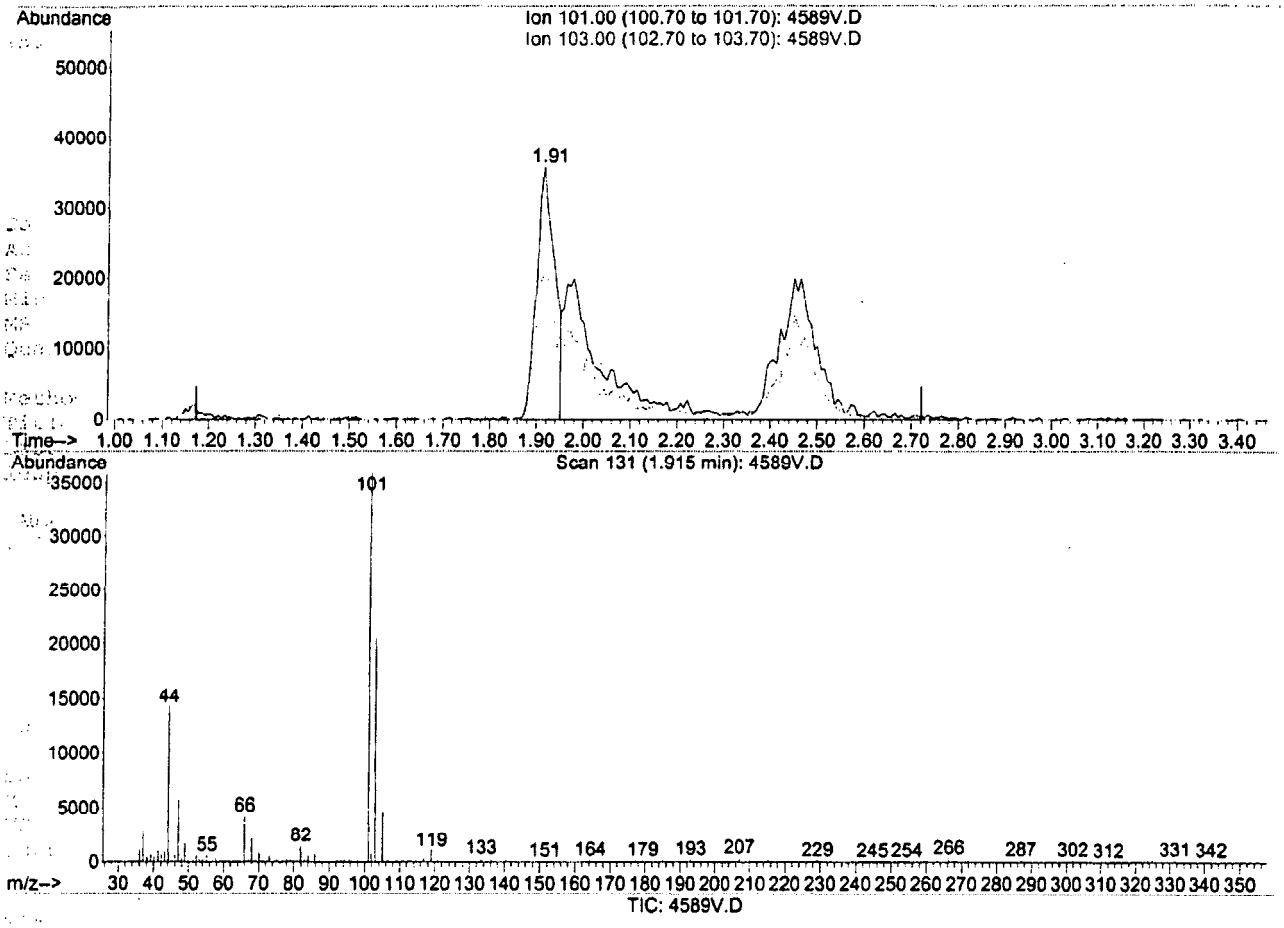
Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060308\4589V.D Vial: 7
Acq On : 3 Jun 2008 10:44 Operator: REGI
Sample : A812350 MSD Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 11:01 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration



(7) Trichlorofluoromethane

1.91min 5.12UG/L

response 95339

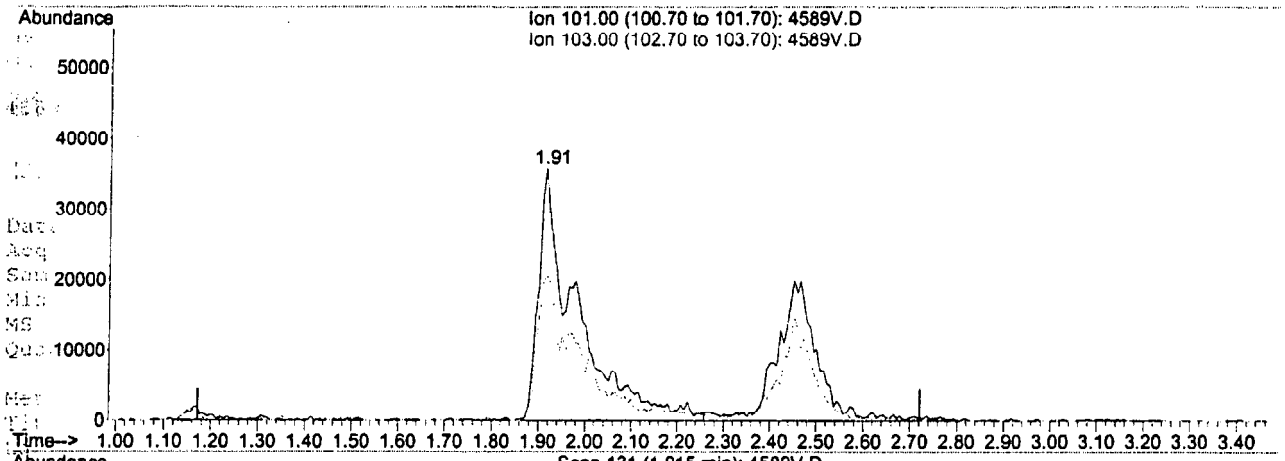
Ion	Exp%	Act%
101.00	100	100
103.00	49.20	59.19#
0.00	0.00	0.00
0.00	0.00	0.00

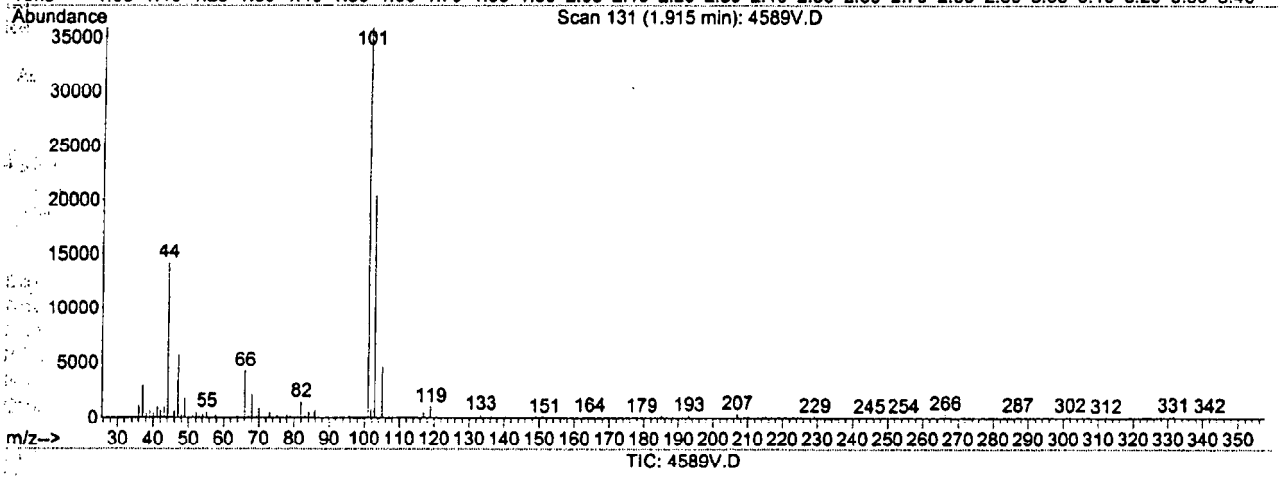
4589V.D 8260VOI.M Tue Jun 03 11:31:33 2008

Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060308\4589V.D Vial: 7
Acq On : 3 Jun 2008 10:44 Operator: REGI
Sample : A812350 MSD Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 11:31 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 10.91UG/L m

response 203131

Ion	Exp%	Act%
101.00	100	100
103.00	49.20	27.78#
0.00	0.00	0.00
0.00	0.00	0.00

4589V.D 8260VOI.M Tue Jun 03 11:31:39 2008

R536256

Heritage Environmental Services, LLC

A812344

GC/MS VOA

Method SW846-8260B
Sample Description MW-165D
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4590V.D Date/Time 03Jun08 11:10:00
Dilution Factor 10

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	100	UG/L	
107-02-8	105	ACROLEIN		BDL	500	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	100	UG/L	
71-43-2	151	BENZENE		BDL	10	UG/L	
108-86-1	193	BROMOBENZENE		BDL	10	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	10	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	10	UG/L	
75-25-2	197	BROMOFORM		BDL	10	UG/L	
74-83-9	198	BROMOMETHANE		BDL	10	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	10	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	10	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	10	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	10	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	10	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	10	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	10	UG/L	
75-00-3	234	CHLOROETHANE		BDL	10	UG/L	
67-66-3	235	CHLOROFORM		BDL	10	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	10	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	10	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	10	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	10	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	10	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	10	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	10	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	10	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	10	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	10	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	10	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	20	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	10	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	10	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	10	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE	470		10	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	10	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	10	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	10	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	10	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	10	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	10	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	10	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	10	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	100	UG/L	
591-78-6	60	2-HEXANONE		BDL	100	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	10	UG/L	

RS VP 6-5-08

6-5-08 CSW

R536256 Heritage Environmental Services, LLC A812344

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	10	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	10	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	10	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	10	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	100	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	10	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	100	UG/L	
91-20-3	493	NAPHTHALENE		BDL	10	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	10	UG/L	
100-42-5	680	STYRENE		BDL	10	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	10	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	10	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	10	UG/L	
108-88-3	724	TOLUENE		BDL	10	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	10	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	10	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	10	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	10	UG/L	
79-01-6	750	TRICHLOROETHENE		BDL	10	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	10	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	10	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	10	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	10	UG/L	
108-05-4	767	VINYL ACETATE		BDL	10	UG/L	
75-01-4	768	VINYL CHLORIDE	530		10	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	11	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	————————					
17060-07-0	301	DICHLOROETHANE-D4	104			% RECOVERY	
2037-26-5	726	TOLUENE-D8	98			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	96			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	107			% RECOVERY	

Comment 1:10 Dilution Prep Method SW846-5030B Purge and Trap m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Analyzed at dilution based on historical data. could not reanalyze at lower dilution because of high concentrations of target compounds. KS 6-5-08

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4590V.D
Acq On : 3 Jun 2008 11:10
Sample : A812344 1:10
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 11:27:16 2008

Vial: 8
Operator: REGI
Inst : Instrumen
Multiplr: 1.00

Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	650143	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	222863	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	186027	10.67 UG/L	0.00
Spiked Amount 10.000			Recovery	= 106.70%	
35) 1,2-Dichloroethane-d4	5.02	65	339363	10.43 UG/L	0.00
Spiked Amount 10.000			Recovery	= 104.30%	
50) Toluene-d8	7.21	98	607031	9.83 UG/L	0.00
Spiked Amount 10.000			Recovery	= 98.30%	
69) 4-Bromofluorobenzene	10.50	174	126014	9.56 UG/L	0.00
Spiked Amount 10.000			Recovery	= 95.60%	

Target Compounds					Qvalue
4) VINYL CHLORIDE 530	1.39	62	409452	53.22 UG/L	98
9) Acetone	2.48	43	41615	3.88 UG/L #	78
14) Methylene Chloride	2.87	84	42868	1.26 UG/L #	66
21) 2-Butanone	4.15	72	10453	4.65 UG/L #	1
23) cis-1,2-Dichloroethene 470	4.15	96	733019	46.57 UG/L	78
39) Benzene	5.07	78	8549	0.15 UG/L	100
47) 4-Methyl 2 Pentanone	7.21	43	6370	0.19 UG/L #	1
52) trans-1,3-Dichloropropene	7.66	75	6019	0.27 UG/L	100

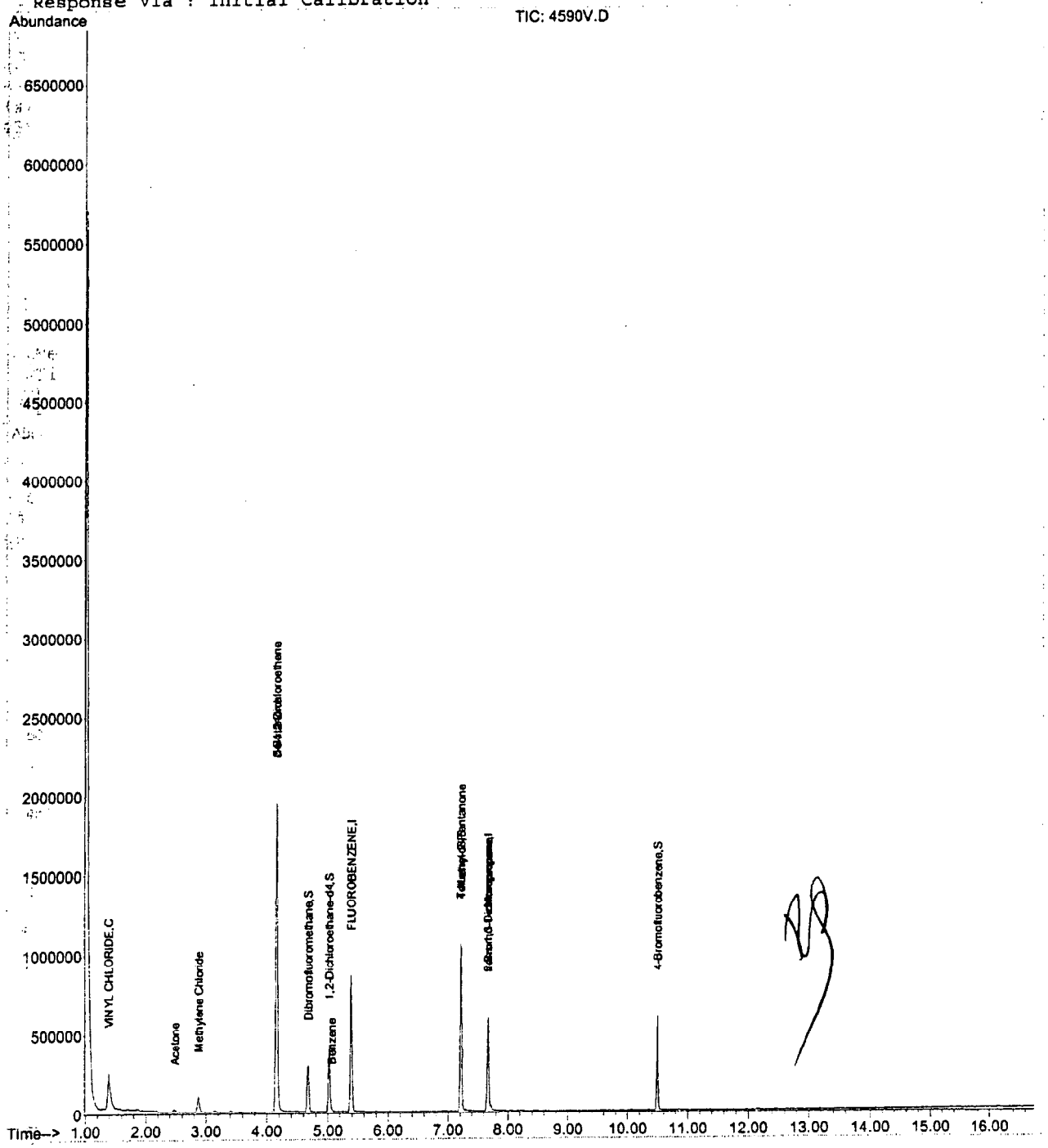
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

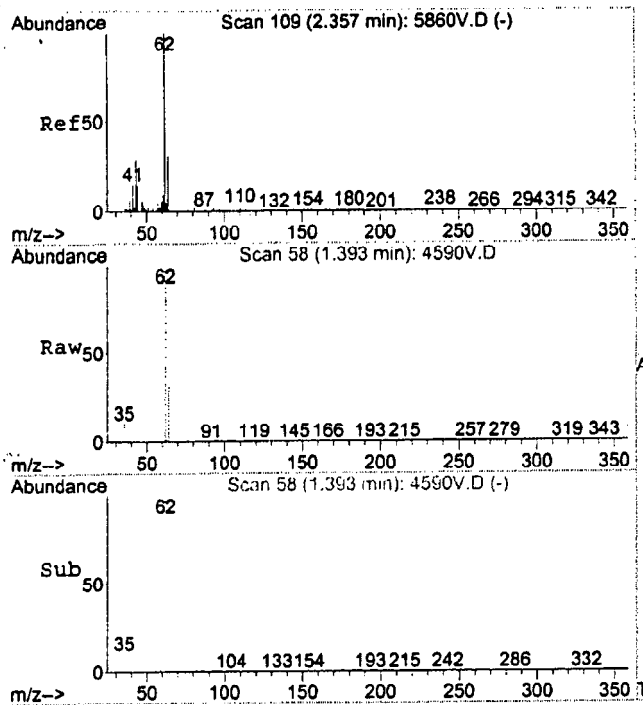
Data File : C:\HPCHEM\DATA\V060308\4590V.D
Acq On : 3 Jun 2008 11:10
Sample : A812344 1:10
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 11:27 2008

Vial: 8
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration



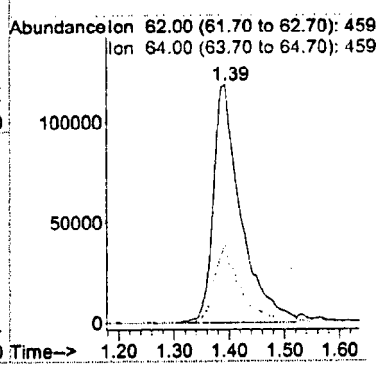
56911

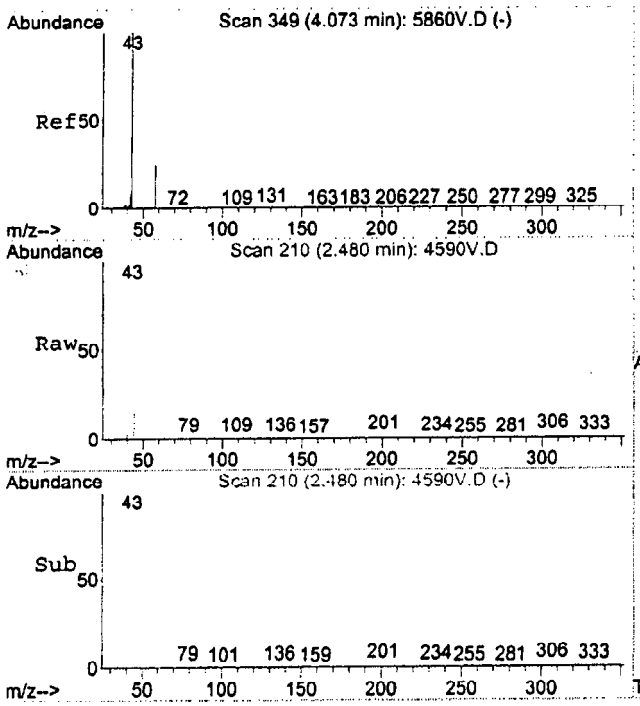


#4
VINYL CHLORIDE
Concen: 53.22 UG/L
RT: 1.39 min Scan# 58
Delta R.T. 0.01 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 62 Resp: 409452

Ion	Ratio	Lower	Upper
62	100		
64	30.0	24.9	37.3

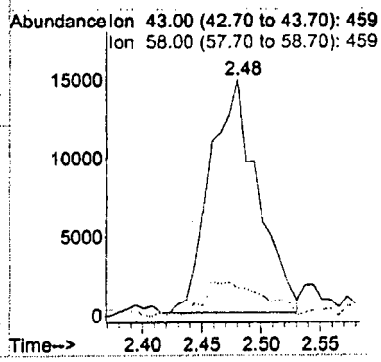




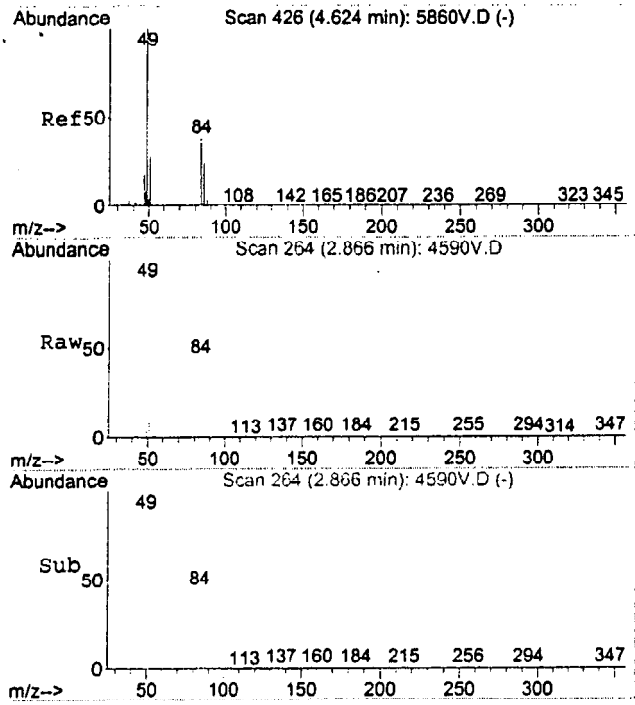
#9
Acetone
Concen: 3.88 UG/L
RT: 2.48 min Scan# 210
Delta R.T. -0.01 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 43 Resp: 41615

Ion	Ratio	Lower	Upper
43	100		
58	17.3	23.1	34.7#



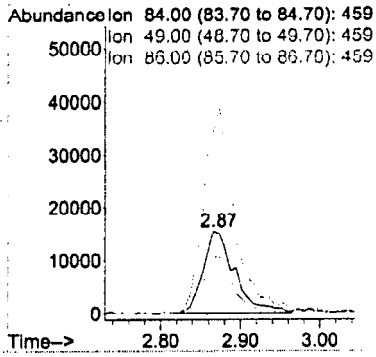
56911

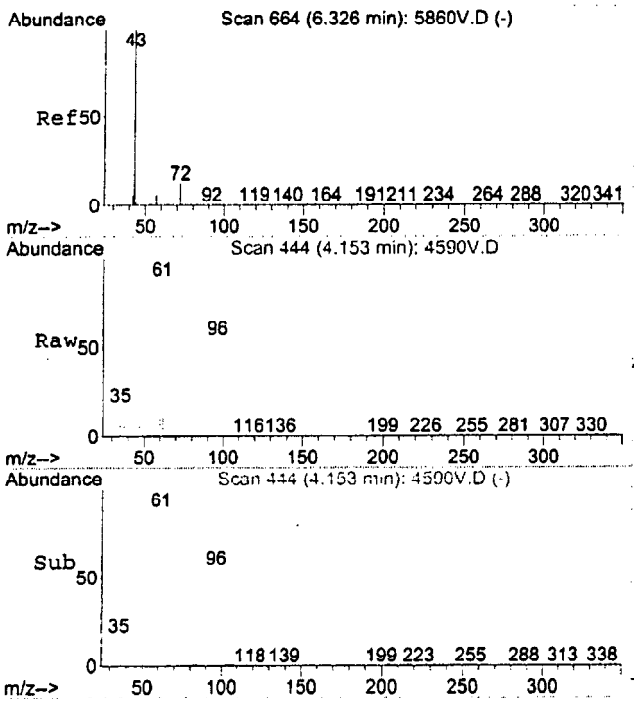


#14
Methylene Chloride
Concen: 1.26 UG/L
RT: 2.87 min Scan# 264
Delta R.T. -0.01 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 84 Resp: 42868

Ion	Ratio	Lower	Upper
84	100		
49	239.0	140.2	210.2#
86	63.3	51.1	76.7

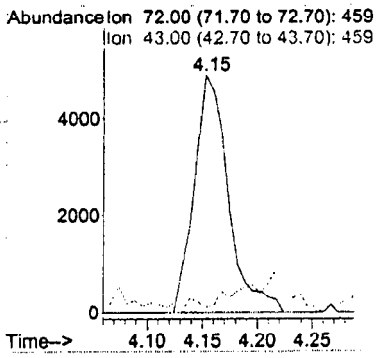


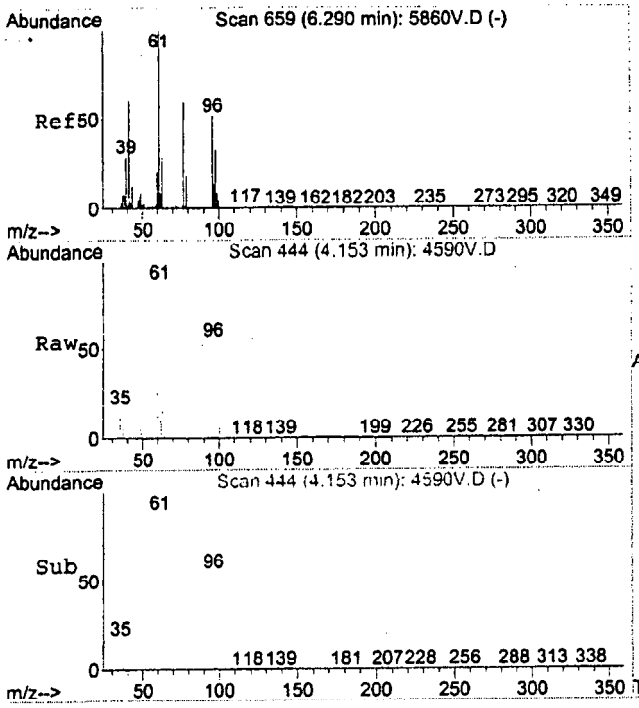


#21
2-Butanone
Concen: 4.65 UG/L
RT: 4.15 min Scan# 444
Delta R.T. -0.04 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 72 Resp: 10453

Ion	Ratio	Lower	Upper
72	100		
43	0.0	449.0	673.4#

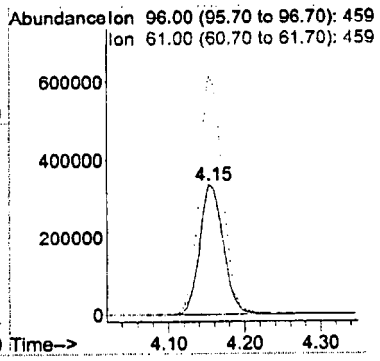


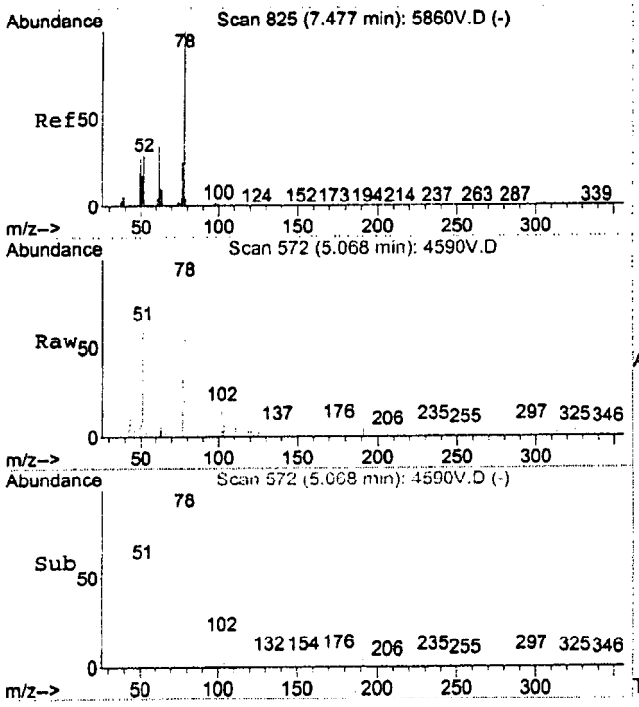


#23
cis-1,2-Dichloroethene
Concen: 46.57 UG/L
RT: 4.15 min Scan# 444
Delta R.T. -0.01 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 96 Resp: 733019

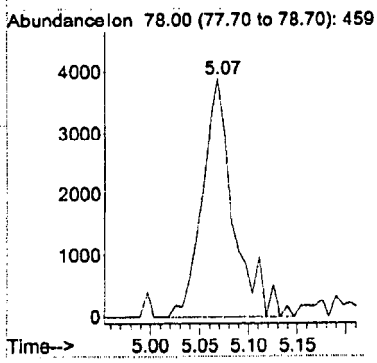
Ion	Ratio	Lower	Upper
96	100		
61	180.0	121.8	182.6

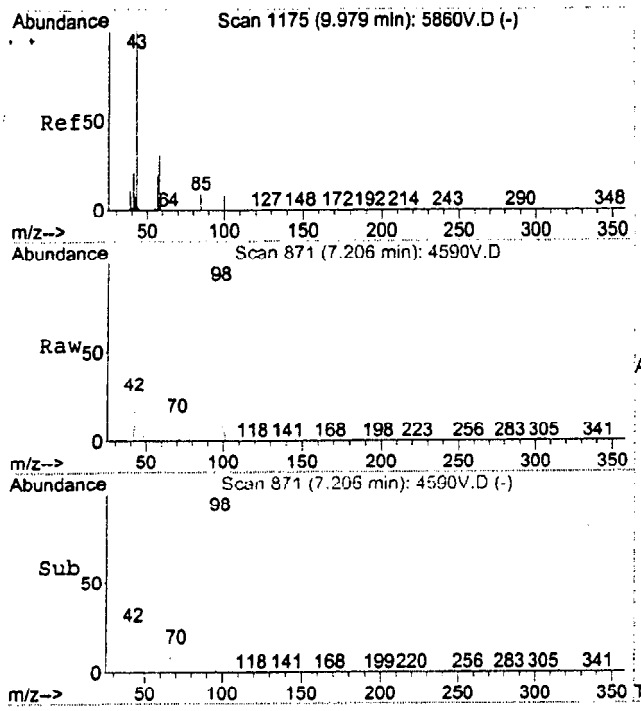




#39
Benzene
Concen: 0.15 UG/L
RT: 5.07 min Scan# 572
Delta R.T. 0.00 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 78 Resp: 8549

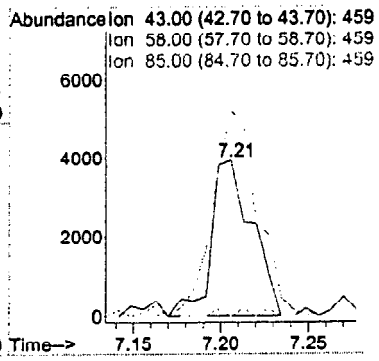


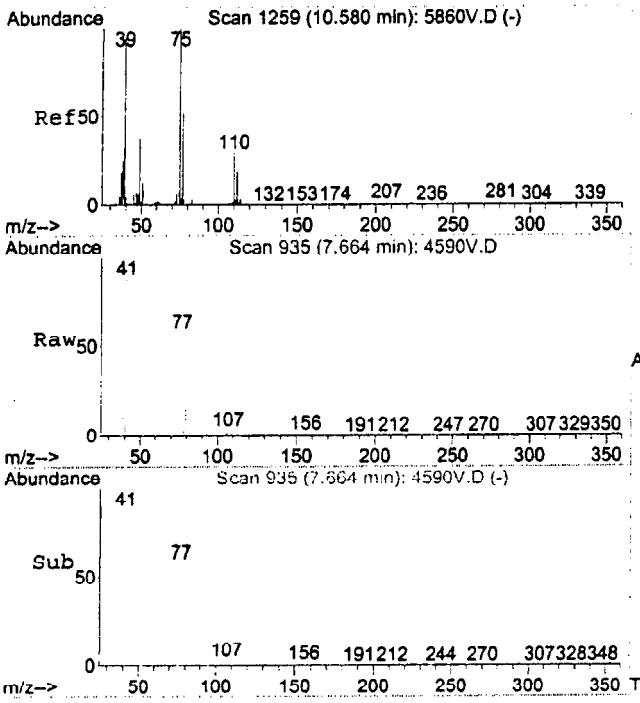


#47
4-Methyl-2-Pentanone
Concen: 0.19 UG/L
RT: 7.21 min Scan# 871
Delta R.T. 0.09 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 43 Resp: 6370

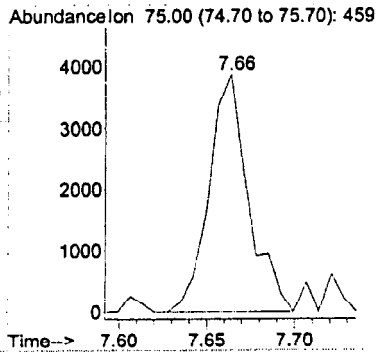
Ion	Ratio	Lower	Upper
43	100		
58	147.2	27.5	41.3#
85	0.0	9.6	14.4#





#52
trans-1,3-Dichloropropene
Concen: 0.27 UG/L
RT: 7.66 min Scan# 935
Delta R.T. 0.07 min
Lab File: 4590V.D
Acq: 3 Jun 2008 11:10

Tgt Ion: 75 Resp: 6019



R536256 Heritage Environmental Services, LLC A812345

GC/MS VOA

Method SW846-8260B
Sample Description MW-166S
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4591V.D Date/Time 03Jun08 11:36:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE		EX	1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE	7.0		1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

KKS 6-5-08

R536256 Heritage Environmental Services, LLC A812345

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE		BDL	1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE	6.7		1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	107			% RECOVERY	
2037-26-5	726	TOLUENE-D8	98			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	98			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	106			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4591V.D
Acq On : 3 Jun 2008 11:36
Sample : A812345
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 11:53:15 2008

Vial: 9
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	629635	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	201532	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	178564	10.57 UG/L	0.00
Spiked Amount 10.000			Recovery	= 105.70%	
35) 1,2-Dichloroethane-d4	5.02	65	336665	10.68 UG/L	0.00
Spiked Amount 10.000			Recovery	= 106.80%	
50) Toluene-d8	7.21	98	587917	9.83 UG/L	0.00
Spiked Amount 10.000			Recovery	= 98.30%	
69) 4-Bromofluorobenzene	10.49	174	117216	9.83 UG/L	0.00
Spiked Amount 10.000			Recovery	= 98.30%	

Target Compounds					Qvalue
4) VINYL CHLORIDE 6.7	1.39	62	50035	6.72 UG/L	99
~~9) Acetone~~	2.47	43	68190	6.57 UG/L #	78
14) ~~Methylene Chlor~~ide	2.87	84	21709	Below Cal #	60
17) ~~MTBE~~	3.16	73	12999	0.31 UG/L	100
18) trans-1,2-Dichloroethene 7.0	3.14	96	96806	7.03 UG/L #	66
~~19) n-Hexane~~	3.40	57	7810	0.35 UG/L	100
20) ~~1,1-Dichloroet~~hane	3.57	63	7062	0.22 UG/L	100
~~21) 2-Butanone~~	4.16	72	57083	26.21 UG/L #	1
~~23) cis~~ 1,2-Dichloroethene	4.16	96	3810696	250.00 UG/L #	66
~~39) Benzene~~	5.08	78	6311	0.12 UG/L	100
47) 4-Methyl-2-Pentanone	7.21	43	5825	0.18 UG/L #	1
51) ~~TOLUENE~~	7.29	91	13863	0.23 UG/L	100
52) ~~trans-1,3~~-Dichloropropene	7.66	75	6060	0.28 UG/L	100

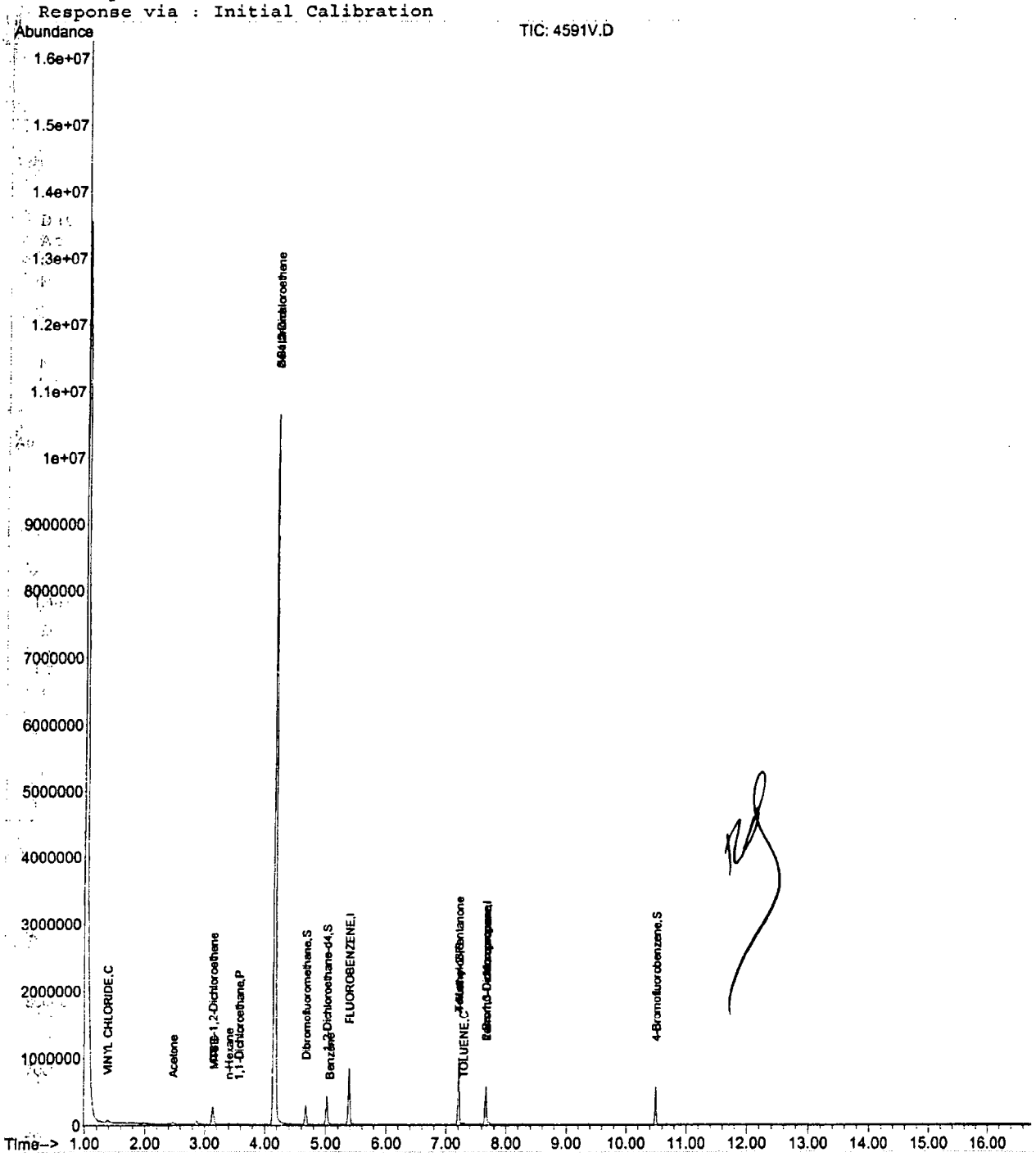
(#) = qualifier out of range (m) = manual integration
4591V.D 8260VOI.M Tue Jun 03 11:53:18 2008

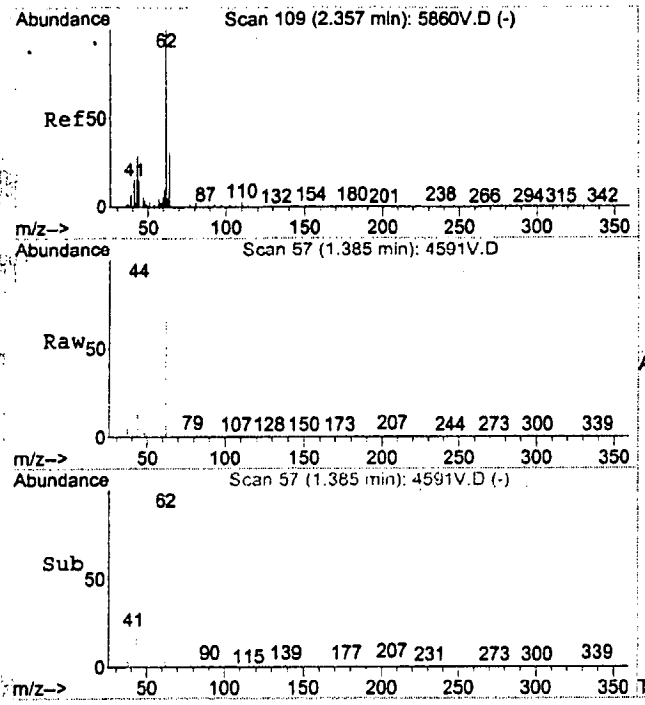
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4591V.D
Acq On : 3 Jun 2008 11:36
Sample : A812345
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 11:53 2008

Vial: 9
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

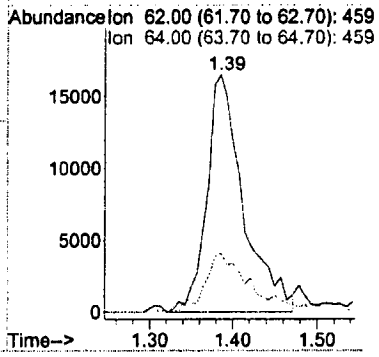


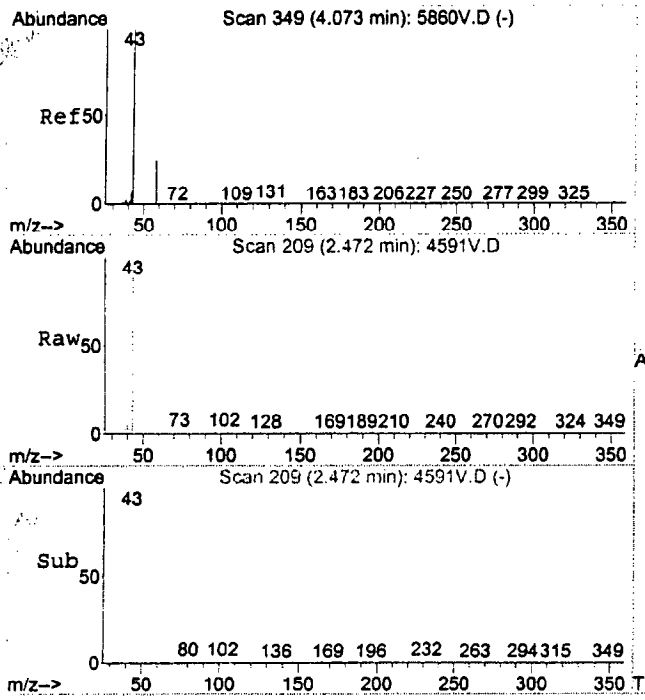


#4
VINYL CHLORIDE
Concen: 6.72 UG/L
RT: 1.39 min Scan# 57
Delta R.T. 0.01 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 62 Resp: 50035

Ion	Ratio	Lower	Upper
62	100		
64	30.5	24.9	37.3

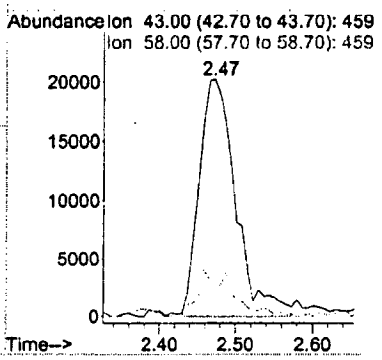


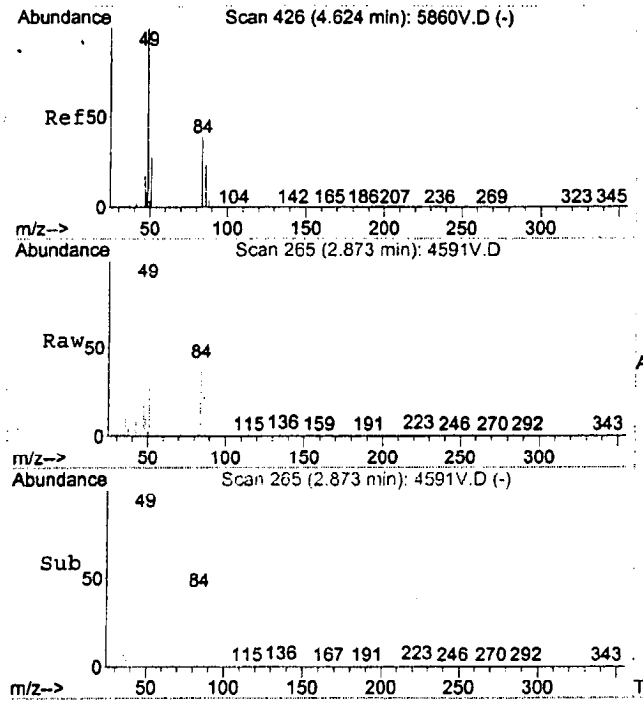


#9
Acetone
Concen: 6.57 UG/L
RT: 2.47 min Scan# 209
Delta R.T. -0.01 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 43 Resp: 68190

Ion	Ratio	Lower	Upper
43	100		
58	17.0	23.1	34.7#

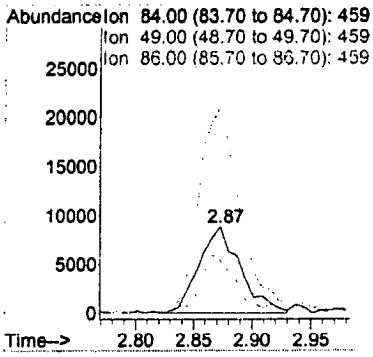


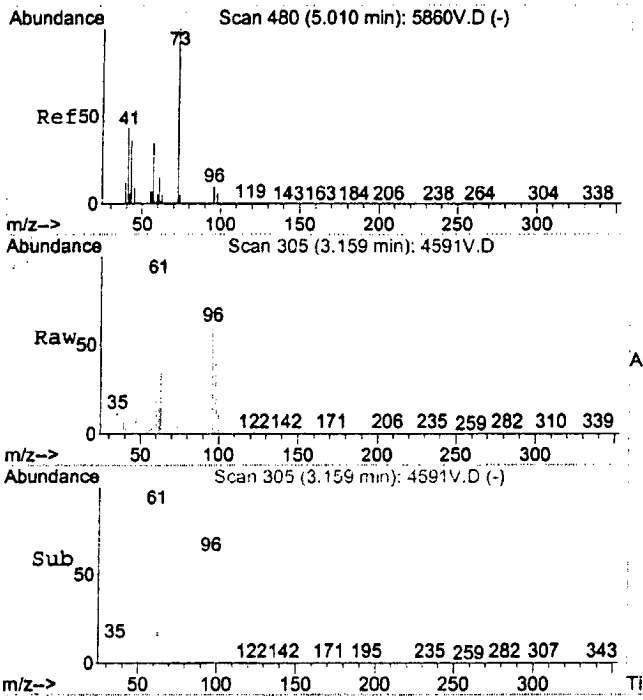


#14
Methylene Chloride
Concen: Below Cal
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 84 Resp: 21709

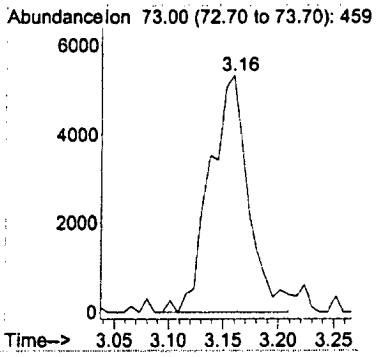
Ion	Ratio	Lower	Upper
84	100		
49	249.7	140.2	210.2#
86	65.5	51.1	76.7

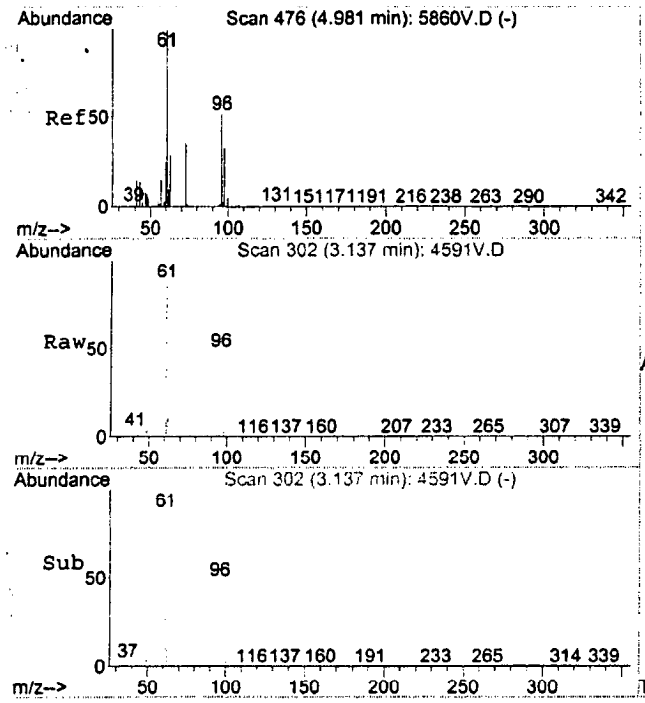




#17
MTBE
Concen: 0.31 UG/L
RT: 3.16 min Scan# 305
Delta R.T. 0.01 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 73 Resp: 12999

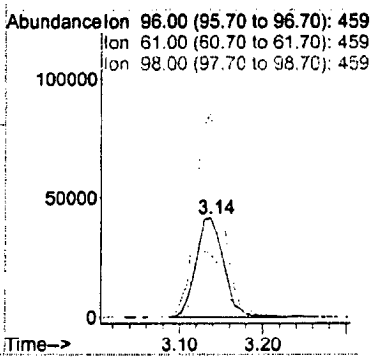


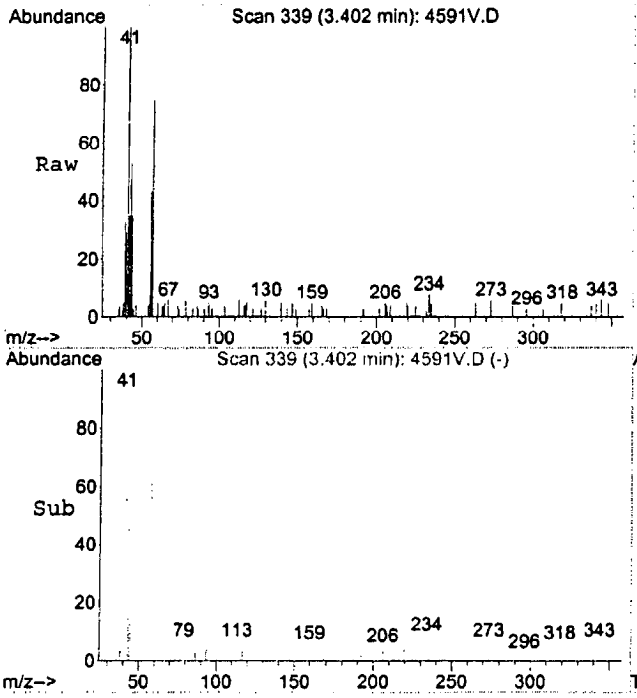


#18
trans-1,2-Dichloroethene
Concen: 7.03 UG/L
RT: 3.14 min Scan# 302
Delta R.T. 0.00 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 96 Resp: 96806

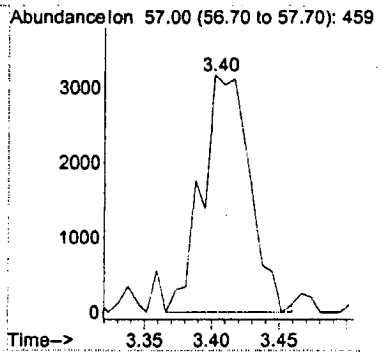
Ion	Ratio	Lower	Upper
96	100		
61	201.4	114.1	171.1#
98	65.5	50.7	76.1

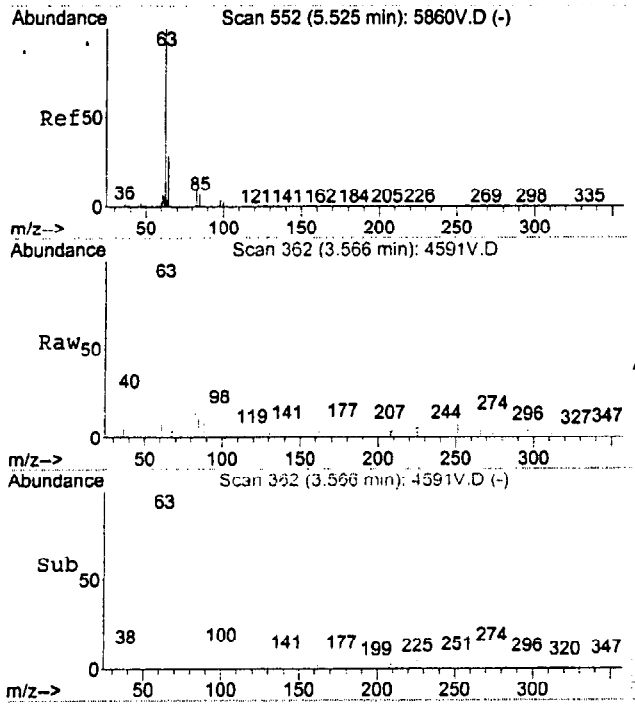




#19
n-Hexane
Concen: 0.35 UG/L
RT: 3.40 min Scan# 339
Delta R.T. -0.01 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

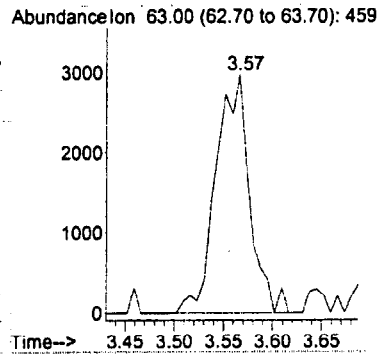
Tgt Ion: 57 Resp: 7810

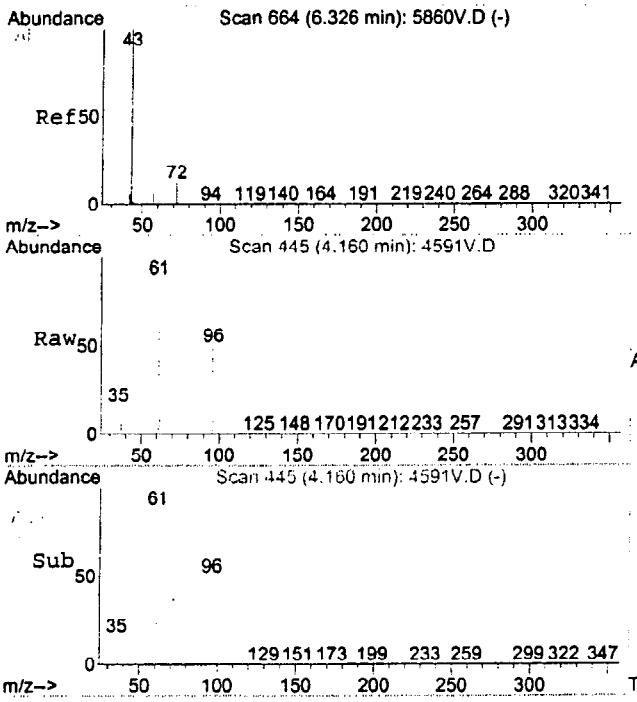




#20
1,1-Dichloroethane
Concen: 0.22 UG/L
RT: 3.57 min Scan# 362
Delta R.T. 0.01 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 63 Resp: 7062

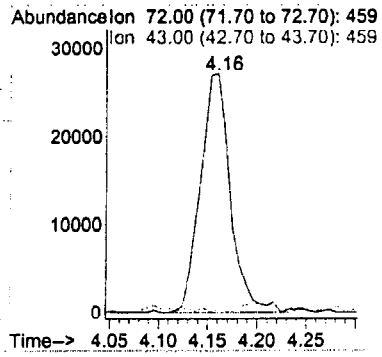


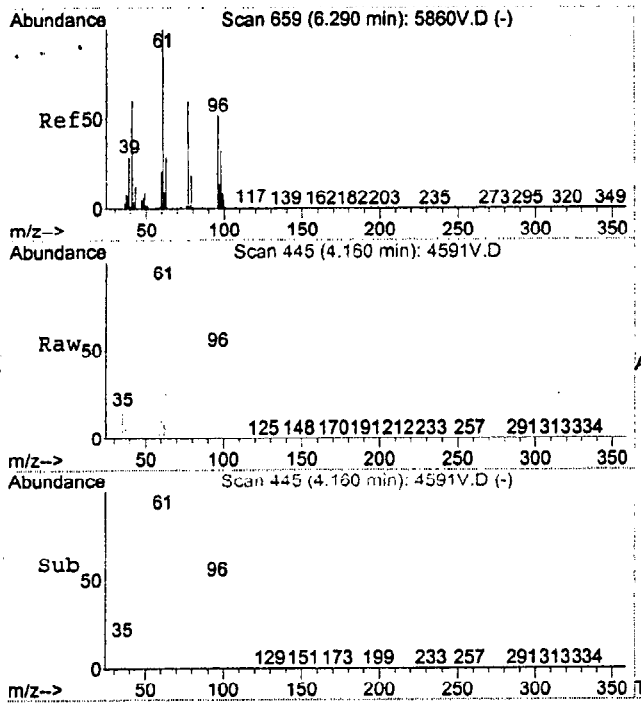


#21
2-Butanone
Concen: 26.21 UG/L
RT: 4.16 min Scan# 445
Delta R.T. -0.04 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 72 Resp: 57083

Ion	Ratio	Lower	Upper
72	100		
43	0.0	449.0	673.4#



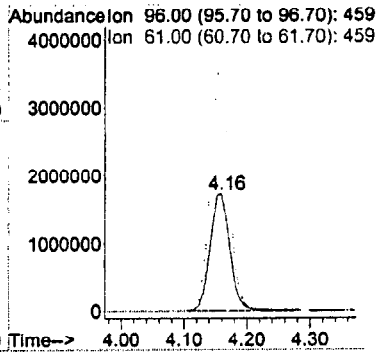


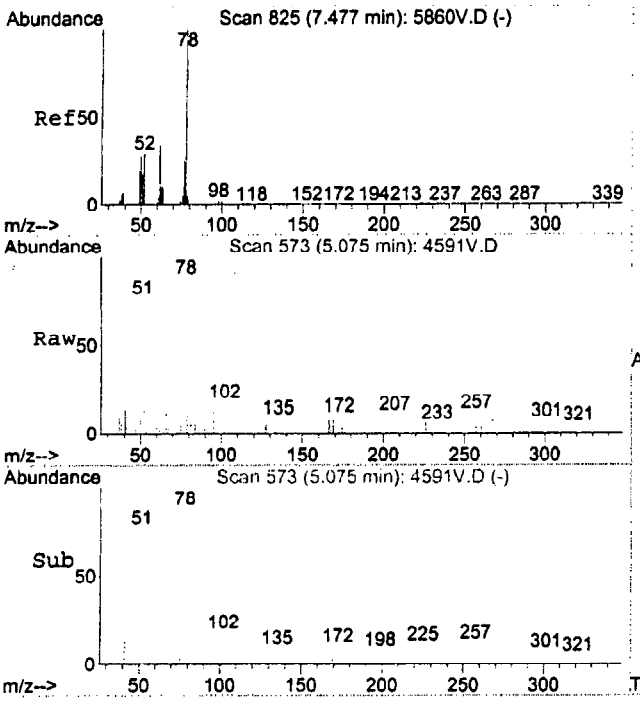
#23
cis-1,2-Dichloroethene
Concen: 250.00 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 96 Resp: 3810696

Ion	Ratio	Lower	Upper
96	100		
61	195.4	121.8	182.6#

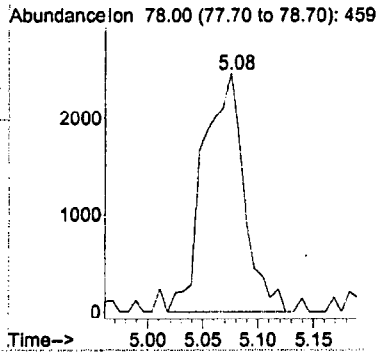
CX

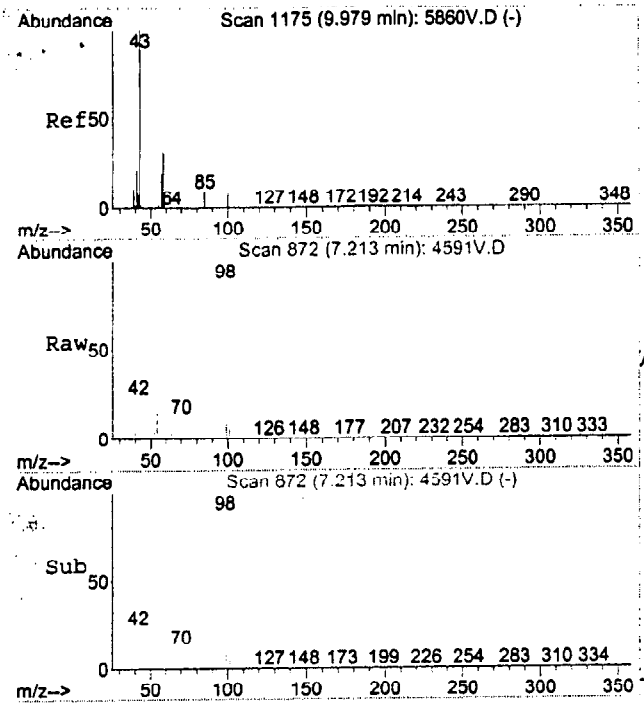




#39
Benzene
Concen: 0.12 UG/L
RT: 5.08 min Scan# 573
Delta R.T. 0.01 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 78 Resp: 6311

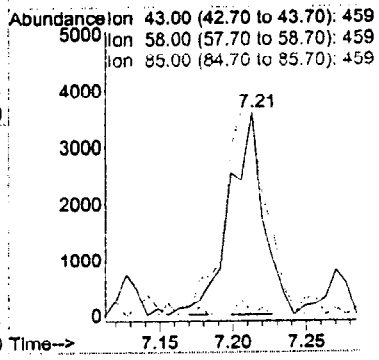


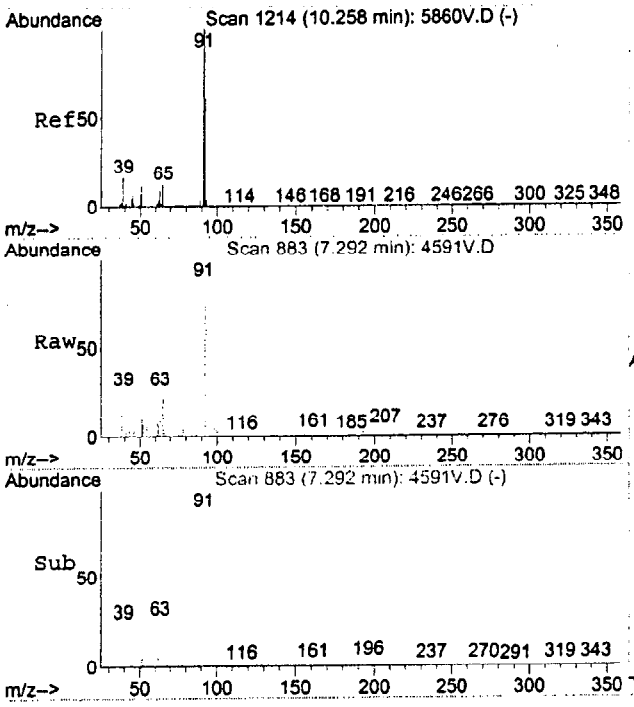


#47
4-Methyl-2-Pentanone
Concen: 0.18 UG/L
RT: 7.21 min Scan# 872
Delta R.T. 0.09 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 43 Resp: 5825

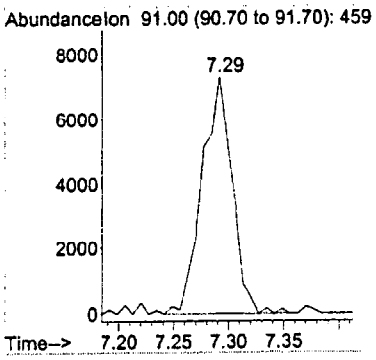
Ion	Ratio	Lower	Upper
43	100		
58	124.1	27.5	41.3#
85	0.0	9.6	14.4#

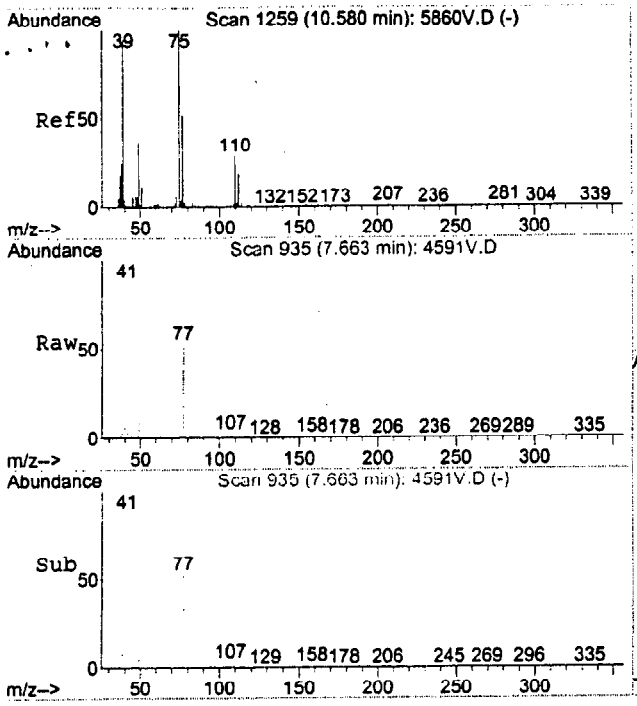




#51
TOLUENE
Concen: 0.23 UG/L
RT: 7.29 min Scan# 883
Delta R.T. 0.00 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

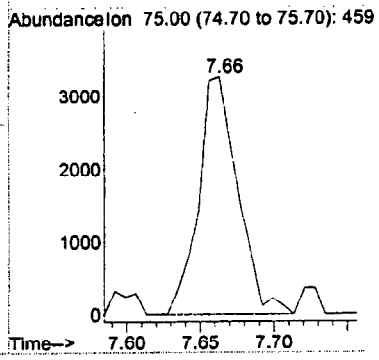
Tgt Ion: 91 Resp: 13863





#52
trans-1,3-Dichloropropene
Concen: 0.28 UG/L
RT: 7.66 min Scan# 935
Delta R.T. 0.07 min
Lab File: 4591V.D
Acq: 3 Jun 2008 11:36

Tgt Ion: 75 Resp: 6060



R536256

Heritage Environmental Services, LLC

A812346

GC/MS VOA

Method SW846-8260B
Sample Description MW-166D
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4592V.D Date/Time 03Jun08 12:02:00
Dilution Factor 10

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	100	UG/L	
107-02-8	105	ACROLEIN		BDL	500	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	100	UG/L	
71-43-2	151	BENZENE		BDL	10	UG/L	
108-86-1	193	BROMOBENZENE		BDL	10	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	10	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	10	UG/L	
75-25-2	197	BROMOFORM		BDL	10	UG/L	
74-83-9	198	BROMOMETHANE		BDL	10	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	10	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	10	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	10	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	10	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	10	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	10	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	10	UG/L	
75-00-3	234	CHLOROETHANE		BDL	10	UG/L	
67-66-3	235	CHLOROFORM		BDL	10	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	10	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	10	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	10	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	10	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	10	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	10	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	10	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	10	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	10	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	10	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	10	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	20	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	10	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	10	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	10	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE		EX	10	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	10	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	10	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	10	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	10	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	10	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	10	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	10	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	10	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	100	UG/L	
591-78-6	60	2-HEXANONE		BDL	100	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	10	UG/L	

R536256 Heritage Environmental Services, LLC A812346

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	10	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	10	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	10	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	10	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	100	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	10	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	100	UG/L	
91-20-3	493	NAPHTHALENE		BDL	10	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	10	UG/L	
100-42-5	680	STYRENE		BDL	10	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	10	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	10	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	10	UG/L	
108-88-3	724	TOLUENE		BDL	10	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	10	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	10	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	10	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	10	UG/L	
79-01-6	750	TRICHLOROETHENE		BDL	10	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	10	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	10	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	10	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	10	UG/L	
108-05-4	767	VINYL ACETATE		BDL	10	UG/L	
75-01-4	768	VINYL CHLORIDE	310		10	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	11	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	————————					
17060-07-0	301	DICHLOROETHANE-D4	107			% RECOVERY	
2037-26-5	726	TOLUENE-D8	101			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	96			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	108			% RECOVERY	

Comment 1:10 Dilution Prep Method SW846-5030B Purge and Trap m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Analyzed at dilution based on historical data. Could not analyze at lower dilution because of high concentrations of target compounds. 1/26/08

Qualifiers

EX Exceeds calibration range. See Replicate

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File: C:\HPCHEM\DATA\V060308\4592V.D
Acq On : 3 Jun 2008 12:02
Sample : A812346 1:10
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 12:19:14 2008

Vial: 10
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

8216 [illegible]

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	606035	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	194402	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	174793	10.75	UG/L	0.00
Spiked Amount 10.000			Recovery	=	107.50%	
35) 1,2-Dichloroethane-d4	5.02	65	324769	10.71	UG/L	0.00
Spiked Amount 10.000			Recovery	=	107.10%	
50) Toluene-d8	7.21	98	582710	10.13	UG/L	0.00
Spiked Amount 10.000			Recovery	=	101.30%	
69) 4-Bromofluorobenzene	10.49	174	110800	9.63	UG/L	0.00
Spiked Amount 10.000			Recovery	=	96.30%	
Target Compounds						Qvalue
4) VINYL CHLORIDE	1.39	62	222228	30.99	UG/L	97
9) ~~Acetone~~	2.47	43	20522	2.05	UG/L #	46
14) ~~Methylene Chloride~~	2.87	84	42035	1.43	UG/L #	71
17) ~~MTBE~~	3.15	73	~~6790~~	0.17	UG/L	100
18) ~~trans-1,2-Dichloroethene~~	3.13	96	5461	0.41	UG/L #	37
21) ~~2-Butanone~~	4.16	72	31299	14.93	UG/L #	1
23) cis-1,2-Dichloroethene	4.16	96	2083830	142.03	UG/L #	75
52) ~~trans-1,3-Dichloropropene~~	7.67	75	6845	0.33	UG/L	100

310

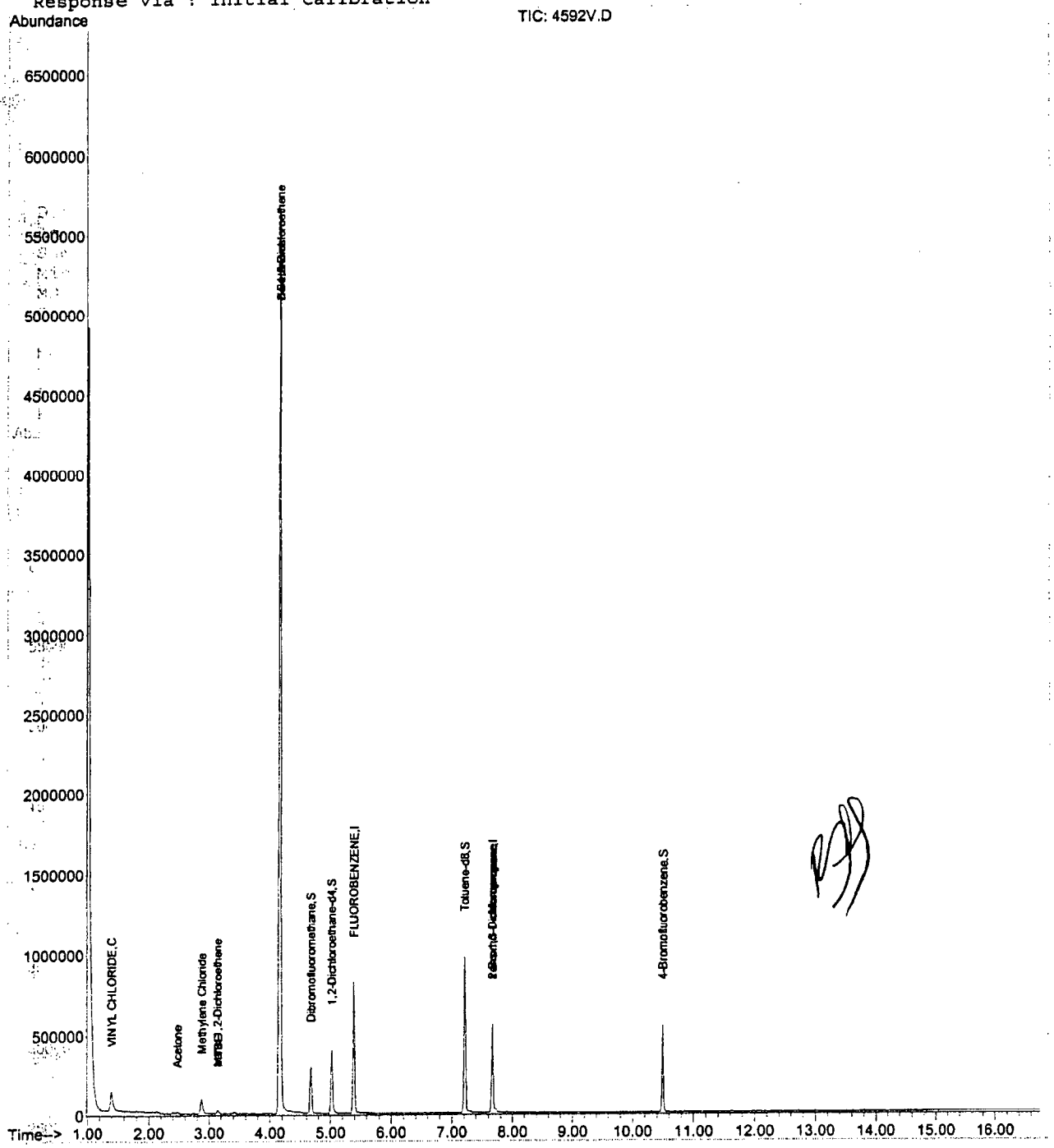
(#) = qualifier out of range (m) = manual integration
4592V.D 8260VOI.M Tue Jun 03 12:19:16 2008

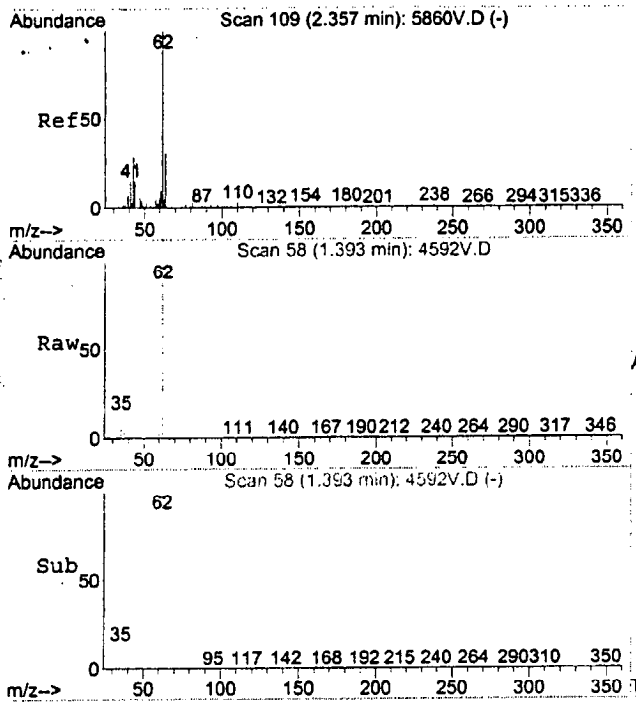
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4592V.D
Acq On : 3 Jun 2008 12:02
Sample : A812346 1:10
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 12:19 2008

Vial: 10
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

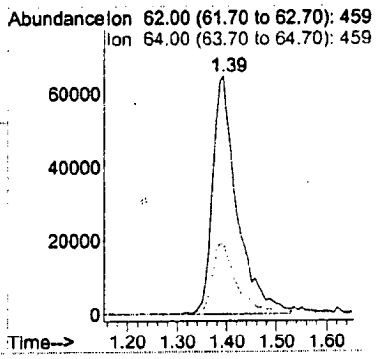


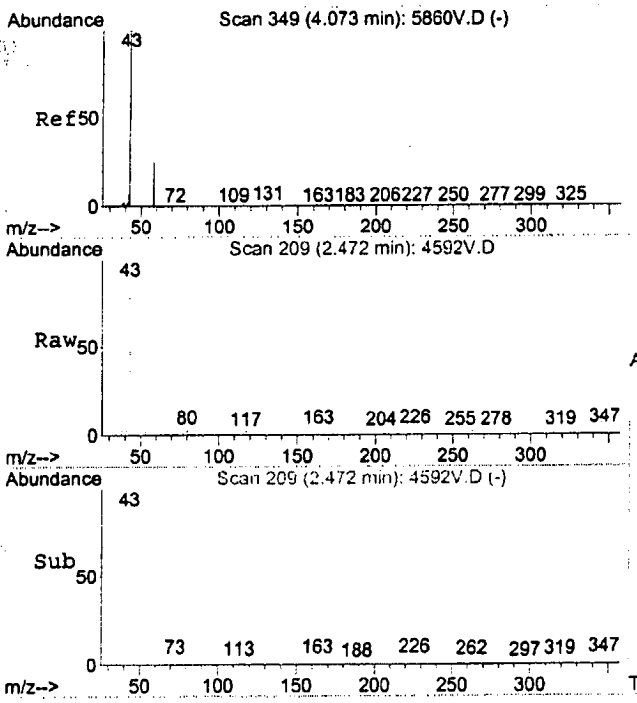


#4
VINYL CHLORIDE
Concen: 30.99 UG/L
RT: 1.39 min Scan# 58
Delta R.T. 0.01 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 62 Resp: 222228

Ion	Ratio	Lower	Upper
62	100		
64	29.5	24.9	37.3

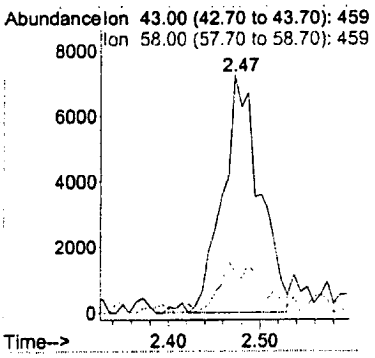




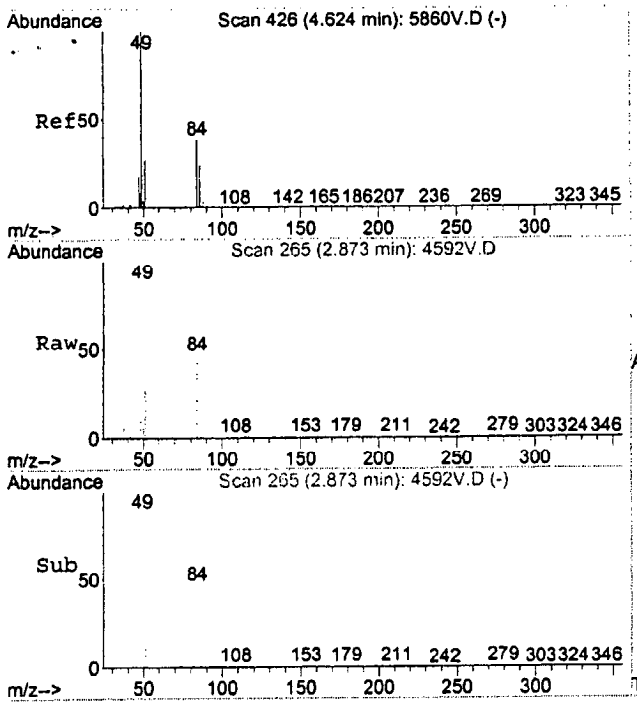
#9
Acetone
Concen: 2.05 UG/L
RT: 2.47 min Scan# 209
Delta R.T. -0.01 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 43 Resp: 20522

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#



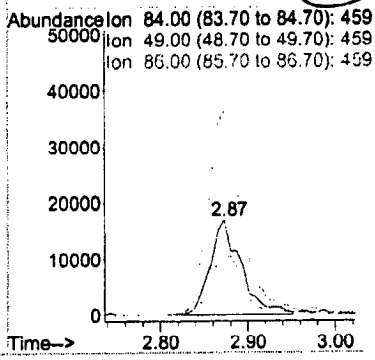
56911

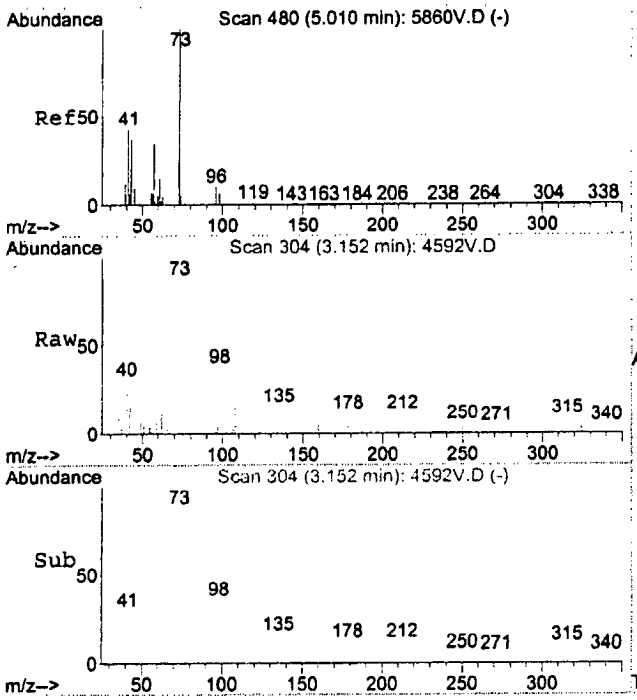


#14
Methylene Chloride
Concen: 1.43 UG/L
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 84 Resp: 42035

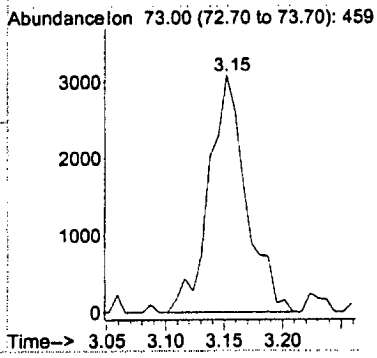
Ion	Ratio	Lower	Upper
84	100		
49	226.3	140.2	210.2#
86	69.7	51.1	76.7

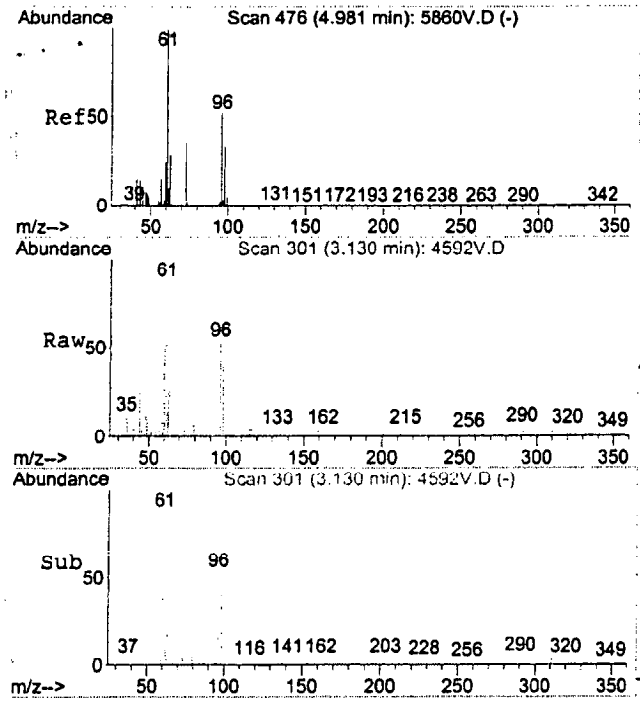




#17
MTBE
Concen: 0.17 UG/L
RT: 3.15 min Scan# 304
Delta R.T. 0.00 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 73 Resp: 6790

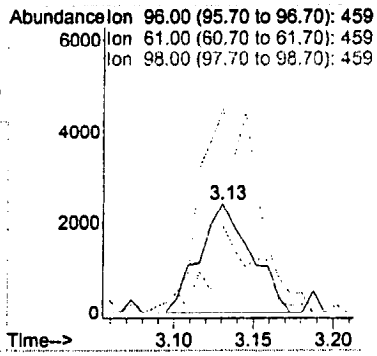


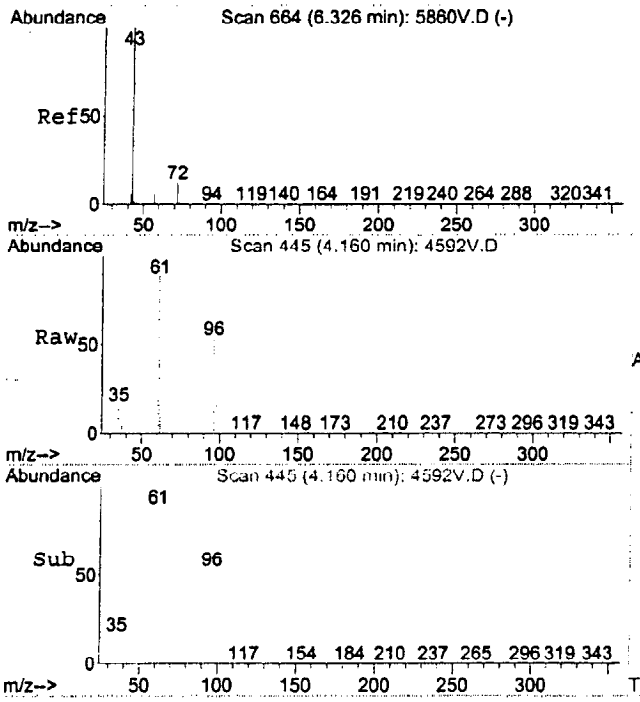


#18
trans-1,2-Dichloroethene
Concen: 0.41 UG/L
RT: 3.13 min Scan# 301
Delta R.T. -0.01 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 96 Resp: 5461

Ion	Ratio	Lower	Upper
96	100		
61	210.5	114.1	171.1#
98	0.0	50.7	76.1#

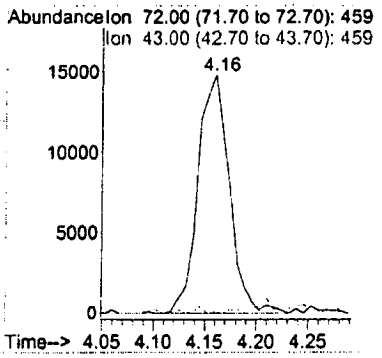


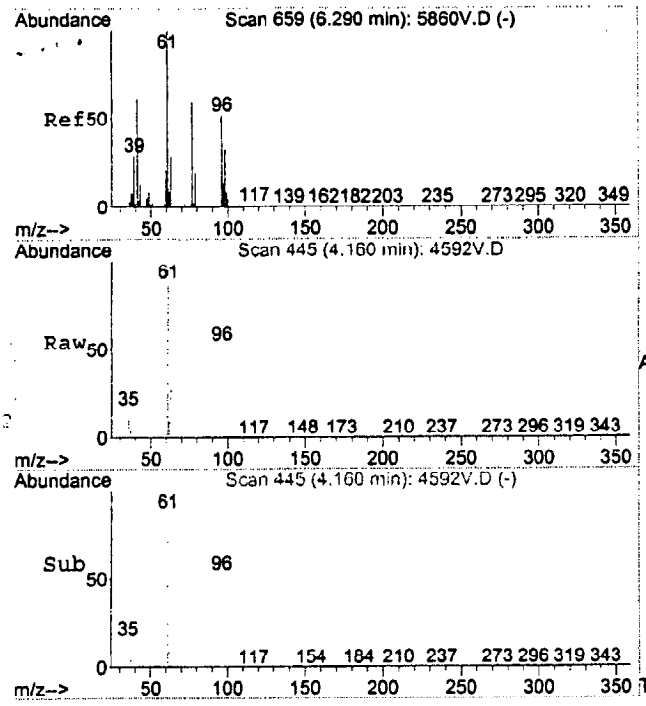


#21
2-Butanone
Concen: 14.93 UG/L
RT: 4.16 min Scan# 445
Delta R.T. -0.04 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 72 Resp: 31299

Ion	Ratio	Lower	Upper
72	100		
43	0.0	449.0	673.4#

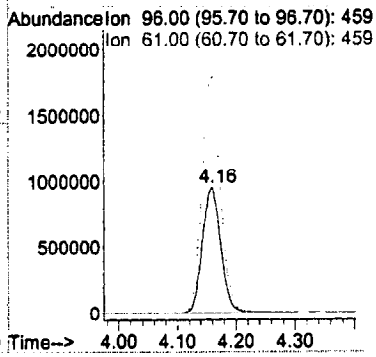


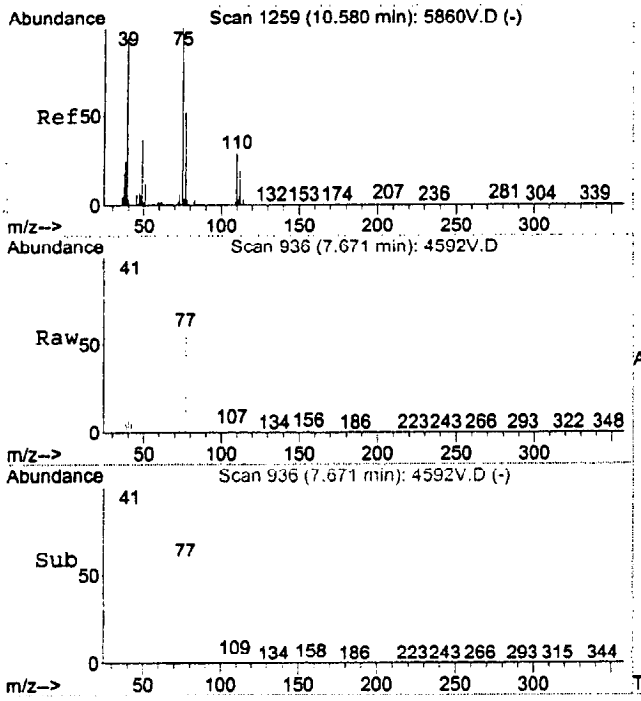


#23
cis-1,2-Dichloroethene
Concen: 142.03 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 96 Resp: 2083830

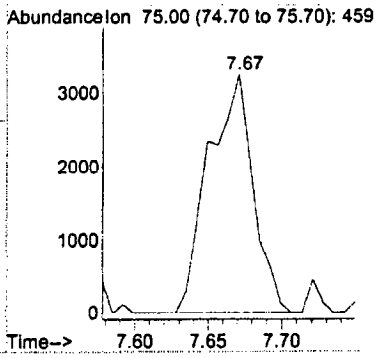
Ion	Ratio	Lower	Upper
96	100		
61	184.8	121.8	182.6#





#52
trans-1,3-Dichloropropene
Concen: 0.33 UG/L
RT: 7.67 min Scan# 936
Delta R.T. 0.08 min
Lab File: 4592V.D
Acq: 3 Jun 2008 12:02

Tgt Ion: 75 Resp: 6845



56911

R536256

Heritage Environmental Services, LLC

GC/MS VOA

A812348

Method SW846-8260B
Sample Description MW-132R
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4594V.D Date/Time 03Jun08 12:54:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE	6.4		1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

R536256 Heritage Environmental Services, LLC A812348

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE	15		1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE		BDL	1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	————————					
17060-07-0	301	DICHLOROETHANE-D4	108			% RECOVERY	
2037-26-5	726	TOLUENE-D8	98			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	102			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	108			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4594V.D
Acq On : 3 Jun 2008 12:54
Sample : A812348
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 13:11:28 2008

Vial: 12
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	582249	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	181285	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	169024	10.82	UG/L	0.00
Spiked Amount 10.000			Recovery	=	108.20%	
35) 1,2-Dichloroethane-d4	5.02	65	314103	10.78	UG/L	0.00
Spiked Amount 10.000			Recovery	=	107.80%	
50) Toluene-d8	7.21	98	543290	9.83	UG/L	0.00
Spiked Amount 10.000			Recovery	=	98.30%	
69) 4-Bromofluorobenzene	10.49	174	108828	10.15	UG/L	0.00
Spiked Amount 10.000			Recovery	=	101.50%	

Target Compounds							Qvalue
9) ~~Acetone~~	2.48	43	17057	1.78	UG/L	#	46
14) ~~Methylene Chloride~~	2.87	84	18914	Below Cal		#	79
19) ~~n-Hexane~~	3.41	57	5739	0.28	UG/L		100
20) ~~1,1-Dichloroe~~thane	3.56	63	19066	0.64	UG/L		100
22) ~~Ethyl Acetate~~	4.20	43	6334	0.19	UG/L	#	92
23) ~~Cis~~-1,2-Dichloroethene 6.4	4.16	96	90239	6.40	UG/L		81
31) ~~1,1,1-Tri~~chloroethane	4.67	97	7166	0.28	UG/L	#	18
40) Trichloroethene 15	5.79	130	213808	14.82	UG/L		99
51) ~~TOLUENE~~	7.28	91	10697	0.19	UG/L		100
52) ~~Trans-1,3-~~Dichloropropene	7.66	75	6352	0.32	UG/L		100
56) ~~2-Hexanone~~	8.28	43	7019	0.31	UG/L	#	36

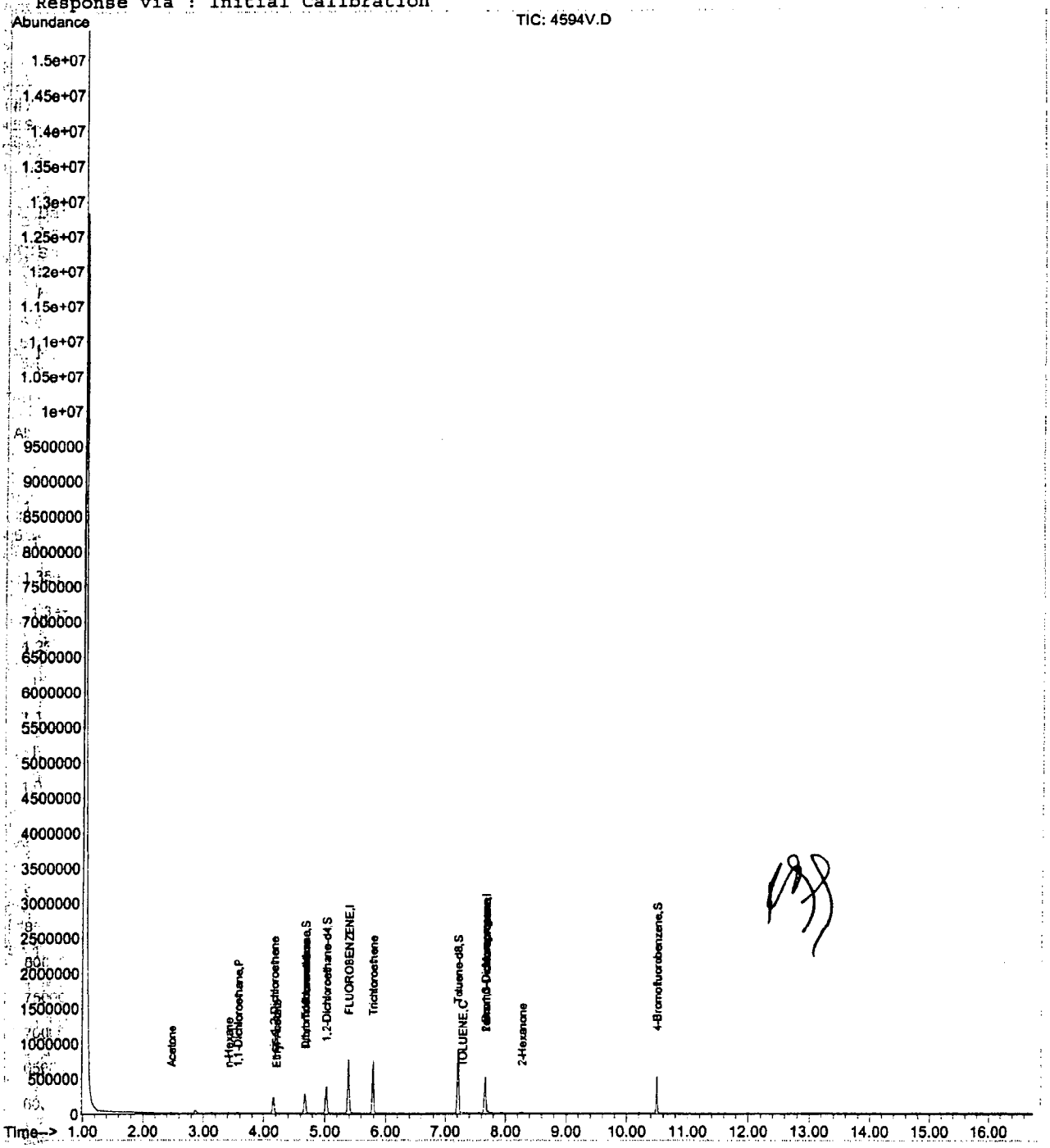
(#) = qualifier out of range (m) = manual integration

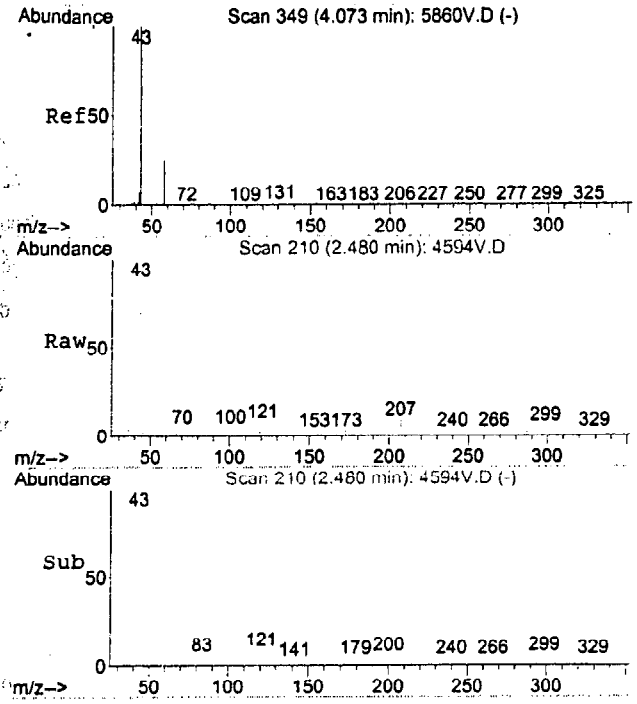
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4594V.D
Acq On : 3 Jun 2008 12:54
Sample : A812348
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 13:11 2008

Vial: 12
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

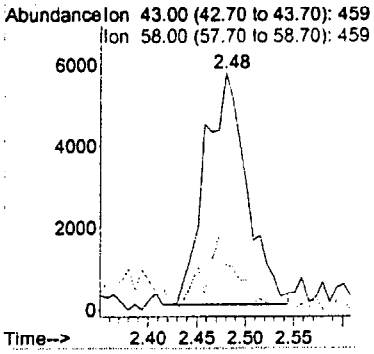


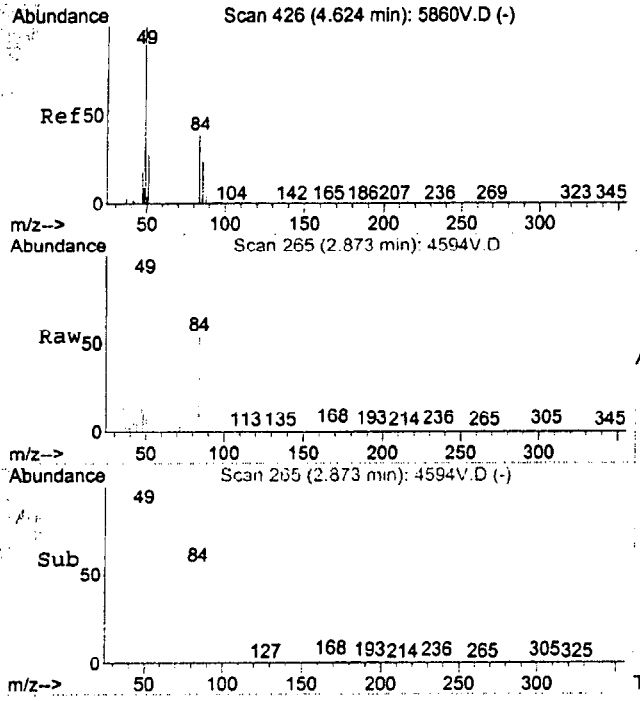


#9
Acetone
Concen: 1.78 UG/L
RT: 2.48 min Scan# 210
Delta R.T. -0.01 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 43 Resp: 17057

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

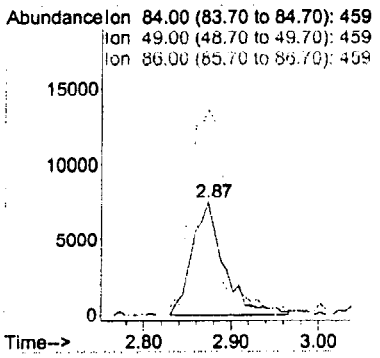


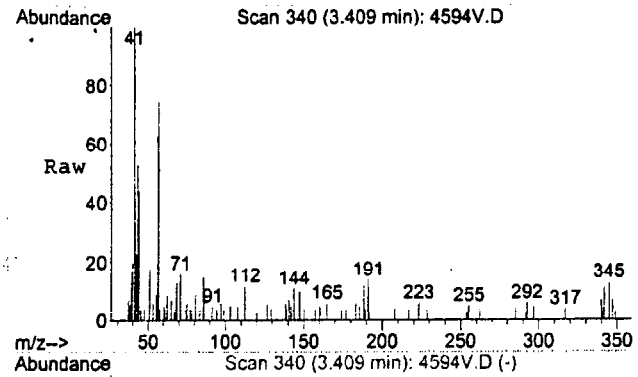


#14
Methylene Chloride
Concen: Below Cal
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 84 Resp: 18914

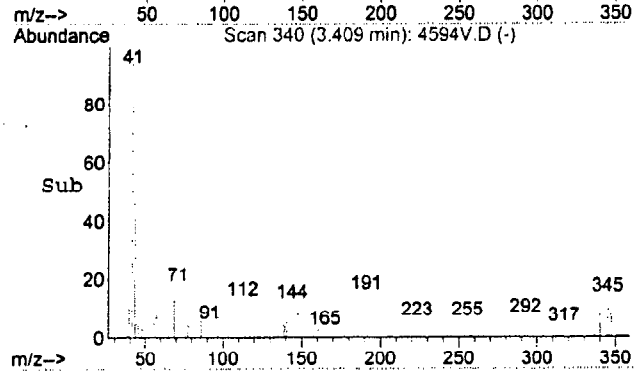
Ion	Ratio	Lower	Upper
84	100		
49	210.9	140.2	210.2#
86	57.5	51.1	76.7

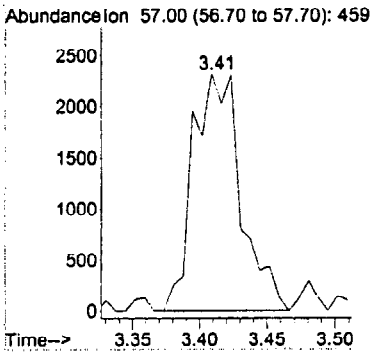


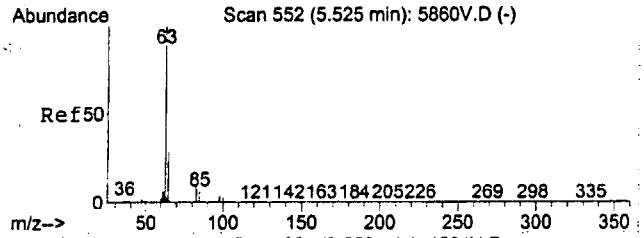


#19
n-Hexane
Concen: 0.28 UG/L
RT: 3.41 min Scan# 340
Delta R.T. 0.00 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 57 Resp: 5739

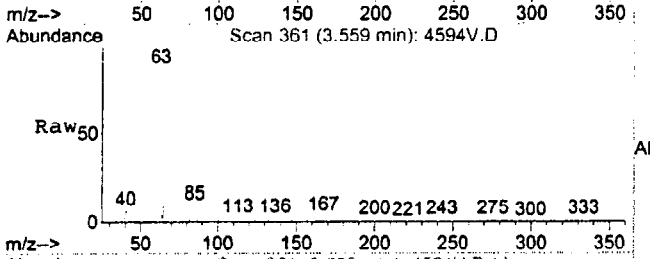


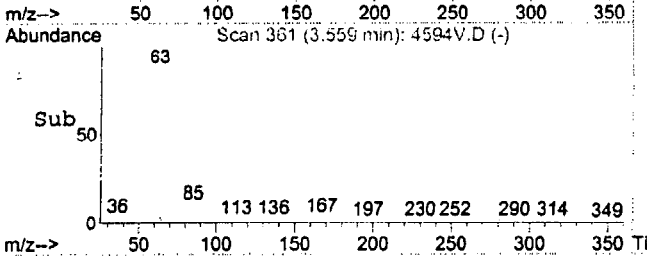


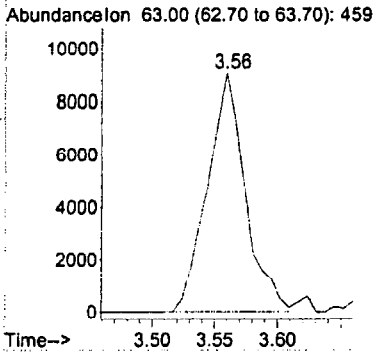


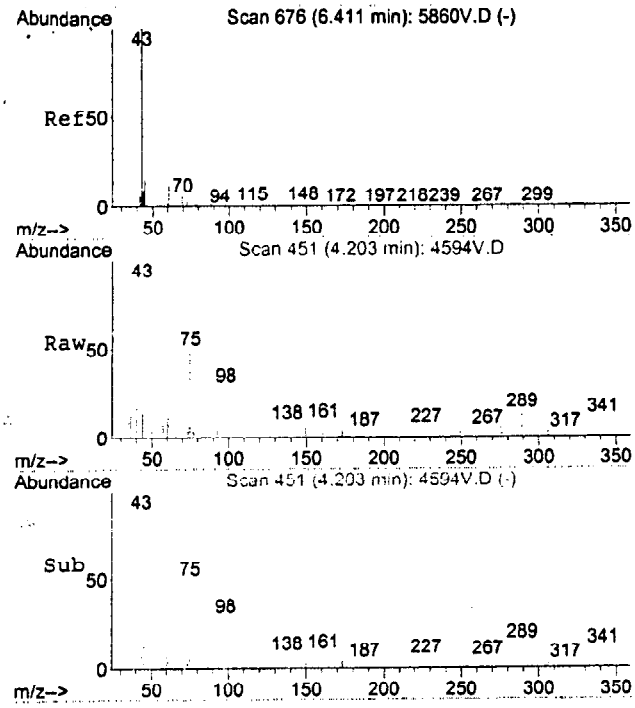
#20
1,1-Dichloroethane
Concen: 0.64 UG/L
RT: 3.56 min Scan# 361
Delta R.T. 0.00 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 63 Resp: 19066





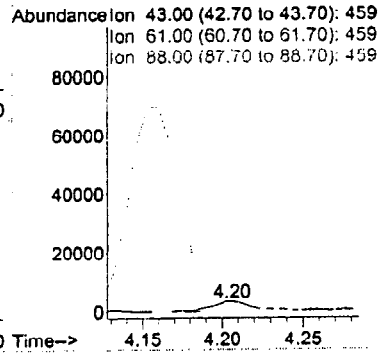


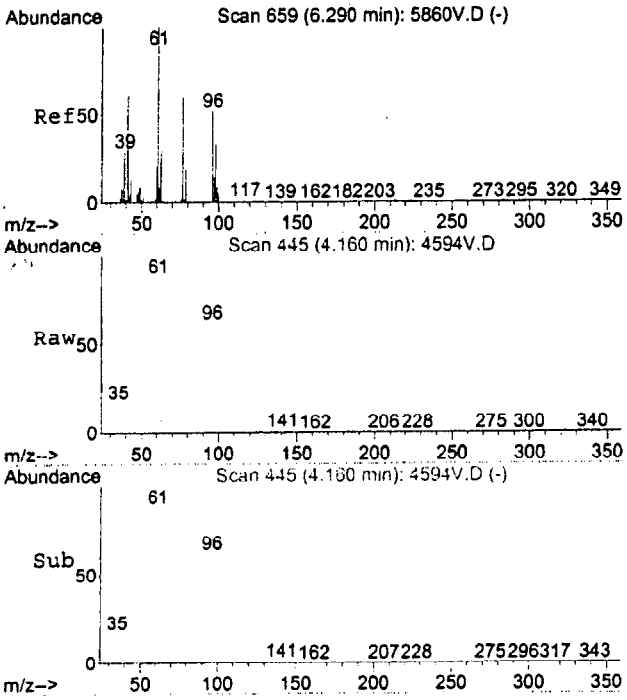


#22
Ethyl Acetate
Concen: 0.19 UG/L
RT: 4.20 min Scan# 451
Delta R.T. -0.07 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 43 Resp: 6334

Ion	Ratio	Lower	Upper
43	100		
61	0.0	0.0	0.0
88	0.0	2.2	3.4#

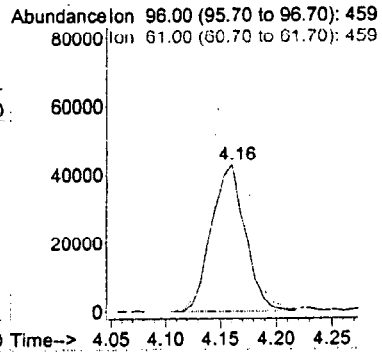


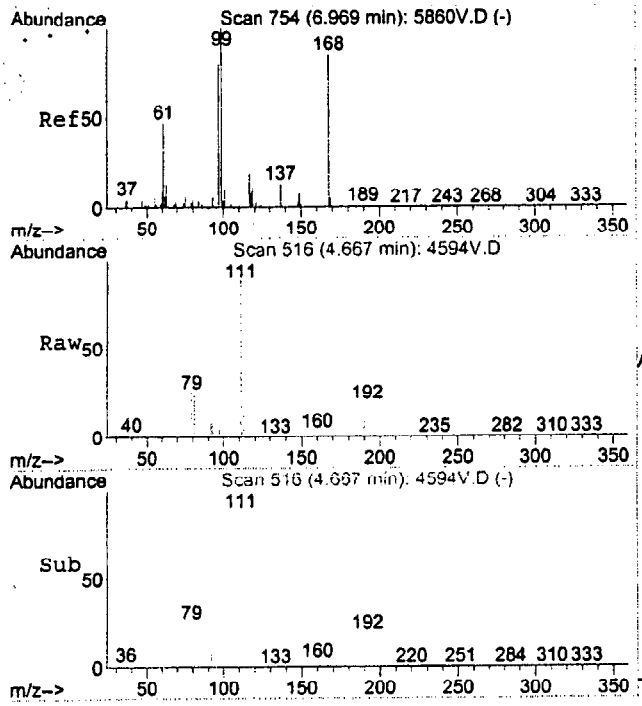


#23
cis-1,2-Dichloroethene
Concen: 6.40 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 96 Resp: 90239

Ion	Ratio	Lower	Upper
96	100		
61	176.2	121.8	182.6

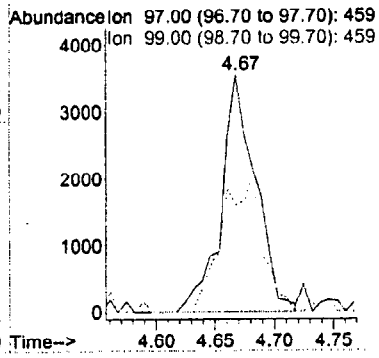


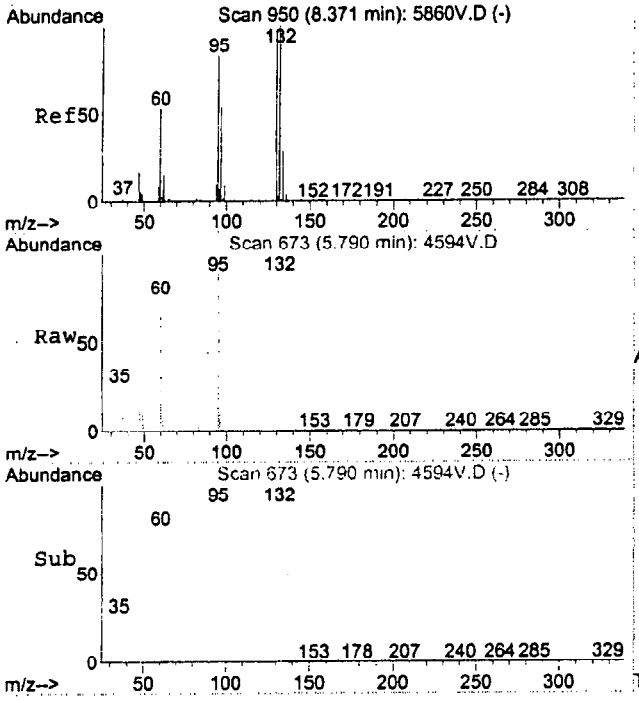


#31
1,1,1-Trichloroethane
Concen: 0.28 UG/L
RT: 4.67 min Scan# 516
Delta R.T. 0.00 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 97 Resp: 7166

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.1	76.7#

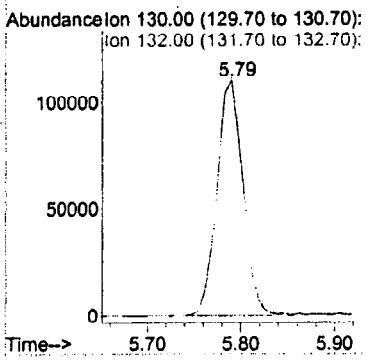




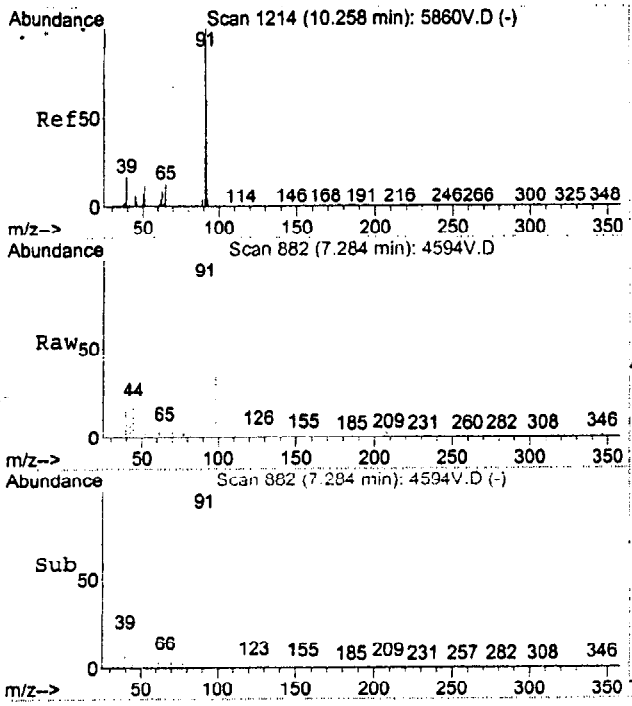
#40
Trichloroethene
Concen: 14.82 UG/L
RT: 5.79 min Scan# 673
Delta R.T. 0.00 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion:130 Resp: 213808

Ion	Ratio	Lower	Upper
130	100		
132	101.1	82.0	123.0

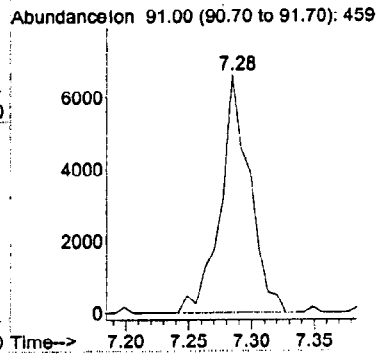


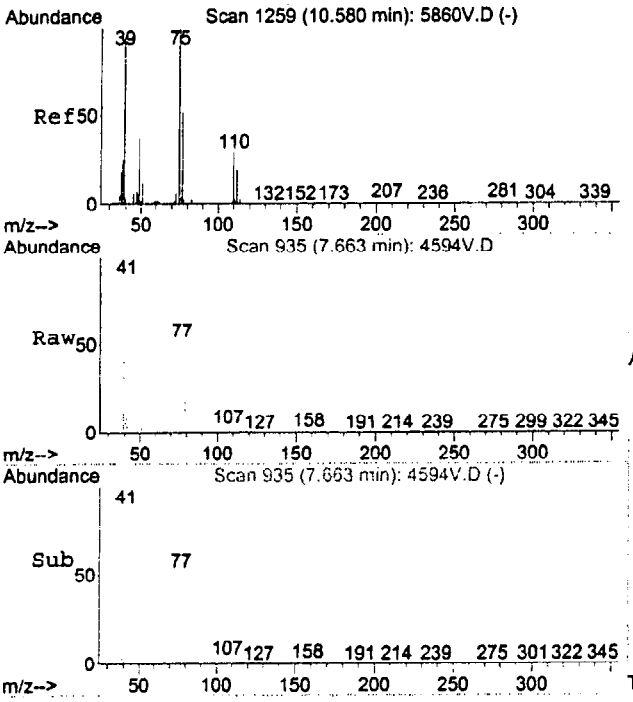
56911



#51
TOLUENE
Concen: 0.19 UG/L
RT: 7.28 min Scan# 882
Delta R.T. -0.01 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

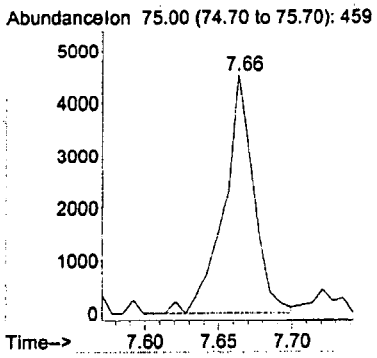
Tgt Ion: 91 Resp: 10697

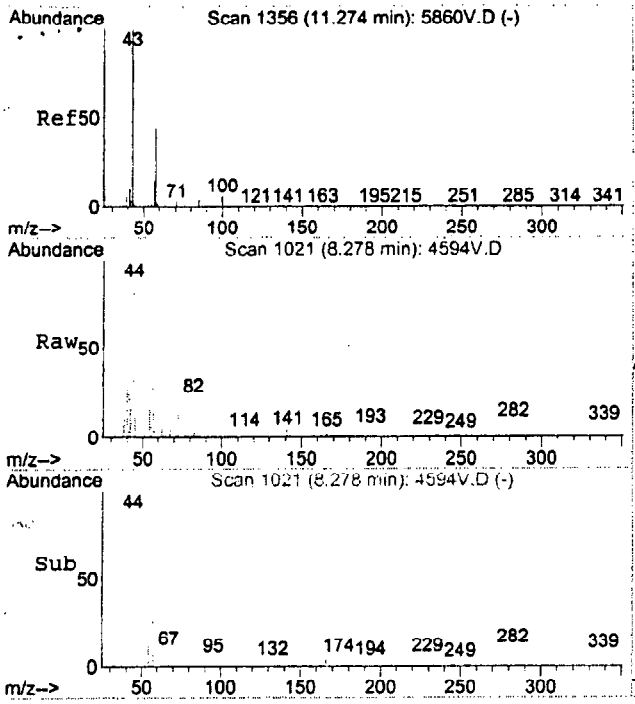




#52
trans-1,3-Dichloropropene
Concen: 0.32 UG/L
RT: 7.66 min Scan# 935
Delta R.T. 0.07 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 75 Resp: 6352

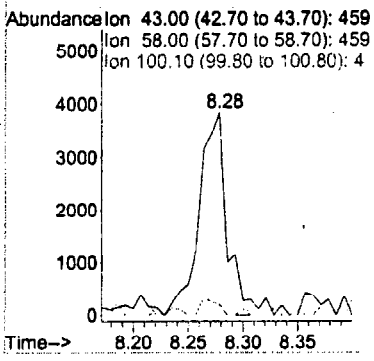




#56
2-Hexanone
Concen: 0.31 UG/L
RT: 8.28 min Scan# 1021
Delta R.T. 0.12 min
Lab File: 4594V.D
Acq: 3 Jun 2008 12:54

Tgt Ion: 43 Resp: 7019

Ion	Ratio	Lower	Upper
43	100		
58	0.0	38.6	58.0#
100	0.0	6.8	10.2#



R536256

Heritage Environmental Services, LLC

GC/MS VOA

A812349

Method SW846-8260B
Sample Description MW-148R
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4595V.D Date/Time 03Jun08 13:21:00
Dilution Factor 10

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	100	UG/L	
107-02-8	105	ACROLEIN		BDL	500	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	100	UG/L	
71-43-2	151	BENZENE		BDL	10	UG/L	
108-86-1	193	BROMOBENZENE		BDL	10	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	10	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	10	UG/L	
75-25-2	197	BROMOFORM		BDL	10	UG/L	
74-83-9	198	BROMOMETHANE		BDL	10	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	10	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	10	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	10	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	10	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	10	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	10	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	10	UG/L	
75-00-3	234	CHLOROETHANE		BDL	10	UG/L	
67-66-3	235	CHLOROFORM		BDL	10	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	10	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	10	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	10	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	10	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	10	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	10	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	10	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	10	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	10	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	10	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	10	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	20	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	10	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	10	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	10	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE	160		10	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE	13		10	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	10	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	10	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	10	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	10	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	10	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	10	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	10	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	100	UG/L	
591-78-6	60	2-HEXANONE		BDL	100	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	10	UG/L	

JS 6-5-08 KP

AW 6-5-08

R536256 Heritage Environmental Services, LLC A812349

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	10	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	10	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	10	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	10	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	100	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	10	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	100	UG/L	
91-20-3	493	NAPHTHALENE		BDL	10	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	10	UG/L	
100-42-5	680	STYRENE		BDL	10	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	10	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	10	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	10	UG/L	
108-88-3	724	TOLUENE		BDL	10	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	10	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	10	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	10	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	10	UG/L	
79-01-6	750	TRICHLOROETHENE	82		10	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	10	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	10	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	10	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	10	UG/L	
108-05-4	767	VINYL ACETATE		BDL	10	UG/L	
75-01-4	768	VINYL CHLORIDE	10		10	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	11	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	————————					
17060-07-0	301	DICHLOROETHANE-D4	114			% RECOVERY	
2037-26-5	726	TOLUENE-D8	104			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	103			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	112			% RECOVERY	

Comment 1:10 Dilution Prep Method SW846-5030B Purge and Trap m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Analyzed at dilution based on historical data. Could not reanalyze at lower dilution because of high concentrations of target compounds. KJ 6-5-00

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4595V.D
Acq On : 3 Jun 2008 13:21
Sample : A812349 1:10
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 13:37:53 2008

Vial: 13
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	578088	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	190290	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	173155	11.17	UG/L	0.00
Spiked Amount 10.000			Recovery	=	111.70%	
35) 1,2-Dichloroethane-d4	5.02	65	328686	11.36	UG/L	0.00
Spiked Amount 10.000			Recovery	=	113.60%	
50) Toluene-d8	7.21	98	569148	10.37	UG/L	0.00
Spiked Amount 10.000			Recovery	=	103.70%	
69) 4-Bromofluorobenzene	10.49	174	116131	10.31	UG/L	0.00
Spiked Amount 10.000			Recovery	=	103.10%	
Target Compounds						Qvalue
4) VINYL CHLORIDE 10	1.39	62	6953	1.02	UG/L #	44
~~9) Acetone~~	2.48	43	24941	2.62	UG/L #	88
~~14) Methylene Chloride~~	2.87	84	~~42950~~	1.67	UG/L #	65
18) trans-1,2-Dichloroethene 13	3.13	96	16163	1.28	UG/L #	64
~~20) 1,1-Dichloroethane~~	3.56	63	6076	0.20	UG/L	100
23) cis-1,2-Dichloroethene 160	4.16	96	224947	16.07	UG/L	78
~~40) Trichloroethene~~ 82	5.79	130	117095	8.18	UG/L	96
~~52) trans-1,3-Dichloropropene~~	7.66	75	6087	0.31	UG/L	100

(#) = qualifier out of range (m) = manual integration
4595V.D 8260VOI.M Tue Jun 03 13:37:55 2008

56911

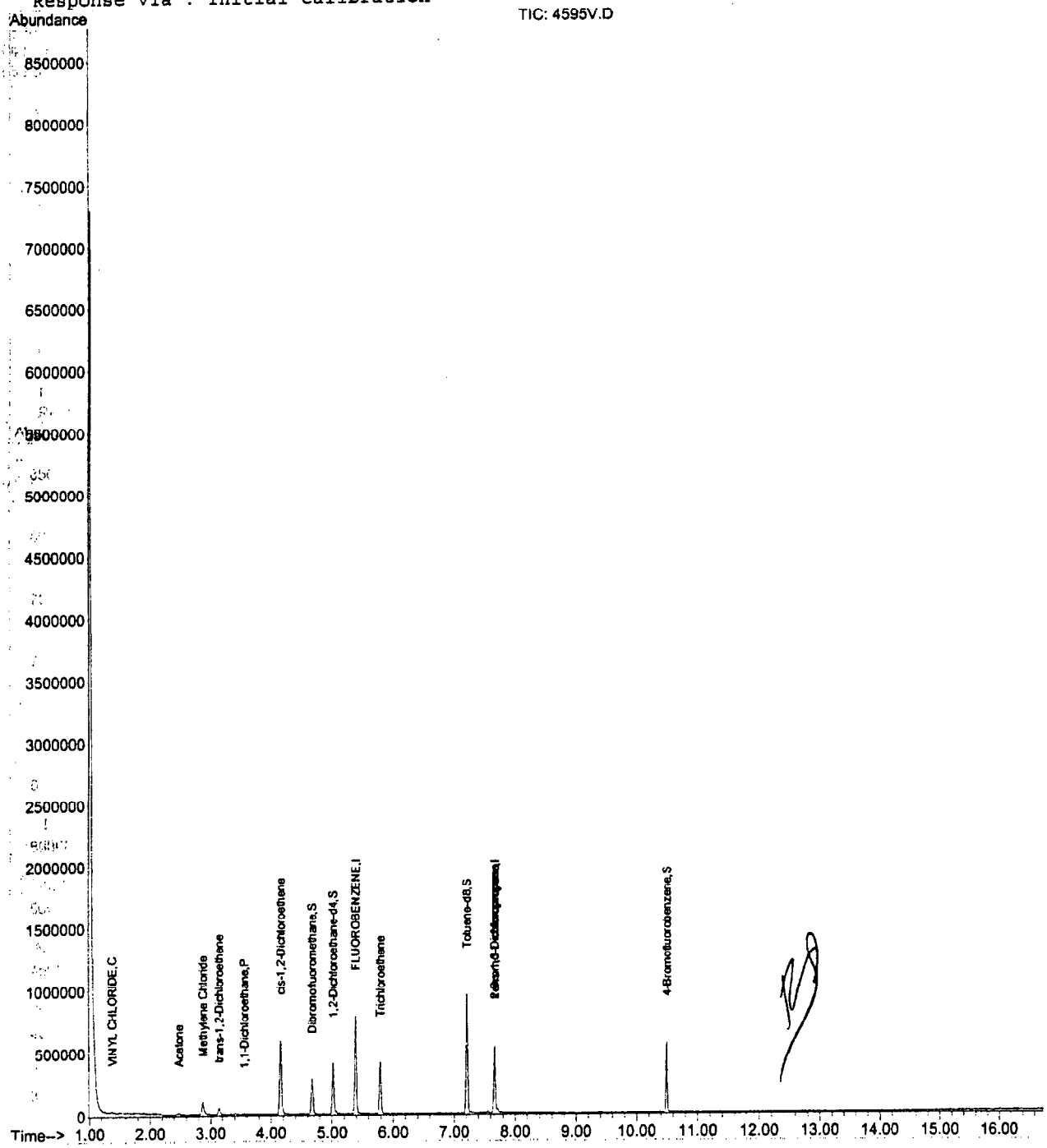
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4595V.D
Acq On : 3 Jun 2008 13:21
Sample : A812349 1:10
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 13:37 2008

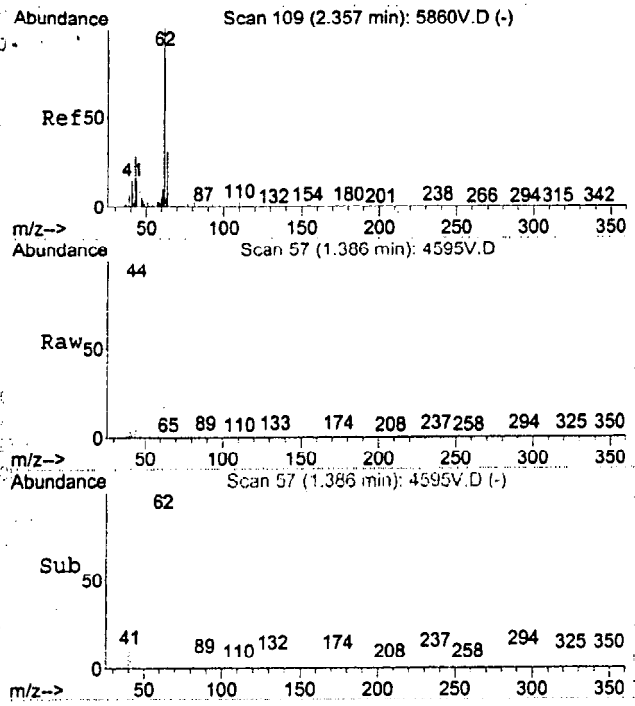
Vial: 13
Operator: REGI
Inst : Instrumen
Multiplr: 1.00

Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration



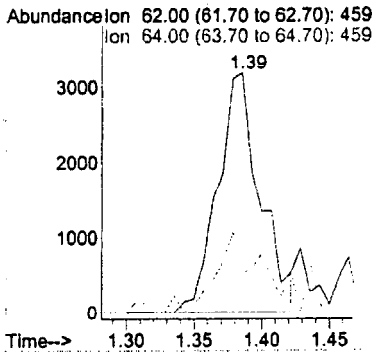
56911

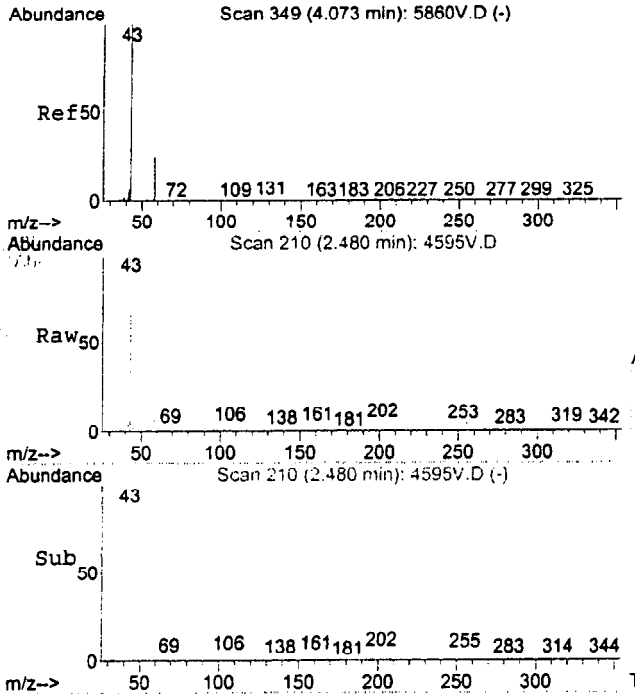


#4
VINYL CHLORIDE
Concen: 1.02 UG/L
RT: 1.39 min Scan# 57
Delta R.T. 0.01 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion: 62 Resp: 6953

Ion	Ratio	Lower	Upper
62	100		
64	0.0	24.9	37.3#

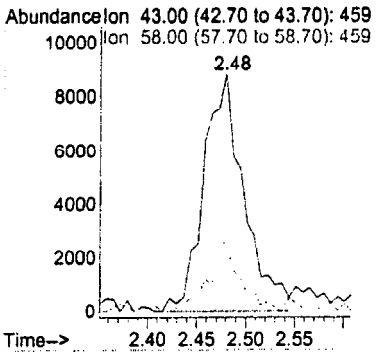


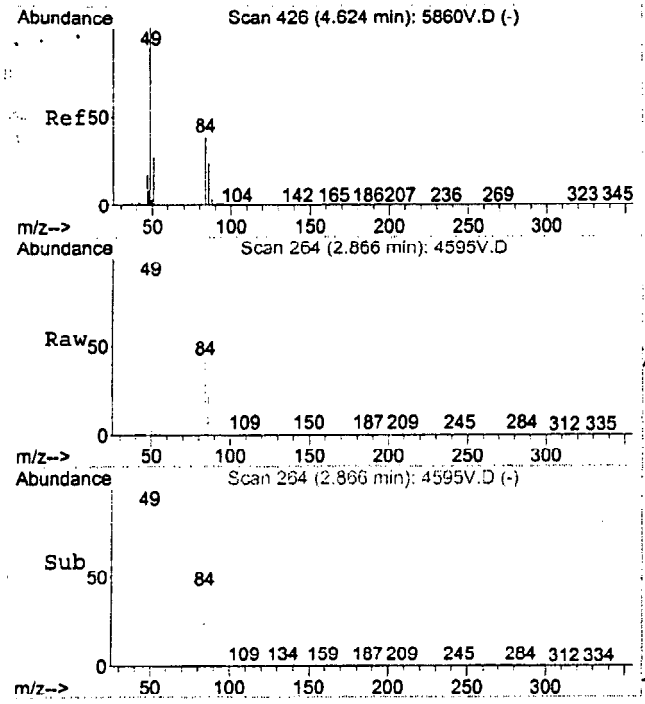


#9
Acetone
Concen: 2.62 UG/L
RT: 2.48 min Scan# 210
Delta R.T. -0.01 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion: 43 Resp: 24941

Ion	Ratio	Lower	Upper
43	100		
58	22.6	23.1	34.7#

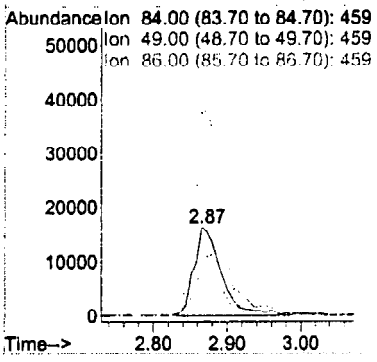


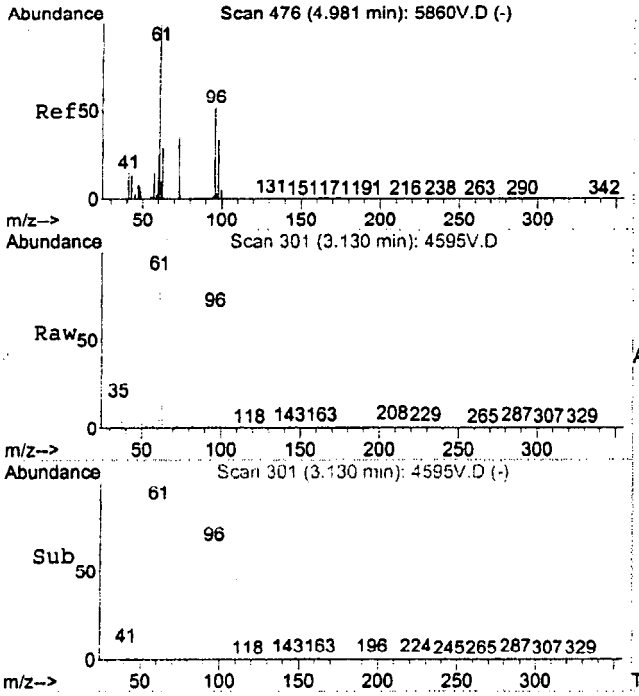


#14
Methylene Chloride
Concen: 1.67 UG/L
RT: 2.87 min Scan# 264
Delta R.T. -0.01 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion: 84 Resp: 42950

Ion	Ratio	Lower	Upper
84	100		
49	238.7	140.2	210.2#
86	67.4	51.1	76.7

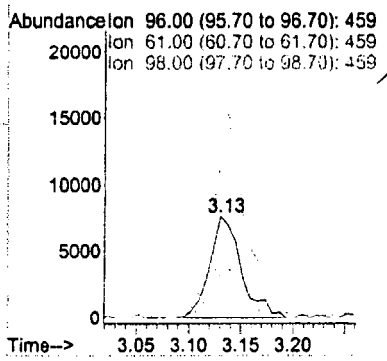


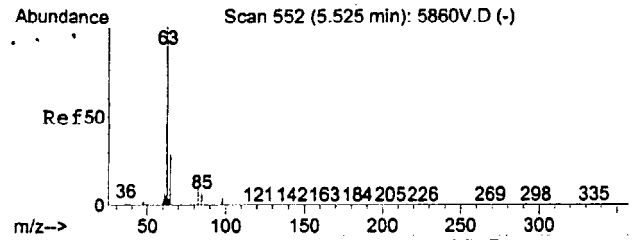


#18
trans-1,2-Dichloroethene
Concen: 1.28 UG/L
RT: 3.13 min Scan# 301
Delta R.T. -0.01 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion: 96 Resp: 16163

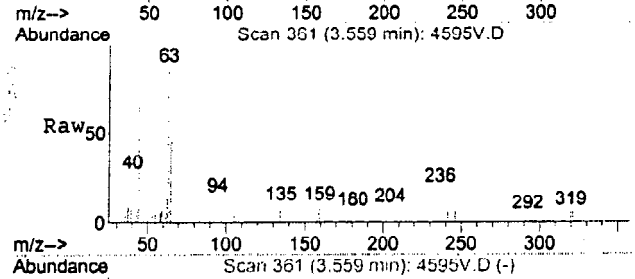
Ion	Ratio	Lower	Upper
96	100		
61	201.7	114.1	171.1#
98	57.1	50.7	76.1

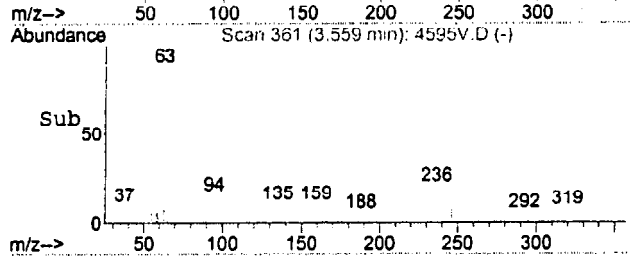


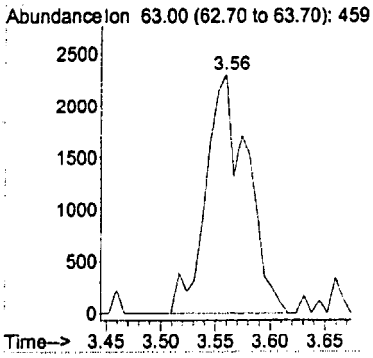


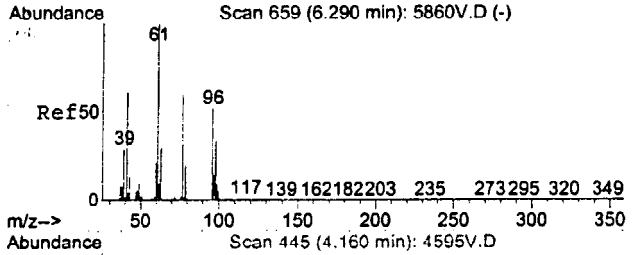
#20
1,1-Dichloroethane
Concen: 0.20 UG/L
RT: 3.56 min Scan# 361
Delta R.T. 0.00 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion: 63 Resp: 6076





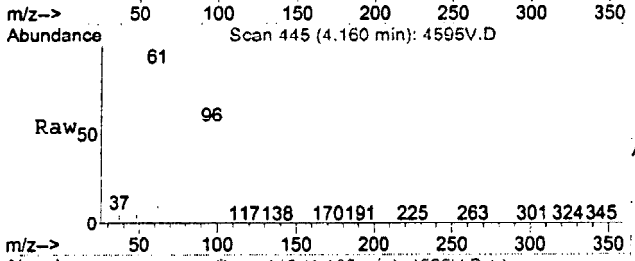


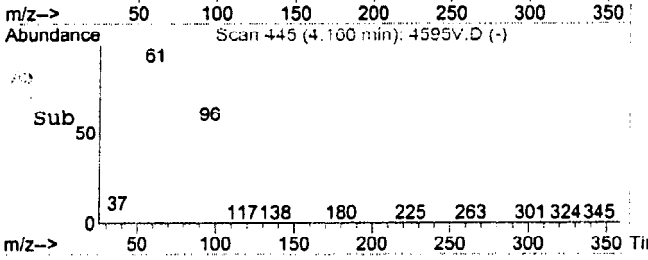


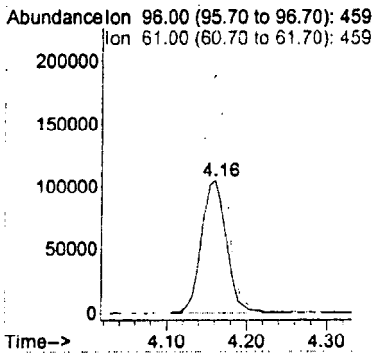
#23
cis-1,2-Dichloroethene
Concen: 16.07 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

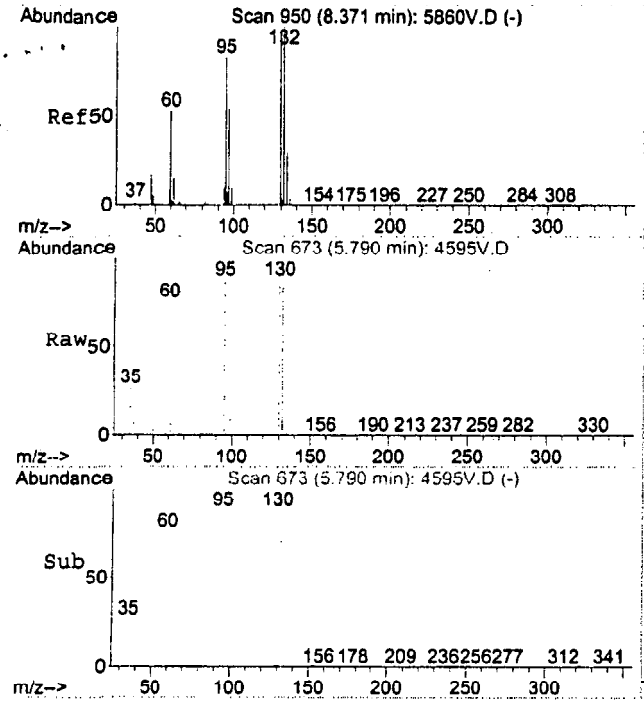
Tgt Ion: 96 Resp: 224947

Ion	Ratio	Lower	Upper
96	100		
61	180.4	121.8	182.6





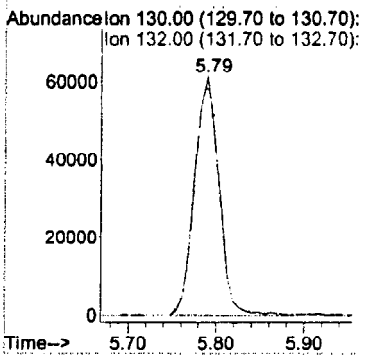


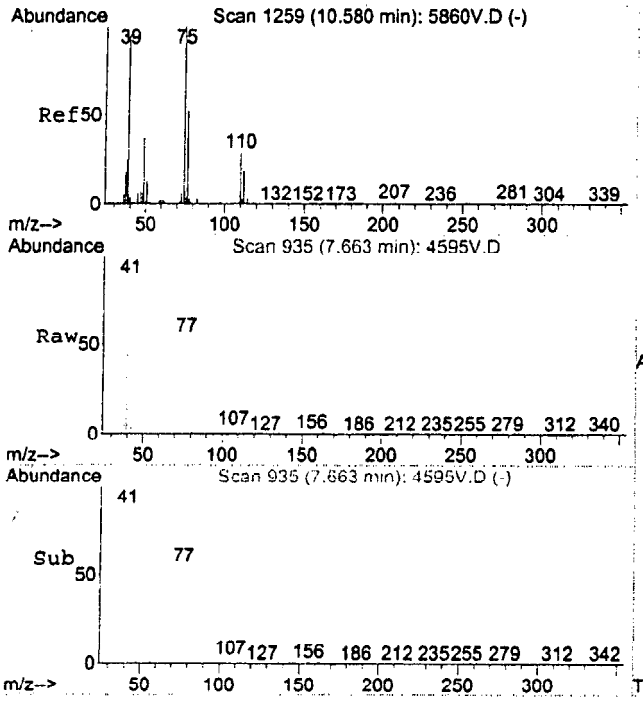


#40
Trichloroethene
Concen: 8.18 UG/L
RT: 5.79 min Scan# 673
Delta R.T. 0.00 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion:130 Resp: 117095

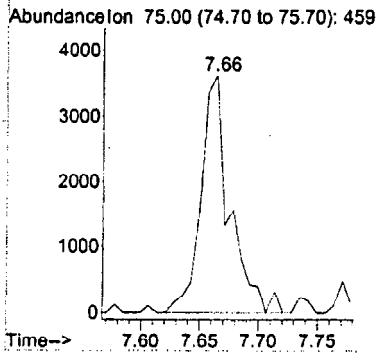
Ion	Ratio	Lower	Upper
130	100		
132	98.3	82.0	123.0





#52
trans-1,3-Dichloropropene
Concen: 0.31 UG/L
RT: 7.66 min Scan# 935
Delta R.T. 0.07 min
Lab File: 4595V.D
Acq: 3 Jun 2008 13:21

Tgt Ion: 75 Resp: 6087



R536256

Heritage Environmental Services, LLC

A812351

GC/MS VOA

Method SW846-8260B
Sample Description MW-153 (DUP)
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4596V.D Date/Time 03Jun08 13:47:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE	12		1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE	2.2		1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

JAS CAS 6-5-08

R536256 Heritage Environmental Services, LLC A812351

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE	93		1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE		BDL	1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	111			% RECOVERY	
2037-26-5	726	TOLUENE-D8	101			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	99			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	108			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4596V.D Vial: 14
Acq On : 3 Jun 2008 13:47 Operator: REGI
Sample : A812351 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 03 14:03:52 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	565207	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	181736	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	164133	10.83	UG/L	0.00
Spiked Amount 10.000			Recovery	=	108.30%	
35) 1,2-Dichloroethane-d4	5.02	65	313228	11.07	UG/L	0.00
Spiked Amount 10.000			Recovery	=	110.70%	
50) Toluene-d8	7.21	98	543311	10.12	UG/L	0.00
Spiked Amount 10.000			Recovery	=	101.20%	
69) 4-Bromofluorobenzene	10.49	174	106666	9.92	UG/L	0.00
Spiked Amount 10.000			Recovery	=	99.20%	
Target Compounds						Qvalue
9) Acetone	2.48	43	13470	1.44	UG/L #	46
14) Methylene Chloride	2.87	84	20816	Below Cal	#	80
18) trans-1,2-Dichloroethene 2,2	3.14	96	26985	2.18	UG/L #	76
20) 1,1-Dichloroethane	3.56	63	5111	0.18	UG/L	100
23) cis-1,2-Dichloroethene 12	4.16	96	157736	11.53	UG/L	77
40) Trichloroethene 93	5.79	130	1300410	92.87	UG/L	93
47) 4-Methyl-2-Pentanone	7.21	43	5006	0.17	UG/L #	1
51) TOLUENE	7.28	91	11214	0.21	UG/L	100
52) trans-1,3-Dichloropropene	7.67	75	6800	0.35	UG/L	100

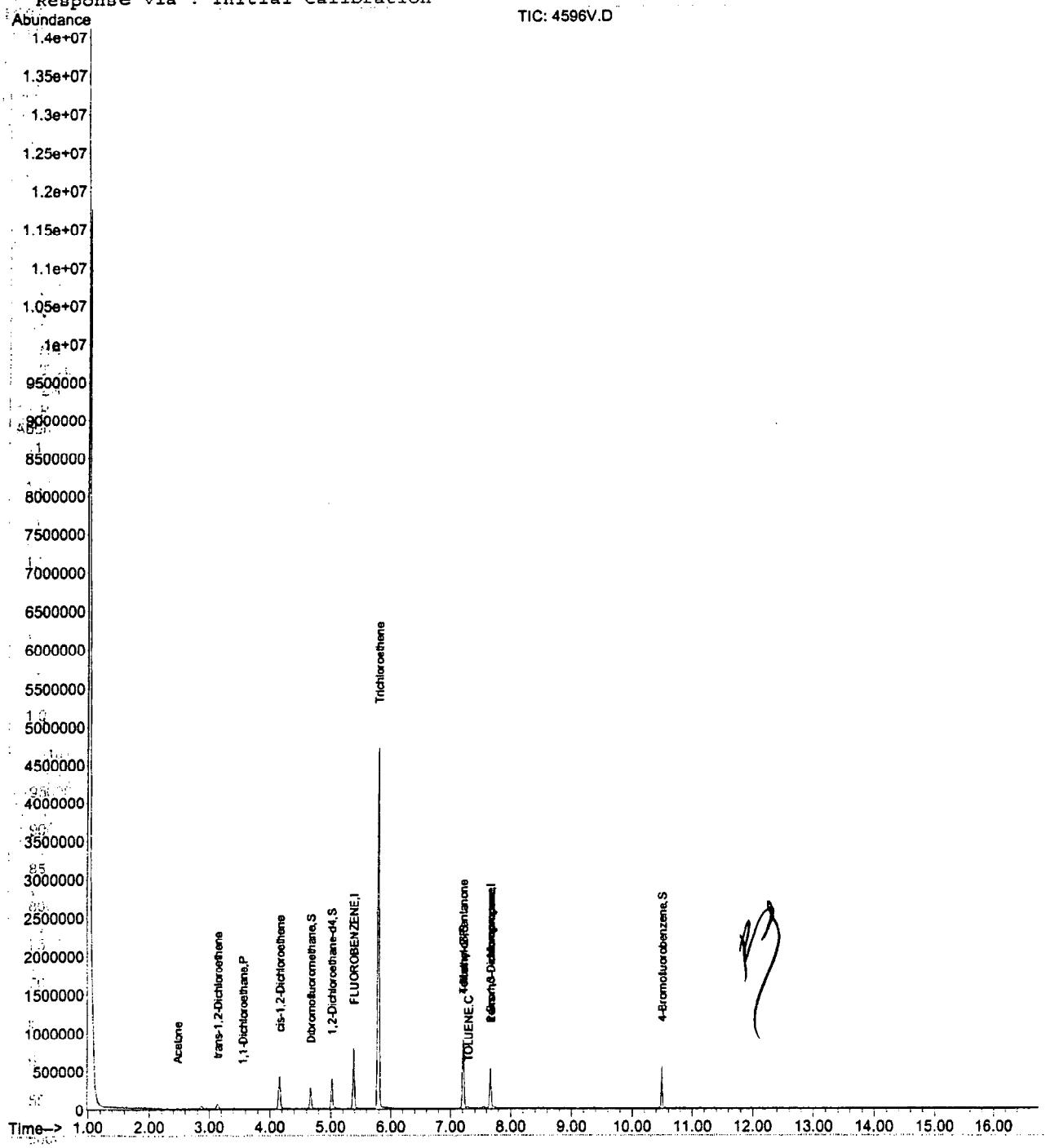
(#) = qualifier out of range (m) = manual integration

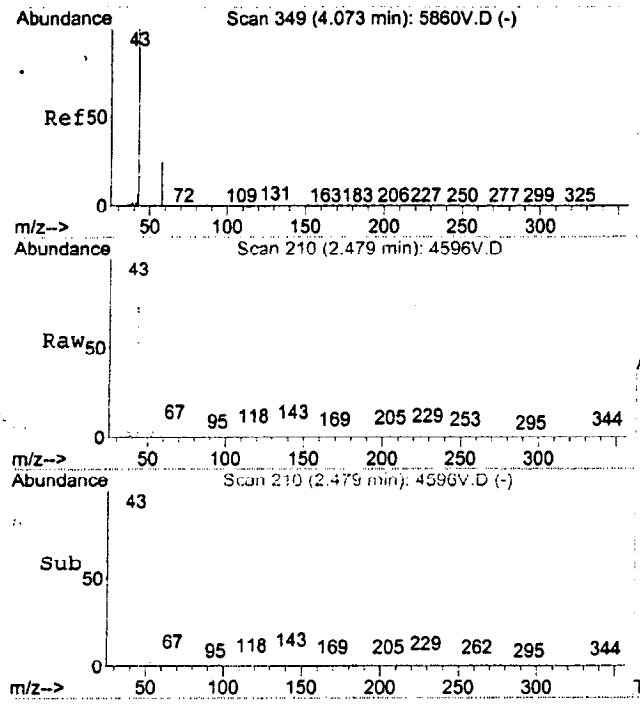
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4596V.D
Acq On : 3 Jun 2008 13:47
Sample : A812351
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 14:03 2008

Vial: 14
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

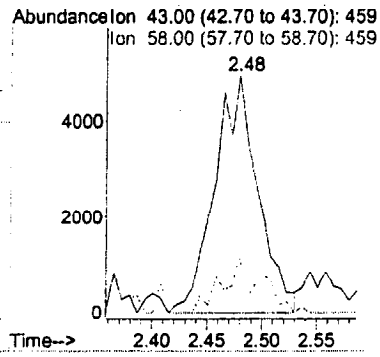


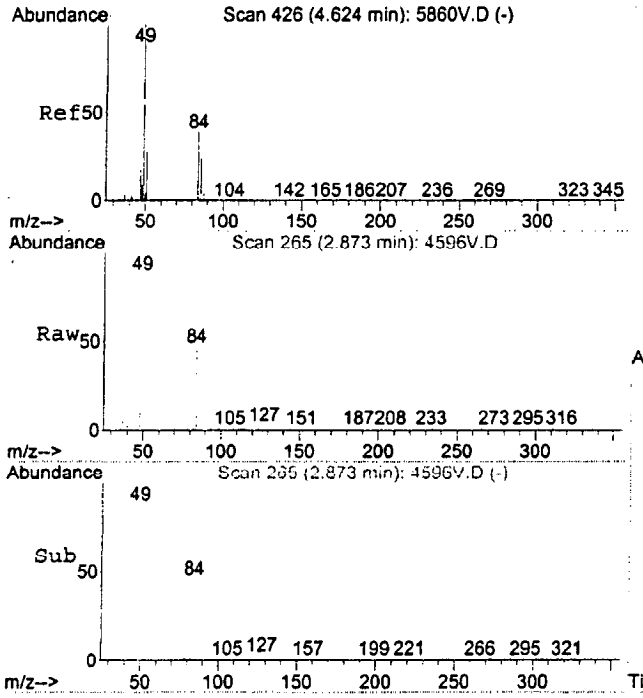


#9
Acetone
Concen: 1.44 UG/L
RT: 2.48 min Scan# 210
Delta R.T. -0.01 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 43 Resp: 13470

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

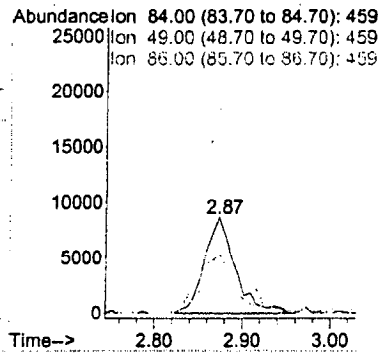


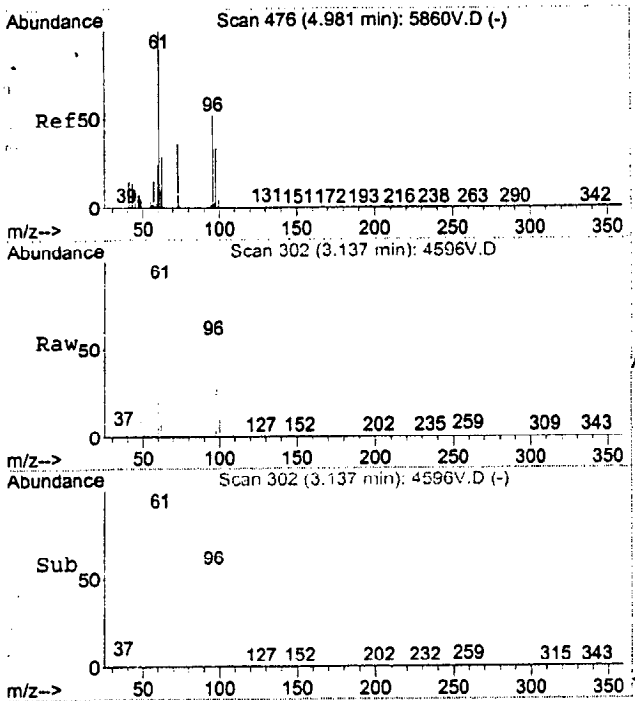


#14
Methylene Chloride
Concen: Below Cal
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 84 Resp: 20816

Ion	Ratio	Lower	Upper
84	100		
49	211.9	140.2	210.2#
86	65.0	51.1	76.7

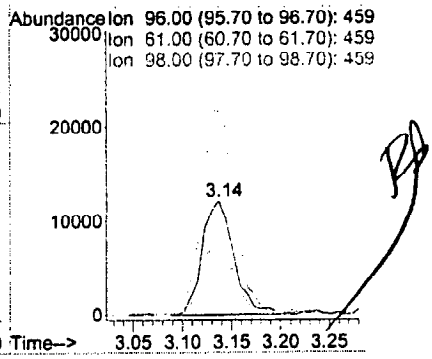


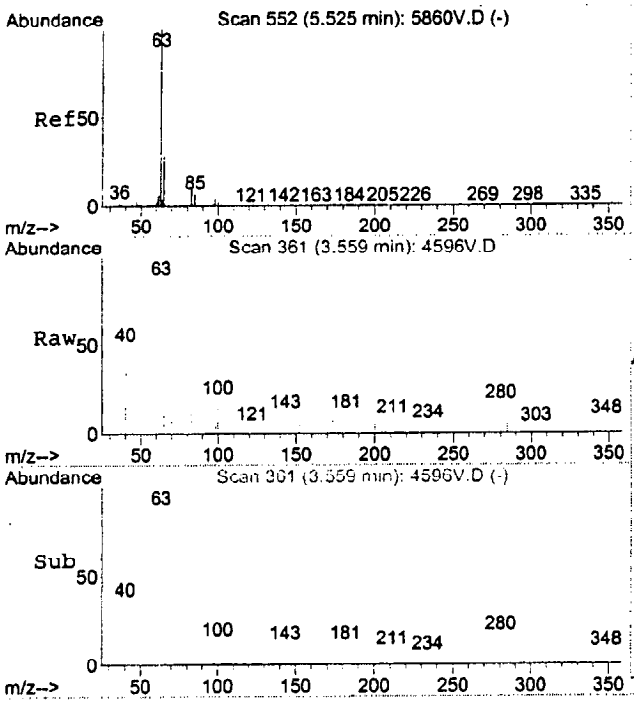


#18
trans-1,2-Dichloroethene
Concen: 2.18 UG/L
RT: 3.14 min Scan# 302
Delta R.T. -0.00 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 96 Resp: 26985

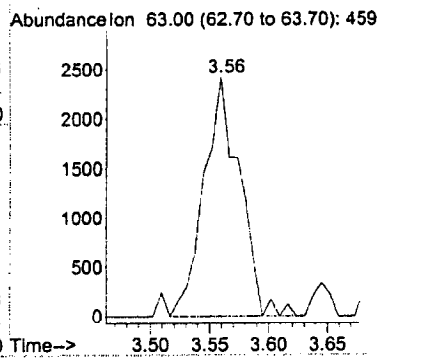
Ion	Ratio	Lower	Upper
96	100		
61	185.1	114.1	171.1#
98	64.9	50.7	76.1

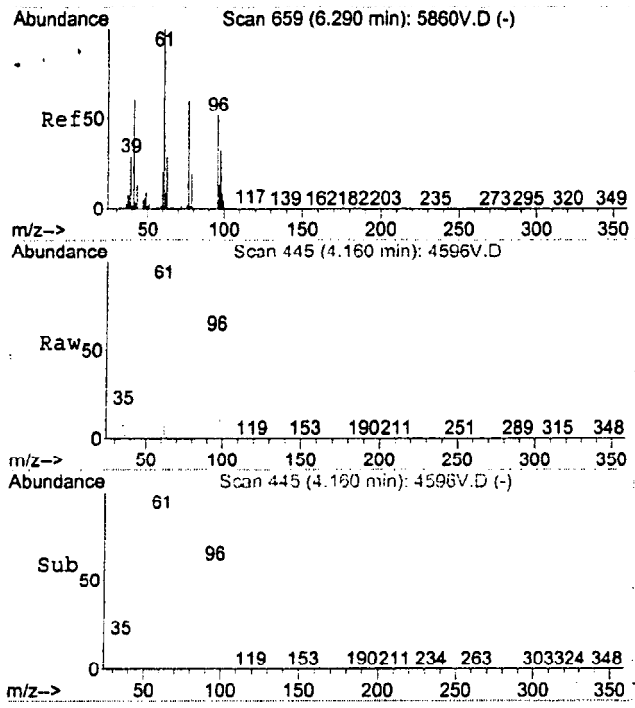




#20
1,1-Dichloroethane
Concen: 0.18 UG/L
RT: 3.56 min Scan# 361
Delta R.T. -0.00 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 63 Resp: 5111

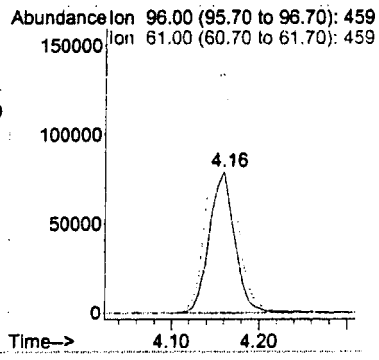


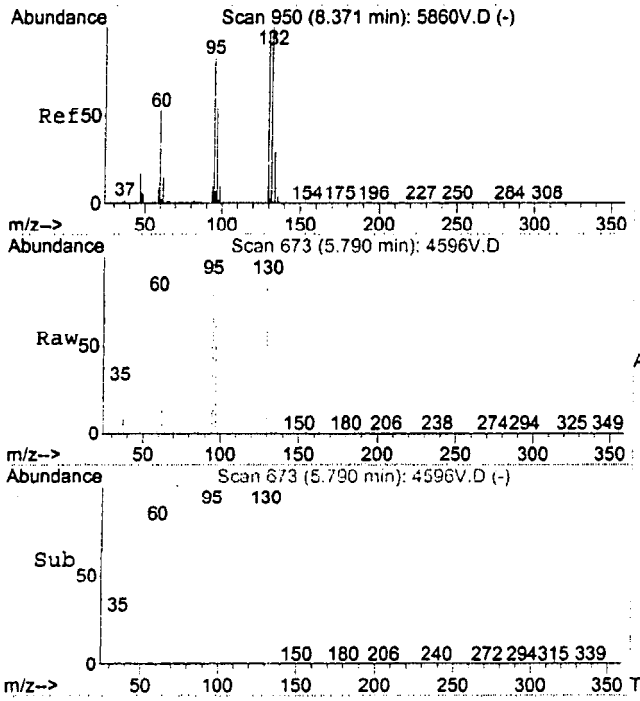


#23
cis-1,2-Dichloroethene
Concen: 11.53 UG/L
RT: 4.16 min Scan# 445
Delta R.T. -0.00 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 96 Resp: 157736

Ion	Ratio	Lower	Upper
96	100		
61	181.0	121.8	182.6

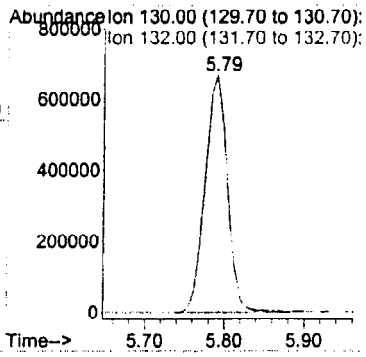


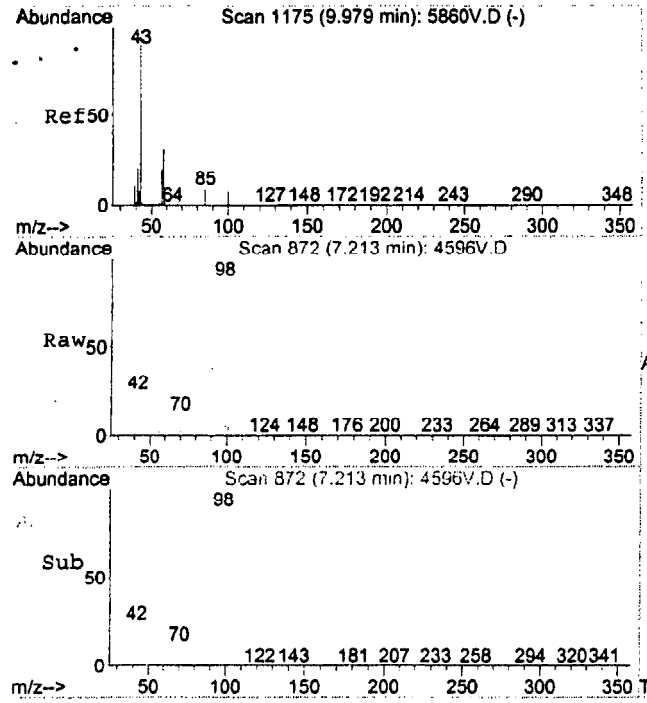


#40
Trichloroethene
Concen: 92.87 UG/L
RT: 5.79 min Scan# 673
Delta R.T. -0.00 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion:130 Resp: 1300410

Ion	Ratio	Lower	Upper
130	100		
132	95.6	82.0	123.0

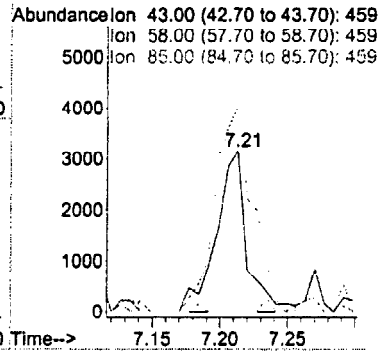


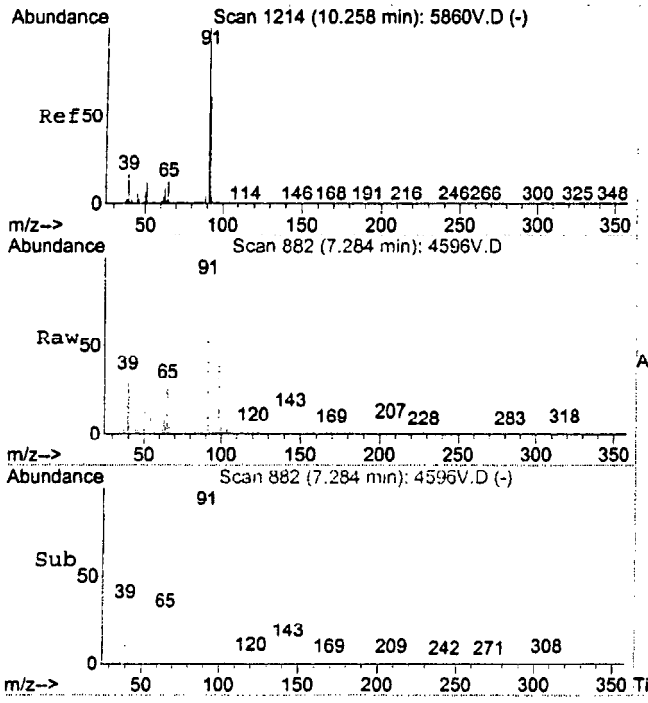


#47
4-Methyl-2-Pentanone
Concen: 0.17 UG/L
RT: 7.21 min Scan# 872
Delta R.T. 0.09 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 43 Resp: 5006

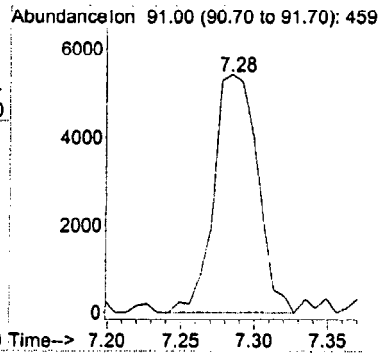
Ion	Ratio	Lower	Upper
43	100		
58	153.8	27.5	41.3#
85	0.0	9.6	14.4#

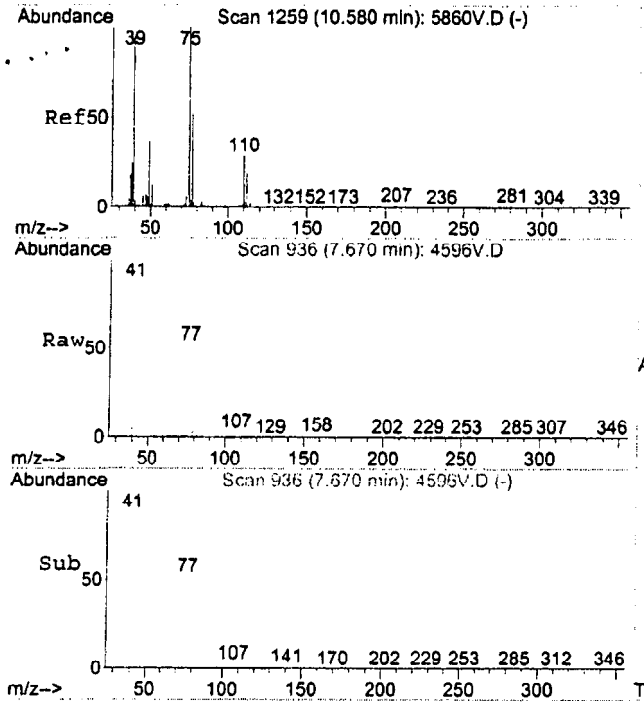




#51
TOLUENE
Concen: 0.21 UG/L
RT: 7.28 min Scan# 882
Delta R.T. -0.01 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

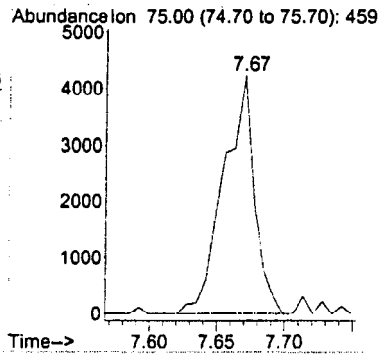
Tgt Ion: 91 Resp: 11214





#52
trans-1,3-Dichloropropene
Concen: 0.35 UG/L
RT: 7.67 min Scan# 936
Delta R.T. 0.08 min
Lab File: 4596V.D
Acq: 3 Jun 2008 13:47

Tgt Ion: 75 Resp: 6800



R536256

Heritage Environmental Services, LLC

A812352

GC/MS VOA

Method SW846-8260B
Sample Description MW-302
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4597V.D Date/Time 03Jun08 14:12:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

56911

R536256 Heritage Environmental Services, LLC A812352

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE		BDL	1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE		BDL	1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	113			% RECOVERY	
2037-26-5	726	TOLUENE-D8	99			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	96			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	112			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4597V.D Vial: 15
Acq On : 3 Jun 2008 14:12 Operator: REGI
Sample : A812352 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 03 14:29:45 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

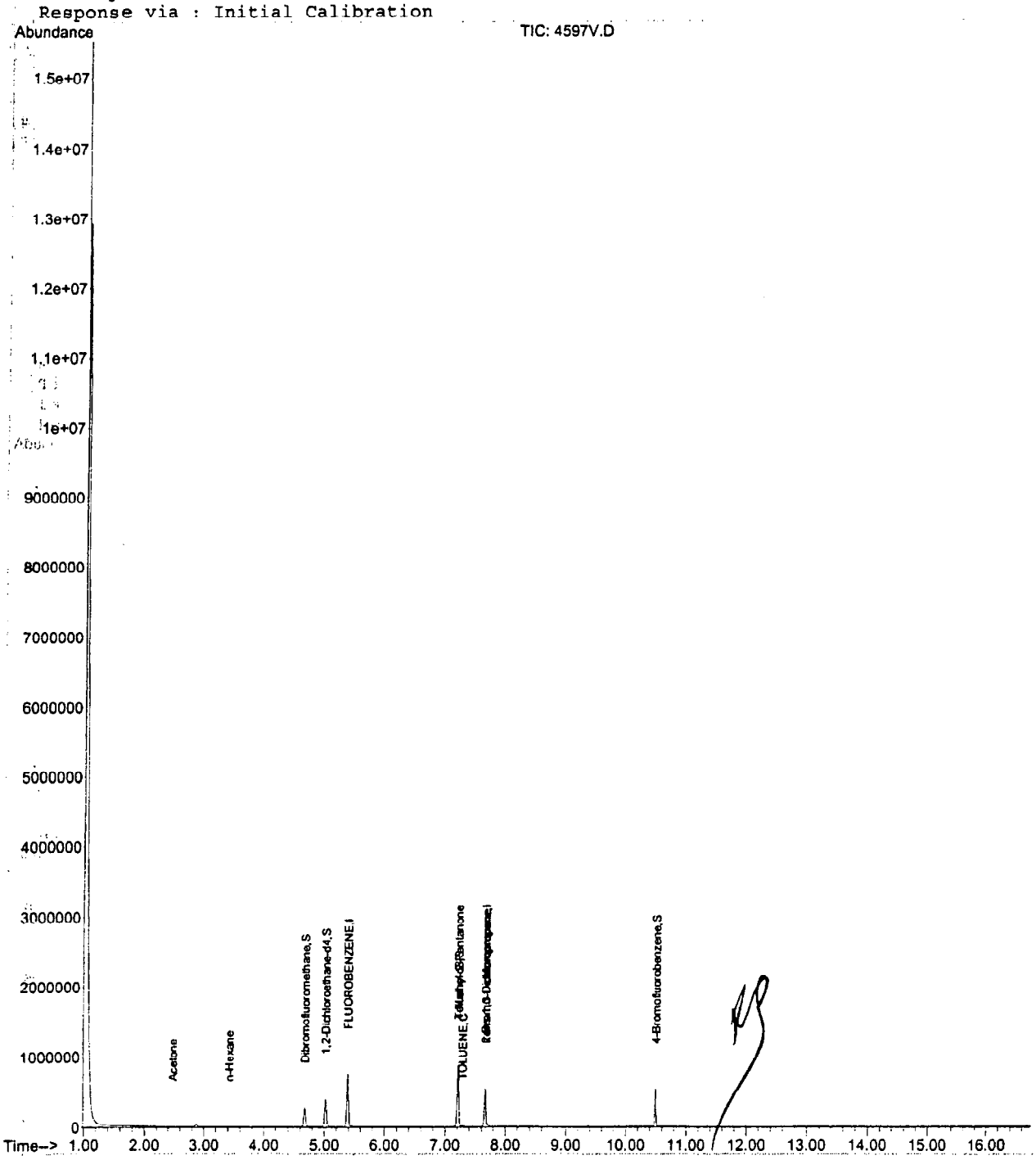
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	562624	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	183446	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	168249	11.15 UG/L	0.00
Spiked Amount 10.000			Recovery	= 111.50%	
35) 1,2-Dichloroethane-d4	5.02	65	317958	11.29 UG/L	0.00
Spiked Amount 10.000			Recovery	= 112.90%	
50) Toluene-d8	7.21	98	530580	9.93 UG/L	0.00
Spiked Amount 10.000			Recovery	= 99.30%	
69) 4-Bromofluorobenzene	10.49	174	104287	9.61 UG/L	0.00
Spiked Amount 10.000			Recovery	= 96.10%	
Target Compounds					Qvalue
9) Acetone	2.47	43	6715	0.72 UG/L #	46
14) Methylene Chloride	2.87	84	17840	Below Cal #	67
19) n-Hexane	3.42	57	5302	0.26 UG/L	100
47) 4-Methyl-2-Pentanone	7.21	43	5974	0.20 UG/L #	1
51) TOLUENE	7.29	91	11607	0.22 UG/L	100
52) trans-1,3-Dichloropropene	7.66	75	5091	0.27 UG/L	100

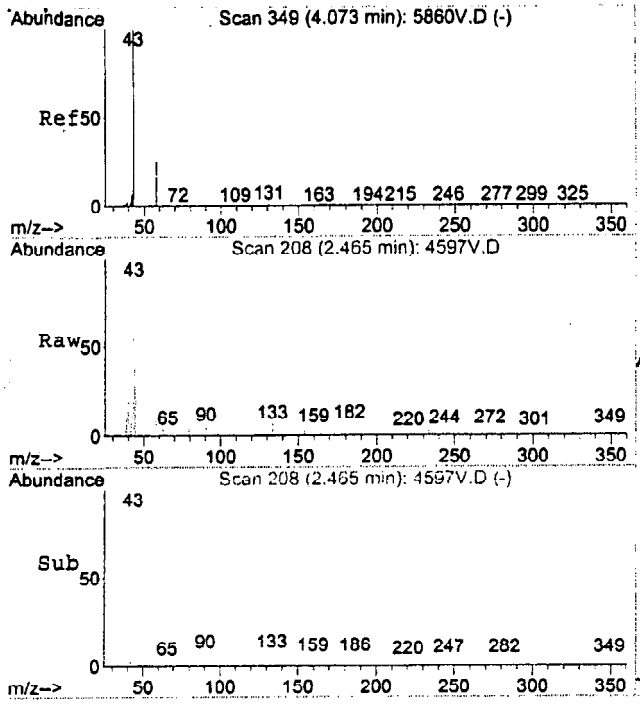
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4597V.D Vial: 15
Acq On : 3 Jun 2008 14:12 Operator: REGI
Sample : A812352 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 14:29 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

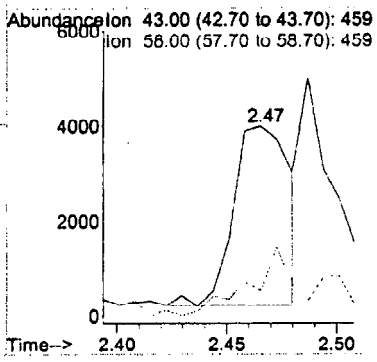


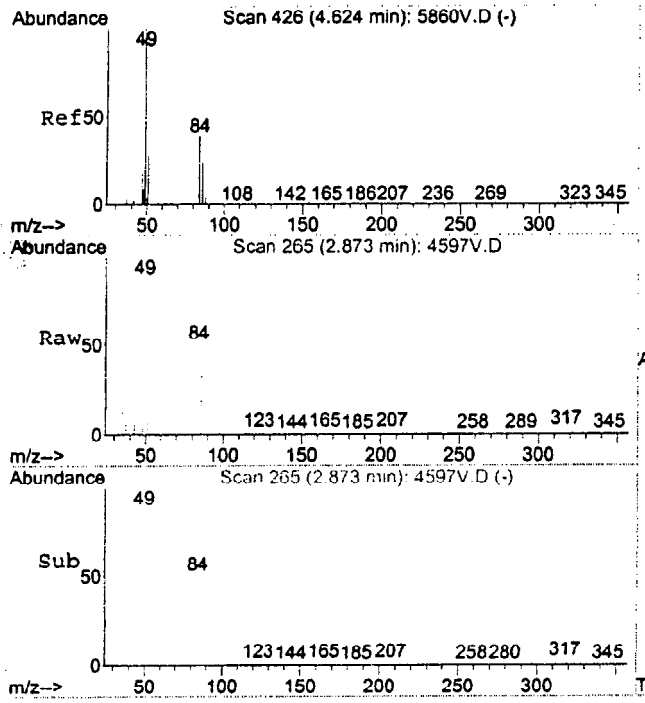


#9
Acetone
Concen: 0.72 UG/L
RT: 2.47 min Scan# 208
Delta R.T. -0.02 min
Lab File: 4597V.D
Acq: 3 Jun 2008 14:12

Tgt Ion: 43 Resp: 6715

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

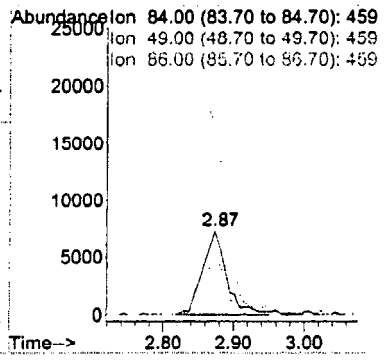


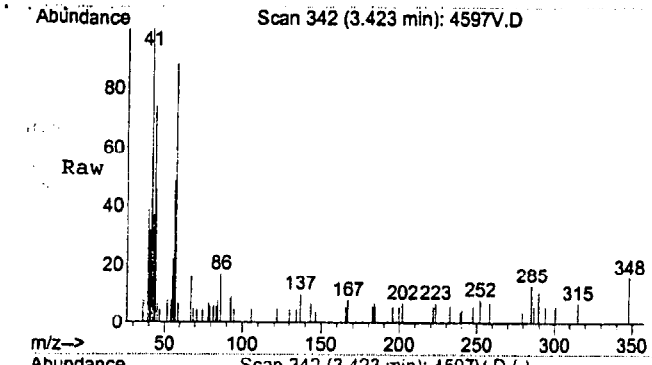


#14
Methylene Chloride
Concen: Below Cal
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4597V.D
Acq: 3 Jun 2008 14:12

Tgt Ion: 84 Resp: 17840

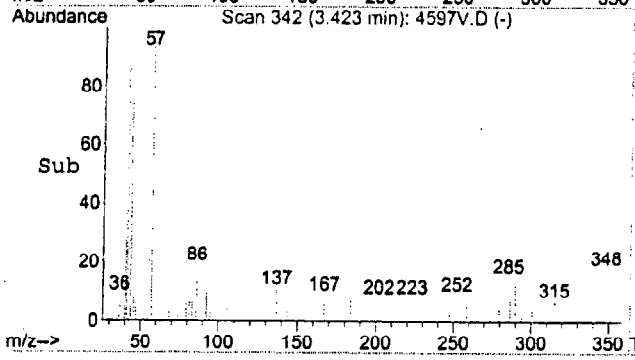
Ion	Ratio	Lower	Upper
84	100		
49	233.6	140.2	210.2#
86	69.3	51.1	76.7

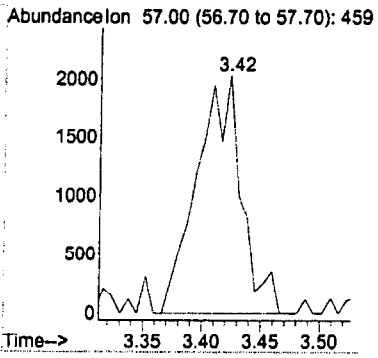


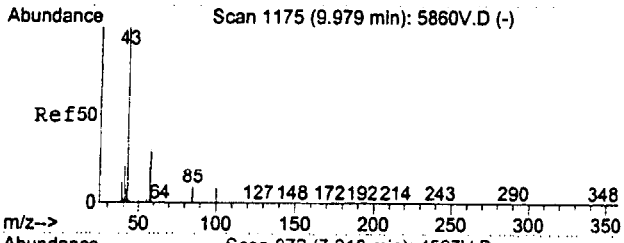


#19
n-Hexane
Concen: 0.26 UG/L
RT: 3.42 min Scan# 342
Delta R.T. 0.01 min
Lab File: 4597V.D
Acq: 3 Jun 2008 14:12

Tgt Ion: 57 Resp: 5302



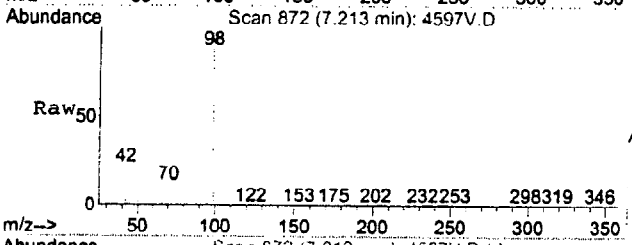


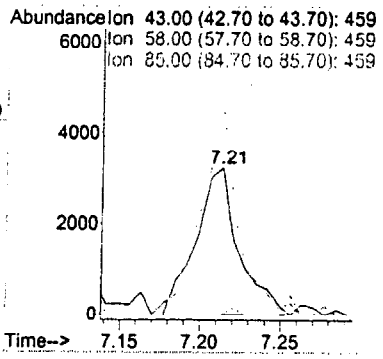


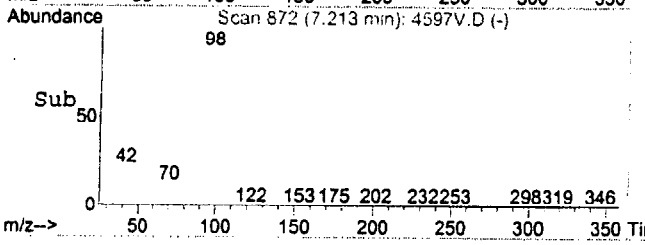
#47
4-Methyl-2-Pentanone
Concen: 0.20 UG/L
RT: 7.21 min Scan# 872
Delta R.T. 0.09 min
Lab File: 4597V.D
Acq: 3 Jun 2008 14:12

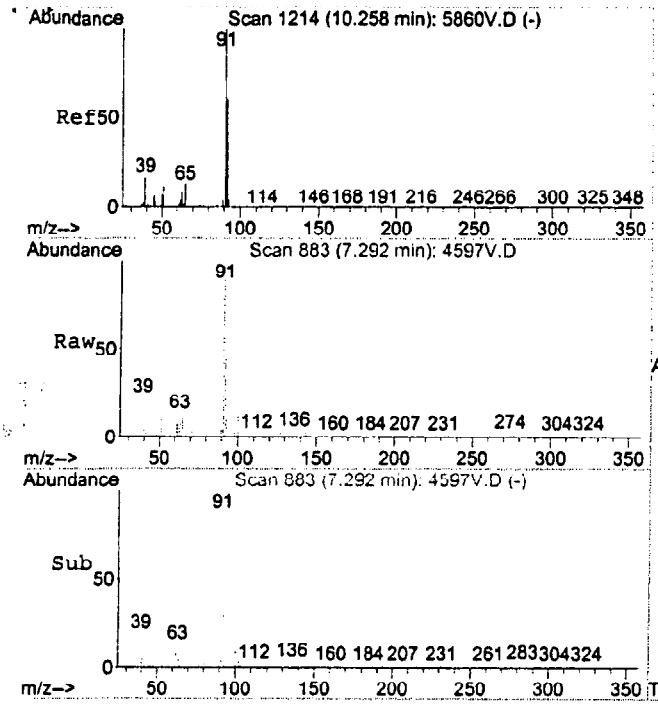
Tgt Ion: 43 Resp: 5974

Ion	Ratio	Lower	Upper
43	100		
58	120.9	27.5	41.3#
85	0.0	9.6	14.4#



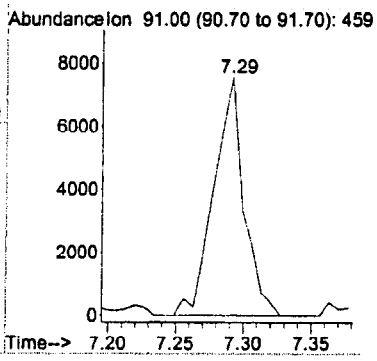


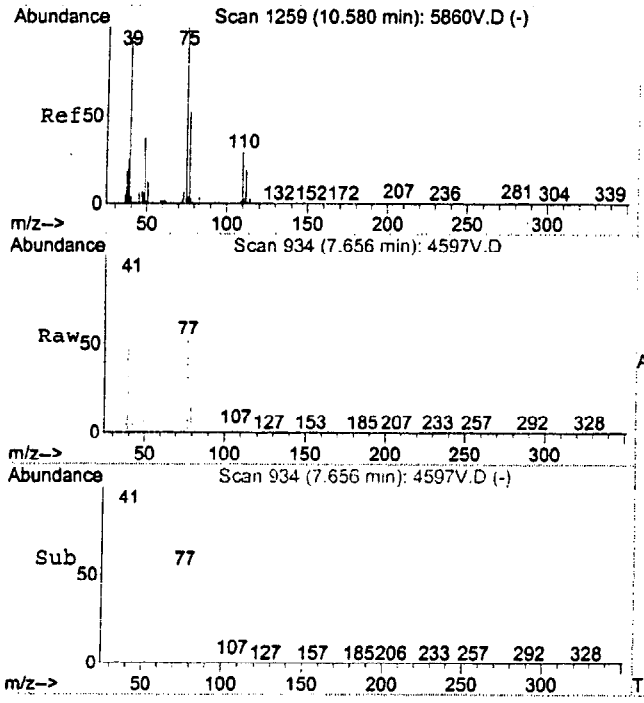




#51
TOLUENE
Concen: 0.22 UG/L
RT: 7.29 min Scan# 883
Delta R.T. 0.00 min
Lab File: 4597V.D
Acq: 3 Jun 2008 14:12

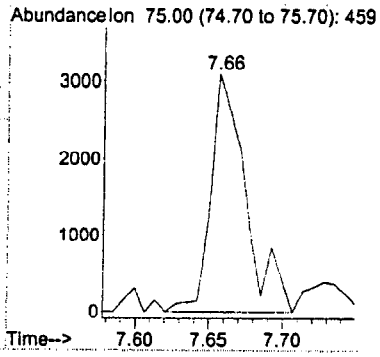
Tgt Ion: 91 Resp: 11607





#52
trans-1,3-Dichloropropene
Concen: 0.27 UG/L
RT: 7.66 min Scan# 934
Delta R.T. 0.06 min
Lab File: 4597V.D
Acq: 3 Jun 2008 14:12

Tgt Ion: 75 Resp: 5091



R536256

Heritage Environmental Services, LLC

GC/MS VOA

A812354

Method SW846-8260B
Sample Description MW-152
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4599V.D Date/Time 03Jun08 15:05:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

JS KB 6-5-08

R536256 Heritage Environmental Services, LLC A812354

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE	46		1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE		BDL	1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	115			% RECOVERY	
2037-26-5	726	TOLUENE-D8	100			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	99			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	112			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4599V.D Vial: 17
Acq On : 3 Jun 2008 15:05 Operator: REGI
Sample : A812354 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 03 15:22:07 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	557491	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	179921	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	167797	11.22	UG/L	0.00
Spiked Amount 10.000			Recovery	=	112.20%	
35) 1,2-Dichloroethane-d4	5.02	65	319531	11.45	UG/L	0.00
Spiked Amount 10.000			Recovery	=	114.50%	
50) Toluene-d8	7.21	98	526864	9.95	UG/L	0.00
Spiked Amount 10.000			Recovery	=	99.50%	
69) 4-Bromofluorobenzene	10.49	174	105755	9.93	UG/L	0.00
Spiked Amount 10.000			Recovery	=	99.30%	
Target Compounds						Qvalue
9) ~~Acetone~~	2.47	43	12399	1.35	UG/L #	46
14) Methylene Chloride	2.87	84	19482	Below Cal	#	70
40) Trichloroethene UG	5.79	130	629761	45.60	UG/L	92
47) ~~4-Methyl-2~~-Pentanone	7.21	43	5903	0.20	UG/L #	1
51) ~~TOLUENE~~	7.29	91	15788	0.30	UG/L	100

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

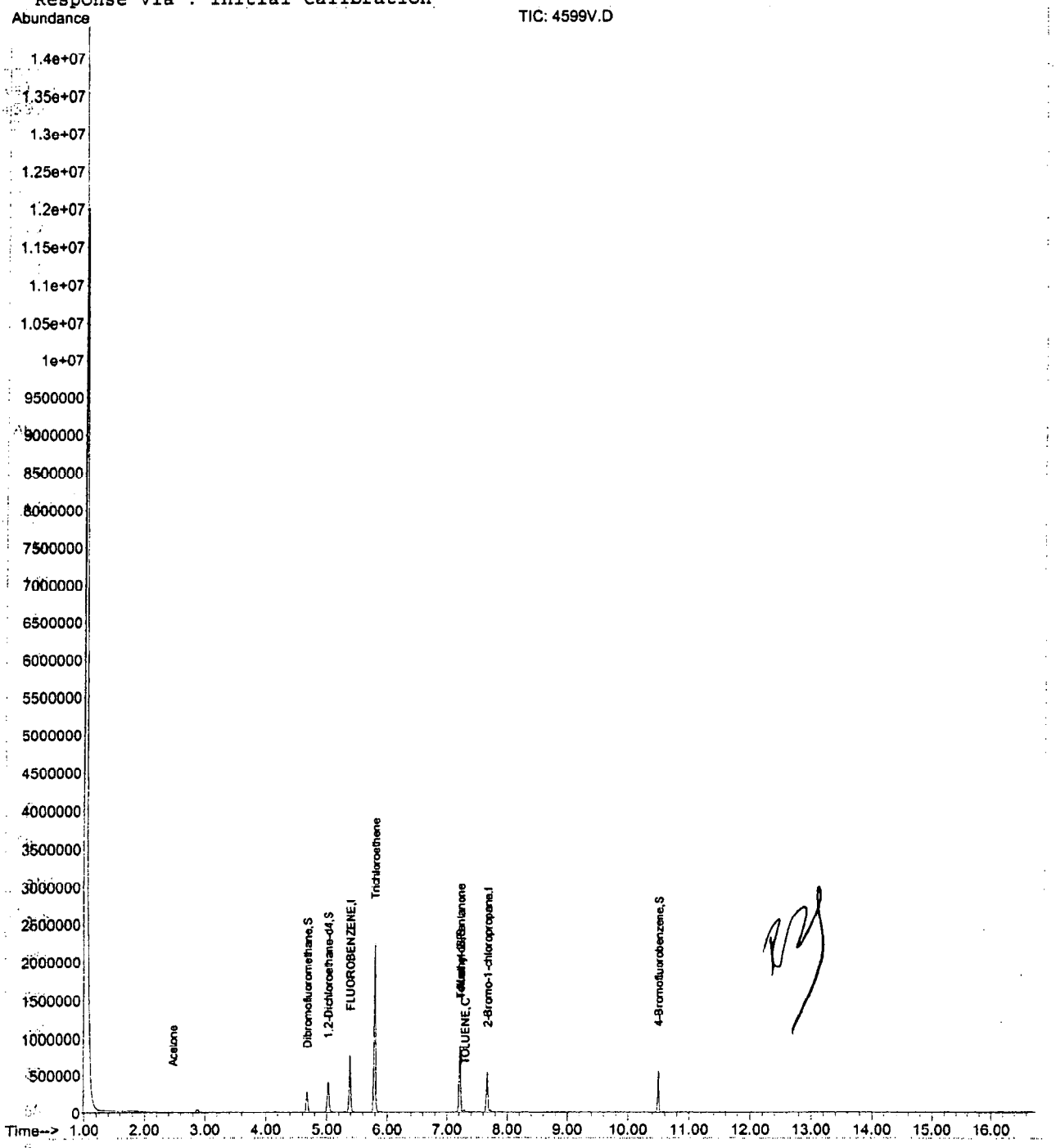
56911

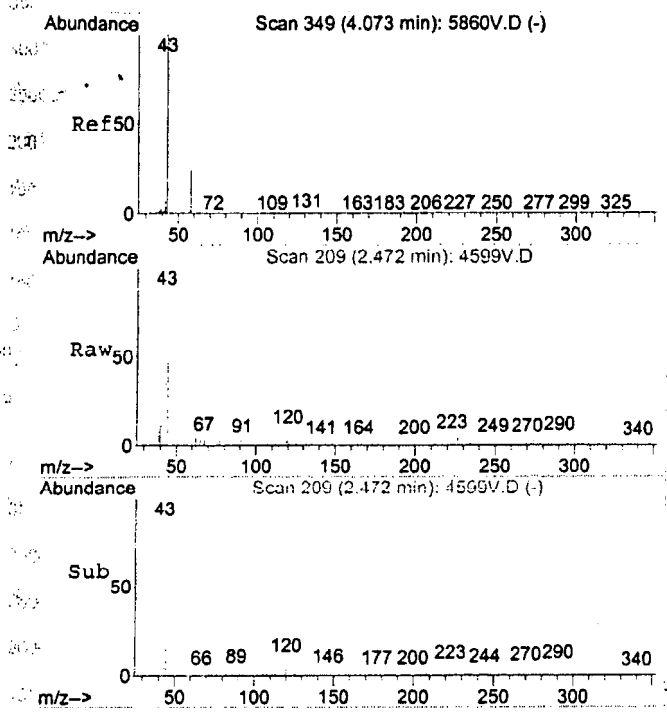
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4599V.D
Acq On : 3 Jun 2008 15:05
Sample : A812354
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 3 15:22 2008

Vial: 17
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

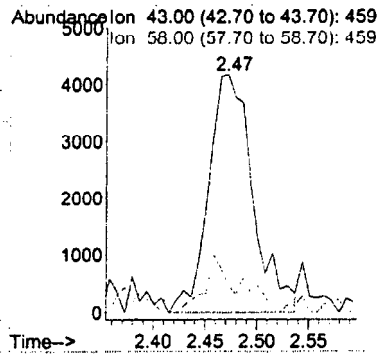


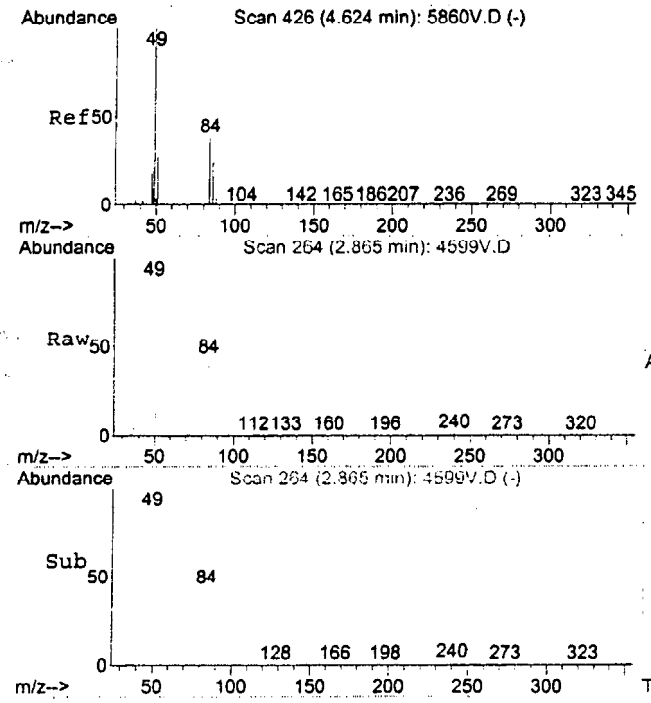


#9
Acetone
Concen: 1.35 UG/L
RT: 2.47 min Scan# 209
Delta R.T. -0.01 min
Lab File: 4599V.D
Acq: 3 Jun 2008 15:05

Tgt Ion: 43 Resp: 12399

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

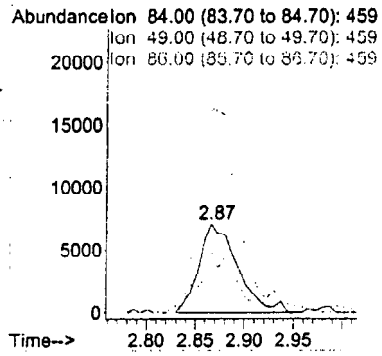


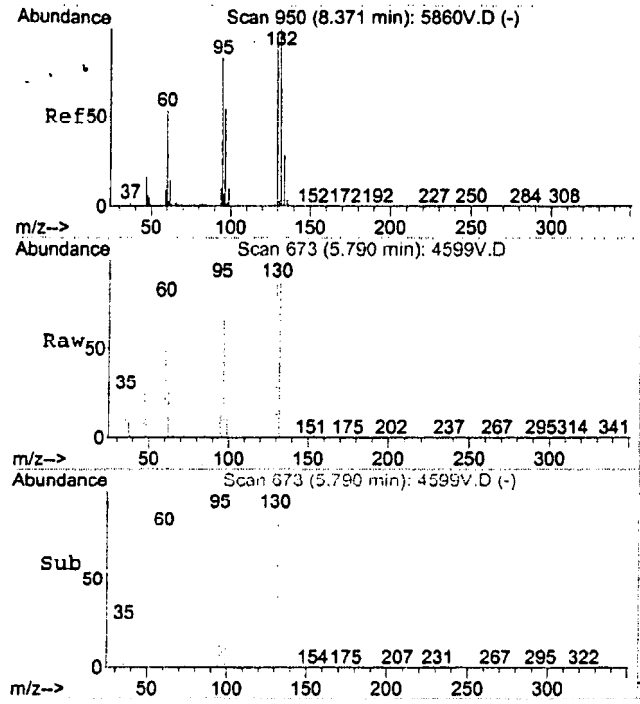


#14
Methylene Chloride
Concen: Below Cal
RT: 2.87 min Scan# 264
Delta R.T. -0.01 min
Lab File: 4599V.D
Acq: 3 Jun 2008 15:05

Tgt Ion: 84 Resp: 19482

Ion	Ratio	Lower	Upper
84	100		
49	231.4	140.2	210.2#
86	65.8	51.1	76.7

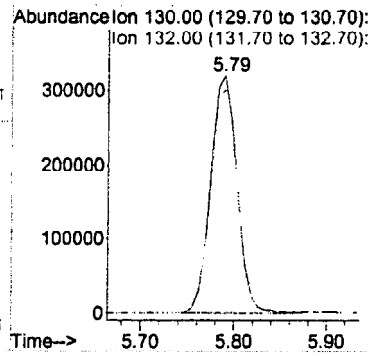


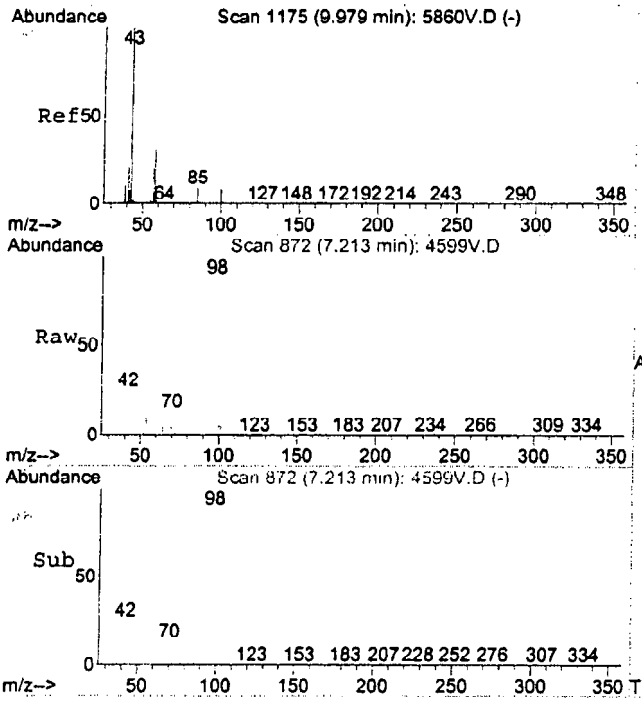


#40
Trichloroethene
Concen: 45.60 UG/L
RT: 5.79 min Scan# 673
Delta R.T. -0.00 min
Lab File: 4599V.D
Acq: 3 Jun 2008 15:05

Tgt Ion:130 Resp: 629761

Ion	Ratio	Lower	Upper
130	100		
132	94.7	82.0	123.0

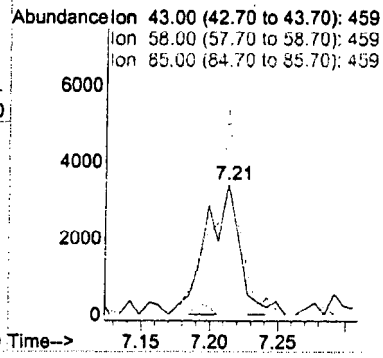


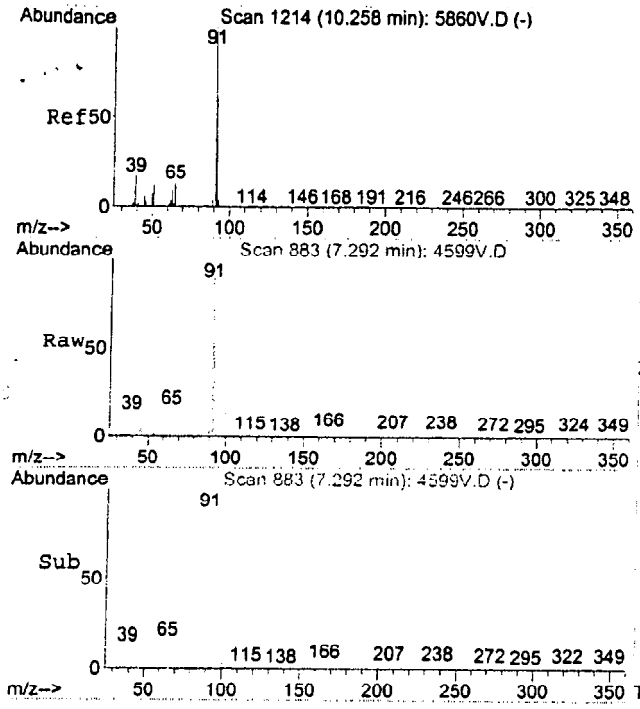


#47
4-Methyl-2-Pentanone
Concen: 0.20 UG/L
RT: 7.21 min Scan# 872
Delta R.T. 0.09 min
Lab File: 4599V.D
Acq: 3 Jun 2008 15:05

Tgt Ion: 43 Resp: 5903

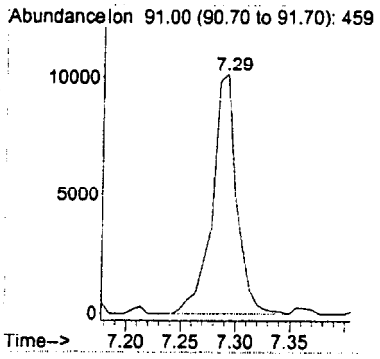
Ion	Ratio	Lower	Upper
43	100		
58	118.7	27.5	41.3#
85	0.0	9.6	14.4#





#51
TOLUENE
Concen: 0.30 UG/L
RT: 7.29 min Scan# 883
Delta R.T. -0.00 min
Lab File: 4599V.D
Acq: 3 Jun 2008 15:05

Tgt Ion: 91 Resp: 15788



R536256

Heritage Environmental Services, LLC

A812355

GC/MS VOA

Method SW846-8260B
Sample Description MW-146
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4600V.D Date/Time 03Jun08 15:31:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

KB 6.9.08

R536256 Heritage Environmental Services, LLC A812355

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE	43		1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE		BDL	1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	117			% RECOVERY	
2037-26-5	726	TOLUENE-D8	102			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	94			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	111			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4600V.D
Acq On : 3 Jun 2008 15:31
Sample : A812355
Misc : 6/3/08
MS Integration Params: rteint2.p
Quant Time: Jun 03 15:48:36 2008

Vial: 18
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

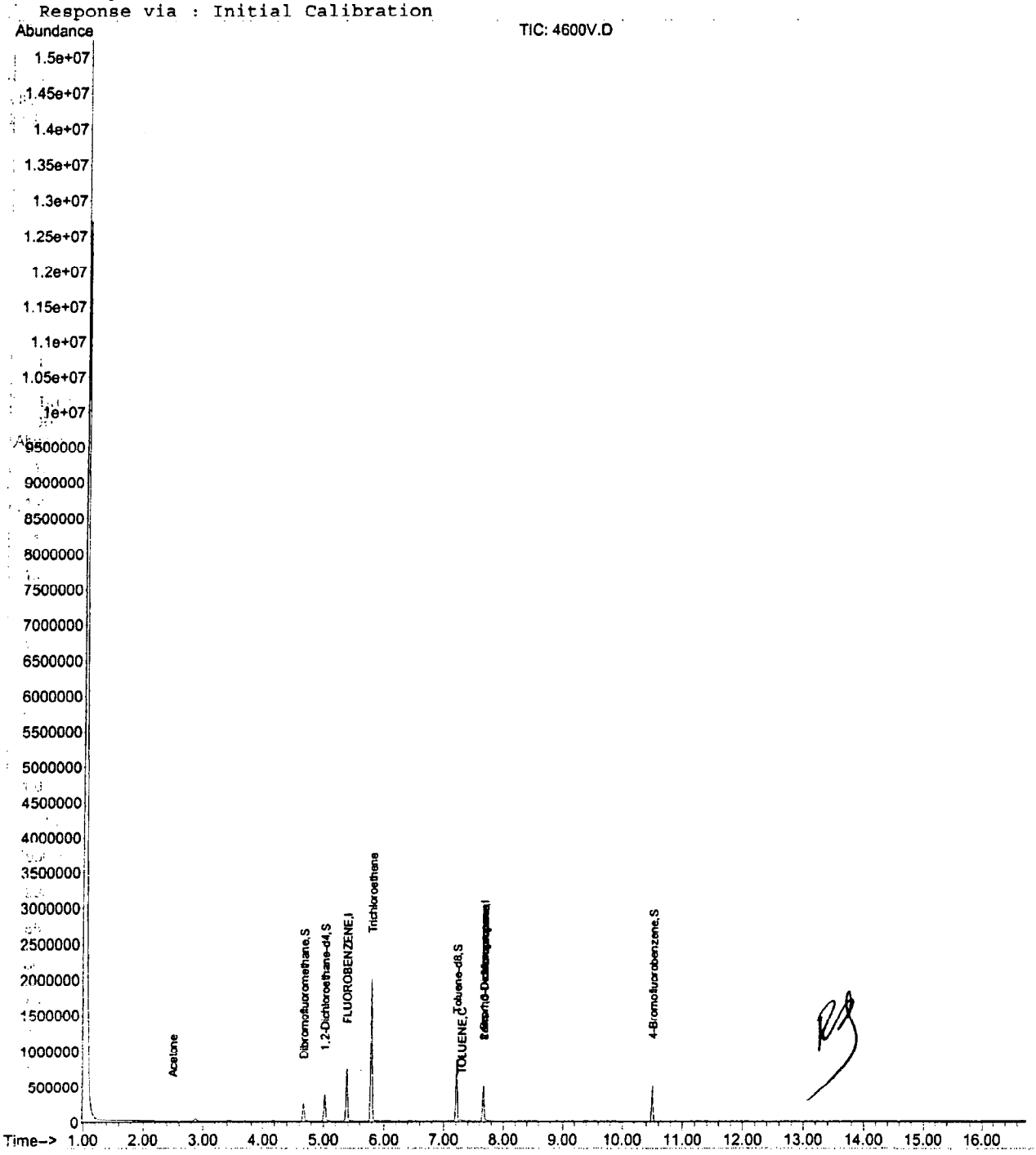
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	530704	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	188710	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	158593	11.14	UG/L	0.00
Spiked Amount 10.000			Recovery	=	111.40%	
35) 1,2-Dichloroethane-d4	5.02	65	311771	11.74	UG/L	0.00
Spiked Amount 10.000			Recovery	=	117.40%	
50) Toluene-d8	7.21	98	514912	10.22	UG/L	0.00
Spiked Amount 10.000			Recovery	=	102.20%	
69) 4-Bromofluorobenzene	10.49	174	104439	9.35	UG/L	0.00
Spiked Amount 10.000			Recovery	=	93.50%	
Target Compounds						Qvalue
9) ~~Acetone~~	2.49	43	12719	1.45	UG/L #	46
14) ~~Methylene~~ Chloride	2.87	84	21351	Below Cal	#	78
40) Trichloroethene 43	5.79	130	558312	42.46	UG/L	94
51) ~~TOLUENE~~	7.29	91	20254	0.40	UG/L	100
52) ~~trans~~-1,3-Dichloropropene	7.66	75	7242	0.40	UG/L	100

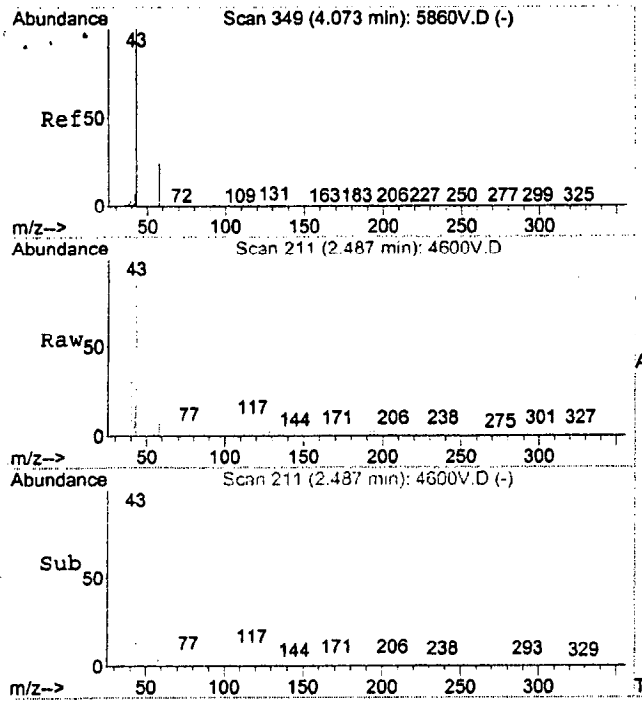
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4600V.D Vial: 18
Acq On : 3 Jun 2008 15:31 Operator: REGI
Sample : A812355 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 15:48 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

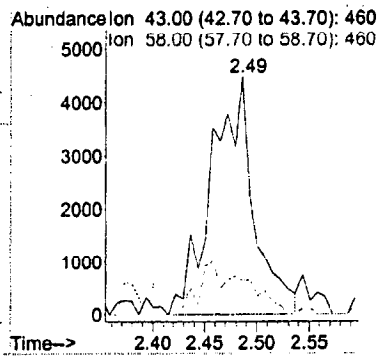


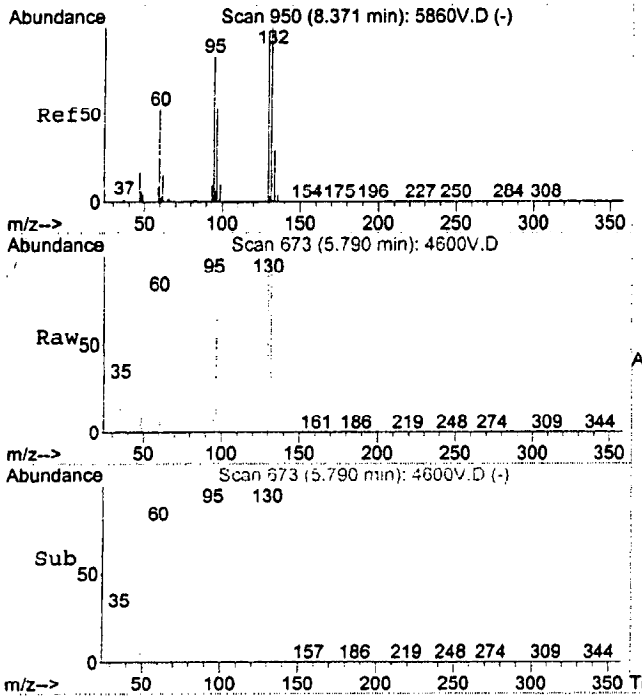


#9
Acetone
Concen: 1.45 UG/L
RT: 2.49 min Scan# 211
Delta R.T. 0.00 min
Lab File: 4600V.D
Acq: 3 Jun 2008 15:31

Tgt Ion: 43 Resp: 12719

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

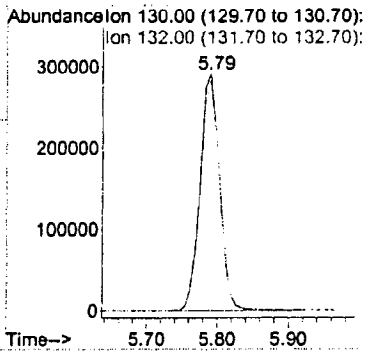




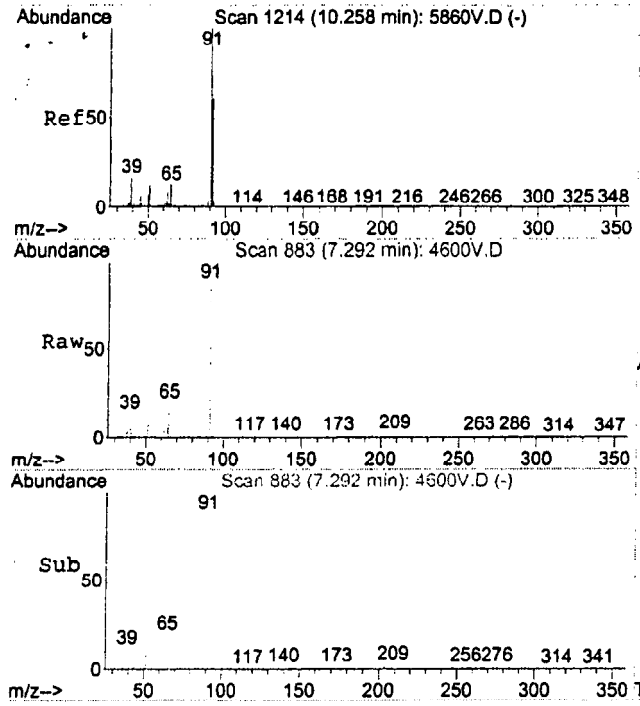
#40
Trichloroethene
Concen: 42.46 UG/L
RT: 5.79 min Scan# 673
Delta R.T. 0.00 min
Lab File: 4600V.D
Acq: 3 Jun 2008 15:31

Tgt Ion:130 Resp: 558312

Ion	Ratio	Lower	Upper
130	100		
132	96.1	82.0	123.0

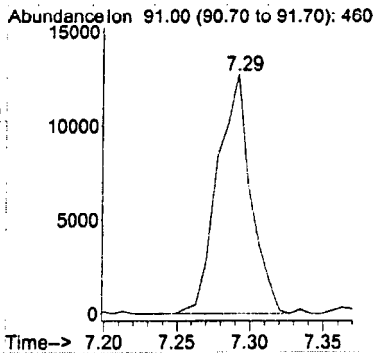


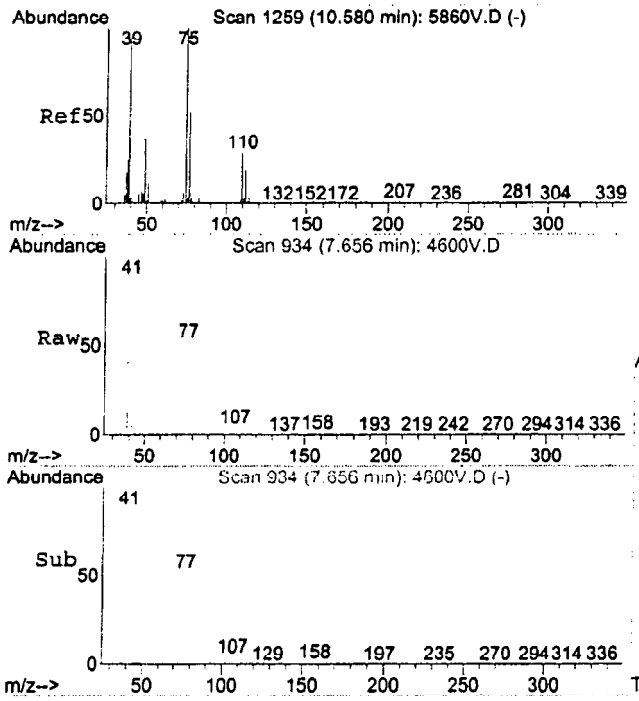
56911



#51
TOLUENE
Concen: 0.40 UG/L
RT: 7.29 min Scan# 883
Delta R.T. 0.00 min
Lab File: 4600V.D
Acq: 3 Jun 2008 15:31

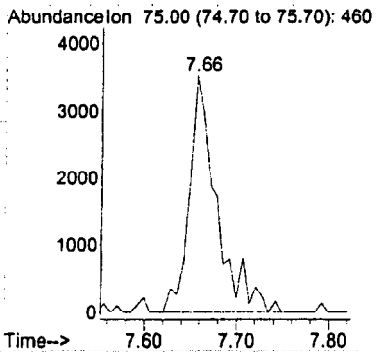
Tgt Ion: 91 Resp: 20254





#52
trans-1,3-Dichloropropene
Concen: 0.40 UG/L
RT: 7.66 min Scan# 934
Delta R.T. 0.06 min
Lab File: 4600V.D
Acq: 3 Jun 2008 15:31

Tgt Ion: 75 Resp: 7242



R536256

Heritage Environmental Services, LLC

A812356

GC/MS VOA

Method SW846-8260B
Sample Description MW-150
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4601V.D Date/Time 03Jun08 15:58:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

R536256 Heritage Environmental Services, LLC A812356

GC/MS VOA

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
74-88-4	422	IODOMETHANE		BDL	1.0	UG/L	
98-82-8	432	ISOPROPYLBENZENE (CUMENE)		BDL	1.0	UG/L	
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)		BDL	1.0	UG/L	
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)		BDL	1.0	UG/L	
78-93-3	475	METHYL ETHYL KETONE		BDL	10	UG/L	
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)		BDL	1.0	UG/L	
108-10-1	476	METHYL ISOBUTYL KETONE		BDL	10	UG/L	
91-20-3	493	NAPHTHALENE		BDL	1.0	UG/L	
103-65-1	532	N-PROPYLBENZENE		BDL	1.0	UG/L	
100-42-5	680	STYRENE		BDL	1.0	UG/L	
630-20-6	1	1,1,1,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
79-34-5	3	1,1,2,2-TETRACHLOROETHANE		BDL	1.0	UG/L	
127-18-4	703	TETRACHLOROETHENE		BDL	1.0	UG/L	
108-88-3	724	TOLUENE		BDL	1.0	UG/L	
87-61-6	13	1,2,3-TRICHLOROBENZENE		BDL	1.0	UG/L	
120-82-1	16	1,2,4-TRICHLOROBENZENE		BDL	1.0	UG/L	
71-55-6	2	1,1,1-TRICHLOROETHANE		BDL	1.0	UG/L	
79-00-5	4	1,1,2-TRICHLOROETHANE		BDL	1.0	UG/L	
79-01-6	750	TRICHLOROETHENE	2.2		1.0	UG/L	
75-69-4	372	TRICHLOROFLUOROMETHANE		BDL	1.0	UG/L	
96-18-4	14	1,2,3-TRICHLOROPROPANE		BDL	1.0	UG/L	
95-63-6	17	1,2,4-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-67-8	25	1,3,5-TRIMETHYLBENZENE		BDL	1.0	UG/L	
108-05-4	767	VINYL ACETATE		BDL	1.0	UG/L	
75-01-4	768	VINYL CHLORIDE		BDL	1.0	UG/L	
1330-20-7	803	XYLENES (O/M/P-XYLENE)		BDL	1.1	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	————————————					
17060-07-0	301	DICHLOROETHANE-D4	115			% RECOVERY	
2037-26-5	726	TOLUENE-D8	101			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	102			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	112			% RECOVERY	

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4601V.D Vial: 19
Acq On : 3 Jun 2008 15:58 Operator: REGI
Sample : A812356 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 03 16:14:52 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

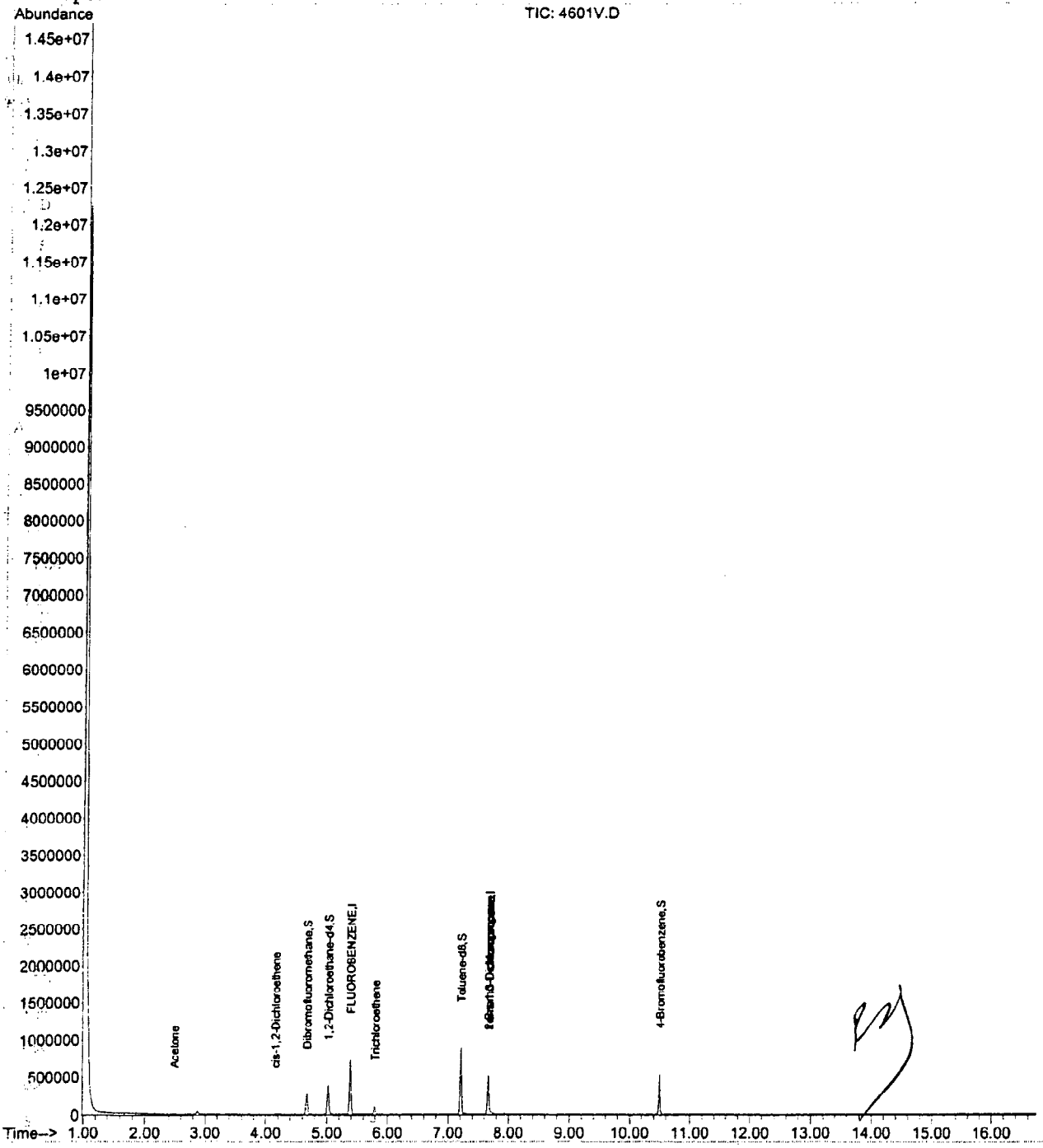
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	547202	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	185677	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	163736	11.16 UG/L	0.00
Spiked Amount 10.000			Recovery	= 111.60%	
35) 1,2-Dichloroethane-d4	5.02	65	313694	11.45 UG/L	0.00
Spiked Amount 10.000			Recovery	= 114.50%	
50) Toluene-d8	7.21	98	526792	10.14 UG/L	0.00
Spiked Amount 10.000			Recovery	= 101.40%	
69) 4-Bromofluorobenzene	10.49	174	112114	10.20 UG/L	0.00
Spiked Amount 10.000			Recovery	= 102.00%	
Target Compounds					Qvalue
9) Acetone	2.49	43	8316	0.92 UG/L #	46
14) ~~Methylene~~ Chloride	2.87	84	17392	Below Cal #	53
23) ~~cis-1,2-Dichloroethene~~	4.15	96	5493	0.41 UG/L	97
40) Trichloroethene 2.2	5.79	130	30248	2.23 UG/L	100
52) ~~trans-1,3-Dichloropropene~~	7.66	75	5671	0.30 UG/L	100

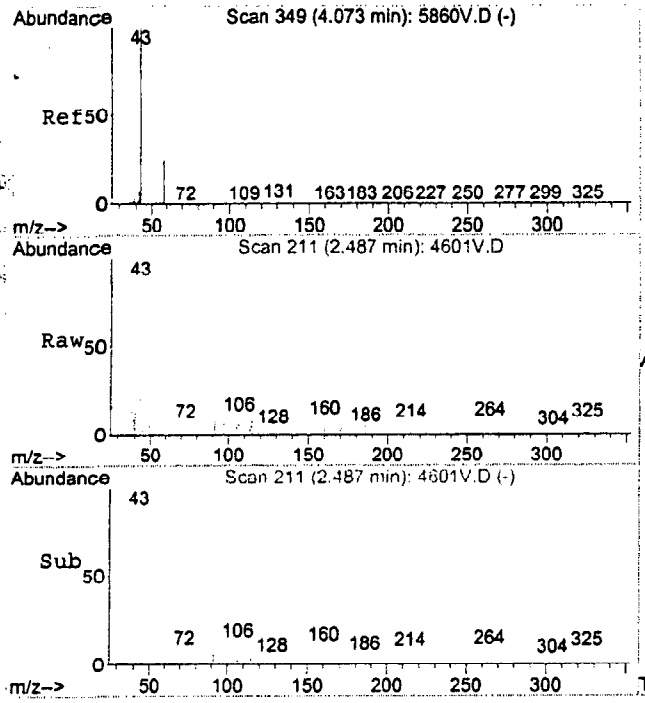
(#) = qualifier out of range (m) = manual integration
4601V.D 8260VOI.M Tue Jun 03 16:14:55 2008

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060308\4601V.D Vial: 19
Acq On : 3 Jun 2008 15:58 Operator: REGI
Sample : A812356 Inst : Instrumen
Misc : 6/3/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 3 16:14 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

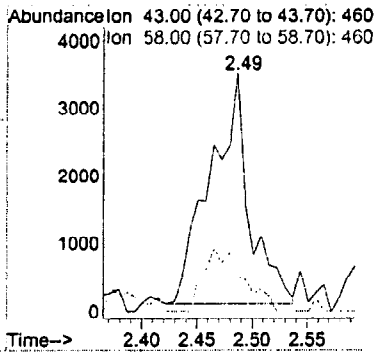


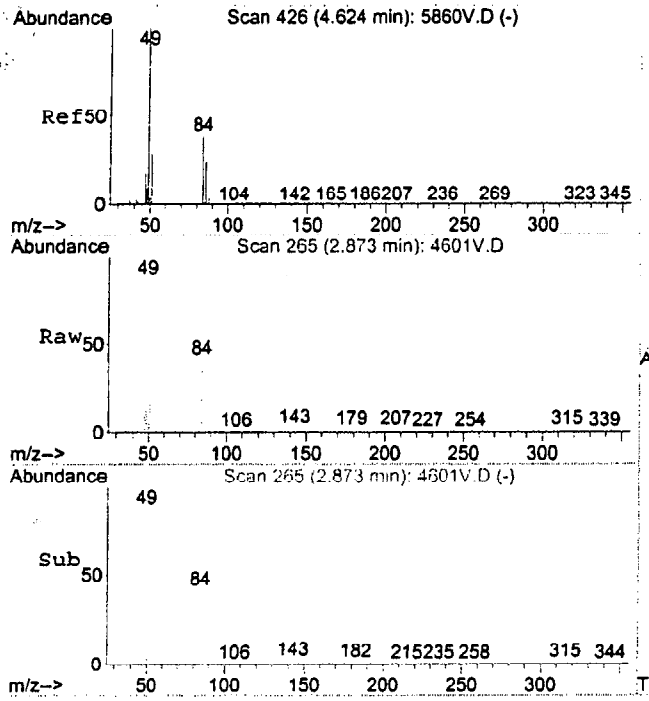


#9
Acetone
Concen: 0.92 UG/L
RT: 2.49 min Scan# 211
Delta R.T. 0.00 min
Lab File: 4601V.D
Acq: 3 Jun 2008 15:58

Tgt Ion: 43 Resp: 8316

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

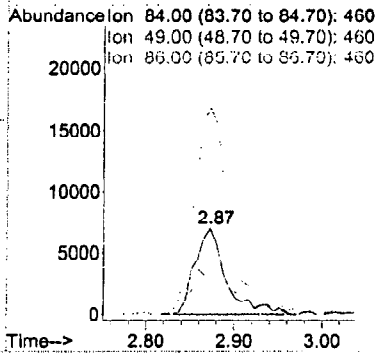


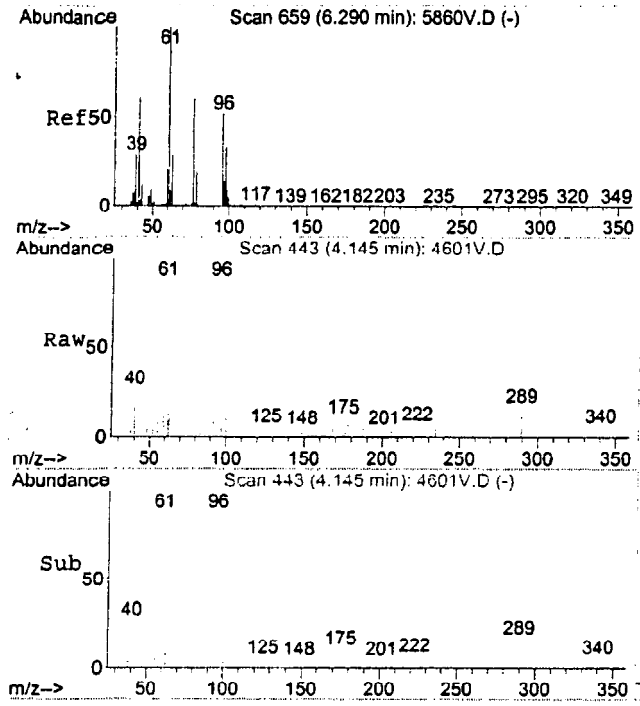


#14
Methylene Chloride
Concen: Below Cal
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4601V.D
Acq: 3 Jun 2008 15:58

Tgt Ion: 84 Resp: 17392

Ion	Ratio	Lower	Upper
84	100		
49	259.0	140.2	210.2#
86	71.5	51.1	76.7

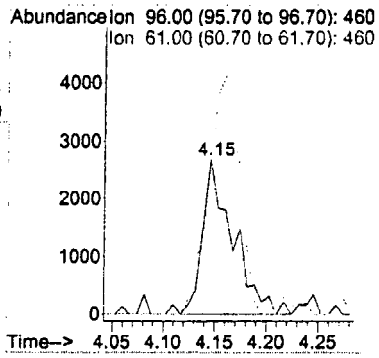


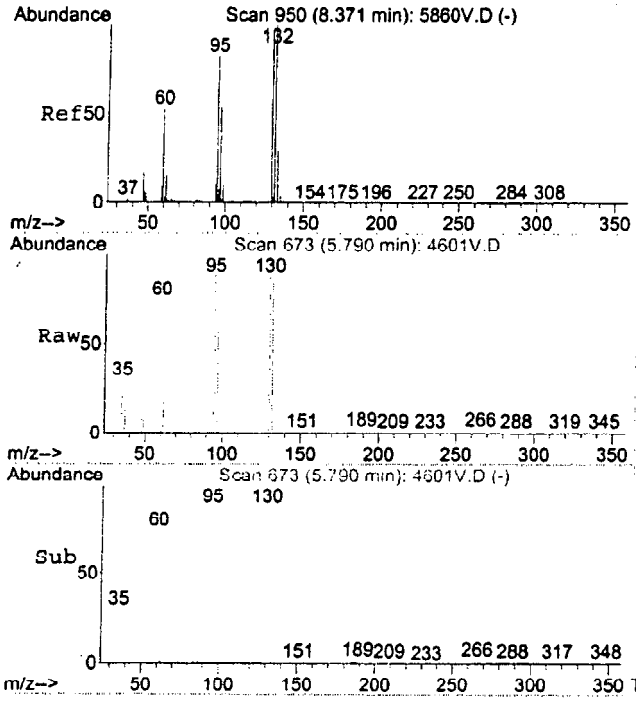


#23
cis-1,2-Dichloroethene
Concen: 0.41 UG/L
RT: 4.15 min Scan# 443
Delta R.T. -0.01 min
Lab File: 4601V.D
Acq: 3 Jun 2008 15:58

Tgt Ion: 96 Resp: 5493

Ion	Ratio	Lower	Upper
96	100		
61	155.4	121.8	182.6

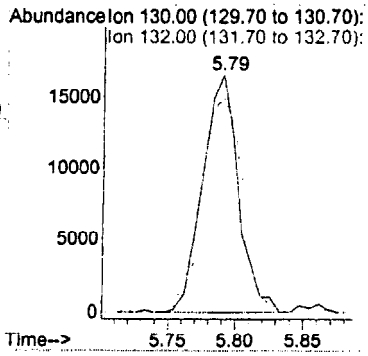


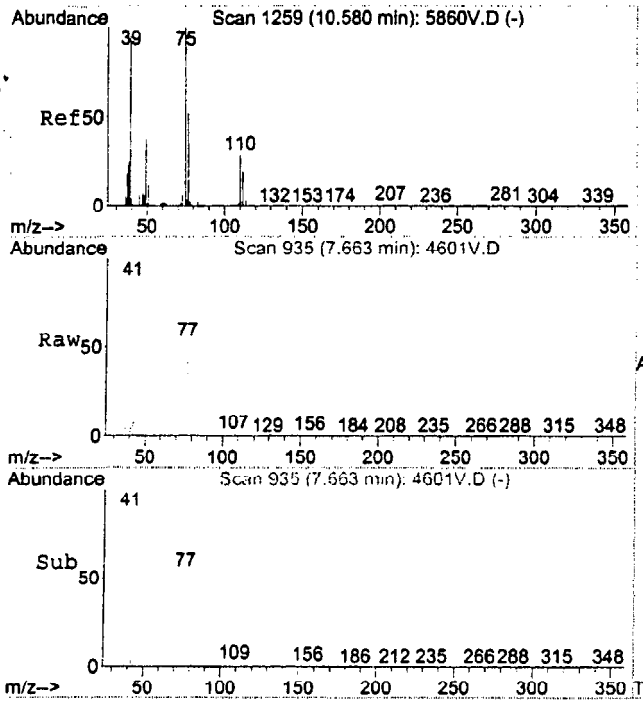


#40
Trichloroethene
Concen: 2.23 UG/L
RT: 5.79 min Scan# 673
Delta R.T. 0.00 min
Lab File: 4601V.D
Acq: 3 Jun 2008 15:58

Tgt Ion:130 Resp: 30248

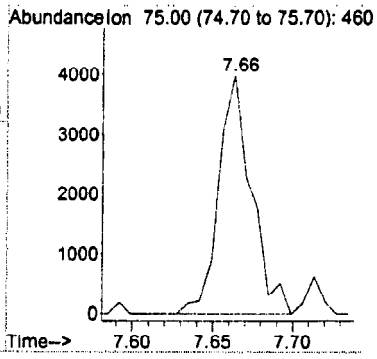
Ion	Ratio	Lower	Upper
130	100		
132	102.8	82.0	123.0





#52
trans-1,3-Dichloropropene
Concen: 0.30 UG/L
RT: 7.66 min Scan# 935
Delta R.T. 0.07 min
Lab File: 4601V.D
Acq: 3 Jun 2008 15:58

Tgt Ion: 75 Resp: 5671



5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: HERITAGE Contract:
Lab Code: Case No.: SAS No.: SDG No.:
Lab File ID: 4610V.D BFB Injection Date: 06/04/08
Instrument ID: GCMS#17 BFB Injection Time: 06:55
GC Column: CAP ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	31.6
75	30.0 - 60.0% of mass 95	53.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	>50.0% of mass 95	71.9
175	5.0 - 9.0% of mass 174	5.9 (8.2)1
176	95.0 - 101.0% of mass 174	71.8 (99.9)1
177	5.0 - 9.0% of mass 176	4.1 (5.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	4611V.D	06/04/08	07:21
02	VBLK01	VBLK	4612V.D	06/04/08	07:48
03	DI MS	DI MS	4613V.D	06/04/08	08:17
04	A812343	A812343	4614V.D	06/04/08	08:51
05	A812058	A812058	4615V.D	06/04/08	09:17
06	A811543	A811543 MDL	4616V.D	06/04/08	09:43
07	A811527	A811527 MDL	4617V.D	06/04/08	10:09
08	A811528	A811528 MDL	4618V.D	06/04/08	10:35
09	A812197	A812197	4619V.D	06/04/08	11:02
10	A812197 MS	A812197 MS	4620V.D	06/04/08	11:28
11	A812197 MSD	A812197 MSD	4621V.D	06/04/08	11:54
12	A811529	A811529 MDL	4622V.D	06/04/08	12:21
13	A811531	A811531 MDL	4623V.D	06/04/08	12:47
14	A811532	A811532 MDL	4624V.D	06/04/08	13:13
15	A811533	A811533 MDL	4625V.D	06/04/08	13:39
16	A811534	A811534 MDL	4626V.D	06/04/08	14:06
17	A811535	A811535 MDL	4627V.D	06/04/08	14:32
18	A811539	A811539 MDL	4628V.D	06/04/08	14:59
19	A811540	A811540 PH=6 MDL	4629V.D	06/04/08	15:25
20	A811542	A811542 MDL	4630V.D	06/04/08	15:51
21	A812341	A812341 1:10 REP1	4631V.D	06/04/08	16:17
22	A812342	A812342 1:10 REP1	4632V.D	06/04/08	16:43

FORM V VOA

3/90

56911

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: HERITAGE Contract: _____

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

Lab File ID: 4610V.D BFB Injection Date: 06/04/08

Instrument ID: GCMS#17 BFB Injection Time: 06:55

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	31.6
75	30.0 - 60.0% of mass 95	53.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	>50.0% of mass 95	71.9
175	5.0 - 9.0% of mass 174	5.9 (8.2)1
176	95.0 - 101.0% of mass 174	71.8 (99.9)1
177	5.0 - 9.0% of mass 176	4.1 (5.7)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
23	A812345	A812345 1:10 REP1	4633V.D	06/04/08	17:09
24	A812346	A812346 1:100 REP1	4634V.D	06/04/08	17:35
25	A812359	A812359 1:10 REP1	4635V.D	06/04/08	18:02

JS 6-6-08

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: HERITAGE Contract: _____

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

Lab File ID (Standard): 4611V.D Date Analyzed: 06/04/08

Instrument ID: GCMS#17 Time Analyzed: 07:21

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

		IS1 AREA #	RT #	IS2 AREA #	RT #	AREA #	RT #
	12 HOUR STD	602553	5.38	198999	7.66		
	UPPER LIMIT	1205106	5.88	397998	8.16		
	LOWER LIMIT	301277	4.88	99500	7.16		
	EPA SAMPLE NO.						
01	VBLK01	612352	5.38	191570	7.66		
02	DI MS	590753	5.38	198913	7.66		
03	A812343	597124	5.38	193195	7.66		
04	A812058	588588	5.38	194171	7.66		
05	A811543	552436	5.38	179235	7.66		
06	A811527	545687	5.38	196202	7.66		
07	A811528	532529	5.38	170490	7.66		
08	A812197	534229	5.38	178445	7.66		
09	A812197 MS	575537	5.38	189348	7.66		
10	A812197 MSD	610379	5.38	191053	7.66		
11	A811529	599322	5.38	197775	7.66		
12	A811531	546813	5.38	176789	7.66		
13	A811532	539541	5.38	176278	7.66		
14	A811533	524680	5.38	170991	7.66		
15	A811534	521476	5.38	169805	7.66		
16	A811535	514906	5.38	173742	7.66		
17	A811539	518869	5.38	173751	7.66		
18	A811540	499492	5.38	166710	7.66		
19	A811542	514575	5.38	166639	7.66		
20	A812341	504739	5.38	164213	7.66		
21	A812342	509831	5.38	166065	7.66		

IS1 = FLUOROBENZENE
IS2 = 2-BROMO-1-CHLOROPROPANE

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

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

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: HERITAGE Contract: _____

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

Lab File ID (Standard): 4611V.D Date Analyzed: 06/04/08

Instrument ID: GCMS#17 Time Analyzed: 07:21

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

		IS1 AREA #	RT #	IS2 AREA #	RT #	AREA #	RT #
	12 HOUR STD	602553	5.38	198999	7.66		
	UPPER LIMIT	1205106	5.88	397998	8.16		
	LOWER LIMIT	301277	4.88	99500	7.16		
	EPA SAMPLE NO.						
22	A812345	486012	5.38	160578	7.66		
23	A812346	486012	5.38	160578	7.66		
24	A812359	486012	5.38	160578	7.66		

IS1 = FLUOROBENZENE
IS2 = 2-BROMO-1-CHLOROPROPANE

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

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

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: HERITAGE Contract: _____

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

Date Injected: 04-Jun-08 Instrument: GCMS#17

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	SMC4 #	TOT OUT
01	VBLK01	105	112	99	109	0
02	DI MS	111	112	106	114	0
03	A812343	110	111	101	109	0
04	A812058	111	113	102	107	0
05	A811543	112	115	102	109	0
06	A811527	114	119	104	97	0
07	A811528	113	116	102	109	0
08	A812197	112	116	100	106	0
09	A812197 MS	111	112	105	122	0
10	A812197 MSD	111	109	105	127	0
11	A811529	112	111	101	103	0
12	A811531	111	115	103	107	0
13	A811532	110	116	101	109	0
14	A811533	116	117	98	111	0
15	A811534	116	120	103	108	0
16	A811535	113	116	102	103	0
17	A811539	114	119	100	100	0
18	A811540	115	120	100	107	0
19	A811542	116	117	100	109	0
20	A812341	114	123	102	102	0
21	A812342	116	119	104	111	0
22	A812345	117	120	101	110	0
23	A812346	118	122	103	107	0
24	A812359	119	122	103	114	0

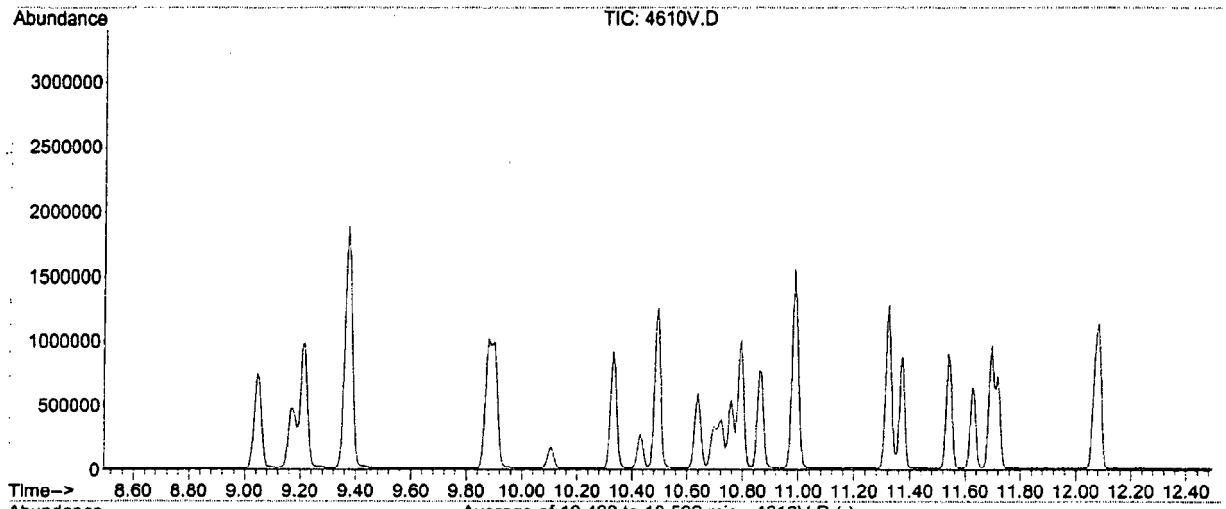
			QC LIMITS
SMC1	=	Dibromofluoromethane	(83-139)
SMC2	=	1,2-Dichloroethane-d4	(79-137)
SMC3	=	toluene-d8	(85-123)
SMC4	=	4-bromofluorobenzene	(76-129)

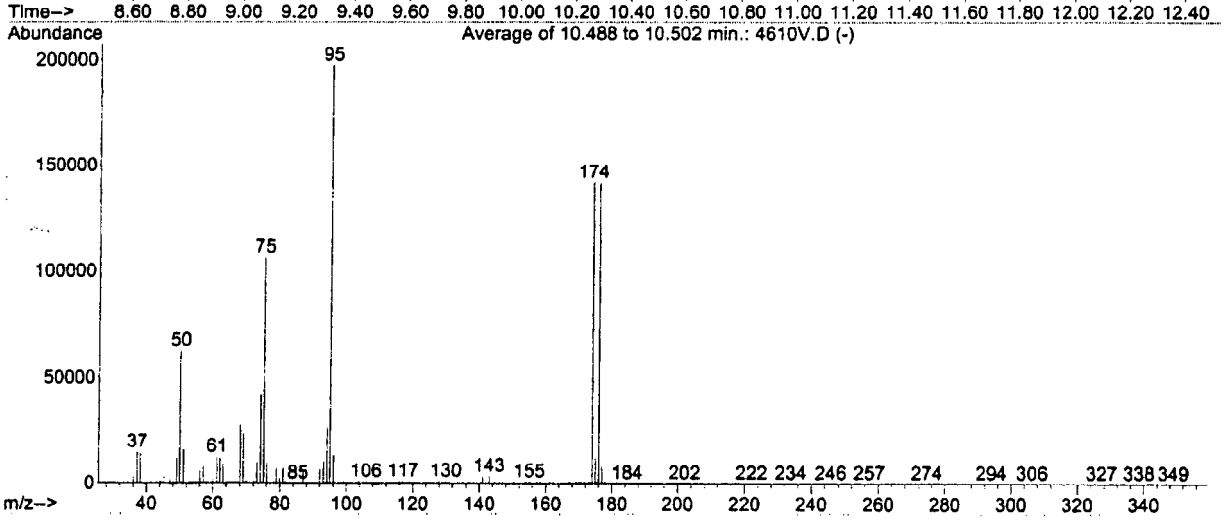
Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

/ 6-6-08

BFB

Data File : C:\HPCHEM\DATA\V060408\4610V.D Vial: 22
Acq On : 4 Jun 2008 6:55 Operator: REGI
Sample : VSTD010 Inst : Instrumen
Misc : CALIBRATION CHECK 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES





Spectrum Information: Average of 10.488 to 10.502 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.6	62369	PASS
75	95	30	60	53.8	106405	PASS
95	95	100	100	100.0	197674	PASS
96	95	5	9	6.8	13356	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.9	142048	PASS
175	174	5	9	8.2	11617	PASS
176	174	95	101	99.9	141906	PASS
177	176	5	9	5.7	8082	PASS

JB 6/6/08

4610V.D 8260VOI.M Wed Jun 04 07:11:01 2008

Average of 10.488 to 10.502 min.: 4610V.D
VSTD010
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	2825	47.00	2002	59.30	209	69.95	1696
37.10	14731	48.00	896	60.00	2299	71.00	68
38.10	14116	49.10	12046	61.10	12475	72.00	1597
40.15	524	50.05	62369	62.10	11882	73.10	10006
42.20	8	51.10	15938	63.05	9198	74.10	41797
42.80	73	55.00	891	64.25	416	75.10	106405
43.15	660	56.05	5778	65.00	406	76.05	9786
44.10	1577	57.10	8145	66.20	108	77.50	100
45.10	2949	58.05	388	67.00	560	77.80	156
45.80	33	58.70	35	68.05	27621	78.20	533
46.25	266	59.00	62	69.05	23191	78.95	7188

Average of 10.488 to 10.502 min.: 4610V.D
VSTD010
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
79.95	2097	86.20	54	100.20	79	110.85	317
81.00	7007	87.00	5915	101.10	54	111.30	38
81.80	823	90.70	224	102.80	48	111.60	68
82.00	273	92.00	6707	103.40	35	111.80	72
82.60	74	93.05	10160	103.85	940	112.10	36
82.90	130	94.10	26602	105.90	987	112.90	151
83.20	109	95.10	197674	106.60	83	113.80	59
83.50	95	96.10	13356	107.10	100	114.80	356
84.60	46	97.10	181	107.60	70	115.00	55
85.30	42	98.30	172	109.85	275	115.90	973
86.00	56	99.90	69	110.10	49	116.80	352

Average of 10.488 to 10.502 min.: 4610V.D
VSTD010
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
117.05	1087	129.05	342	137.90	54	145.80	192
117.95	831	129.95	1175	138.10	45	146.00	183
119.00	1079	130.90	565	138.80	115	146.70	251
120.80	54	132.10	108	139.00	49	147.20	217
122.85	133	133.05	164	140.00	113	147.95	550
123.10	51	134.80	248	141.00	2882	148.60	116
124.60	43	135.00	269	141.90	580	148.90	169
124.85	261	135.30	99	143.00	3521	149.75	133
125.30	60	135.90	101	143.70	66	150.00	173
127.95	1043	136.10	54	144.00	135	151.90	115
128.70	151	136.80	601	144.85	36	152.15	112

Average of 10.488 to 10.502 min.: 4610V.D
VSTD010
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
152.40	35	159.00	95	166.40	35	172.40	671
153.00	71	160.05	123	167.60	104	173.95	142048
154.00	114	160.85	277	168.40	92	174.95	11617
155.00	833	161.20	60	169.00	278	176.00	141906
155.80	95	161.70	38	169.55	132	177.00	8082
156.00	94	162.30	92	169.90	80	178.05	151
156.80	161	163.10	43	170.35	337	180.20	41
157.05	377	164.10	50	170.60	46	182.50	60
157.60	46	164.50	73	171.10	99	182.70	41
157.80	33	165.00	51	171.40	292	184.60	89
158.75	506	165.20	42	171.95	529	185.40	33

Average of 10.488 to 10.502 min.: 4610V.D
VSTD010
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
186.70	36	207.70	93	225.70	36	255.30	34
189.10	40	207.90	38	228.60	52	257.30	133
199.30	43	209.00	38	232.80	33	258.90	58
199.70	38	209.90	76	233.90	61	259.80	34
201.40	57	218.10	57	234.10	38	262.90	41

202.05	96	219.70	37	238.10	40	266.50	34
202.55	74	221.50	65	240.60	40	268.20	47
203.20	63	222.10	111	245.10	35	269.80	34
205.50	47	223.20	36	245.75	78	274.50	75
206.95	67	223.90	35	250.40	58	277.30	35
207.40	39	225.00	46	251.90	84	283.00	66

Average of 10.488 to 10.502 min.: 4610V.D
VSTD010
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.85	74	326.90	48	349.00	37		
291.80	47	327.30	54				
293.00	47	331.00	55				
294.00	70	335.90	46				
295.00	58	336.40	43				
305.30	38	338.50	57				
306.30	81	339.30	54				
309.50	46	342.70	48				
312.10	40	343.00	38				
312.50	43	347.40	38				
323.80	34	347.90	51				

R536336 Heritage Environmental Services, LLC Q2083704

QC Report

QCType CCVD | Duplicate SampleID | DataFile 4611V.D
Date Entered 06Jun08 | Duplicate QCSampleID | Analyst 1062 R. SHAMP
Analysis Date/Time 04Jun08 07:21:00 | Method | Matrix 1 | Units

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
300	DICHLORODIFLUOROMETHANE	0.0975		0.0838			14.1
236	CHLOROMETHANE	0.1427		0.1331			6.7
768	VINYL CHLORIDE	0.1183		0.1142			3.5
198	BROMOMETHANE	0.0620		0.0649			4.7
234	CHLOROETHANE	0.0682		0.0682			0
372	TRICHLOROFLUOROMETHANE	0.2782		0.3192			14.7
105	ACROLEIN	0.0217		0.0190			12.4
8	1,1-DICHLOROETHENE	0.1548		0.1829			18.2
99	ACETONE (2-PROPANONE)	0.1650		0.1552			5.9
422	IODOMETHANE	0.2393		0.2608			9
216	CARBON DISULFIDE	0.3086		0.3163			2.5
73	3-CHLOROPROPENE (ALLYL CHLORIDE)	0.9452		0.8401			11.1
302	DICHLOROMETHANE (METHYLENE CHLORIDE)	10		10.35	LIN		3.5
746	TRANS-1,2-DICHLOROETHENE	0.2188		0.2199			.5
106	ACRYLONITRILE	0.0802		0.0703			12.3
859	METHYL-T-BUTYL ETHER (MTBE)	0.6754		0.8033			18.9
7	1,1-DICHLOROETHANE	0.5142		0.5001			2.7
767	VINYL ACETATE	1.6740		1.6434			1.8
33	2,2-DICHLOROPROPANE	0.3239		0.3197			1.3
246	CIS-1,2-DICHLOROETHENE	0.2421		0.2446			1
52	2-BUTANONE	0.0346		0.0303			12.4
348	ETHYL ACETATE	0.5732		0.5329			7
1146	ETHYL CYANIDE (PROPIONITRILE)	0.0578		0.0504			12.8
194	BROMOCHLOROMETHANE	0.1130		0.1224			8.3
471	METHACRYLONITRILE	0.4206		0.4137			1.6
3457	2-METHYL-2-PROPENENITRILE	0.4206		0.4137			1.6
709	TETRAHYDROFURAN	0.1313		0.1255			4.4
235	CHLOROFORM	0.4897		0.5191			6
2	1,1,1-TRICHLOROETHANE	0.4415		0.4621			4.7
217	CARBON TETRACHLORIDE	0.3844		0.4271			11.1
10	1,1-DICHLOROPROPENE	0.1143		0.1199			4.9
151	BENZENE	0.8623		0.8871			2.9
21	1,2-DICHLOROETHANE	0.5626		0.6134			9
1525	2-BUTANOL	0.0210		0.0176			16.2
750	TRICHLOROETHENE	0.2478		0.2643			6.7
517	N-BUTANOL	0.0143		0.0124			13.3
23	1,2-DICHLOROPROPANE	0.2482		0.2434			1.9
296	DIBROMOMETHANE	0.1575		0.1755			11.4
30	1,4-DIOXANE	0.0055		0.0046			16.4
1147	METHYL METHACRYLATE	0.4689		0.4482			4.4
299	DICHLOROBROMOMETHANE	0.3546		0.3754			5.9
195	BROMODICHLOROMETHANE	0.3546		0.3754			5.9
54	2-CHLOROETHYLVINYLETHER	0.1981		0.1795			9.4
247	CIS-1,3-DICHLOROPROPENE	0.3677		0.3510			4.5

R536336 Heritage Environmental Services, LLC Q2083704

QC Report

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
91	4-METHYL-2-PENTANONE	0.5218		0.5053			3.2
724	TOLUENE	0.9552		0.9788			2.5
747	TRANS-1,3-DICHLOROPROPENE	0.3411		0.3456			1.3
4	1,1,2-TRICHLOROETHANE	0.1999		0.2084			4.3
351	ETHYL METHACRYLATE	0.9941		0.9025			9.2
703	TETRACHLOROETHENE	0.7614		0.8293			8.9
27	1,3-DICHLOROPROPANE	1.1224		1.1431			1.8
60	2-HEXANONE	1.2360		1.2155			1.7
295	DIBROMOCHLOROMETHANE	0.6408		0.6801			6.1
18	1,2-DIBROMOETHANE (EDB)	0.2065		0.2386			15.5
231	CHLOROBENZENE	1.6195		1.7675			9.1
1	1,1,1,2-TETRACHLOROETHANE	0.5700		0.6674			17.1
349	ETHYL BENZENE	0.9204		0.9852			7
492	M/P-XYLENE	1.0897		1.2572			15.4
549	O-XYLENE	0.9265		1.0922			17.9
680	STYRENE	1.5550		1.8165			16.8
197	BROMOFORM	0.3120		0.2945			5.6
432	ISOPROPYLBENZENE (CUMENE)	2.2236		2.5979			16.8
3	1,1,2,2-TETRACHLOROETHANE	0.6152		0.5797			5.8
193	BROMOBENZENE	0.8910		1.0040			12.7
14	1,2,3-TRICHLOROPROPANE	0.2318		0.2458			6
748	TRANS-1,4-DICHLORO-2-BUTENE	0.3768		0.2786			26.1
532	N-PROPYLBENZENE	0.2981		0.3501			17.4
807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0.4887		0.5528			13.1
25	1,3,5-TRIMETHYLBENZENE	1.8796		2.1000			11.7
808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0.4925		0.5512			11.9
702	TERT-BUTYLBENZENE	1.2253		1.3692			11.7
17	1,2,4-TRIMETHYLBENZENE	1.9570		2.0119			2.8
644	SEC-BUTYLBENZENE	2.3065		2.3421			1.5
26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0.9732		0.9636			1
628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	1.9707		1.9643			.3
29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.0006		0.9629			3.8
519	N-BUTYLBENZENE	1.0515		0.9989			5
20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0.9726		0.9257			4.8
19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.1692		0.1510			10.8
16	1,2,4-TRICHLOROBENZENE	0.7709		0.7234			6.2
398	HEXACHLOROBUTADIENE	0.4296		0.4325			.7
493	NAPHTHALENE	2.2651		2.1789			3.8
13	1,2,3-TRICHLOROBENZENE	0.7193		0.6932			3.6
5	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.1404		0.1564			11.4
305	DIETHYL ETHER	0.2178		0.2226			2.2
866	HEXANE	0.3570		0.3456			3.2
301	DICHLOROETHANE-D4	0.5006		0.5682			13.5
726	TOLUENE-D8	0.9495		1.0109			6.5
196	4-BROMOFLUOROBENZENE	0.5917		0.6922			17
3362	DIBROMOFLUOROMETHANE	0.2682		0.2976			11

R536336 Heritage Environmental Services, LLC Q2083704

QC Report

Comment Value reported for analytes calibrated by linear (LIN) or quadratic (QDR) equations is concentration ( ).

Qualifiers

LIN Linear Regression Used

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4611V.D
Acq On : 4 Jun 2008 7:21
Sample : VSTD010
Misc : CALIBRATION CHECK 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 04 07:36:07 2008

Vial: 22
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	602553	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	198999	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	179311	11.10	UG/L	0.00
Spiked Amount 10.000			Recovery	=	111.00%	
35) 1,2-Dichloroethane-d4	5.02	65	342344	11.35	UG/L	0.00
Spiked Amount 10.000			Recovery	=	113.50%	
50) Toluene-d8	7.21	98	609103	10.65	UG/L	0.00
Spiked Amount 10.000			Recovery	=	106.50%	
69) 4-Bromofluorobenzene	10.49	174	137740	11.70	UG/L	0.00
Spiked Amount 10.000			Recovery	=	117.00%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.15	85	50496	8.60	UG/L	100
3) Chloromethane	1.29	50	80193	9.32	UG/L	100
4) VINYL CHLORIDE	1.38	62	68804	9.65	UG/L	97
5) Bromomethane	1.65	94	39115	10.48	UG/L	96
6) Chloroethane	1.74	64	41073	10.00	UG/L	97
7) Trichlorofluoromethane	1.91	101	192343m	11.47	UG/L	
8) Acrolein	2.32	56	114212	87.44	UG/L	100
9) Acetone	2.47	43	467476	47.04	UG/L #	80
10) 1,1-DICHLOROETHENE	2.39	96	110209	11.81	UG/L	100
11) Trichlorotrifluoroethane	2.44	101	94215	11.14	UG/L	90
12) Acrylonitrile	3.13	53	423505	87.62	UG/L	100
13) Carbon Disulfide	2.57	76	190583	10.25	UG/L	99
14) Methylene Chloride	2.87	84	151169	10.34	UG/L #	59
15) Allyl Chloride	2.74	41	506181	8.89	UG/L	100
16) Vinyl Acetate	3.64	43	990219	9.82	UG/L #	97
17) MTBE	3.15	73	484032	11.89	UG/L	100
18) trans-1,2-Dichloroethene	3.13	96	132482	10.05	UG/L #	65
19) n-Hexane	3.41	57	208248	9.68	UG/L	100
20) 1,1-Dichloroethane	3.56	63	301316	9.73	UG/L	100
21) 2-Butanone	4.20	72	91210	43.76	UG/L #	36
22) Ethyl Acetate	4.27	43	321085	9.30	UG/L #	98
23) cis-1,2-Dichloroethene	4.16	96	147373	10.10	UG/L #	67
24) Ethyl Cyanide	4.26	54	303675	87.19	UG/L	100
25) CHLOROFORM	4.50	83	312758	10.60	UG/L	99
26) Methacrylonitrile	4.41	41	2493016	98.37	UG/L #	100
27) Tetrahydrofuran	4.45	42	944954	119.45	UG/L #	85
28) Bromochloromethane	4.40	128	73773	10.83	UG/L #	38
29) 2,2-Dichloropropane	4.14	77	192631	9.87	UG/L #	80
30) Diethyl ether	2.20	59	134123	10.22	UG/L	100
31) 1,1,1-Trichloroethane	4.67	97	278412	10.47	UG/L	100
32) Iodomethane	2.52	142	157153	10.90	UG/L	100
34) 1,1-Dichloropropene	4.85	110	72259	10.49	UG/L	100
36) Carbon Tetrachloride	4.84	117	257336	11.11	UG/L	93
37) 1,2-Dichloroethane	5.10	62	369633	10.90	UG/L	100
38) Isobutanol	5.07	43	876891	694.40	UG/L #	96
39) Benzene	5.07	78	534540	10.29	UG/L	100
40) Trichloroethene	5.79	130	159248	10.67	UG/L	89

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4611V.D Vial: 22
Acq On : 4 Jun 2008 7:21 Operator: REGI
Sample : VSTD010 Inst : Instrumen
Misc : CALIBRATION CHECK 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 07:36:07 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	n-Butanol	5.80	56	386625	447.74 UG/L	#	95
42)	1,2-DICHLOROPROPANE	6.04	63	146659	9.81 UG/L		100
43)	1,4-Dioxane	6.22	88	55401	165.92 UG/L		100
44)	Methyl Methacrylate	6.23	41	270056	9.56 UG/L	#	47
45)	Bromodichloromethane	6.38	83	226169	10.59 UG/L		99
46)	Dibromomethane	6.18	93	105773	11.15 UG/L		86
47)	4-Methyl-2-Pentanone	7.11	43	1522393	48.42 UG/L		93
48)	2-Chloroethylvinylether	6.76	63	108144	9.06 UG/L		97
49)	cis-1,3-Dichloropropene	6.91	75	211497	9.55 UG/L		100
51)	TOLUENE	7.28	91	589768	10.25 UG/L		100
52)	trans-1,3-Dichloropropene	7.59	75	208234	10.13 UG/L		100
53)	1,1,2-Trichloroethane	7.81	97	125566	10.42 UG/L		100
54)	1,2-Dibromoethane	8.41	107	143787	11.56 UG/L		98
56)	2-Hexanone	8.16	43	1209402	49.17 UG/L	#	86
57)	1,3-Dichloropropane	8.01	76	227467	10.18 UG/L		100
58)	Ethyl Methacrylate	7.74	69	179600	9.08 UG/L	#	62
59)	Tetrachloroethene	7.95	166	165027	10.89 UG/L		94
60)	Dibromochloromethane	8.29	129	135348	10.61 UG/L		100
61)	Chlorobenzene	9.05	112	351730	10.91 UG/L		99
62)	1,1,1,2-Tetrachloroethane	9.17	131	132812	11.71 UG/L		100
63)	ETHYL BENZENE	9.21	106	196053	10.70 UG/L		70
64)	m,p-Xylene	9.37	106	500355	23.07 UG/L	#	48
65)	o-Xylene	9.88	106	217340	11.79 UG/L	#	69
66)	Styrene	9.90	104	361486	11.68 UG/L	#	65
67)	Bromoform	10.11	173	58613	9.44 UG/L		100
68)	1,1,2,2-Tetrachloroethane	10.70	83	115350	9.42 UG/L		98
70)	Isopropylbenzene	10.33	105	516983	11.68 UG/L		100
71)	trans-1,4-Dichloro-2-buten	10.76	53	110902	14.79 UG/L	#	1
72)	Bromobenzene	10.64	77	199799	11.27 UG/L		100
73)	1,2,3-Trichloropropane	10.72	110	48905	10.60 UG/L		100
74)	n-Propylbenzene	10.80	92	69672	11.75 UG/L		90
75)	1,3,5-Trimethylbenzene	11.00	105	417889	11.17 UG/L		100
76)	2-Chlorotoluene	10.87	126	109997	11.31 UG/L		100
77)	4-Chlorotoluene	10.98	126	109685	11.19 UG/L		100
78)	t-Butylbenzene	11.32	91	272468	11.17 UG/L	#	48
79)	1,2,4-Trimethylbenzene	11.37	105	400367	10.28 UG/L		100
80)	sec-Butylbenzene	11.54	105	466078	10.15 UG/L		100
81)	p-Isopropyltoluene	11.70	119	390889	9.97 UG/L		100
82)	1,3-Dichlorobenzene	11.62	146	191747	9.90 UG/L		100
83)	1,4-Dichlorobenzene	11.72	146	191619	9.62 UG/L		100
84)	n-Butylbenzene	12.08	92	198781	9.50 UG/L		98
85)	1,2-Dichlorobenzene	12.07	146	184212	9.52 UG/L		100
86)	1,2-Dibromo-3-chloropropan	12.79	157	30049	8.92 UG/L		100
87)	1,2,4-Trichlorobenzene	13.49	180	143958	9.38 UG/L		100
88)	Naphthalene	13.70	128	433600	9.62 UG/L		100
89)	Hexachlorobutadiene	13.65	225	86066	10.07 UG/L		100
90)	1,2,3-Trichlorobenzene	13.90	180	137945	9.64 UG/L		100

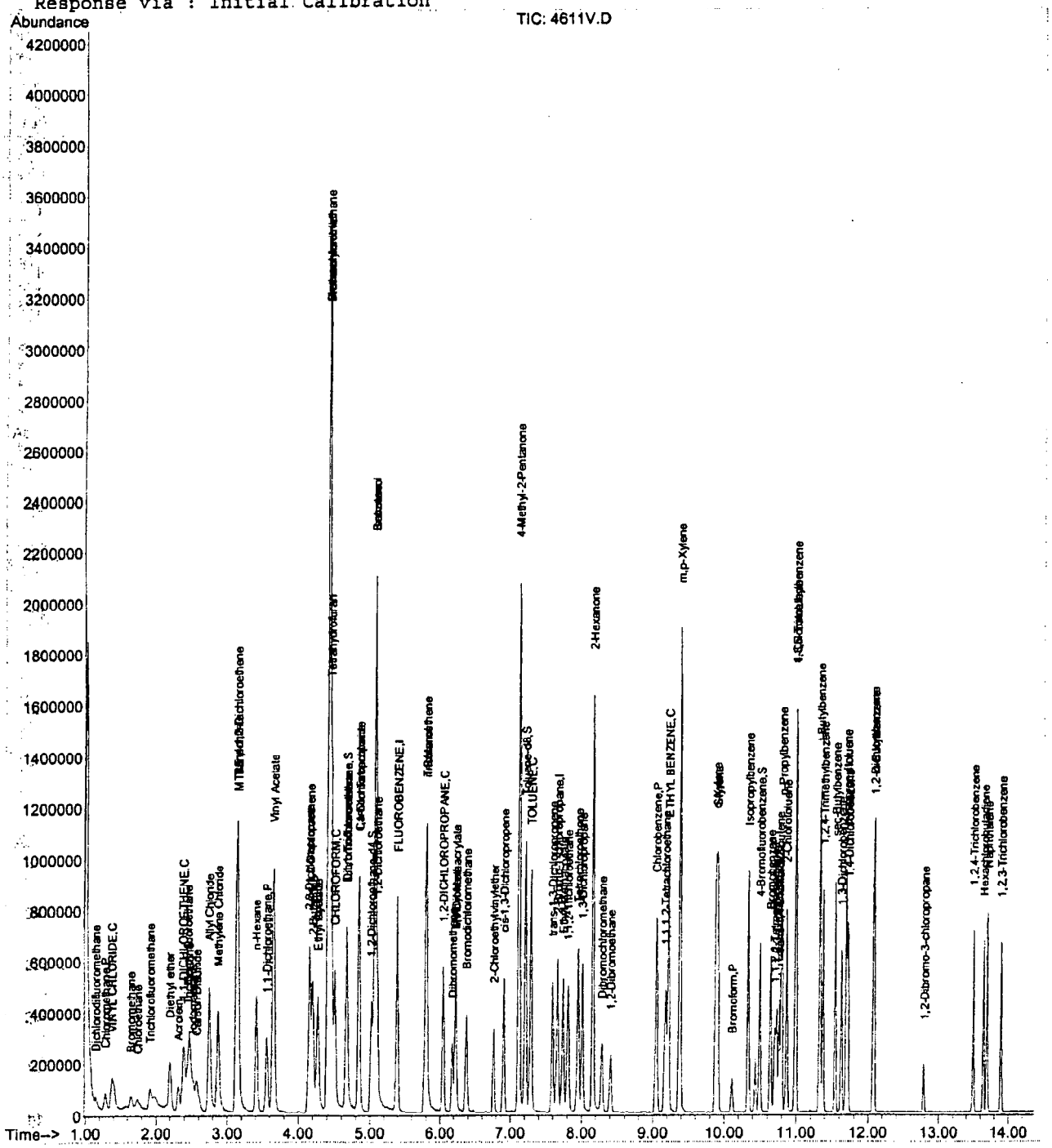
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4611V.D
Acq On : 4 Jun 2008 7:21
Sample : VSTD010
Misc : CALIBRATION CHECK 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 7:36 2008

Vial: 22
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

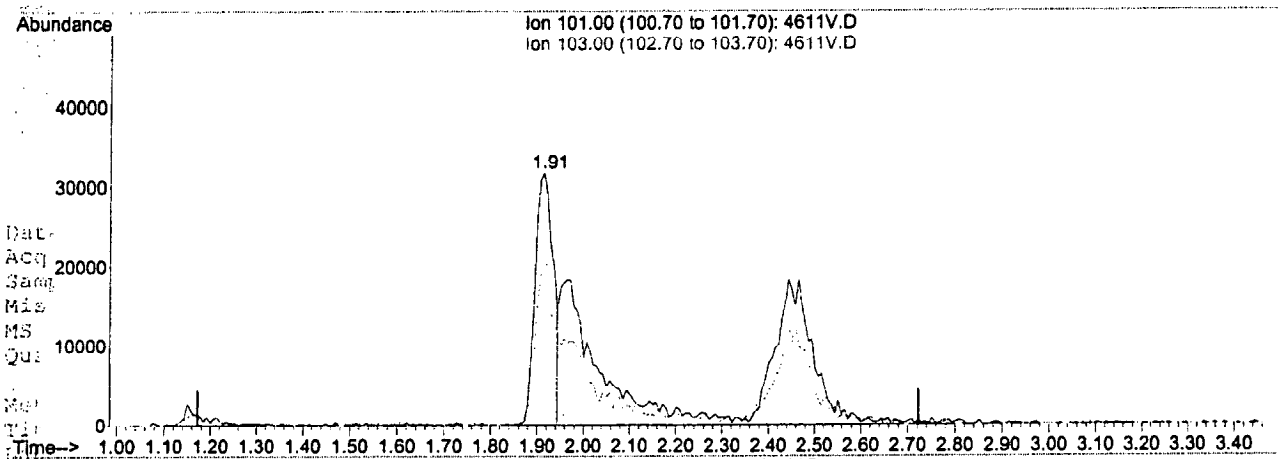


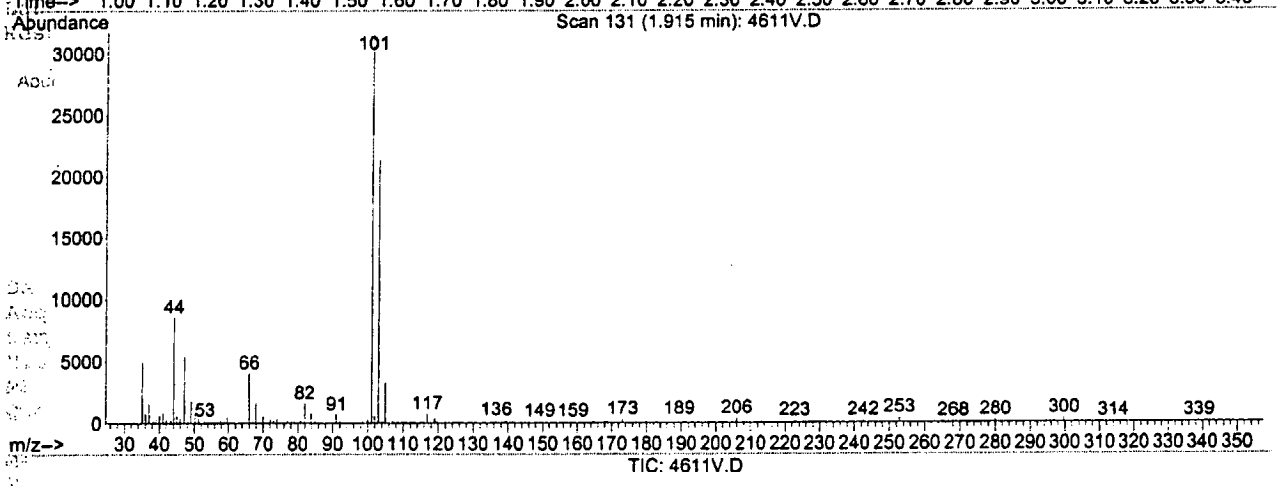
56911

Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4611V.D Vial: 22
Acq On : 4 Jun 2008 7:21 Operator: REGI
Sample : VSTD010 Inst : Instrumen
Misc : CALIBRATION CHECK 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 7:36 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 5.16UG/L

response 86541

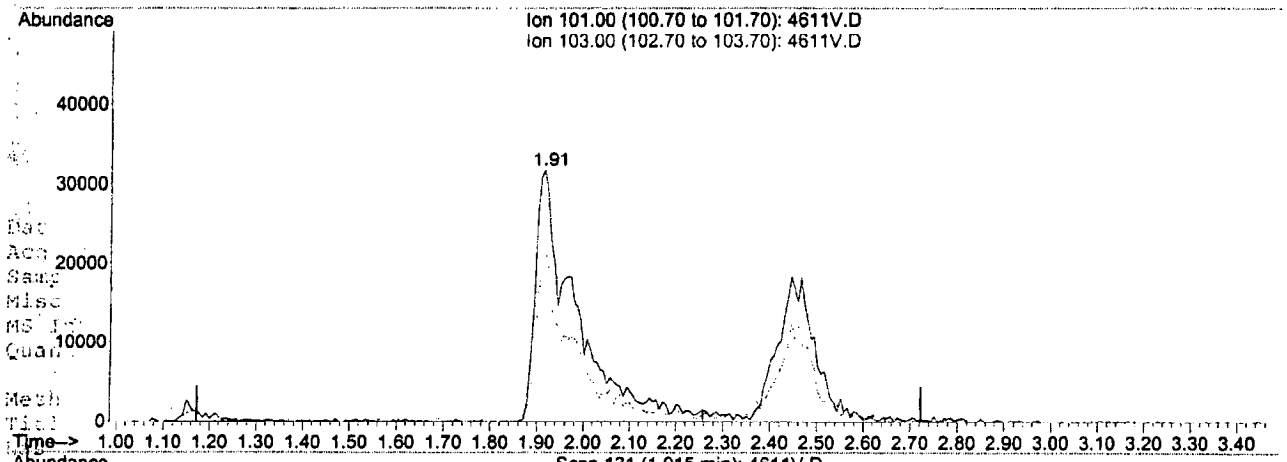
Ion	Exp%	Act%
101.00	100	100
103.00	49.20	79.84#
0.00	0.00	0.00
0.00	0.00	0.00

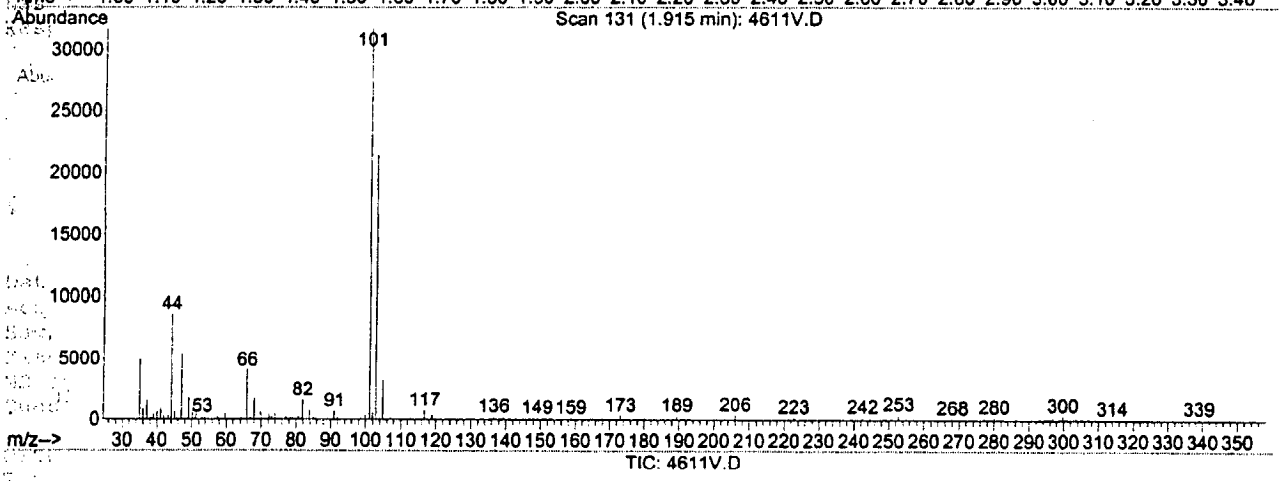
4611V.D 8260VOI.M Wed Jun 04 07:36:24 2008

Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4611V.D Vial: 22
Acq On : 4 Jun 2008 7:21 Operator: REGI
Sample : VSTD010 Inst : Instrumen
Misc : CALIBRATION CHECK 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 7:36 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 11.47UG/L m

response 192343

Ion	Exp%	Act%
101.00	100	100
103.00	49.20	35.92#
0.00	0.00	0.00
0.00	0.00	0.00

4611V.D 8260VOI.M Wed Jun 04 07:36:29 2008

R536336 Heritage Environmental Services, LLC Q2083705

QC Report

QCType BLA01 Duplicate SampleID DataFile 4612V.D
Date Entered 06Jun08 Duplicate QCSampleID Analyst 1062 R. SHAMP
Analysis Date/Time 04Jun08 07:48:00 Method 0 Matrix 1 Units ug/L

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
300	DICHLORODIFLUOROMETHANE			1.0	BDL		
236	CHLOROMETHANE			1.0	BDL		
768	VINYL CHLORIDE			0.46	BDL		
198	BROMOMETHANE			0.64	BDL		
234	CHLOROETHANE			0.53	BDL		
803	XYLENES (O/M/P-XYLENE)			1.1	BDL		
372	TRICHLOROFLUOROMETHANE			0.37	BDL		
105	ACROLEIN			25.	BDL		
8	1,1-DICHLOROETHENE			0.55	BDL		
99	ACETONE (2-PROPANONE)			2.6	BDL		
422	IODOMETHANE			0.53	BDL		
216	CARBON DISULFIDE			0.28	BDL		
73	3-CHLOROPROPENE (ALLYL CHLORIDE)			1.0	BDL		
302	DICHLOROMETHANE (METHYLENE CHLORIDE)			1.0	BDL		
746	TRANS-1,2-DICHLOROETHENE			0.50	BDL		
106	ACRYLONITRILE			5.0	BDL		
859	METHYL-T-BUTYL ETHER (MTBE)			1.0	BDL		
7	1,1-DICHLOROETHANE			0.51	BDL		
767	VINYL ACETATE			0.47	BDL		
33	2,2-DICHLOROPROPANE			1.0	BDL		
246	CIS-1,2-DICHLOROETHENE			0.38	BDL		
52	2-BUTANONE			2.7	BDL		
348	ETHYL ACETATE			1.0	BDL		
1146	ETHYL CYANIDE (PROPIONITRILE)			10.	BDL		
194	BROMOCHLOROMETHANE			0.62	BDL		
471	METHACRYLONITRILE			10.	BDL		
3457	2-METHYL-2-PROPENENITRILE			10.	BDL		
709	TETRAHYDROFURAN			20.	BDL		
235	CHLOROFORM			0.55	BDL		
2	1,1,1-TRICHLOROETHANE			0.41	BDL		
217	CARBON TETRACHLORIDE			0.38	BDL		
10	1,1-DICHLOROPROPENE			1.0	BDL		
151	BENZENE			0.41	BDL		
21	1,2-DICHLOROETHANE			0.59	BDL		
1525	2-BUTANOL			100	BDL		
750	TRICHLOROETHENE			0.45	BDL		
517	N-BUTANOL			100	BDL		
23	1,2-DICHLOROPROPANE			0.48	BDL		
296	DIBROMOMETHANE			0.56	BDL		
30	1,4-DIOXANE			100	BDL		
1147	METHYL METHACRYLATE			1.0	BDL		
195	BROMODICHLOROMETHANE			0.43	BDL		
299	DICHLOROBROMOMETHANE			0.43	BDL		
54	2-CHLOROETHYLVINYLETHER			1.0	BDL		

JK 6-6-08

R536336 Heritage Environmental Services, LLC Q2083705

QC Report

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
247	CIS-1,3-DICHLOROPROPENE			0.38	BDL		
91	4-METHYL-2-PENTANONE			2.5	BDL		
724	TOLUENE			0.48	BDL		
747	TRANS-1,3-DICHLOROPROPENE			0.38	BDL		
4	1,1,2-TRICHLOROETHANE			0.63	BDL		
351	ETHYL METHACRYLATE			1.0	BDL		
703	TETRACHLOROETHENE			0.61	BDL		
27	1,3-DICHLOROPROPANE			1.0	BDL		
60	2-HEXANONE			2.8	BDL		
295	DIBROMOCHLOROMETHANE			0.43	BDL		
18	1,2-DIBROMOETHANE (EDB)			1.0	BDL		
231	CHLOROBENZENE			0.48	BDL		
1	1,1,1,2-TETRACHLOROETHANE			0.49	BDL		
349	ETHYL BENZENE			0.44	BDL		
492	M/P-XYLENE			1.1	BDL		
549	O-XYLENE			1.0	BDL		
680	STYRENE			0.37	BDL		
197	BROMOFORM			0.45	BDL		
432	ISOPROPYLBENZENE (CUMENE)			1.0	BDL		
3	1,1,2,2-TETRACHLOROETHANE			0.38	BDL		
193	BROMOBENZENE			1.0	BDL		
14	1,2,3-TRICHLOROPROPANE			0.61	BDL		
748	TRANS-1,4-DICHLORO-2-BUTENE			1.5	BDL		
532	N-PROPYLBENZENE			1.0	BDL		
807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)			1.0	BDL		
25	1,3,5-TRIMETHYLBENZENE			1.0	BDL		
808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)			1.0	BDL		
702	TERT-BUTYLBENZENE			1.0	BDL		
17	1,2,4-TRIMETHYLBENZENE			1.0	BDL		
644	SEC-BUTYLBENZENE			1.0	BDL		
26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)			1.0	BDL		
628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)			1.0	BDL		
29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)			0.50	BDL		
519	N-BUTYLBENZENE			1.0	BDL		
20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)			0.51	BDL		
19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)			1.0	BDL		
16	1,2,4-TRICHLOROBENZENE			1.0	BDL		
398	HEXACHLOROBUTADIENE			1.0	BDL		
493	NAPHTHALENE			1.0	BDL		
13	1,2,3-TRICHLOROBENZENE			1.0	BDL		
5	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE			1.0	BDL		
305	DIETHYL ETHER			1.0	BDL		
866	HEXANE			1.0	BDL		
301	DICHLOROETHANE-D4					112	
726	TOLUENE-D8					99	
196	4-BROMOFLUOROBENZENE					109	
3362	DIBROMOFLUOROMETHANE					105	

R536336 Heritage Environmental Services, LLC Q2083705

QC Report

Qualifiers

BDL Below Detection Limit

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4612V.D
Acq On : 4 Jun 2008 7:48
Sample : VBLK
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 04 08:02:59 2008

Vial: 22
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Q2083705

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	612352	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	191570	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	172465	10.50	UG/L	0.00
Spiked Amount 10.000			Recovery	=	105.00%	
35) 1,2-Dichloroethane-d4	5.02	65	343792	11.22	UG/L	0.00
Spiked Amount 10.000			Recovery	=	112.20%	
50) Toluene-d8	7.21	98	575966	9.91	UG/L	0.00
Spiked Amount 10.000			Recovery	=	99.10%	
69) 4-Bromofluorobenzene	10.49	174	123804	10.92	UG/L	0.00
Spiked Amount 10.000			Recovery	=	109.20%	

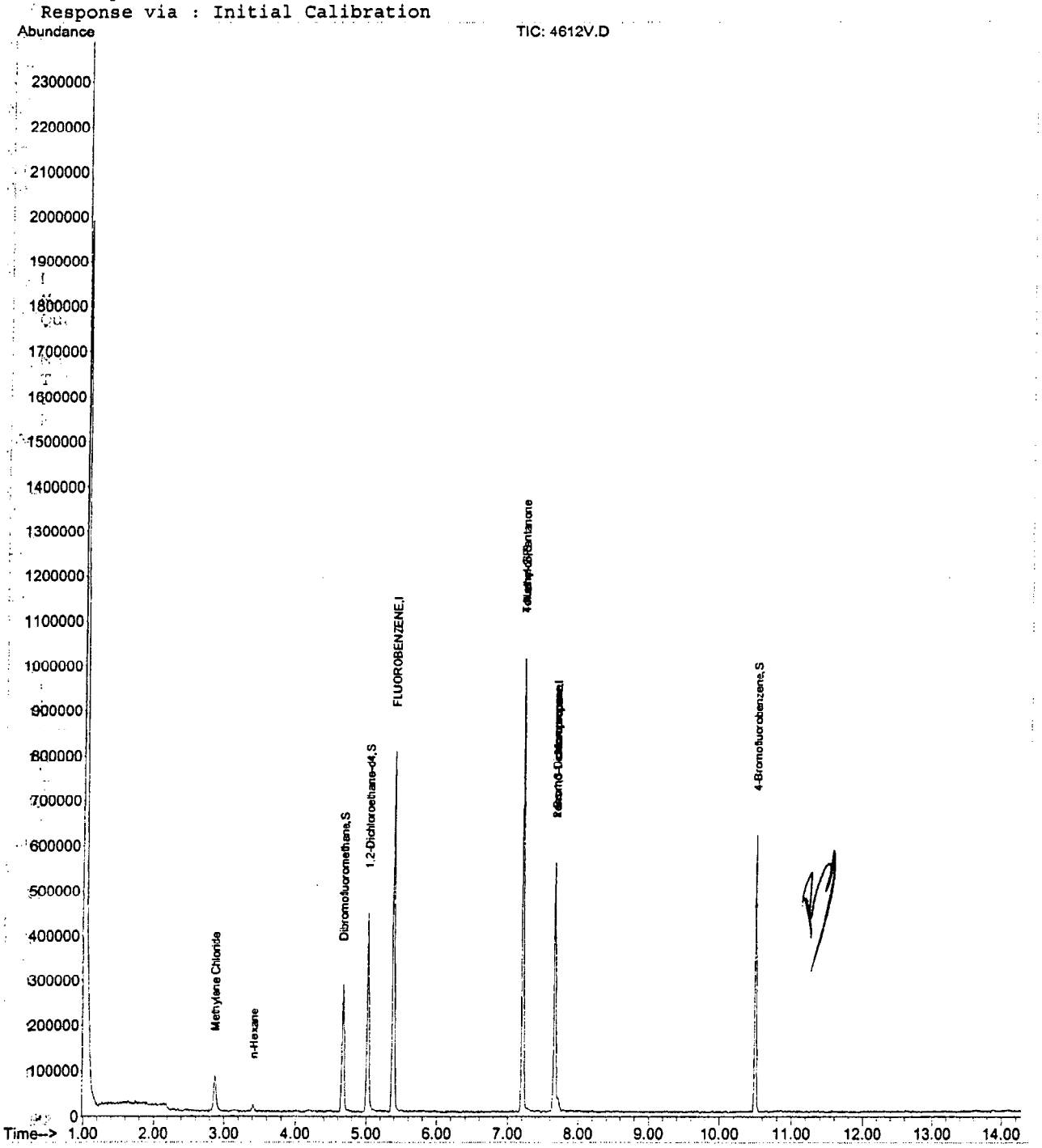
Target Compounds						Qvalue
14) Methylene Chloride	2.87	84	30965	0.50	UG/L #	64
19) n-Hexane	3.42	57	6906	0.32	UG/L	100
47) 4-Methyl-2-Pentanone	7.21	43	5837	0.18	UG/L #	1
52) trans-1,3-Dichloropropene	7.67	75	6661	0.32	UG/L	100

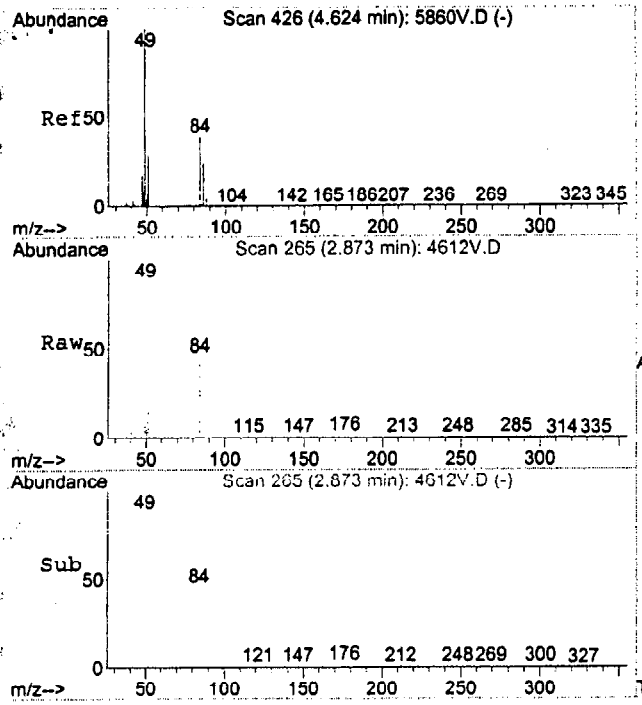
(#) = qualifier out of range (m) = manual integration
4612V.D 8260VOI.M Wed Jun 04 08:08:44 2008

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4612V.D Vial: 22
Acq On : 4 Jun 2008 7:48 Operator: REGI
Sample : VBLK Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 8:03 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

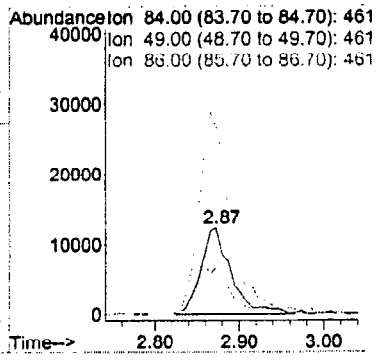


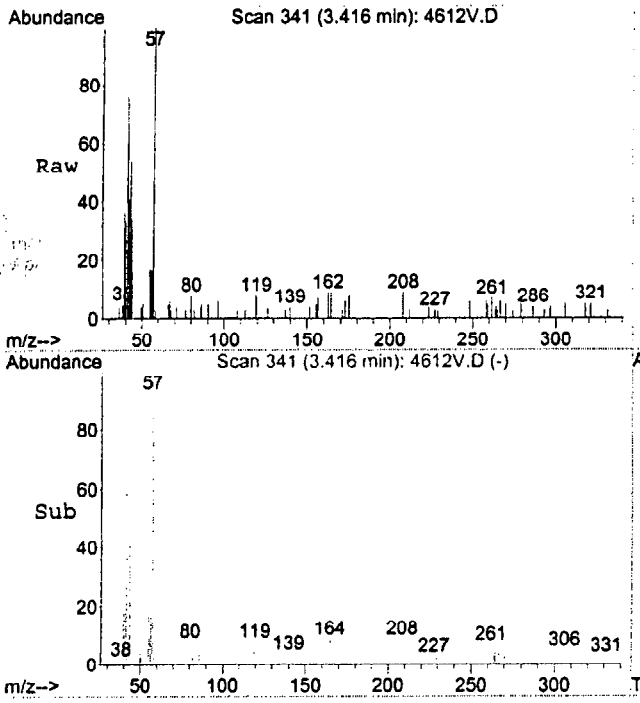


#14
Methylene Chloride
Concen: 0.50 UG/L
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4612V.D
Acq: 4 Jun 2008 7:48

Tgt Ion: 84 Resp: 30965

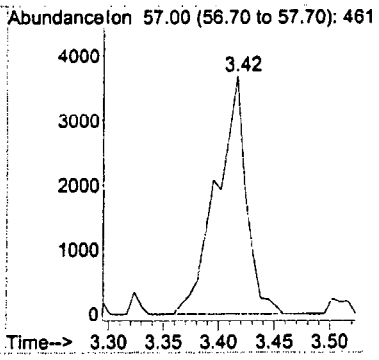
Ion	Ratio	Lower	Upper
84	100		
49	242.5	140.2	210.2#
86	63.3	51.1	76.7

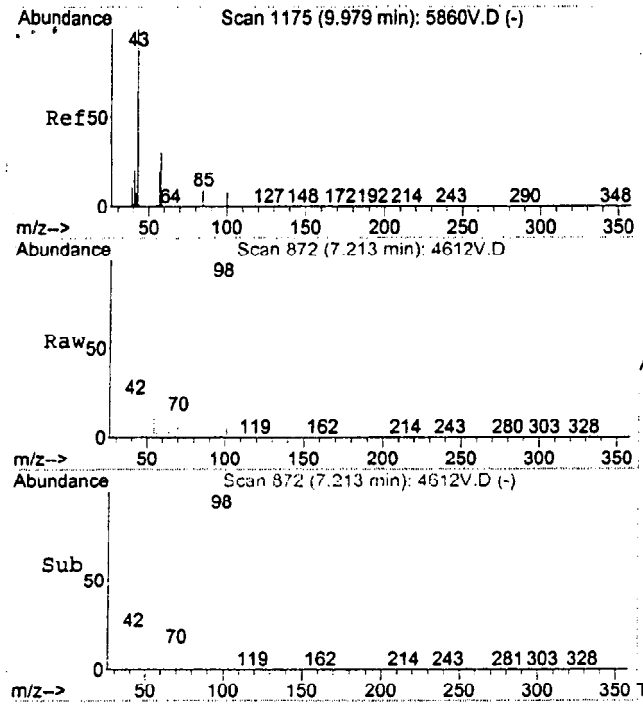




#19
n-Hexane
Concen: 0.32 UG/L
RT: 3.42 min Scan# 341
Delta R.T. 0.01 min
Lab File: 4612V.D
Acq: 4 Jun 2008 7:48

Tgt Ion: 57 Resp: 6906

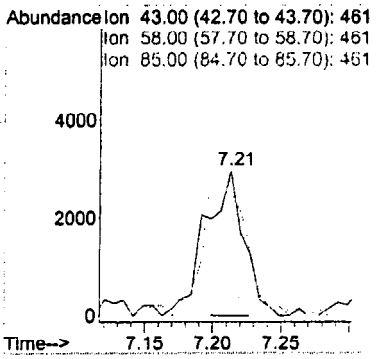


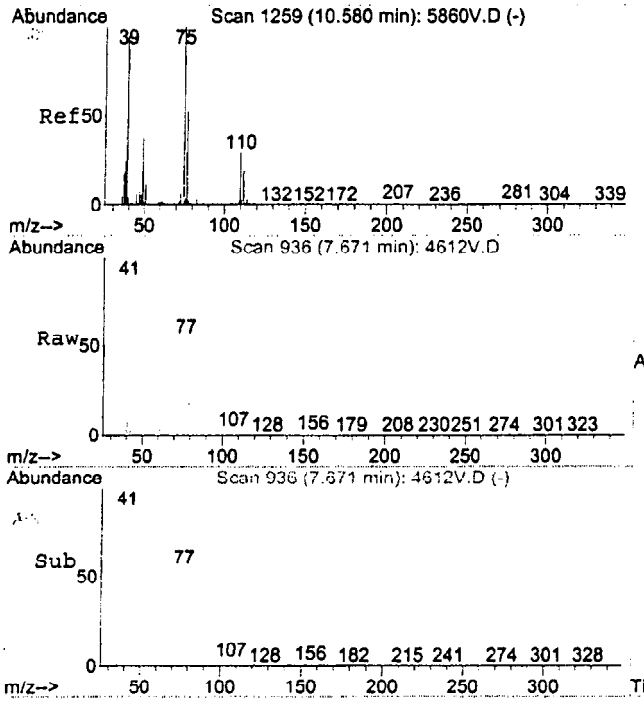


#47
4-Methyl-2-Pentanone
Concen: 0.18 UG/L
RT: 7.21 min Scan# 872
Delta R.T. 0.09 min
Lab File: 4612V.D
Acq: 4 Jun 2008 7:48

Tgt Ion: 43 Resp: 5837

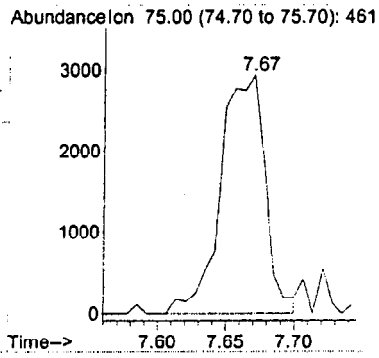
Ion	Ratio	Lower	Upper
43	100		
58	119.6	27.5	41.3#
85	0.0	9.6	14.4#





#52
trans-1,3-Dichloropropene
Concen: 0.32 UG/L
RT: 7.67 min Scan# 936
Delta R.T. 0.08 min
Lab File: 4612V.D
Acq: 4 Jun 2008 7:48

Tgt Ion: 75 Resp: 6661



QC Std# 605
Method # 309

Heritage Laboratories, Indianapolis
LCS01 Volatile QC Report-EPA Method 8260 25 mL
Water

Q2-63704

LCS Data File : 4613V.
LCS Date/Time : 4 Jun 2008 8:17
Spike Conc : 10 uG/L
Dilution Factor: 1

Compound	Spike Conc	Spike % Rec	Min Recovery *	Max Recovery *
Benzene	9.89	98.9	73	131.5
Carbon Tetrachloride	11.9	119.0	63	144.9
1,4-Dichlorobenzene	10.5	105.0	74	136.7
1,2-Dichloroethane	11.5	115.0	65	133.8
1,1-DICHLOROETHENE	12.2	122.0	59	128.5
1,1,1-Trichloroethane	11.2	112.0	65	135.2
Trichloroethene	10.9	109.0	67	120.9
VINYL CHLORIDE	10.9	109.0	43	144
Bromobenzene	12.2	122.0	56	159.4
Bromodichloromethane	10.6	106.0	70	129.4
Bromoform	10.2	102.0	59	163.5
Bromomethane	12.7	127.0	54	135.8
Chlorobenzene	11.6	116.0	76	132.6
Dibromochloromethane	11.2	112.0	67	145.6
Chloroethane	12.8	128.0	64	142.7
CHLOROFORM	11.4	114.0	73	136.2
Chloromethane	12.2	122.0	42	138.5
2-Chlorotoluene	12	120.0	76	134.4
4-Chlorotoluene	11.8	118.0	76	139.9
Dibromomethane	11.1	111.0	72	126
1,3-Dichlorobenzene	10.4	104.0	74	140
1,2-Dichlorobenzene	10.4	104.0	78	136.7
trans-1,2-Dichloroethene	11	110.0	57	116.1
cis-1,2-Dichloroethene	10.2	102.0	72	167.4
Methylene Chloride	11.1	111.0	71	133
1,1-Dichloroethane	10.5	105.0	72	132.7
1,1-Dichloropropene	9.75	97.5	68	124.6
1,2-DICHLOROPROPANE	9.8	98.0	70	125.6
1,3-Dichloropropane	10.3	103.0	74	127
cis-1,3-Dichloropropene	9.69	96.9	70	119.1
trans-1,3-Dichloropropene	11.3	113.0	72	131.8
2,2-Dichloropropane	10.4	104.0	64	135
ETHYL BENZENE	11.1	111.0	47	155.6
Styrene	12.3	123.0	48	158.2
1,1,2-Trichloroethane	11.1	111.0	73	121.4
1,1,1,2-Tetrachloroethane	12.2	122.0	75	129.5
1,1,2,2-Tetrachloroethane	10.1	101.0	76	126.3
Tetrachloroethene	9.97	99.7	69	135.2
1,2,3-Trichloropropane	11.1	111.0	73	132.7

QC Std# 605
Method # 309

Heritage Laboratories, Indianapolis
LCS01 Volatile QC Report-EPA Method 8260 25 mL
Water

LCS Data File : 4613V.
LCS Date/Time : 4 Jun 2008 8:17
Spike Conc : 10 uG/L
Dilution Factor: 1

Compound	Spike Conc	Spike % Rec	Min Recovery *	Max Recovery *
TOLUENE	10.4	104.0	73	130
m,p-Xylene	23.6	118.0	73	137.2
o-Xylene	12.7	127.0	78	143.5
Bromochloromethane	11.5	115.0	65	141.4
n-Butylbenzene	9.92	99.2	77	137.1
Dichlorodifluoromethane	11.2	112.0	15	123.1
Trichlorofluoromethane	12.7	127.0	51	149.1
Hexachlorobutadiene	10.8	108.0	66	130.5
Isopropylbenzene	13.8	138.0	84	148.4
p-Isopropyltoluene	10.5	105.0	75	137.2
Naphthalene	10.1	101.0	75	133.3
n-Propylbenzene	12.8	128.0	74	140.8
sec-Butylbenzene	10.4	104.0	74	129.3
t-Butylbenzene	11.8	118.0	47	155.9
1,2,3-Trichlorobenzene	10.3	103.0	69	143.8
1,2,4-Trichlorobenzene	9.65	96.5	75	132.1
1,2,4-Trimethylbenzene	10.3	103.0	77	136.1
1,3,5-Trimethylbenzene	11.5	115.0	77	134.7
Acrolein	81.8	81.8	D	672
Acetone	51.5	103.0	62	135.2
Acrylonitrile	83.9	83.9	D	597.8
Carbon Disulfide	13.2	132.0	65	161.9
Vinyl Acetate	10.4	104.0	71	127.6
2-Butanone	52.1	104.2	74	128.8
4-Methyl-2-Pentanone	54.2	108.4	70	131.2
2-Hexanone	52.5	105.0	76	131.7
2-Chloroethylvinylether	10.1	101.0	49	136.5
trans-1,4-Dichloro-2-butene	7.94	39.7	D	114.1
1,2-Dibromoethane	11.8	118.0	73	124
1,2-Dibromo-3-chloropropane	9.81	98.1	67	127.4
Iodomethane	13	130.0	67	135.8

Recovery limit

Trans-1,4-dichloro-2-butene and co-eluting Dichlorobenzenes and Xylenes spiked at 20 uG/L
Acetone, MEK, MIBK, 2-Hexanone, Acrolein and Acrylonitrile spiked at 100 uG/L

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4613V.D Vial: 1
Acq On : 4 Jun 2008 8:17 Operator: REGI
Sample : DI MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 08:35:08 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	590753	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	198913	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	176400	11.13	UG/L	0.00
Spiked Amount 10.000			Recovery	=	111.30%	
35) 1,2-Dichloroethane-d4	5.02	65	331562	11.21	UG/L	0.00
Spiked Amount 10.000			Recovery	=	112.10%	
50) Toluene-d8	7.21	98	591921	10.55	UG/L	0.00
Spiked Amount 10.000			Recovery	=	105.50%	
69) 4-Bromofluorobenzene	10.49	174	133834	11.37	UG/L	0.00
Spiked Amount 10.000			Recovery	=	113.70%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.16	85	64278	11.16	UG/L	100
3) Chloromethane	1.28	50	103130	12.23	UG/L	100
4) VINYL CHLORIDE	1.38	62	76300	10.91	UG/L	94
5) Bromomethane	1.65	94	46332	12.66	UG/L	92
6) Chloroethane	1.74	64	51625	12.82	UG/L #	77
7) Trichlorofluoromethane	1.91	101	208412m	12.68	UG/L	
8) Acrolein	2.31	56	104758	81.81	UG/L	100
9) Acetone	2.47	43	501775	51.50	UG/L #	83
10) 1,1-DICHLOROETHENE	2.39	96	111972	12.24	UG/L	100
11) Trichlorotrifluoroethane	2.46	101	113313	13.67	UG/L	87
12) Acrylonitrile	3.13	53	397418	83.87	UG/L	100
13) Carbon Disulfide	2.57	76	239831	13.15	UG/L	99
14) Methylene Chloride	2.87	84	157712	11.14	UG/L #	67
15) Allyl Chloride	2.74	41	6793	0.12	UG/L	100
16) Vinyl Acetate	3.64	43	1032135	10.44	UG/L #	96
17) MTBE	3.15	73	520096	13.03	UG/L	100
18) trans-1,2-Dichloroethene	3.13	96	141513	10.95	UG/L #	70
19) n-Hexane	3.41	57	233271	11.06	UG/L	100
20) 1,1-Dichloroethane	3.55	63	319093	10.51	UG/L	100
21) 2-Butanone	4.19	72	106505	52.12	UG/L #	55
22) Ethyl Acetate	4.27	43	350567	10.35	UG/L #	99
23) cis-1,2-Dichloroethene	4.15	96	145238	10.16	UG/L #	63
25) CHLOROFORM	4.50	83	328468	11.36	UG/L	99
26) Methacrylonitrile	4.45	41	642612	25.86	UG/L #	100
27) Tetrahydrofuran	4.45	42	945641	121.92	UG/L #	87
28) Bromochloromethane	4.40	128	76532	11.46	UG/L #	65
29) 2,2-Dichloropropane	4.14	77	199406	10.42	UG/L #	81
30) Diethyl ether	2.19	59	151499	11.78	UG/L	100
31) 1,1,1-Trichloroethane	4.67	97	292292	11.21	UG/L	98
32) Iodomethane	2.52	142	183878	13.01	UG/L	100
34) 1,1-Dichloropropene	4.85	110	65858	9.75	UG/L	100
36) Carbon Tetrachloride	4.84	117	269054	11.85	UG/L	90
37) 1,2-Dichloroethane	5.10	62	380519	11.45	UG/L	99
38) Isobutanol	5.07	43	8136	6.57	UG/L #	1
39) Benzene	5.07	78	503909	9.89	UG/L	100
40) Trichloroethene	5.78	130	159084	10.87	UG/L	91
42) 1,2-DICHLOROPROPANE	6.04	63	143713	9.80	UG/L	100

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4613V.D Vial: 1
Acq On : 4 Jun 2008 8:17 Operator: REGI
Sample : DI MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 08:35:08 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,4-Dioxane	6.22	88	27667	84.52 UG/L	100
45)	Bromodichloromethane	6.37	83	222783	10.64 UG/L	99
46)	Dibromomethane	6.18	93	103463	11.12 UG/L	88
47)	4-Methyl-2-Pentanone	7.11	43	1671702	54.23 UG/L	92
48)	2-Chloroethylvinylether	6.76	63	118036	10.09 UG/L	99
49)	cis-1,3-Dichloropropene	6.91	75	210418	9.69 UG/L	100
51)	TOLUENE	7.28	91	586107	10.39 UG/L	100
52)	trans-1,3-Dichloropropene	7.59	75	227548	11.29 UG/L	100
53)	1,1,2-Trichloroethane	7.81	97	131516	11.14 UG/L	100
54)	1,2-Dibromoethane	8.40	107	143849	11.79 UG/L	99
56)	2-Hexanone	8.16	43	1290267	52.48 UG/L #	87
57)	1,3-Dichloropropane	8.01	76	229332	10.27 UG/L	100
59)	Tetrachloroethene	7.95	166	150942	9.97 UG/L	99
60)	Dibromochloromethane	8.29	129	142268	11.16 UG/L	100
61)	Chlorobenzene	9.04	112	374732	11.63 UG/L	97
62)	1,1,1,2-Tetrachloroethane	9.17	131	137991	12.17 UG/L	100
63)	ETHYL BENZENE	9.21	106	203549	11.12 UG/L	71
64)	m,p-Xylene	9.37	106	510704	23.56 UG/L #	46
65)	o-Xylene	9.88	106	234228	12.71 UG/L #	69
66)	Styrene	9.90	104	380506	12.30 UG/L #	67
67)	Bromoform	10.11	173	63515	10.23 UG/L	100
68)	1,1,2,2-Tetrachloroethane	10.70	83	122984	10.05 UG/L	100
70)	Isopropylbenzene	10.33	105	612219	13.84 UG/L	100
71)	trans-1,4-Dichloro-2-buten	10.76	53	59498	7.94 UG/L #	1
72)	Bromobenzene	10.64	77	215789	12.18 UG/L	100
73)	1,2,3-Trichloropropane	10.72	110	51301	11.13 UG/L	100
74)	n-Propylbenzene	10.80	92	75996	12.82 UG/L	94
75)	1,3,5-Trimethylbenzene	11.00	105	429514	11.49 UG/L	100
76)	2-Chlorotoluene	10.87	126	116444	11.98 UG/L	100
77)	4-Chlorotoluene	10.98	126	115658	11.81 UG/L	100
78)	t-Butylbenzene	11.32	91	286965	11.77 UG/L #	41
79)	1,2,4-Trimethylbenzene	11.37	105	400892	10.30 UG/L	100
80)	sec-Butylbenzene	11.54	105	479097	10.44 UG/L	100
81)	p-Isopropyltoluene	11.70	119	410374	10.47 UG/L	100
82)	1,3-Dichlorobenzene	11.63	146	201255	10.40 UG/L	100
83)	1,4-Dichlorobenzene	11.72	146	209474	10.53 UG/L	100
84)	n-Butylbenzene	12.08	92	207551	9.92 UG/L	97
85)	1,2-Dichlorobenzene	12.07	146	201111	10.39 UG/L	100
86)	1,2-Dibromo-3-chloropropan	12.79	157	33015	9.81 UG/L	100
87)	1,2,4-Trichlorobenzene	13.49	180	147926	9.65 UG/L	100
88)	Naphthalene	13.70	128	454852	10.10 UG/L	100
89)	Hexachlorobutadiene	13.64	225	91937	10.76 UG/L	100
90)	1,2,3-Trichlorobenzene	13.90	180	147464	10.31 UG/L	100

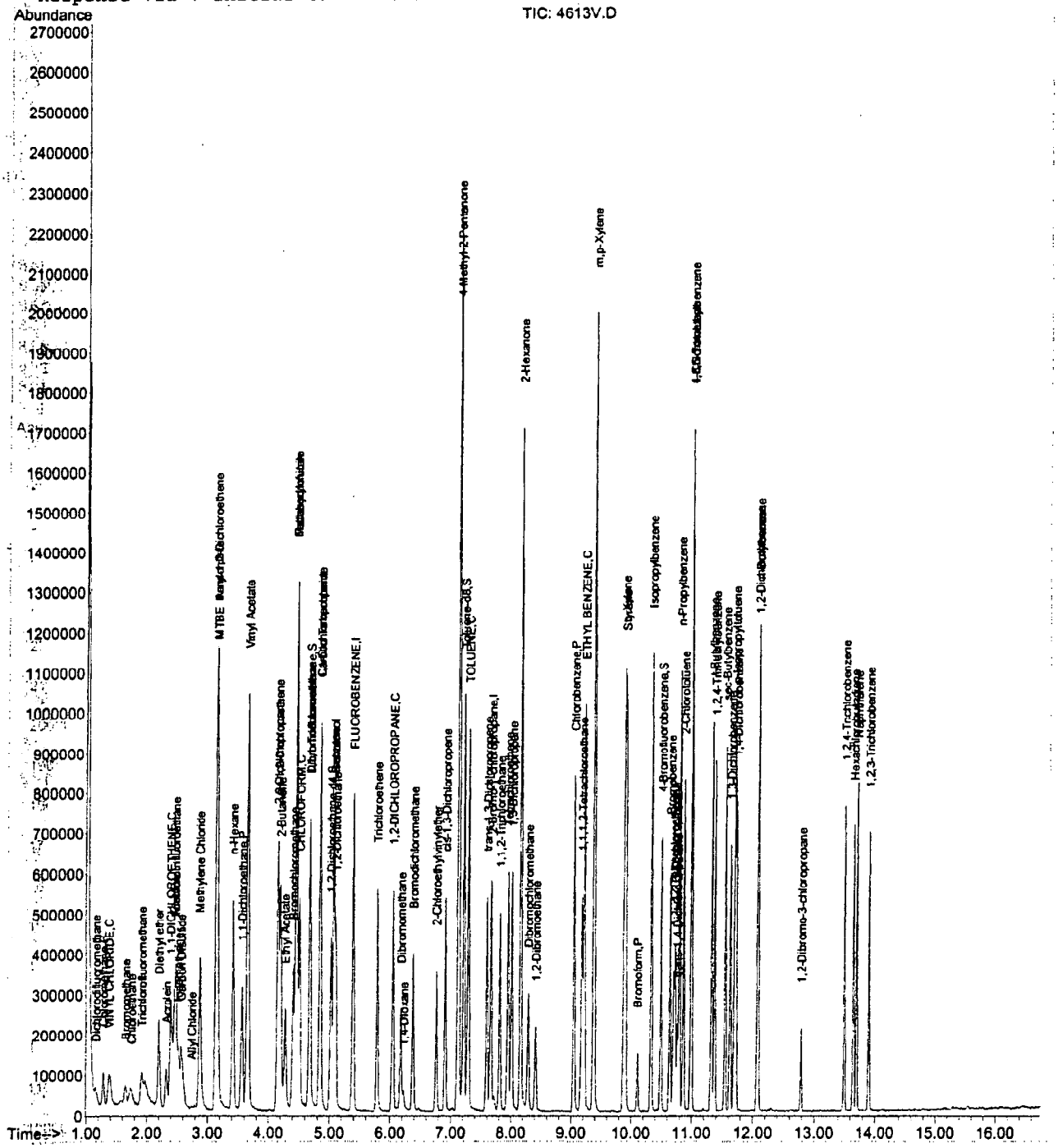
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4613V.D
Acq On : 4 Jun 2008 8:17
Sample : DI MS
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 8:35 2008

Vial: 1
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

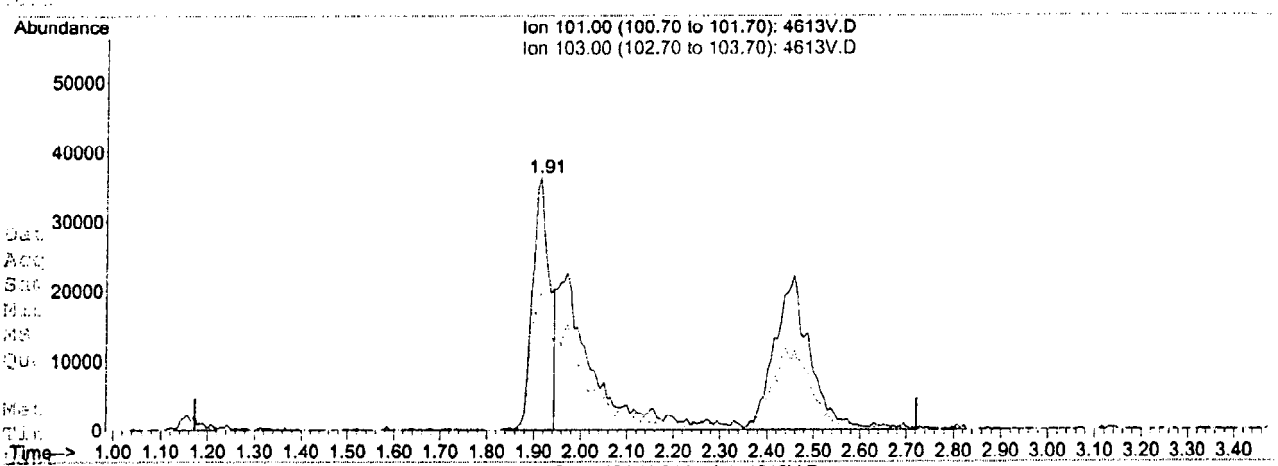
Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

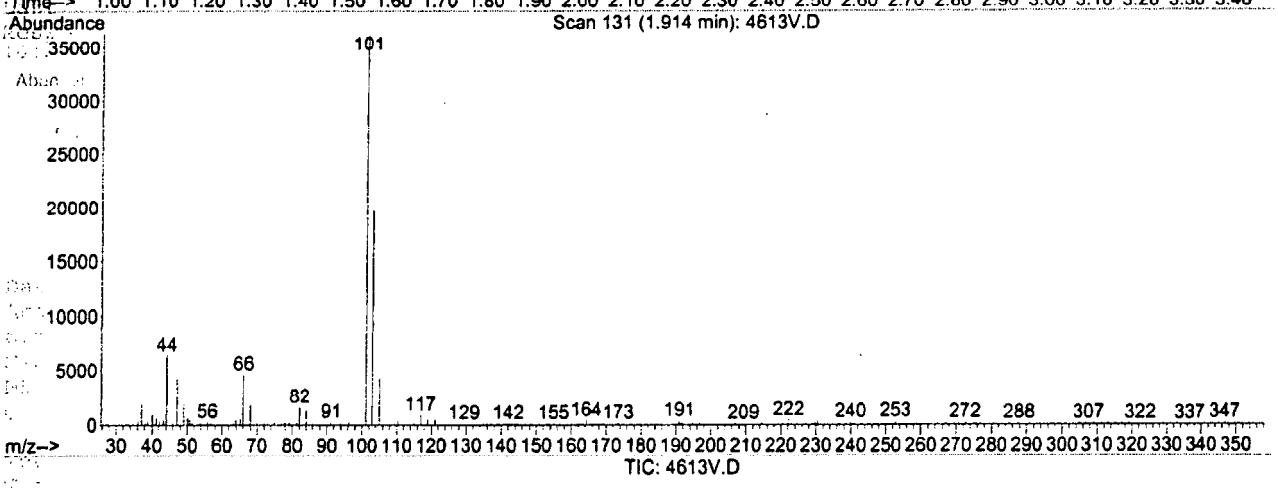


Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4613V.D Vial: 1
Acq On : 4 Jun 2008 8:17 Operator: REGI
Sample : DI MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 8:35 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 5.68UG/L

response 93328

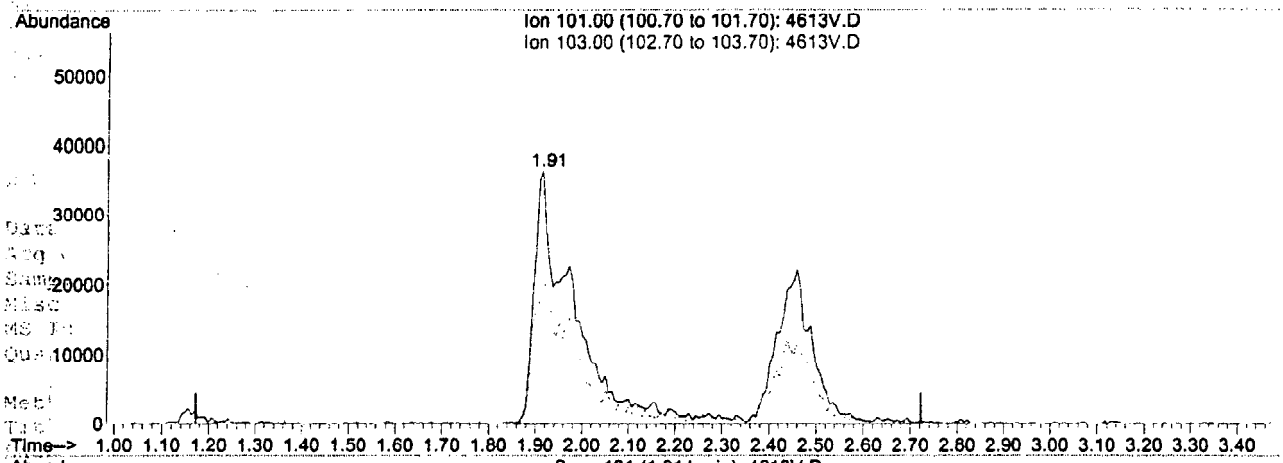
Ion	Exp%	Act%
101.00	100	100
103.00	49.20	64.15#
0.00	0.00	0.00
0.00	0.00	0.00

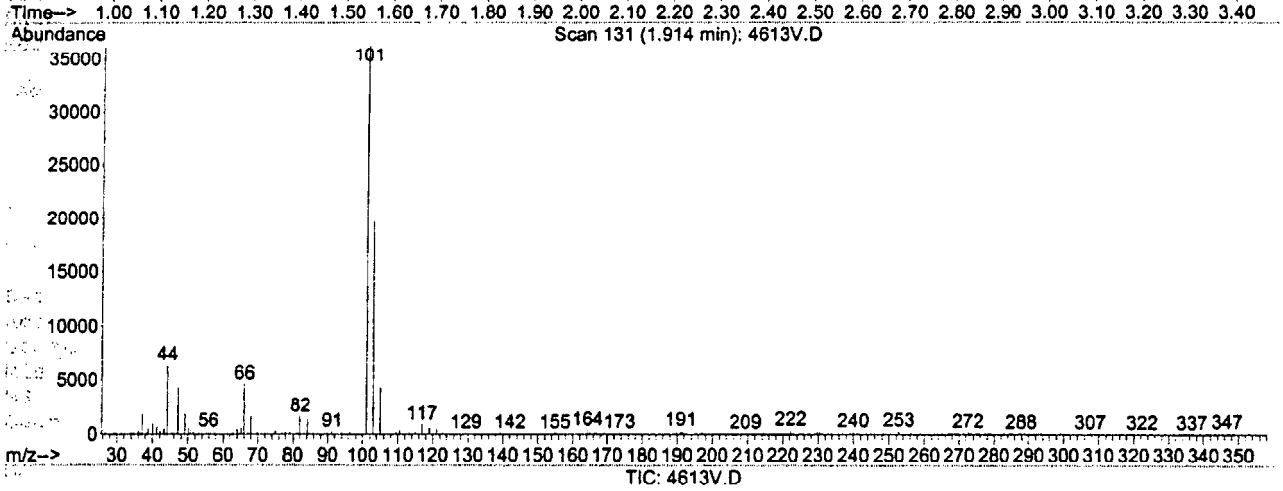
4613V.D 8260VOI.M Wed Jun 04 08:35:25 2008

Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4613V.D Vial: 1
Acq On : 4 Jun 2008 8:17 Operator: REGI
Sample : DI MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 8:35 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 12.68UG/L m

response 208412

Ion	Exp%	Act%
101.00	100	100
103.00	49.20	28.73#
0.00	0.00	0.00
0.00	0.00	0.00

4613V.D 8260VOI.M Wed Jun 04 08:35:30 2008

R536336 Heritage Environmental Services, LLC A812343

GC/MS VOA

Method SW846-8260B
Sample Description MW-165S
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.0
Analyst 1062 R. SHAMP
File 4614V.D Date/Time 04Jun08 08:51:00
Dilution Factor 1

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
67-64-1	99	ACETONE (2-PROPANONE)		BDL	10	UG/L	
107-02-8	105	ACROLEIN		BDL	50	UG/L	
107-13-1	106	ACRYLONITRILE		BDL	10	UG/L	
71-43-2	151	BENZENE		BDL	1.0	UG/L	
108-86-1	193	BROMOBENZENE		BDL	1.0	UG/L	
74-97-5	194	BROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-27-4	195	BROMODICHLOROMETHANE		BDL	1.0	UG/L	
75-25-2	197	BROMOFORM		BDL	1.0	UG/L	
74-83-9	198	BROMOMETHANE		BDL	1.0	UG/L	
104-51-8	519	N-BUTYLBENZENE		BDL	1.0	UG/L	
135-98-8	644	SEC-BUTYLBENZENE		BDL	1.0	UG/L	
98-06-6	702	TERT-BUTYLBENZENE		BDL	1.0	UG/L	
75-15-0	216	CARBON DISULFIDE		BDL	1.0	UG/L	
56-23-5	217	CARBON TETRACHLORIDE		BDL	1.0	UG/L	
108-90-7	231	CHLOROBENZENE		BDL	1.0	UG/L	
124-48-1	295	DIBROMOCHLOROMETHANE		BDL	1.0	UG/L	
75-00-3	234	CHLOROETHANE		BDL	1.0	UG/L	
67-66-3	235	CHLOROFORM		BDL	1.0	UG/L	
74-87-3	236	CHLOROMETHANE		BDL	1.0	UG/L	
95-49-8	807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)		BDL	1.0	UG/L	
106-43-4	808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)		BDL	1.0	UG/L	
110-75-8	54	2-CHLOROETHYLVINYLETHER		BDL	1.0	UG/L	
96-12-8	19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		BDL	1.0	UG/L	
106-93-4	18	1,2-DIBROMOETHANE (EDB)		BDL	1.0	UG/L	
74-95-3	296	DIBROMOMETHANE		BDL	1.0	UG/L	
95-50-1	20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)		BDL	1.0	UG/L	
541-73-1	26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)		BDL	1.0	UG/L	
106-46-7	29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)		BDL	1.0	UG/L	
75-71-8	300	DICHLORODIFLUOROMETHANE		BDL	1.0	UG/L	
110-57-6	748	TRANS-1,4-DICHLORO-2-BUTENE		BDL	2.0	UG/L	
75-34-3	7	1,1-DICHLOROETHANE		BDL	1.0	UG/L	
107-06-2	21	1,2-DICHLOROETHANE		BDL	1.0	UG/L	
75-35-4	8	1,1-DICHLOROETHENE		BDL	1.0	UG/L	
156-59-2	246	CIS-1,2-DICHLOROETHENE	2.4		1.0	UG/L	
156-60-5	746	TRANS-1,2-DICHLOROETHENE		BDL	1.0	UG/L	
78-87-5	23	1,2-DICHLOROPROPANE		BDL	1.0	UG/L	
142-28-9	27	1,3-DICHLOROPROPANE		BDL	1.0	UG/L	
594-20-7	33	2,2-DICHLOROPROPANE		BDL	1.0	UG/L	
10061-01-5	247	CIS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
563-58-6	10	1,1-DICHLOROPROPENE		BDL	1.0	UG/L	
10061-02-6	747	TRANS-1,3-DICHLOROPROPENE		BDL	1.0	UG/L	
100-41-4	349	ETHYL BENZENE		BDL	1.0	UG/L	
97-63-2	351	ETHYL METHACRYLATE		BDL	10	UG/L	
591-78-6	60	2-HEXANONE		BDL	10	UG/L	
87-68-3	398	HEXACHLOROBUTADIENE		BDL	1.0	UG/L	

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GC/MS VOA

74-88-4	422	IODOMETHANE	BDL	1.0	UG/L
98-82-8	432	ISOPROPYLBENZENE (CUMENE)	BDL	1.0	UG/L
99-87-6	628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	1.0	UG/L
75-09-2	302	DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	1.0	UG/L
78-93-3	475	METHYL ETHYL KETONE	BDL	10	UG/L
1634-04-4	859	METHYL-T-BUTYL ETHER (MTBE)	BDL	1.0	UG/L
108-10-1	476	METHYL ISOBUTYL KETONE	BDL	10	UG/L
91-20-3	493	NAPHTHALENE	BDL	1.0	UG/L
103-65-1	532	N-PROPYLBENZENE	BDL	1.0	UG/L
100-42-5	680	STYRENE	BDL	1.0	UG/L
630-20-6	1	1,1,1,2-TETRACHLOROETHANE	BDL	1.0	UG/L
79-34-5	3	1,1,2,2-TETRACHLOROETHANE	BDL	1.0	UG/L
127-18-4	703	TETRACHLOROETHENE	BDL	1.0	UG/L
108-88-3	724	TOLUENE	BDL	1.0	UG/L
87-61-6	13	1,2,3-TRICHLOROBENZENE	BDL	1.0	UG/L
120-82-1	16	1,2,4-TRICHLOROBENZENE	BDL	1.0	UG/L
71-55-6	2	1,1,1-TRICHLOROETHANE	BDL	1.0	UG/L
79-00-5	4	1,1,2-TRICHLOROETHANE	BDL	1.0	UG/L
79-01-6	750	TRICHLOROETHENE	BDL	1.0	UG/L
75-69-4	372	TRICHLOROFLUOROMETHANE	BDL	1.0	UG/L
96-18-4	14	1,2,3-TRICHLOROPROPANE	BDL	1.0	UG/L
95-63-6	17	1,2,4-TRIMETHYLBENZENE	BDL	1.0	UG/L
108-67-8	25	1,3,5-TRIMETHYLBENZENE	BDL	1.0	UG/L
108-05-4	767	VINYL ACETATE	BDL	1.0	UG/L
75-01-4	768	VINYL CHLORIDE	7.4	1.0	UG/L
1330-20-7	803	XYLENES (O/M/P-XYLENE)	BDL	1.1	UG/L
	1804	...			
	971	SURROGATE RECOVERY			
	972	————————			
17060-07-0	301	DICHLOROETHANE-D4	111		% RECOVERY
2037-26-5	726	TOLUENE-D8	101		% RECOVERY
460-00-4	196	4-BROMOFLUOROBENZENE	109		% RECOVERY
1868-53-7	3362	DIBROMOFLUOROMETHANE	110		% RECOVERY

Comment m/p-Xylene and Total Xylene detection limits are greater than the mdl but less than the low calibration standard per client request. Prep Method SW846-5030B Purge and Trap

Qualifiers

BDL Below Detection Limit

Comments to Laboratory (do not record)

4 40 ML HCL VIALS

**********REPORT ALL RESULTS IN UG/L.**********

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4614V.D
Acq On : 4 Jun 2008 8:51
Sample : A812343
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 04 09:08:29 2008

Vial: 1
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	597124	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	193195	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	176557	11.03	UG/L	0.00
Spiked Amount 10.000			Recovery	=	110.30%	
35) 1,2-Dichloroethane-d4	5.02	65	331421	11.09	UG/L	0.00
Spiked Amount 10.000			Recovery	=	110.90%	
50) Toluene-d8	7.21	98	569765	10.05	UG/L	0.00
Spiked Amount 10.000			Recovery	=	100.50%	
69) 4-Bromofluorobenzene	10.49	174	124666	10.91	UG/L	0.00
Spiked Amount 10.000			Recovery	=	109.10%	
Target Compounds						Qvalue
4) VINYL CHLORIDE 7.4	1.39	62	52526	7.43	UG/L	95
9) Acetone	2.47	43	66735	6.78	UG/L #	87
14) Methylene Chloride	2.87	84	29232	0.42	UG/L #	56
19) n-Hexane	3.40	57	8295	0.39	UG/L	100
23) cis-1,2-Dichloroethene 2.4	4.15	96	34405	2.38	UG/L	85
47) 4-Methyl-2-Pentanone	7.21	43	7596	0.24	UG/L #	12
51) TOLUENE	7.29	91	5716	0.10	UG/L	100
52) trans-1,3-Dichloropropene	7.66	75	6839	0.34	UG/L	100

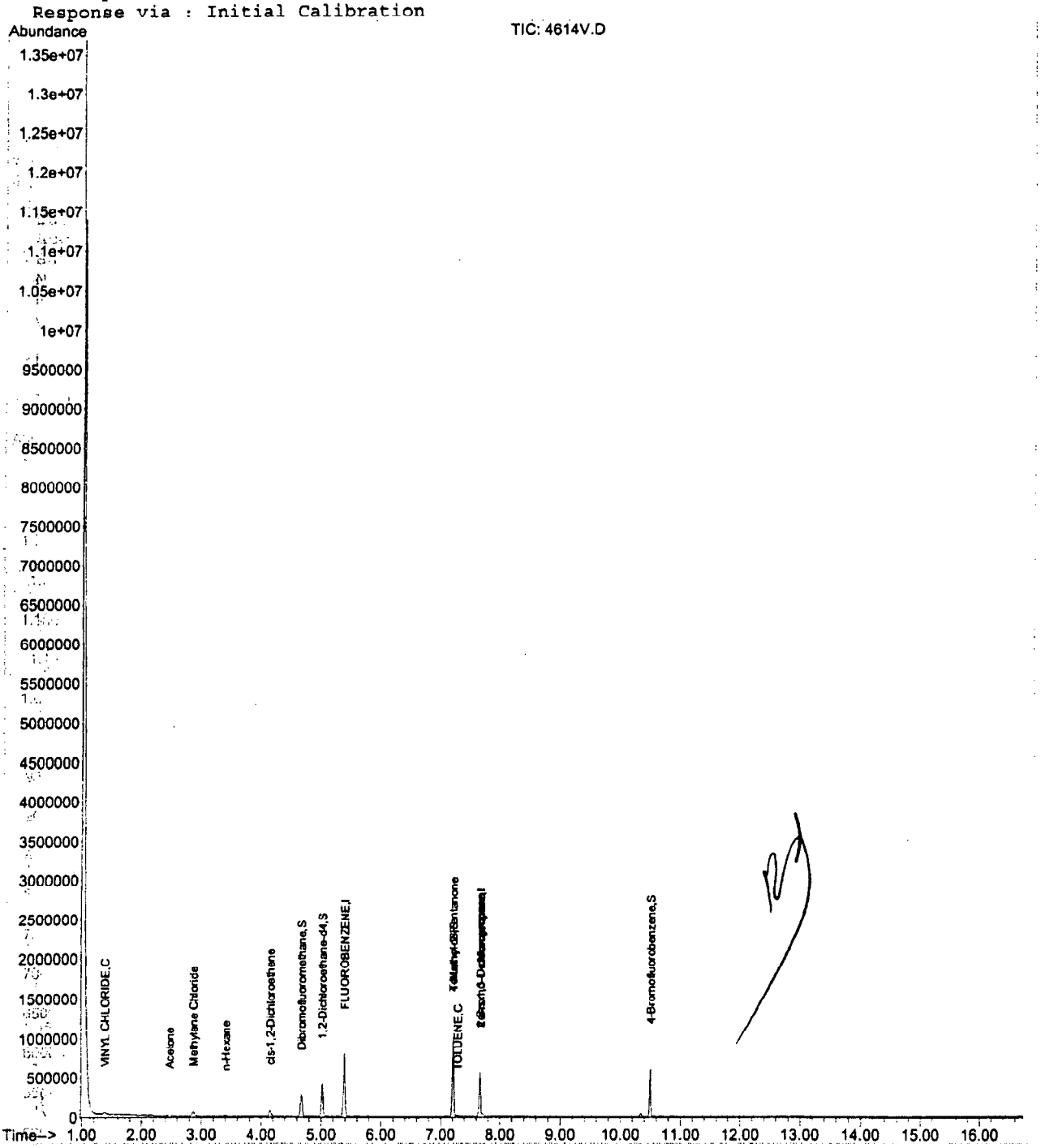
(#) = qualifier out of range (m) = manual integration
4614V.D 8260VOI.M Wed Jun 04 09:08:32 2008

Quantitation Report (Not Reviewed)

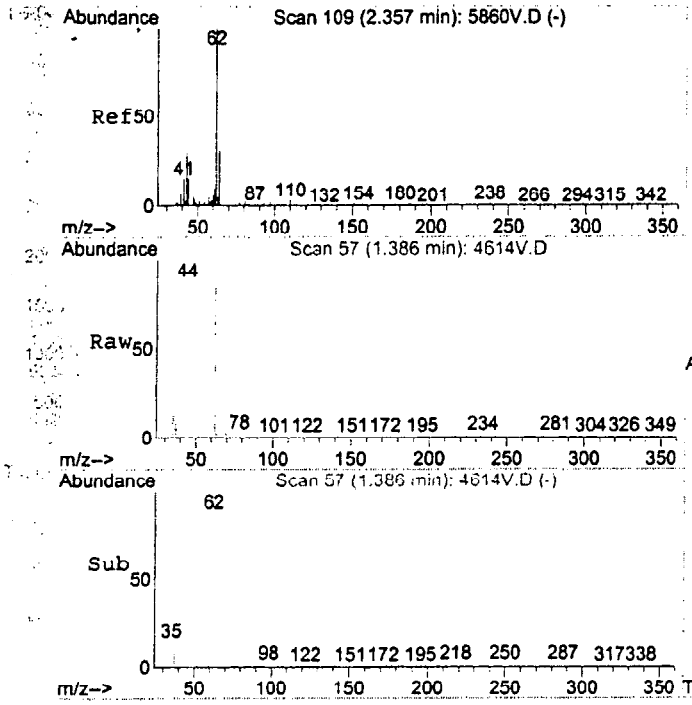
Data File : C:\HPCHEM\DATA\V060408\4614V.D
Acq On : 4 Jun 2008 8:51
Sample : A812343
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 9:08 2008

Vial: 1
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration



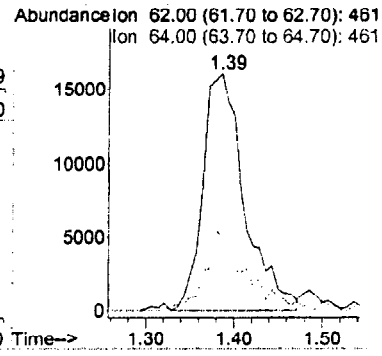
56911

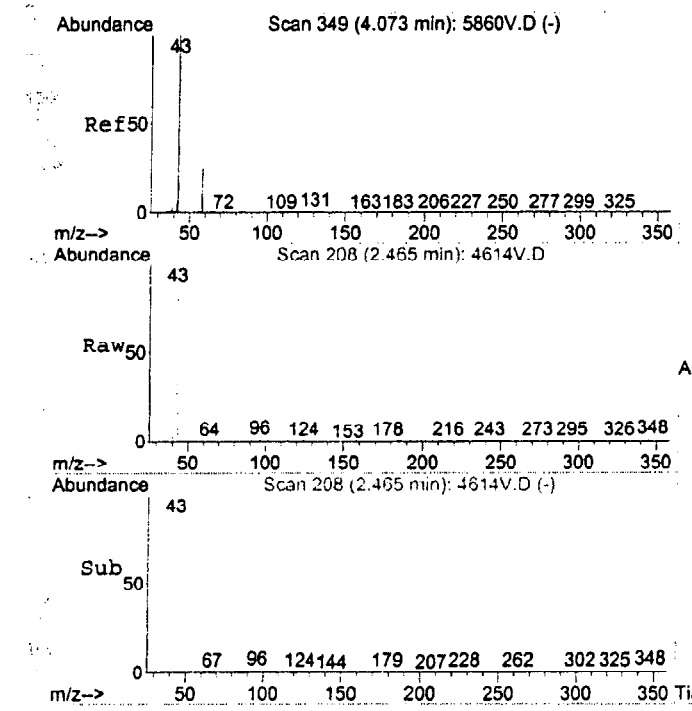


#4
VINYL CHLORIDE
Concen: 7.43 UG/L
RT: 1.39 min Scan# 57
Delta R.T. 0.01 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 62 Resp: 52526

Ion	Ratio	Lower	Upper
62	100		
64	33.6	24.9	37.3

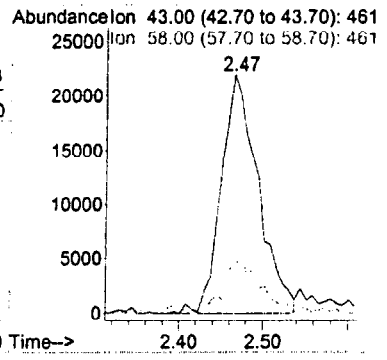


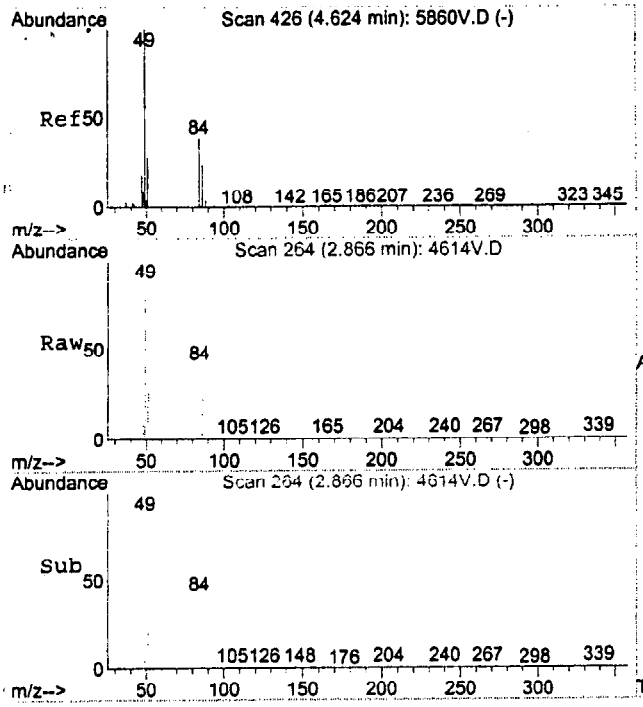


#9
Acetone
Concen: 6.78 UG/L
RT: 2.47 min Scan# 208
Delta R.T. -0.02 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 43 Resp: 66735

Ion	Ratio	Lower	Upper
43	100		
58	22.1	23.1	34.7#

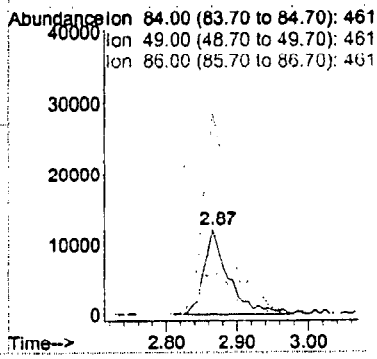


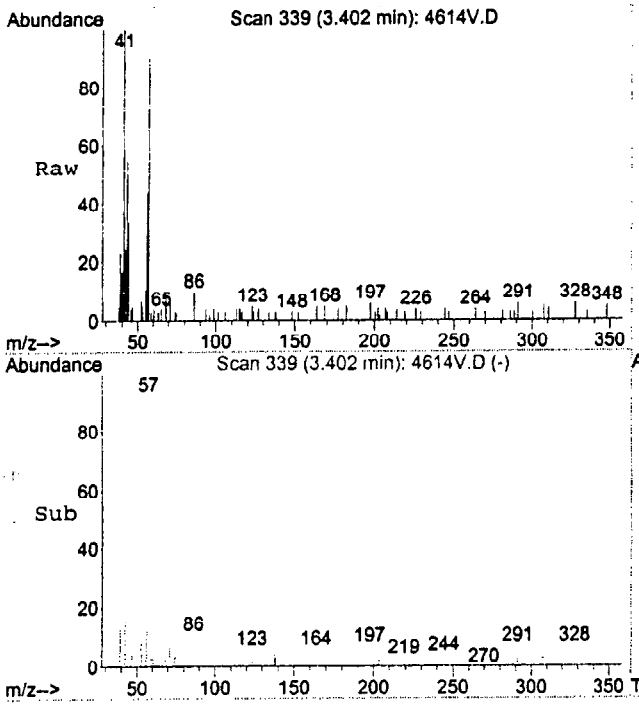


#14
Methylene Chloride
Concen: 0.42 UG/L
RT: 2.87 min Scan# 264
Delta R.T. -0.01 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 84 Resp: 29232

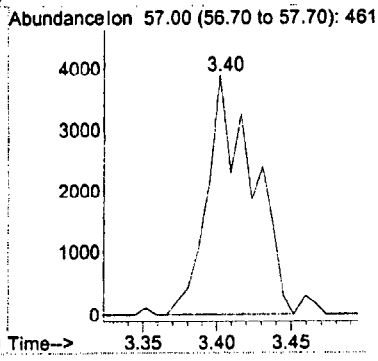
Ion	Ratio	Lower	Upper
84	100		
49	255.6	140.2	210.2#
86	68.3	51.1	76.7

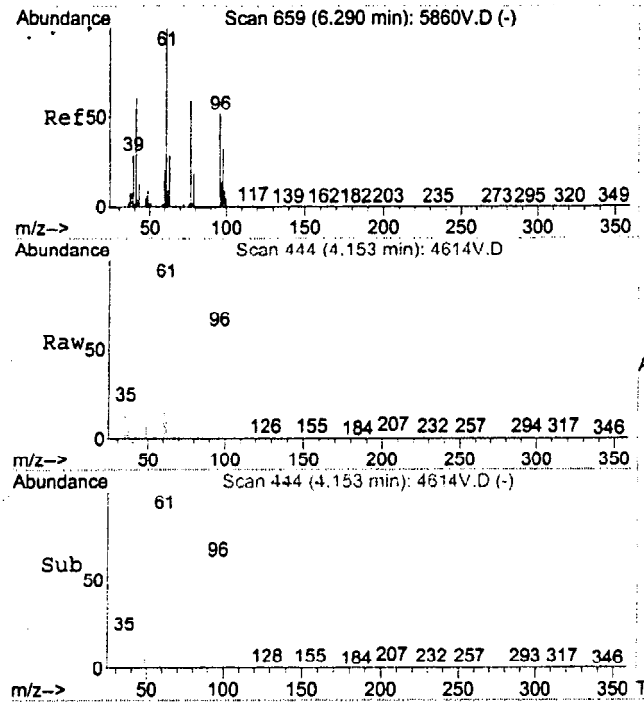




#19
n-Hexane
Concen: 0.39 UG/L
RT: 3.40 min Scan# 339
Delta R.T. -0.01 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 57 Resp: 8295

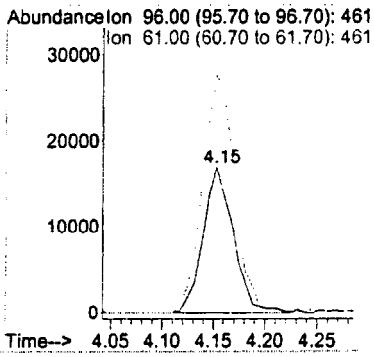


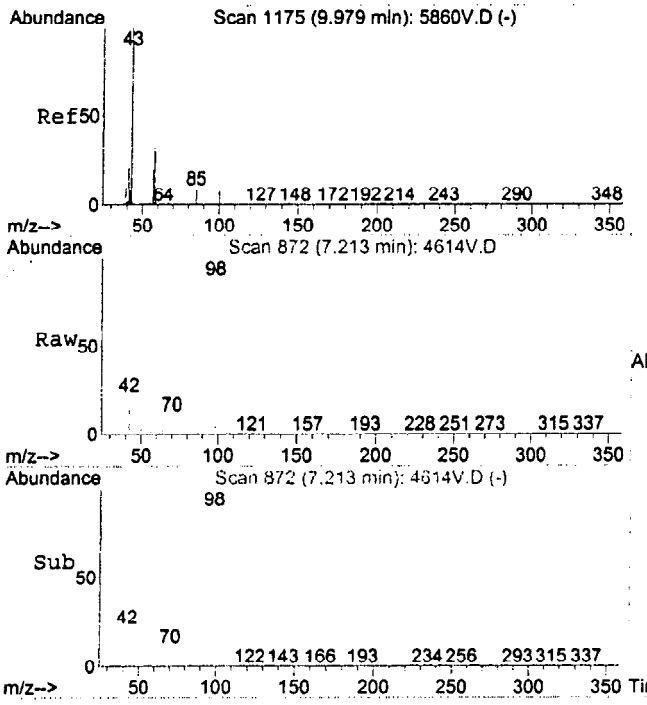


#23
cis-1,2-Dichloroethene
Concen: 2.38 UG/L
RT: 4.15 min Scan# 444
Delta R.T. -0.01 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 96 Resp: 34405

Ion	Ratio	Lower	Upper
96	100		
61	171.6	121.8	182.6

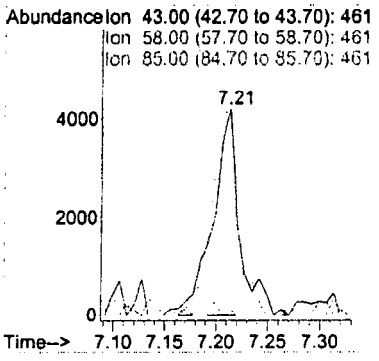




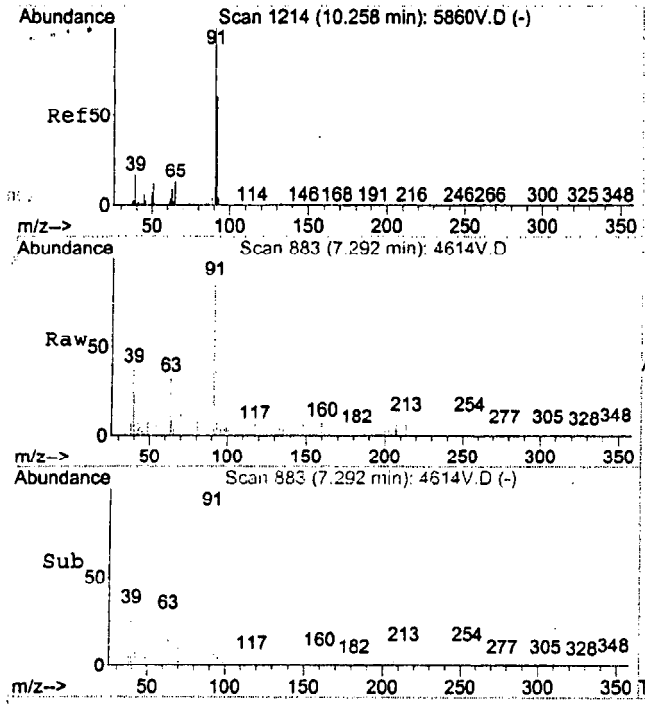
#47
4-Methyl-2-Pentanone
Concen: 0.24 UG/L
RT: 7.21 min Scan# 872
Delta R.T. 0.09 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 43 Resp: 7596

Ion	Ratio	Lower	Upper
43	100		
58	96.6	27.5	41.3#
85	0.0	9.6	14.4#

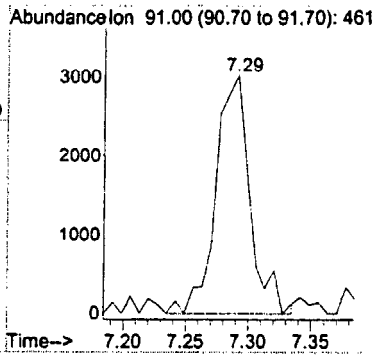


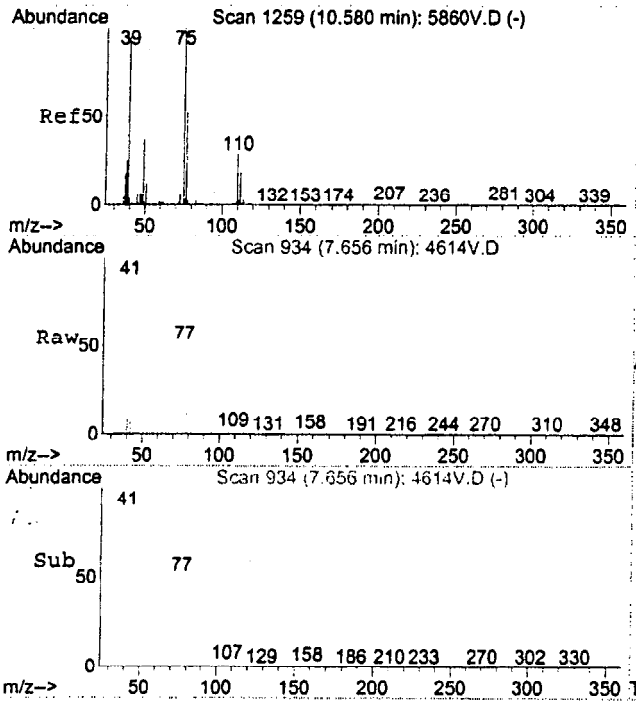
56911



#51
TOLUENE
Concen: 0.10 UG/L
RT: 7.29 min Scan# 883
Delta R.T. 0.00 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

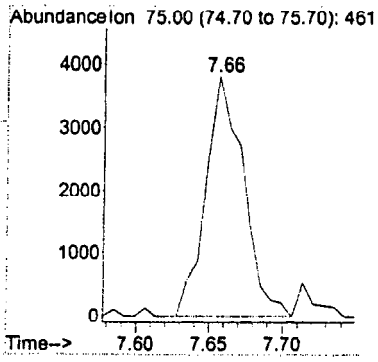
Tgt Ion: 91 Resp: 5716





#52
trans-1,3-Dichloropropene
Concen: 0.34 UG/L
RT: 7.66 min Scan# 934
Delta R.T. 0.06 min
Lab File: 4614V.D
Acq: 4 Jun 2008 8:51

Tgt Ion: 75 Resp: 6839



QC Std# 605 Heritage Laboratories, Indianapolis
Method # 309 MS/MSD Volatile QC Report-EPA Method 8260 Appendix IX mL
Water

Laboratory Sample # : A812197 Q20637 07 Q20637 08
Data File :4619V. MS Data File : 4620V. MSD Data File : 4621V.
Date/Time : 4 Jun 2008 11:02 MS Date/Time : 4 Jun 2008 11:28 MSD Date/Time : 4 Jun 2008 11:54
Spike Conc : 10 uG/L
Dilution Factor: 1

Compound		Spike Conc	Spike % Rec	Spike Dup Conc	Spike Dup % Rec	RPD	Min Recovery *	Max
Benzene	0	10.4	104.0	10.8	108.0	3.8	75	127.9
Carbon Tetrachloride	0	11.8	118.0	11.9	119.0	0.8	71	163.4
1,4-Dichlorobenzene	0	10	100.0	10.4	104.0	3.9	80	121.8
1,2-Dichloroethane	0	11.6	116.0	11.5	115.0	0.9	71	163.2
1,1-DICHLOROETHENE	0	11.7	117.0	12	120.0	2.5	66	134.3
1,1,1-Trichloroethane	0	11.3	113.0	11.1	111.0	1.8	79	156.2
Trichloroethene	0	11.1	111.0	11	110.0	0.9	67	149.3
VINYL CHLORIDE	0	8.71	87.1	10.5	105.0	18.6	46	154
Bromobenzene	0	12.5	125.0	13	130.0 !	3.9	78	126.6
Bromodichloromethane	0	11.4	114.0	11.4	114.0	0.0	68	157.1
Bromoform	0	10.1	101.0	10.7	107.0	5.8	52	171.7
Bromomethane	0	10.8	108.0	10.8	108.0	0.0	17	175.4
Chlorobenzene	0	11.5	115.0	12.5	125.0 !	8.3	81	123.4
Dibromochloromethane	0	11.2	112.0	12.2	122.0	8.5	64	152.5
Chloroethane	0	10.1	101.0	10.4	104.0	2.9	79	145.1
CHLOROFORM	0	11.3	113.0	11.1	111.0	1.8	79	146.2
Chloromethane	0	9.41	94.1	9.89	98.9	5.0	31	139.9
2-Chlorotoluene	0	12.1	121.0	13.2	132.0 !	8.7	70	126.1
4-Chlorotoluene	0	11.9	119.0	13.2	132.0 !	10.4	73	123.4
Dibromomethane	0	11.1	111.0	11.1	111.0	0.0	60	156.9
1,3-Dichlorobenzene	0	10.2	102.0	10.9	109.0	6.6	80	127.4
1,2-Dichlorobenzene	0	10.1	101.0	10.2	102.0	1.0	81	125.8
trans-1,2-Dichloroethene	0	10.9	109.0	11	110.0	0.9	76	136.3
cis-1,2-Dichloroethene	0	9.93	99.3	10.2	102.0	2.7	67	151.6
Methylene Chloride	0	10.3	103.0	9.97	99.7	3.3	65	145
1,1-Dichloroethane	0	10.3	103.0	10.4	104.0	1.0	79	140.1
1,1-Dichloropropene	0	10.4	104.0	11.1	111.0	6.5	76	133.2
1,2-DICHLOROPROPANE	0	10.4	104.0	10.5	105.0	1.0	77	123.2
1,3-Dichloropropane	0	10.9	109.0	11.3	113.0	3.6	81	121.5
cis-1,3-Dichloropropene	0	9.15	91.5	9.45	94.5	3.2	69	125.1
trans-1,3-Dichloropropene	0	9.46	94.6	9.34	93.4	1.3	68	129.6
2,2-Dichloropropane	0	10.2	102.0	11	110.0	7.5	64	130.7
ETHYL BENZENE	0	11.3	113.0	12.1	121.0	6.8	37	176.4
Styrene	0	11	110.0	11.9	119.0	7.9	29	159.9
1,1,2-Trichloroethane	0	11.2	112.0	11.6	116.0	3.5	70	140.6
1,1,1,2-Tetrachloroethane	0	12.5	125.0	13.3	133.0	6.2	68	154.5
1,1,2,2-Tetrachloroethane	0	10	100.0	10.2	102.0	2.0	73	122.6
Tetrachloroethene	0	11	110.0	11.9	119.0	7.9	82	141.4
1,2,3-Trichloropropane	0	11.2	112.0	12	120.0	6.9	73	136.1

QC Std# 605 Heritage Laboratories, Indianapolis
Method # 309 MS/MSD Volatile QC Report-EPA Method 8260 Appendix IX mL Water

Laboratory Sample # : A812197
Data File :4619V. MS Data File : 4620V. MSD Data File : 4621V.
Date/Time : 4 Jun 2008 11:02 MS Date/Time : 4 Jun 2008 11:28 MSD Date/Time : 4 Jun 2008 11:54
Spike Conc : 10 uG/L
Dilution Factor: 1

Compound		Spike Conc	Spike % Rec	Spike Dup Conc	Spike Dup % Rec	RPD	Min Recovery *	Max
TOLUENE	0	10.6	106.0	10.7	107.0	0.9	77	126.5
m,p-Xylene	0	23.2	116.0	24.9	124.5	7.1	80	127
o-Xylene	0	12.3	123.0	12.9	129.0	4.8	78	130.1
Bromochloromethane	0	11	110.0	10.8	108.0	1.8	70	155.2
n-Butylbenzene	0	9.43	94.3	10.1	101.0	6.9	71	121.5
Dichlorodifluoromethane	0	9.05	90.5	9.7	97.0	6.9	4	176.7
Trichlorofluoromethane	0	11.2	112.0	11.3	113.0	0.9	77	170.6
Hexachlorobutadiene	0	10.3	103.0	10.7	107.0	3.8	62	157.6
Isopropylbenzene	0	12.4	124.0	13.3	133.0 !	7.0	68	128.4
p-Isopropyltoluene	0	10.3	103.0	11	110.0	6.6	72	127.2
Naphthalene	0	9.86	98.6	10.7	107.0	8.2	46	113.1
n-Propylbenzene	0	12.8	128.0 !	12.8	128.0 !	0.0	64	127.4
sec-Butylbenzene	0	10.8	108.0	11.6	116.0	7.1	71	126.1
t-Butylbenzene	0	11.9	119.0	12.4	124.0	4.1	72	131.7
1,2,3-Trichlorobenzene	0	10.2	102.0	11.2	112.0	9.3	43	149
1,2,4-Trichlorobenzene	0	10.2	102.0	10.4	104.0	1.9	54	137.9
1,2,4-Trimethylbenzene	0	10.3	103.0	11	110.0	6.6	74	126.7
1,3,5-Trimethylbenzene	0	11.4	114.0	12	120.0	5.1	74	125.9
Acrolein	0	62	62.0	66.2	66.2	6.6	D	400.3
Acetone	0	53.1	106.2	51	102.0	4.0	52	162.9
Acrylonitrile	0	73.8	73.8	74.1	74.1	0.4	D	472.1
Carbon Disulfide	0	10.3	103.0	11.4	114.0	10.1	65	135.1
Vinyl Acetate	0	9.42	94.2	9.4	94.0	0.2	58	113.1
2-Butanone	0	49.8	99.6	49.2	98.4	1.2	38	143.2
4-Methyl-2-Pentanone	0	52.1	104.2	51.7	103.4	0.8	68	130.7
2-Hexanone	0	51.4	102.8	54.1	108.2	5.1	69	118.4
2-Chloroethylvinylether	0	0	0.0 !	0	0.0 !		D	39.3
trans-1,4-Dichloro-2-butene	0	3.93	19.7 !	4.67	23.4 !	17.2	24	138
1,2-Dibromoethane	0	11.8	118.0	11.8	118.0	0.0	75	121.6
1,2-Dibromo-3-chloropropar	0	8.74	87.4	8.75	87.5	0.1	59	129.5
Iodomethane	0	10.7	107.0	11.7	117.0	8.9	18	155.7
Allyl Chloride	0	9.04	90.4	9.14	91.4	1.1	25	154.8
Ethyl Cyanide	0	94.7	94.7	95	95.0	0.3	27	160.5
Methacrylonitrile	0	103	103.0	104	104.0	1.0	24	136.7
Methyl Methacrylate	0	9.57	95.7	9.57	95.7	0.0	41	149.1
Ethyl Methacrylate	0	9.21	92.1	9.7	97.0	5.2	38	137.8

Recovery limit

R536336 Heritage Environmental Services, LLC Q2083707

QC Report

QCType SPI01 Duplicate SampleID A812197 DataFile 4620V.D
Date Entered 06Jun08 Duplicate QCSampleID Analyst 1062 R. SHAMP
Analysis Date/Time 04Jun08 11:28:00 Method 309 Matrix 1 Units ug/L

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
151	BENZENE	0	10	10.4		104	
217	CARBON TETRACHLORIDE	0	10	11.8		118	
29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10	10		100	
21	1,2-DICHLOROETHANE	0	10	11.6		116	
8	1,1-DICHLOROETHENE	0	10	11.7		117	
2	1,1,1-TRICHLOROETHANE	0	10	11.3		113	
750	TRICHLOROETHENE	0	10	11.1		111	
768	VINYL CHLORIDE	0	10	8.71		87.1	
193	BROMOBENZENE	0	10	12.5		125	
195	BROMODICHLOROMETHANE	0	10	11.4		114	
197	BROMOFORM	0	10	10.1		101	
198	BROMOMETHANE	0	10	10.8		108	
231	CHLOROBENZENE	0	10	11.5		115	
295	DIBROMOCHLOROMETHANE	0	10	11.2		112	
234	CHLOROETHANE	0	10	10.1		101	
235	CHLOROFORM	0	10	11.3		113	
236	CHLOROMETHANE	0	10	9.41		94.1	
807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0	10	12.1		121	
808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0	10	11.9		119	
296	DIBROMOMETHANE	0	10	11.1		111	
26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	10	10.2		102	
20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10	10.1		101	
746	TRANS-1,2-DICHLOROETHENE	0	10	10.9		109	
246	CIS-1,2-DICHLOROETHENE	0	10	9.93		99.3	
302	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10	10.3		103	
7	1,1-DICHLOROETHANE	0	10	10.3		103	
10	1,1-DICHLOROPROPENE	0	10	10.4		104	
23	1,2-DICHLOROPROPANE	0	10	10.4		104	
27	1,3-DICHLOROPROPANE	0	10	10.9		109	
247	CIS-1,3-DICHLOROPROPENE	0	10	9.15		91.5	
747	TRANS-1,3-DICHLOROPROPENE	0	10	9.46		94.6	
33	2,2-DICHLOROPROPANE	0	10	10.2		102	
349	ETHYL BENZENE	0	10	11.3		113	
680	STYRENE	0	10	11		110	
4	1,1,2-TRICHLOROETHANE	0	10	11.2		112	
1	1,1,1,2-TETRACHLOROETHANE	0	10	12.5		125	
3	1,1,2,2-TETRACHLOROETHANE	0	10	10		100	
703	TETRACHLOROETHENE	0	10	11		110	
14	1,2,3-TRICHLOROPROPANE	0	10	11.2		112	
724	TOLUENE	0	10	10.6		106	
492	M/P-XYLENE	0	20	23.2		116	
549	O-XYLENE	0	10	12.3		123	
194	BROMOCHLOROMETHANE	0	10	11		110	
519	N-BUTYLBENZENE	0	10	9.43		94.3	

JKS 6.6.08

R536336 Heritage Environmental Services, LLC Q2083707

QC Report

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
300	DICHLORODIFLUOROMETHANE	0	10	9.05		90.5	
372	TRICHLOROFLUOROMETHANE	0	10	11.2		112	
398	HEXACHLOROBUTADIENE	0	10	10.3		103	
432	ISOPROPYLBENZENE (CUMENE)	0	10	12.4		124	
628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	0	10	10.3		103	
493	NAPHTHALENE	0	10	9.86		98.6	
532	N-PROPYLBENZENE	0	10	12.8	!	128	
644	SEC-BUTYLBENZENE	0	10	10.8		108	
702	TERT-BUTYLBENZENE	0	10	11.9		119	
13	1,2,3-TRICHLOROBENZENE	0	10	10.2		102	
16	1,2,4-TRICHLOROBENZENE	0	10	10.2		102	
17	1,2,4-TRIMETHYLBENZENE	0	10	10.3		103	
25	1,3,5-TRIMETHYLBENZENE	0	10	11.4		114	
105	ACROLEIN	0	100	62		62	
99	ACETONE (2-PROPANONE)	0	50	53.1		106.2	
106	ACRYLONITRILE	0	100	73.8		73.8	
216	CARBON DISULFIDE	0	10	10.3		103	
767	VINYL ACETATE	0	10	9.42		94.2	
52	2-BUTANONE	0	50	49.8		99.6	
91	4-METHYL-2-PENTANONE	0	50	52.1		104.2	
60	2-HEXANONE	0	50	51.4		102.8	
54	2-CHLOROETHYLVINYLETHER	0	10	0	!	0	
748	TRANS-1,4-DICHLORO-2-BUTENE	0	20	3.93	!	19.7	
18	1,2-DIBROMOETHANE (EDB)	0	10	11.8		118	
19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	10	8.74		87.4	
422	IODOMETHANE	0	10	10.7		107	
859	METHYL-T-BUTYL ETHER (MTBE)	0	10	11.2		112	
30	1,4-DIOXANE	0	200	86.7		43.4	
709	TETRAHYDROFURAN	0	125	127		101.6	
73	3-CHLOROPROPENE (ALLYL CHLORIDE)	0	10	9.04		90.4	
1146	ETHYL CYANIDE (PROPIONITRILE)	0	100	94.7		94.7	
975	METHYLACRYLONITRILE	0	100	103		103	
1147	METHYL METHACRYLATE	0	10	9.57		95.7	
351	ETHYL METHACRYLATE	0	10	9.21		92.1	
803	XYLENES (O/M/P-XYLENE)	0	30	35.5		118.3	

Comment 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.

Qualifiers

! Outside Lab Generated Control Limits

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4620V.D Vial: 7
Acq On : 4 Jun 2008 11:28 Operator: REGI
Sample : A812197 MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 11:45:21 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	575537	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	189348	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	170741	11.06 UG/L	0.00
Spiked Amount 10.000			Recovery	= 110.60%	
35) 1,2-Dichloroethane-d4	5.02	65	322513	11.20 UG/L	0.00
Spiked Amount 10.000			Recovery	= 112.00%	
50) Toluene-d8	7.21	98	574612	10.51 UG/L	0.00
Spiked Amount 10.000			Recovery	= 105.10%	
69) 4-Bromofluorobenzene	10.49	174	136914	12.22 UG/L	0.00
Spiked Amount 10.000			Recovery	= 122.20%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.16	85	50770	9.05 UG/L	100
3) Chloromethane	1.29	50	77318	9.41 UG/L	100
4) VINYL CHLORIDE	1.39	62	59315	8.71 UG/L	98
5) Bromomethane	1.65	94	38529	10.80 UG/L	90
6) Chloroethane	1.74	64	39529	10.08 UG/L #	88
7) Trichlorofluoromethane	1.91	101	179691m	11.22 UG/L	
8) Acrolein	2.32	56	77317	61.98 UG/L	100
9) Acetone	2.47	43	503880	53.08 UG/L #	77
10) 1,1-DICHLOROETHENE	2.39	96	104204	11.69 UG/L	100
11) Trichlorotrifluoroethane	2.47	101	90966	11.26 UG/L	88
12) Acrylonitrile	3.13	53	340587	73.78 UG/L	100
13) Carbon Disulfide	2.57	76	183393	10.32 UG/L	99
14) Methylene Chloride	2.87	84	143245	10.25 UG/L #	72
15) Allyl Chloride	2.75	41	492039	9.04 UG/L	100
16) Vinyl Acetate	3.64	43	907208	9.42 UG/L #	96
17) MTBE	3.15	73	434193	11.17 UG/L	100
18) trans-1,2-Dichloroethene	3.13	96	136696	10.85 UG/L #	69
19) n-Hexane	3.41	57	186019	9.05 UG/L	100
20) 1,1-Dichloroethane	3.56	63	305386	10.32 UG/L	100
21) 2-Butanone	4.20	72	99181	49.82 UG/L #	54
22) Ethyl Acetate	4.27	43	309994	9.40 UG/L #	99
23) cis-1,2-Dichloroethene	4.15	96	138405	9.93 UG/L #	58
24) Ethyl Cyanide	4.26	54	314994	94.69 UG/L	100
25) CHLOROFORM	4.50	83	317616	11.27 UG/L	98
26) Methacrylonitrile	4.42	41	2496582	103.13 UG/L #	100
27) Tetrahydrofuran	4.45	42	957718	126.74 UG/L #	85
28) Bromochloromethane	4.40	128	71604	11.01 UG/L #	34
29) 2,2-Dichloropropane	4.15	77	190500	10.22 UG/L #	81
30) Diethyl ether	2.20	59	134319	10.72 UG/L	100
31) 1,1,1-Trichloroethane	4.67	97	287262	11.31 UG/L	100
32) Iodomethane	2.52	142	147351	10.70 UG/L	100
34) 1,1-Dichloropropene	4.85	110	68208	10.37 UG/L	100
36) Carbon Tetrachloride	4.84	117	261517	11.82 UG/L	89
37) 1,2-Dichloroethane	5.10	62	373984	11.55 UG/L	100
38) Isobutanol	5.07	43	933140	773.63 UG/L #	95
39) Benzene	5.07	78	515385	10.38 UG/L	100
40) Trichloroethene	5.79	130	158677	11.13 UG/L	94

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4620V.D Vial: 7
Acq On : 4 Jun 2008 11:28 Operator: REGI
Sample : A812197 MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 11:45:21 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

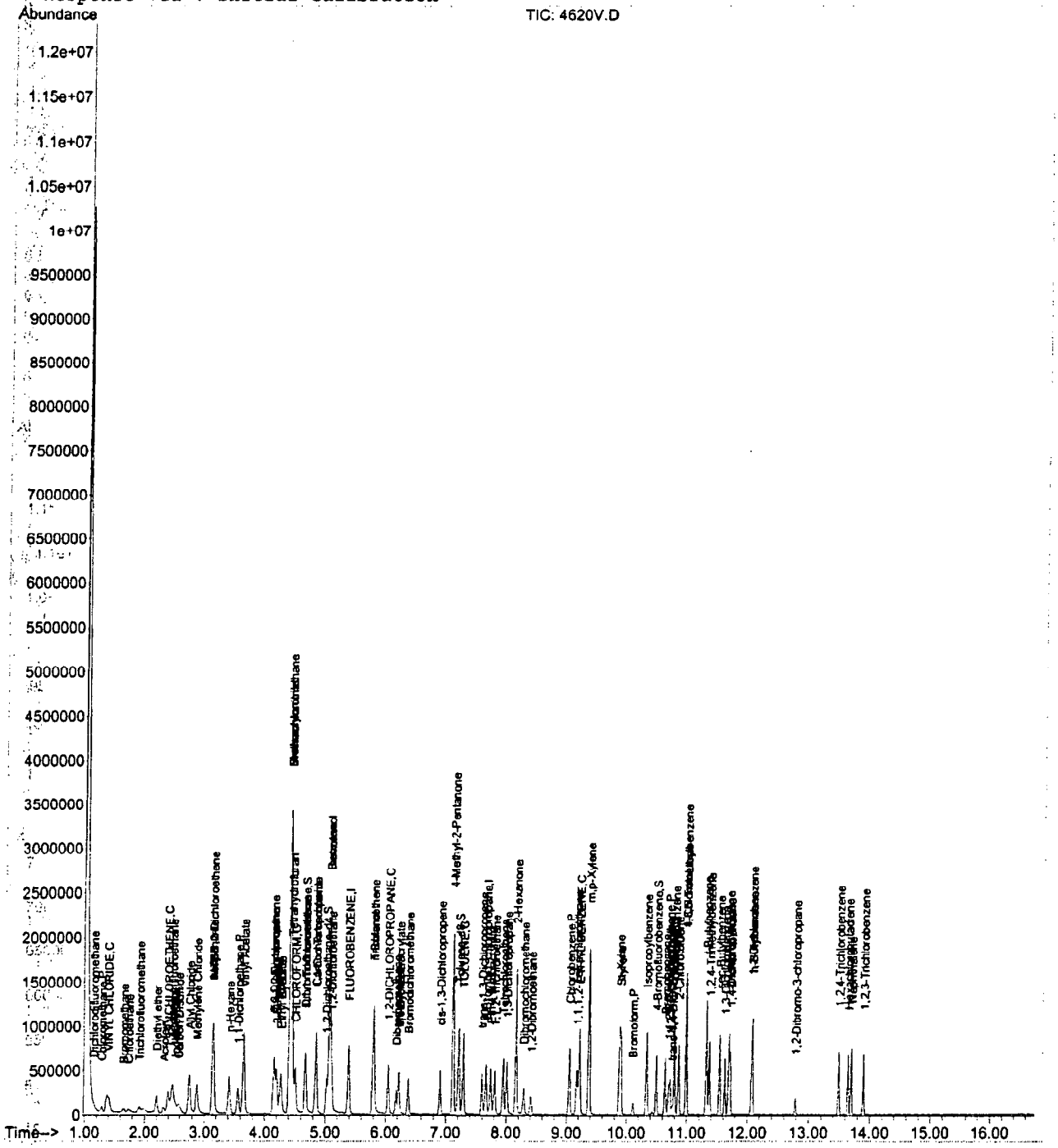
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	n-Butanol	5.80	56	404741	490.72 UG/L	#	94
42)	1,2-DICHLOROPROPANE	6.04	63	148332	10.38 UG/L		100
43)	1,4-Dioxane	6.23	88	27642	86.67 UG/L		100
44)	Methyl Methacrylate	6.22	41	258126	9.57 UG/L	#	46
45)	Bromodichloromethane	6.38	83	231645	11.35 UG/L		98
46)	Dibromomethane	6.18	93	100205	11.06 UG/L		92
47)	4-Methyl-2-Pentanone	7.12	43	1563337	52.05 UG/L	#	90
49)	cis-1,3-Dichloropropene	6.91	75	193575	9.15 UG/L		100
51)	TOLUENE	7.28	91	584787	10.64 UG/L		100
52)	trans-1,3-Dichloropropene	7.59	75	185586	9.46 UG/L		100
53)	1,1,2-Trichloroethane	7.81	97	129007	11.21 UG/L		100
54)	1,2-Dibromoethane	8.41	107	140561	11.83 UG/L		97
56)	2-Hexanone	8.16	43	1203303	51.41 UG/L	#	88
57)	1,3-Dichloropropane	8.01	76	231283	10.88 UG/L		100
58)	Ethyl Methacrylate	7.74	69	173313	9.21 UG/L	#	65
59)	Tetrachloroethene	7.95	166	158957	11.03 UG/L		97
60)	Dibromochloromethane	8.29	129	136337	11.24 UG/L		100
61)	Chlorobenzene	9.04	112	352702	11.50 UG/L		98
62)	1,1,1,2-Tetrachloroethane	9.17	131	134490	12.46 UG/L		100
63)	ETHYL BENZENE	9.21	106	195967	11.25 UG/L	#	65
64)	m,p-Xylene	9.37	106	479410	23.24 UG/L	#	43
65)	o-Xylene	9.88	106	215130	12.26 UG/L	#	67
66)	Styrene	9.90	104	324045	11.01 UG/L	#	61
67)	Bromoform	10.11	173	59601	10.09 UG/L		100
68)	1,1,2,2-Tetrachloroethane	10.69	83	116501	10.00 UG/L		100
70)	Isopropylbenzene	10.33	105	523957	12.44 UG/L		100
71)	trans-1,4-Dichloro-2-buten	10.76	53	28044	3.93 UG/L	#	1
72)	Bromobenzene	10.64	77	210299	12.47 UG/L		100
73)	1,2,3-Trichloropropane	10.72	110	48940	11.15 UG/L		100
74)	n-Propylbenzene	10.80	92	72034	12.76 UG/L		98
75)	1,3,5-Trimethylbenzene	11.00	105	405168	11.38 UG/L		100
76)	2-Chlorotoluene	10.87	126	111588	12.06 UG/L		100
77)	4-Chlorotoluene	10.99	126	110721	11.87 UG/L		100
78)	t-Butylbenzene	11.32	91	276297	11.91 UG/L	#	51
79)	1,2,4-Trimethylbenzene	11.37	105	380971	10.28 UG/L		100
80)	sec-Butylbenzene	11.54	105	473462	10.84 UG/L		100
81)	p-Isopropyltoluene	11.70	119	384200	10.30 UG/L		100
82)	1,3-Dichlorobenzene	11.63	146	188231	10.21 UG/L		100
83)	1,4-Dichlorobenzene	11.72	146	190286	10.04 UG/L		100
84)	n-Butylbenzene	12.08	92	187681	9.43 UG/L		93
85)	1,2-Dichlorobenzene	12.07	146	186119	10.11 UG/L		100
86)	1,2-Dibromo-3-chloropropan	12.79	157	27989	8.74 UG/L		100
87)	1,2,4-Trichlorobenzene	13.49	180	149239	10.22 UG/L		100
88)	Naphthalene	13.70	128	423088	9.86 UG/L		100
89)	Hexachlorobutadiene	13.64	225	84058	10.33 UG/L		100
90)	1,2,3-Trichlorobenzene	13.90	180	139140	10.22 UG/L		100

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4620V.D Vial: 7
Acq On : 4 Jun 2008 11:28 Operator: REGI
Sample : A812197 MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 13:48 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

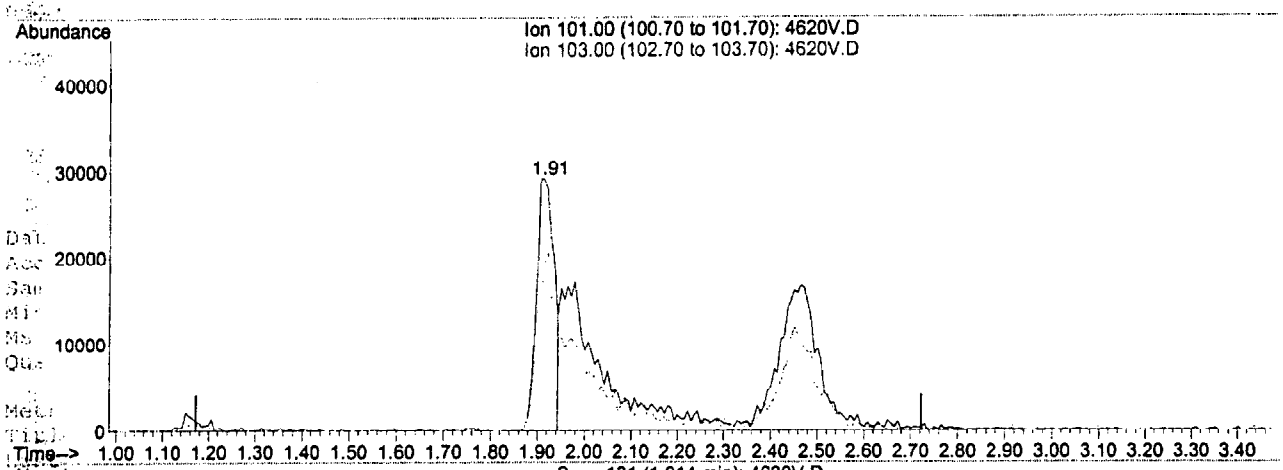


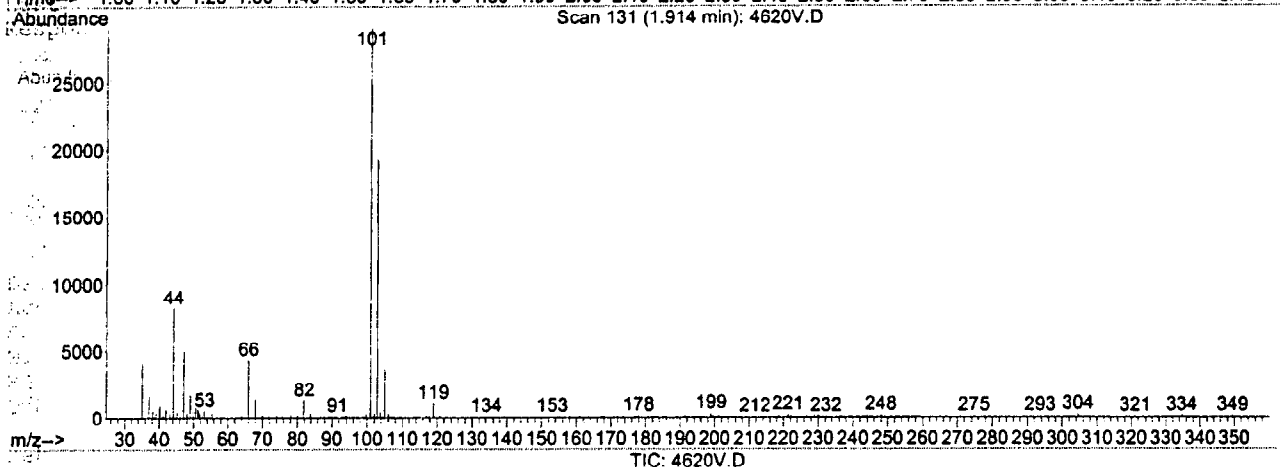
Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4620V.D
Acq On : 4 Jun 2008 11:28
Sample : A812197 MS
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 11:45 2008

Vial: 7
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 4.75UG/L

response 76059

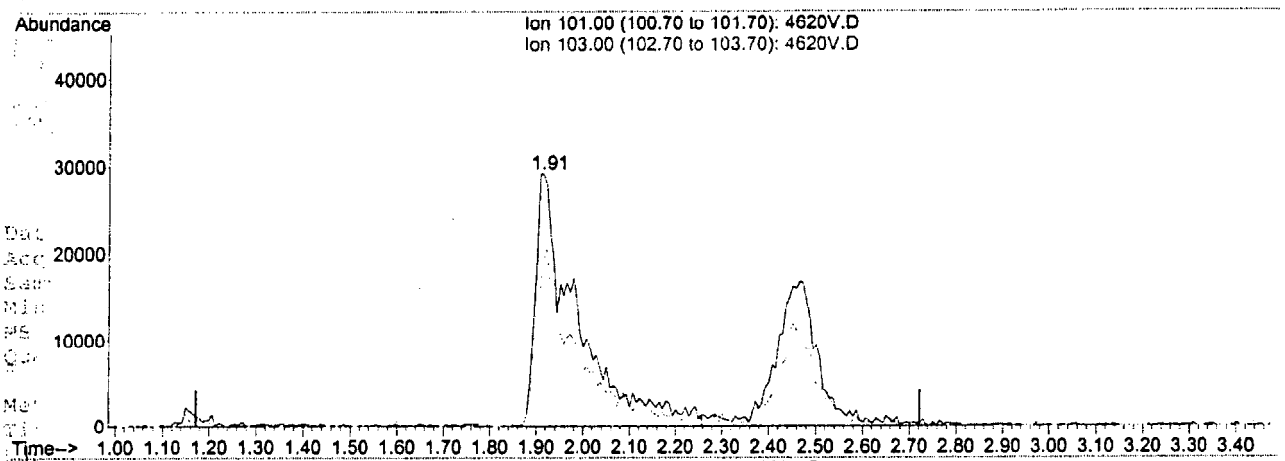
Ion	Exp%	Act%
101.00	100	100
103.00	49.20	80.12#
0.00	0.00	0.00
0.00	0.00	0.00

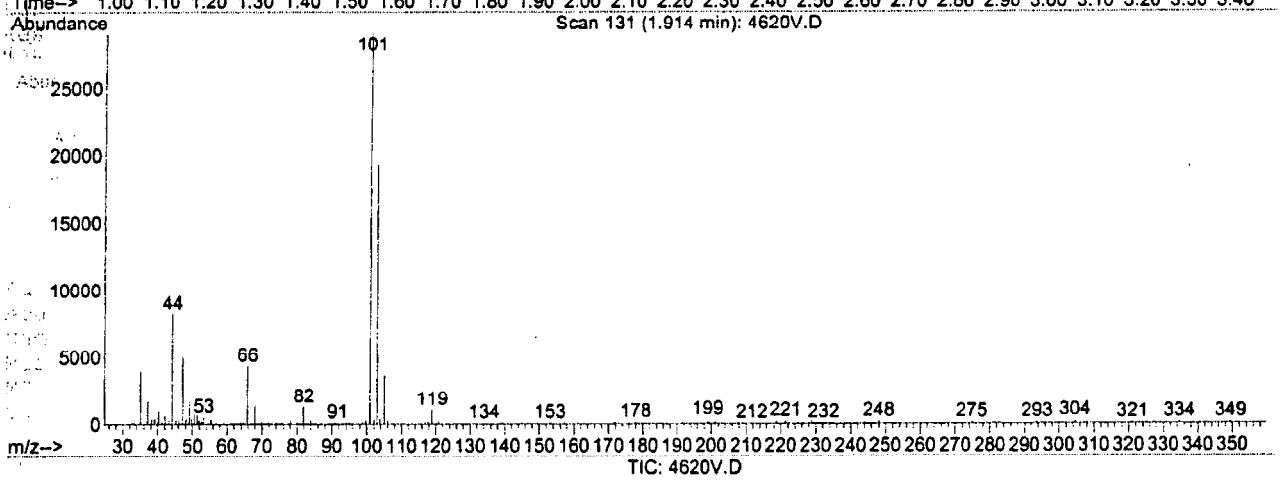
4620V.D 8260VOI.M Wed Jun 04 13:48:49 2008

Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4620V.D Vial: 7
Acq On : 4 Jun 2008 11:28 Operator: REGI
Sample : A812197 MS Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 13:48 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 11.22UG/L m

response 179691

Ion	Exp%	Act%
101.00	100	100
103.00	49.20	33.91#
0.00	0.00	0.00
0.00	0.00	0.00

4620V.D 8260VOI.M Wed Jun 04 13:48:54 2008

R536336 Heritage Environmental Services, LLC Q2083708

QC Report

QCType DPS01 Duplicate SampleID A812197 DataFile 4621V.D
Date Entered 06Jun08 Duplicate QCSampleID Q2083707 Analyst 1062 R. SHAMP
Analysis Date/Time 04Jun08 11:54:00 Method 309 Matrix 1 Units ug/L

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
151	BENZENE	0	10	10.8		107.9	3.9
217	CARBON TETRACHLORIDE	0	10	11.9		118.6	.3
29	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10	10.4		103.8	3.3
21	1,2-DICHLOROETHANE	0	10	11.5		114.8	.6
8	1,1-DICHLOROETHENE	0	10	12		119.5	2.2
2	1,1,1-TRICHLOROETHANE	0	10	11.1		111.4	1.5
750	TRICHLOROETHENE	0	10	11		109.7	1.4
768	VINYL CHLORIDE	0	10	10.5		105.3	18.9
193	BROMOBENZENE	0	10	13	!	130.1	4.2
195	BROMODICHLOROMETHANE	0	10	11.4		114.1	.5
197	BROMOFORM	0	10	10.7		107.1	6
198	BROMOMETHANE	0	10	10.8	!	107.7	.3
231	CHLOROBENZENE	0	10	12.5		124.9	8.3
295	DIBROMOCHLOROMETHANE	0	10	12.2		121.7	7.9
234	CHLOROETHANE	0	10	10.4		104.2	3.3
235	CHLOROFORM	0	10	11.1		111.3	1.3
236	CHLOROMETHANE	0	10	9.89		98.9	5
807	2-CHLOROTOLUENE (O-CHLOROTOLUENE)	0	10	13.2	!	132.3	9.3
808	4-CHLOROTOLUENE (P-CHLOROTOLUENE)	0	10	13.2	!	132.3	10.8
296	DIBROMOMETHANE	0	10	11.1		110.5	.1
26	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	10	10.9		109	6.5
20	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10	10.2		102.1	1
746	TRANS-1,2-DICHLOROETHENE	0	10	11		109.6	1
246	CIS-1,2-DICHLOROETHENE	0	10	10.2		102.1	2.8
302	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10	9.97		99.7	2.8
7	1,1-DICHLOROETHANE	0	10	10.4		104	.8
10	1,1-DICHLOROPROPENE	0	10	11.1		111.2	7
23	1,2-DICHLOROPROPANE	0	10	10.5		104.6	.8
27	1,3-DICHLOROPROPANE	0	10	11.3		112.9	3.7
247	CIS-1,3-DICHLOROPROPENE	0	10	9.45		94.5	3.2
747	TRANS-1,3-DICHLOROPROPENE	0	10	9.34		93.4	1.3
33	2,2-DICHLOROPROPANE	0	10	11		110.2	7.5
349	ETHYL BENZENE	0	10	12.1		121.4	7.6
680	STYRENE	0	10	11.9		119.3	8
4	1,1,2-TRICHLOROETHANE	0	10	11.6		115.6	3.1
1	1,1,1,2-TETRACHLOROETHANE	0	10	13.3		133.2	6.7
3	1,1,2,2-TETRACHLOROETHANE	0	10	10.2		101.8	1.8
703	TETRACHLOROETHENE	0	10	11.9		119	7.6
14	1,2,3-TRICHLOROPROPANE	0	10	12		120.2	7.5
724	TOLUENE	0	10	10.7		107.3	.8
492	M/P-XYLENE	0	20	24.9		124.4	6.8
549	O-XYLENE	0	10	12.9		129.2	5.2
194	BROMOCHLOROMETHANE	0	10	10.8		107.7	2.2
519	N-BUTYLBENZENE	0	10	10.1		101.4	7.3

JSHP 6.6.08

R536336 Heritage Environmental Services, LLC Q2083708

QC Report

PRM	Parameter	TruVal	SpikeVal	ObsVal	RQL	Rec	Difference
300	DICHLORODIFLUOROMETHANE	0	10	9.7		97	6.9
372	TRICHLOROFLUOROMETHANE	0	10	11.3		113.2	.9
398	HEXACHLOROBUTADIENE	0	10	10.7		106.7	3.2
432	ISOPROPYLBENZENE (CUMENE)	0	10	13.3	!	132.6	6.4
628	4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	0	10	10.9		109.5	6.1
493	NAPHTHALENE	0	10	10.7		107.4	8.5
532	N-PROPYLBENZENE	0	10	12.8	!	128	.3
644	SEC-BUTYLBENZENE	0	10	11.6		116.2	6.9
702	TERT-BUTYLBENZENE	0	10	12.4		123.9	4
13	1,2,3-TRICHLOROBENZENE	0	10	11.2		111.6	8.8
16	1,2,4-TRICHLOROBENZENE	0	10	10.4		103.8	1.6
17	1,2,4-TRIMETHYLBENZENE	0	10	11		110.3	7
25	1,3,5-TRIMETHYLBENZENE	0	10	12		119.8	5.1
105	ACROLEIN	0	100	66.2		66.2	6.6
99	ACETONE (2-PROPANONE)	0	50	51		102.1	3.9
106	ACRYLONITRILE	0	100	74.1		74.1	.4
216	CARBON DISULFIDE	0	10	11.4		113.6	9.6
767	VINYL ACETATE	0	10	9.4		94	.2
52	2-BUTANONE	0	50	49.2		98.4	1.2
91	4-METHYL-2-PENTANONE	0	50	51.7		103.5	.6
60	2-HEXANONE	0	50	54.1		108.1	5
54	2-CHLOROETHYLVINYLETHER	0	10	0	!	0	
748	TRANS-1,4-DICHLORO-2-BUTENE	0	20	4.67	!	23.3	16.7
18	1,2-DIBROMOETHANE (EDB)	0	10	11.8		118.1	.2
19	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	10	8.75		87.5	.1
422	IODOMETHANE	0	10	11.7		117.4	9.3
859	METHYL-T-BUTYL ETHER (MTBE)	0	10	11.7		116.7	4.4
30	1,4-DIOXANE	0	200	81.6		40.8	5.9
709	TETRAHYDROFURAN	0	125	127		101.2	.2
73	3-CHLOROPROPENE (ALLYL CHLORIDE)	0	10	9.14		91.4	1.1
1146	ETHYL CYANIDE (PROPIONITRILE)	0	100	95		95	.3
975	METHYLACRYLONITRILE	0	100	104		104.5	1.3
1147	METHYL METHACRYLATE	0	10	9.57		95.7	0
351	ETHYL METHACRYLATE	0	10	9.7		97	5.2
803	XYLENES (O/M/P-XYLENE)	0	30	37.8		126.0	6.3

Comment 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery possible. Unacidified sample not available.

Qualifiers

! Outside Lab Generated Control Limits

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4621V.D Vial: 8
Acq On : 4 Jun 2008 11:54 Operator: REGI
Sample : A812197 MSD Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 12:11:42 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	610379	10.00 UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	191053	10.00 UG/L	0.00
System Monitoring Compounds					
33) Dibromofluoromethane	4.67	113	180896	11.05 UG/L	0.00
Spiked Amount 10.000			Recovery	= 110.50%	
35) 1,2-Dichloroethane-d4	5.02	65	334396	10.94 UG/L	0.00
Spiked Amount 10.000			Recovery	= 109.40%	
50) Toluene-d8	7.21	98	608839	10.51 UG/L	0.00
Spiked Amount 10.000			Recovery	= 105.10%	
69) 4-Bromofluorobenzene	10.50	174	143970	12.73 UG/L	0.00
Spiked Amount 10.000			Recovery	= 127.30%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.15	85	57714	9.70 UG/L	100
3) Chloromethane	1.28	50	86196	9.89 UG/L	100
4) VINYL CHLORIDE	1.38	62	76052	10.53 UG/L	91
5) Bromomethane	1.65	94	40730	10.77 UG/L	99
6) Chloroethane	1.74	64	43329	10.42 UG/L #	89
7) Trichlorofluoromethane	1.91	101	192276m	11.32 UG/L	
8) Acrolein	2.32	56	87603	66.21 UG/L	100
9) Acetone	2.47	43	513733	51.03 UG/L #	77
10) 1,1-DICHLOROETHENE	2.39	96	112908	11.95 UG/L	100
11) Trichlorotrifluoroethane	2.46	101	99607	11.63 UG/L	89
12) Acrylonitrile	3.13	53	362527	74.05 UG/L	100
13) Carbon Disulfide	2.57	76	213932	11.36 UG/L	98
14) Methylene Chloride	2.87	84	148474	9.97 UG/L #	67
15) Allyl Chloride	2.74	41	527541	9.14 UG/L	100
16) Vinyl Acetate	3.65	43	960643	9.40 UG/L #	96
17) MTBE	3.15	73	481245	11.67 UG/L	100
18) trans-1,2-Dichloroethene	3.14	96	146404	10.96 UG/L #	70
19) n-Hexane	3.41	57	204252	9.37 UG/L	100
20) 1,1-Dichloroethane	3.56	63	326315	10.40 UG/L	100
21) 2-Butanone	4.20	72	103887	49.20 UG/L #	49
22) Ethyl Acetate	4.27	43	326851	9.34 UG/L #	98
23) cis-1,2-Dichloroethene	4.16	96	150853	10.21 UG/L #	61
24) Ethyl Cyanide	4.26	54	335194	95.01 UG/L	100
25) CHLOROFORM	4.50	83	332781	11.13 UG/L	99
26) Methacrylonitrile	4.41	41	2682305	104.48 UG/L #	100
27) Tetrahydrofuran	4.45	42	1013992	126.53 UG/L #	85
28) Bromochloromethane	4.40	128	74332	10.77 UG/L #	34
29) 2,2-Dichloropropane	4.15	77	217906	11.02 UG/L #	78
30) Diethyl ether	2.20	59	149675	11.26 UG/L	100
31) 1,1,1-Trichloroethane	4.67	97	300289	11.14 UG/L	100
32) Iodomethane	2.53	142	171555	11.74 UG/L	100
34) 1,1-Dichloropropene	4.85	110	77629	11.12 UG/L	100
36) Carbon Tetrachloride	4.84	117	278261	11.86 UG/L	90
37) 1,2-Dichloroethane	5.10	62	394351	11.48 UG/L	99
38) Isobutanol	5.07	43	970236	758.47 UG/L #	95
39) Benzene	5.07	78	567862	10.79 UG/L	100
40) Trichloroethene	5.79	130	165915	10.97 UG/L	97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4621V.D Vial: 8
Acq On : 4 Jun 2008 11:54 Operator: REGI
Sample : A812197 MSD Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 12:11:42 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

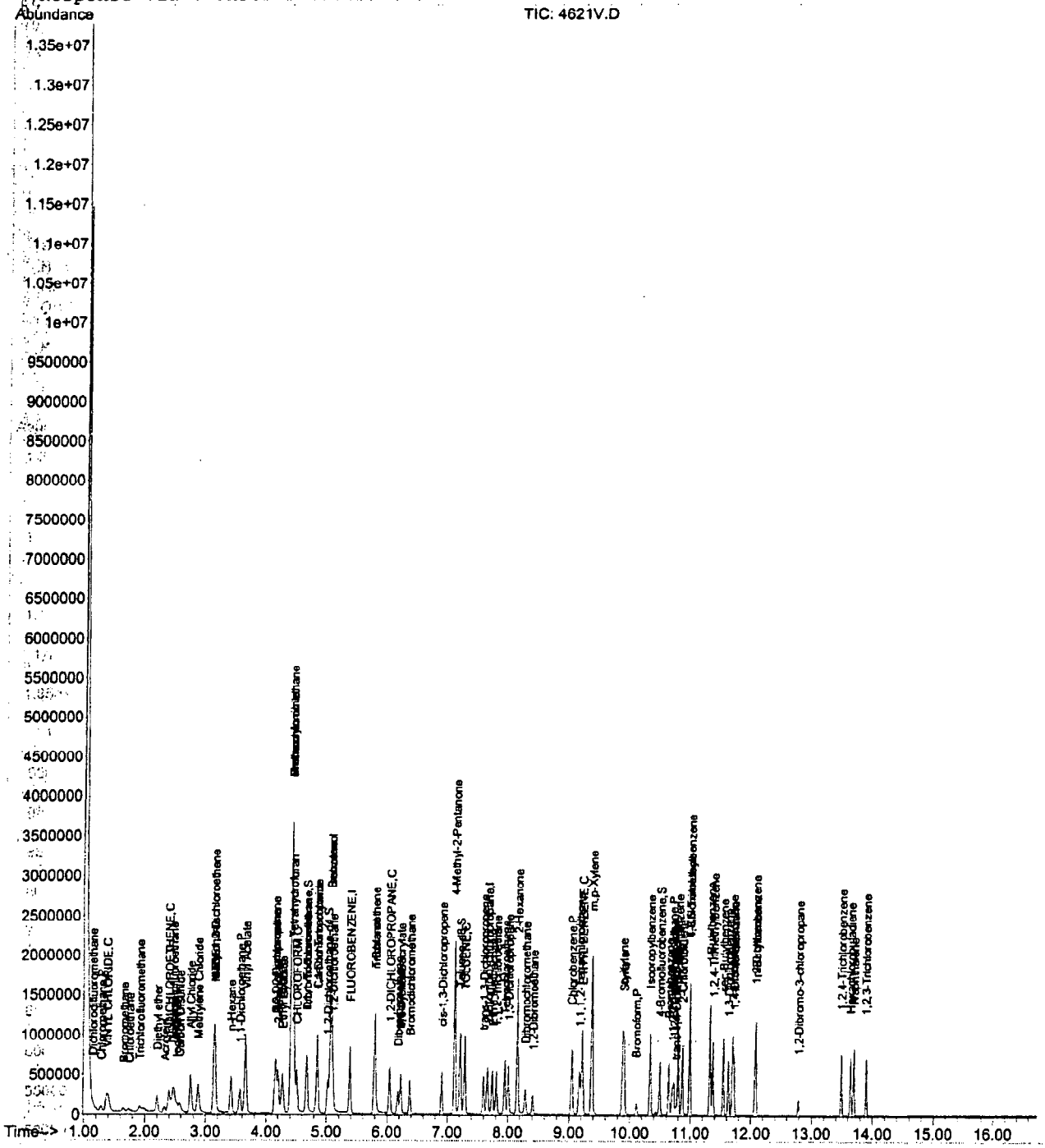
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	n-Butanol	5.80	56	414292	473.63 UG/L #	95
42)	1,2-DICHLOROPROPANE	6.04	63	158435	10.46 UG/L	100
43)	1,4-Dioxane	6.22	88	27610	81.63 UG/L	100
44)	Methyl Methacrylate	6.22	41	273869	9.57 UG/L #	47
45)	Bromodichloromethane	6.38	83	246902	11.41 UG/L	97
46)	Dibromomethane	6.17	93	106239	11.05 UG/L	91
47)	4-Methyl-2-Pentanone	7.11	43	1647979	51.74 UG/L	92
49)	cis-1,3-Dichloropropene	6.91	75	212115	9.45 UG/L	100
51)	TOLUENE	7.28	91	625515	10.73 UG/L	100
52)	trans-1,3-Dichloropropene	7.59	75	194445	9.34 UG/L	100
53)	1,1,2-Trichloroethane	7.81	97	141017	11.56 UG/L	100
54)	1,2-Dibromoethane	8.41	107	148788	11.81 UG/L	99
56)	2-Hexanone	8.16	43	1276361	54.05 UG/L #	87
57)	1,3-Dichloropropane	8.01	76	241998	11.29 UG/L	100
58)	Ethyl Methacrylate	7.74	69	184188	9.70 UG/L #	78
59)	Tetrachloroethene	7.95	166	173048	11.90 UG/L	95
60)	Dibromochloromethane	8.29	129	149000	12.17 UG/L	100
61)	Chlorobenzene	9.05	112	386609	12.49 UG/L	97
62)	1,1,1,2-Tetrachloroethane	9.17	131	145037	13.32 UG/L	100
63)	ETHYL BENZENE	9.22	106	213465	12.14 UG/L	73
64)	m,p-Xylene	9.37	106	517875	24.88 UG/L #	45
65)	o-Xylene	9.88	106	228731	12.92 UG/L #	66
66)	Styrene	9.90	104	354419	11.93 UG/L #	65
67)	Bromoform	10.11	173	63819	10.71 UG/L	100
68)	1,1,2,2-Tetrachloroethane	10.70	83	119632	10.18 UG/L	96
70)	Isopropylbenzene	10.33	105	563421	13.26 UG/L	100
71)	trans-1,4-Dichloro-2-buten	10.76	53	33592	4.67 UG/L #	1
72)	Bromobenzene	10.64	77	221545	13.01 UG/L	100
73)	1,2,3-Trichloropropane	10.72	110	53233	12.02 UG/L	100
74)	n-Propylbenzene	10.80	92	72919	12.80 UG/L	88
75)	1,3,5-Trimethylbenzene	11.00	105	430133	11.98 UG/L	100
76)	2-Chlorotoluene	10.87	126	123474	13.23 UG/L	100
77)	4-Chlorotoluene	10.98	126	124486	13.23 UG/L	100
78)	t-Butylbenzene	11.32	91	290050	12.39 UG/L #	51
79)	1,2,4-Trimethylbenzene	11.37	105	412402	11.03 UG/L	100
80)	sec-Butylbenzene	11.54	105	511842	11.62 UG/L	100
81)	p-Isopropyltoluene	11.70	119	412334	10.95 UG/L	100
82)	1,3-Dichlorobenzene	11.63	146	202704	10.90 UG/L	100
83)	1,4-Dichlorobenzene	11.72	146	198489	10.38 UG/L	100
84)	n-Butylbenzene	12.08	92	203681	10.14 UG/L	96
85)	1,2-Dichlorobenzene	12.07	146	189769	10.21 UG/L	100
86)	1,2-Dibromo-3-chloropropan	12.79	157	28284	8.75 UG/L	100
87)	1,2,4-Trichlorobenzene	13.49	180	152887	10.38 UG/L	100
88)	Naphthalene	13.70	128	464739	10.74 UG/L	100
89)	Hexachlorobutadiene	13.64	225	87596	10.67 UG/L	100
90)	1,2,3-Trichlorobenzene	13.90	180	153354	11.16 UG/L	100

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4621V.D Vial: 8
Acq On : 4 Jun 2008 11:54 Operator: REGI
Sample : A812197 MSD Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 13:48 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

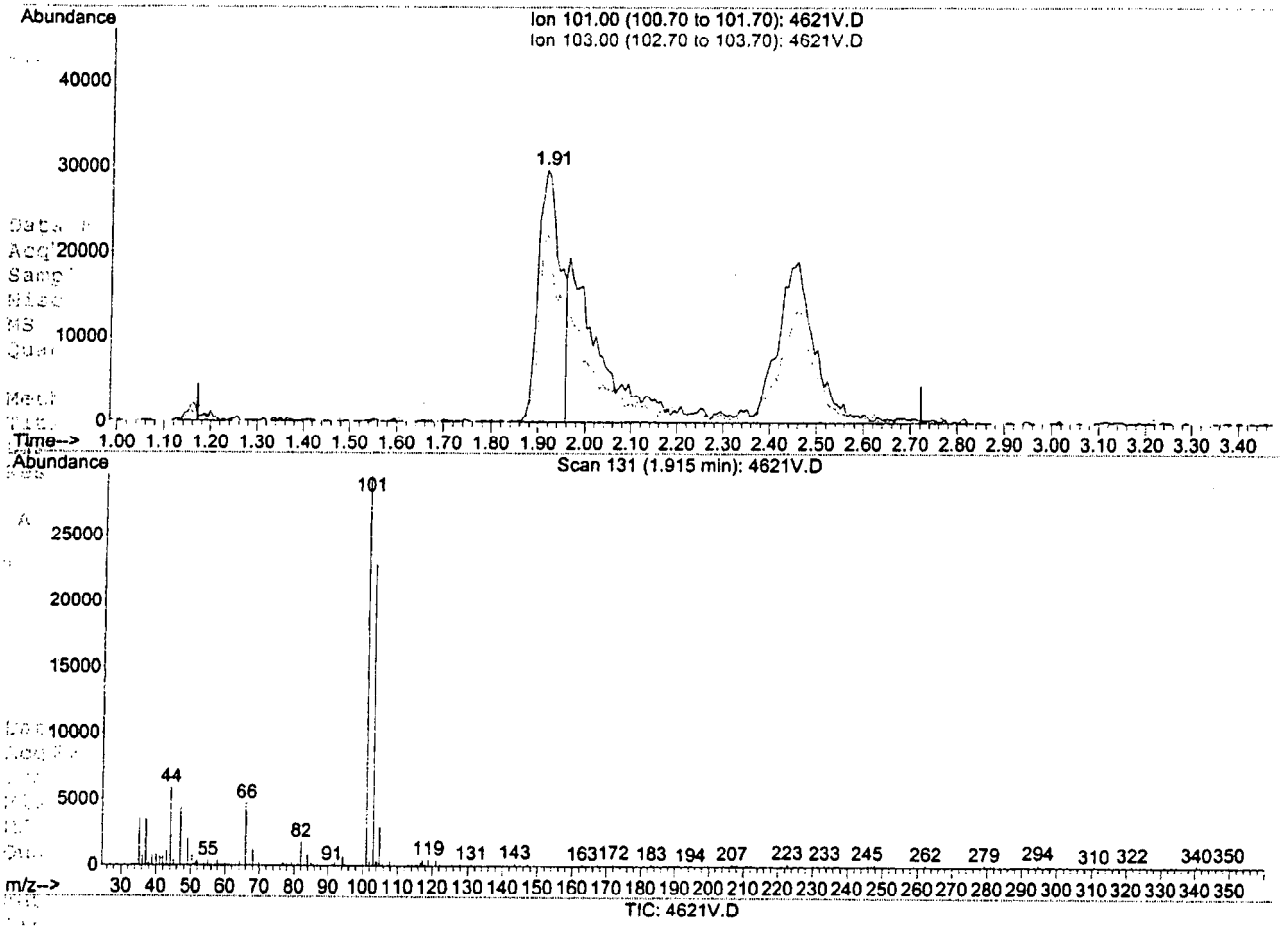


Quantitation Report (QedIt)

Data File : C:\HPCHEM\DATA\V060408\4621V.D
Acq On : 4 Jun 2008 11:54
Sample : A812197 MSD
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 12:11 2008

Vial: 8
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration



(7) Trichlorofluoromethane

1.91min 5.82UG/L

response 98879

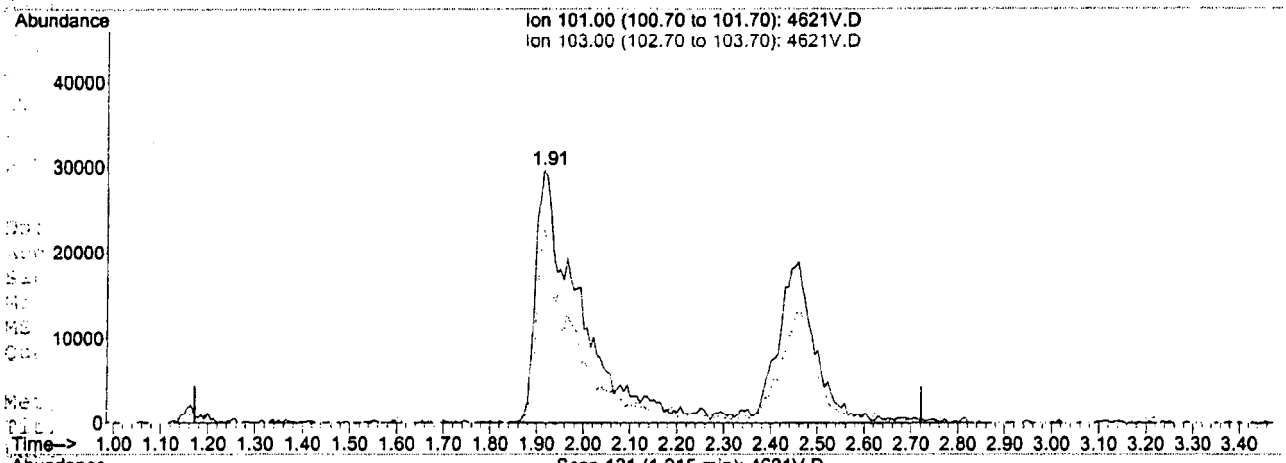
Ion	Exp%	Act%
101.00	100	100
103.00	49.20	68.92#
0.00	0.00	0.00
0.00	0.00	0.00

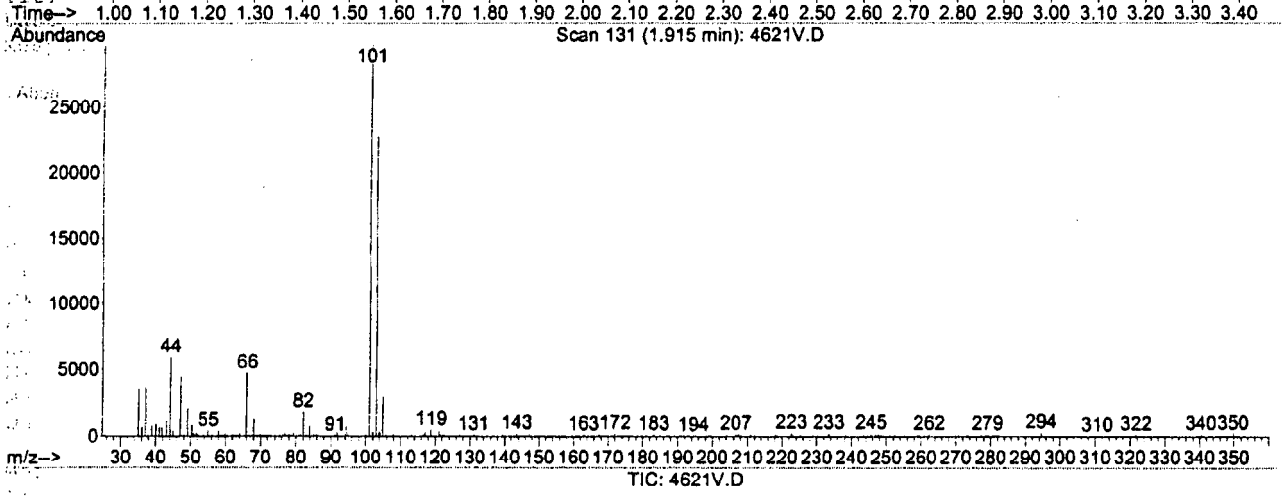
4621V.D 8260VOI.M Wed Jun 04 13:48:20 2008

Quantitation Report (Qedit)

Data File : C:\HPCHEM\DATA\V060408\4621V.D Vial: 8
Acq On : 4 Jun 2008 11:54 Operator: REGI
Sample : A812197 MSD Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 13:48 2008 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Multiple Level Calibration





(7) Trichlorofluoromethane

1.91min 11.32UG/L m

response 192276

Ion	Exp%	Act%
101.00	100	100
103.00	49.20	35.44#
0.00	0.00	0.00
0.00	0.00	0.00

4621V.D 8260VOI.M Wed Jun 04 13:48:25 2008

R536336

Heritage Environmental Services, LLC

A812341

GC/MS VOA

Method SW846-8260B
Sample Description MW-167D
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.1
Analyst 1062 R. SHAMP
File 4631V.D Date/Time 04Jun08 16:17:00
Dilution Factor 10

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
156-59-2	246	CIS-1,2-DICHLOROETHENE	410		10	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	123			% RECOVERY	
2037-26-5	726	TOLUENE-D8	102			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	102			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	114			% RECOVERY	

Comment 1:10 Dilution Prep Method SW846-5030B Purge and Trap

JKS 6-6-08

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4631V.D
Acq On : 4 Jun 2008 16:17
Sample : A812341 1:10 REP1
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 04 16:34:12 2008

Vial: 18
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	504739	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	164213	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	154331	11.40	UG/L	0.00
Spiked Amount 10.000			Recovery	=	114.00%	
35) 1,2-Dichloroethane-d4	5.02	65	311073	12.31	UG/L	0.00
Spiked Amount 10.000			Recovery	=	123.10%	
50) Toluene-d8	7.21	98	486605	10.15	UG/L	0.00
Spiked Amount 10.000			Recovery	=	101.50%	
69) 4-Bromofluorobenzene	10.49	174	98809	10.17	UG/L	0.00
Spiked Amount 10.000			Recovery	=	101.70%	
Target Compounds						Qvalue
4) ~~VINYL CHLORIDE~~	1.38	62	15960	2.67	UG/L	99
9) ~~Acetone~~	2.47	43	40920	4.92	UG/L #	77
14) ~~Methylene Chlorid~~e	2.87	84	36164	1.54	UG/L #	65
17) MTBE	3.15	73	6964	0.20	UG/L	100
18) trans-~~1,3 Dichloro~~ethene	3.13	96	23099	2.09	UG/L #	70
21) 2-~~Butan~~one	4.16	72	8782	5.03	UG/L #	1
23) cis-1,2-~~Dichlor~~oethene 4,410	4.16	96	498169	40.77	UG/L #	73
39) Benzene	5.06	78	6625	0.15	UG/L	100
52) ~~trans-1,3-Dichlor~~opropene	7.66	75	6043	0.35	UG/L	100

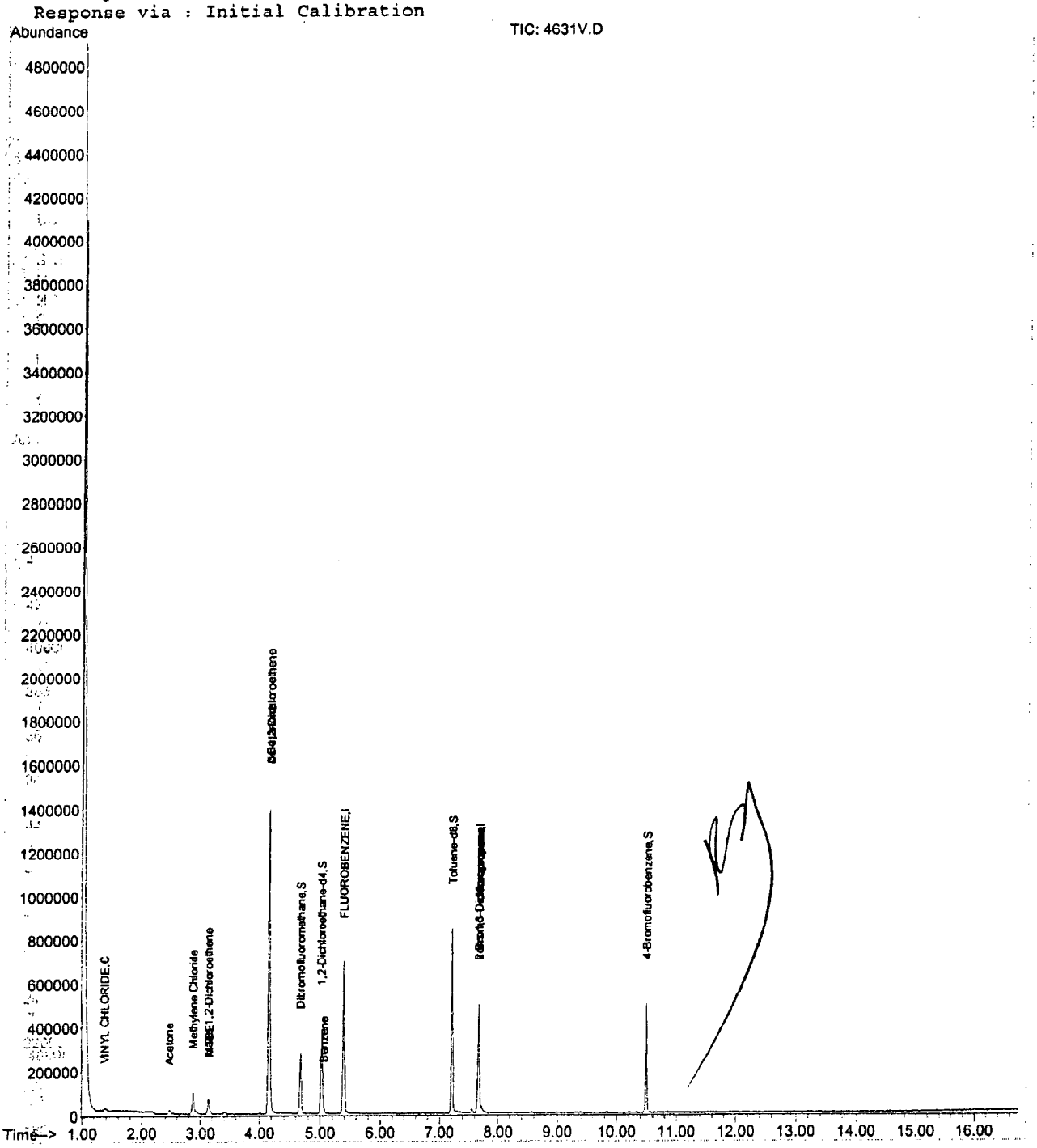
(#) = qualifier out of range (m) = manual integration
4631V.D 8260VOI.M Wed Jun 04 16:34:15 2008

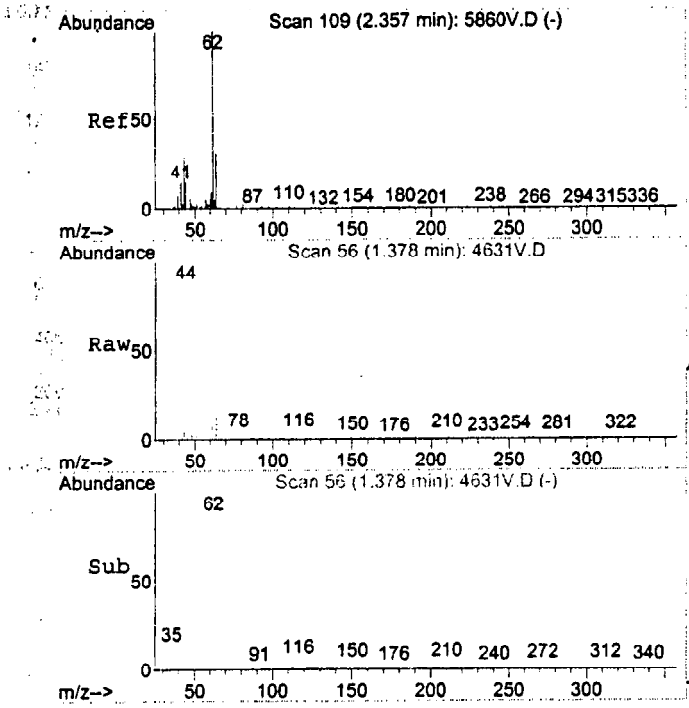
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4631V.D
Acq On : 4 Jun 2008 16:17
Sample : A812341 1:10 REP1
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 16:34 2008

Vial: 18
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

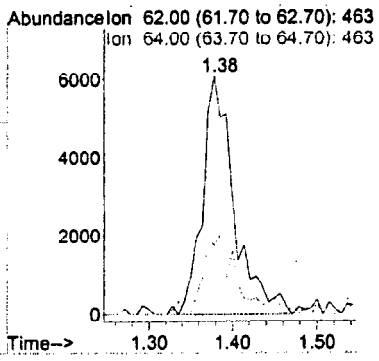


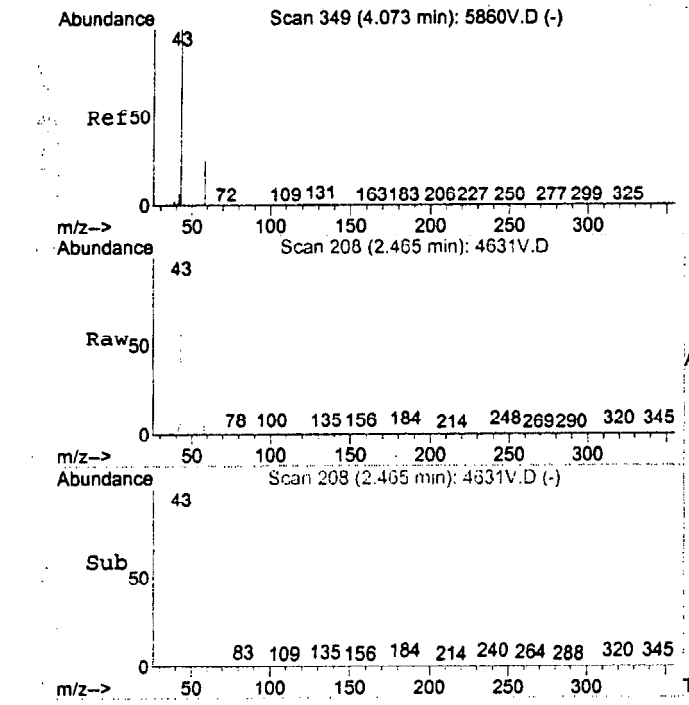


#4
VINYL CHLORIDE
Concen: 2.67 UG/L
RT: 1.38 min Scan# 56
Delta R.T. 0.00 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 62 Resp: 15960

Ion	Ratio	Lower	Upper
62	100		
64	31.5	24.9	37.3

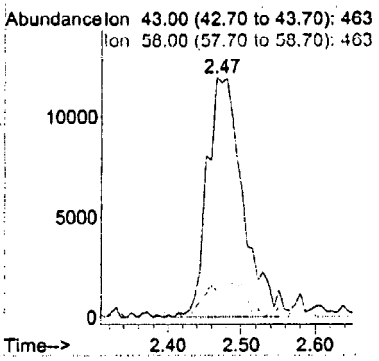


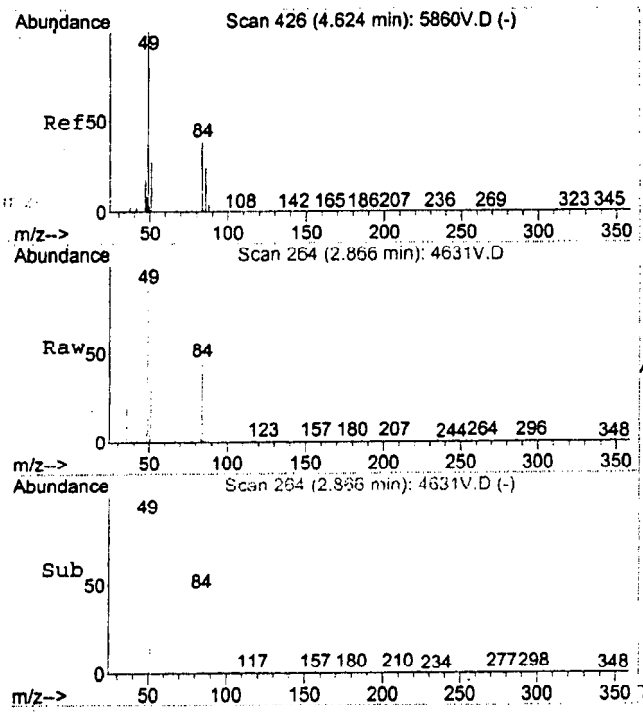


#9
Acetone
Concen: 4.92 UG/L
RT: 2.47 min Scan# 208
Delta R.T. -0.02 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 43 Resp: 40920

Ion	Ratio	Lower	Upper
43	100		
58	16.8	23.1	34.7#

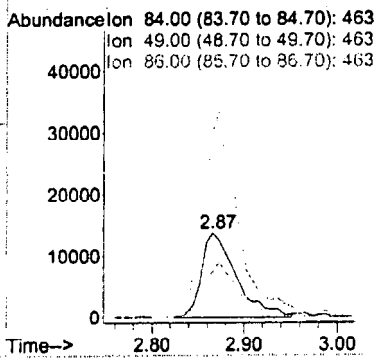


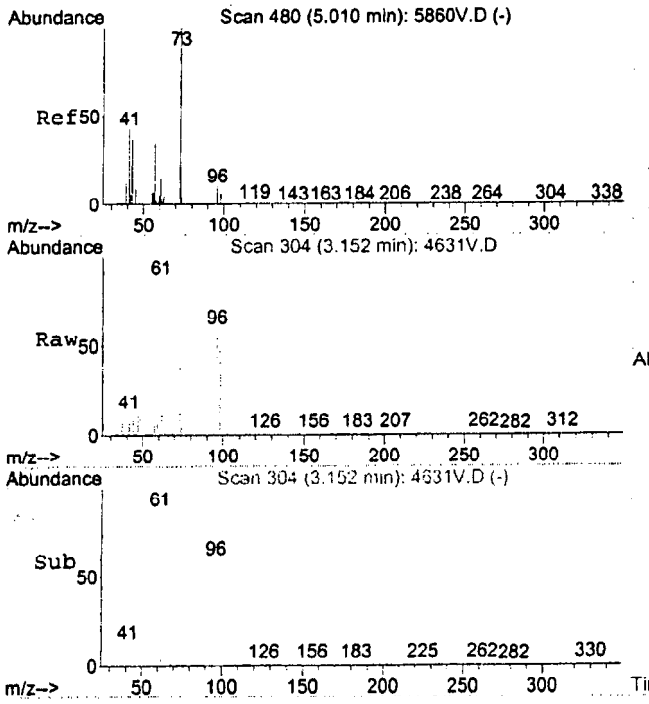


#14
Methylene Chloride
Concen: 1.54 UG/L
RT: 2.87 min Scan# 264
Delta R.T. -0.01 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 84 Resp: 36164

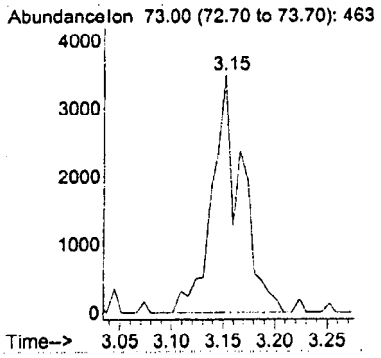
Ion	Ratio	Lower	Upper
84	100		
49	237.9	140.2	210.2#
86	68.8	51.1	76.7

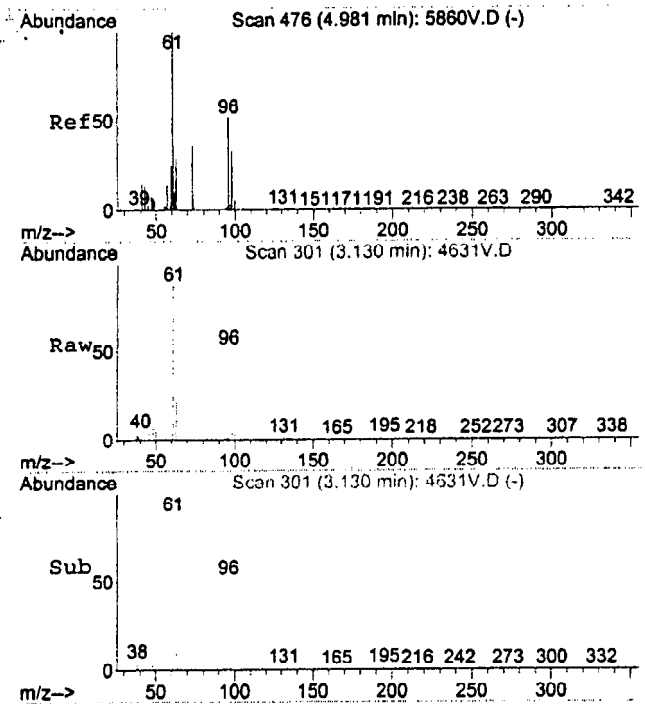




#17
MTBE
Concen: 0.20 UG/L
RT: 3.15 min Scan# 304
Delta R.T. 0.00 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 73 Resp: 6964

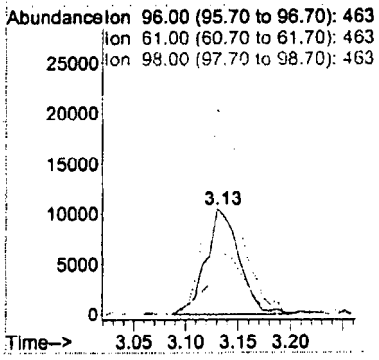


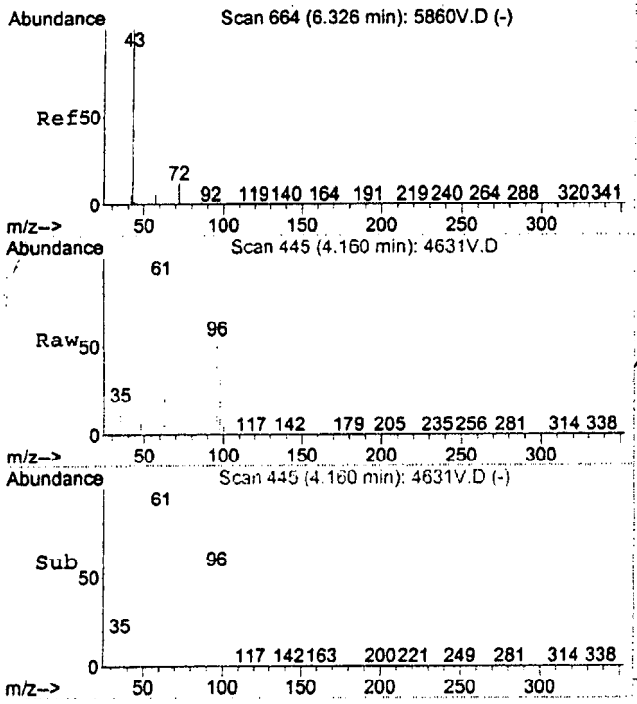


#18
trans-1,2-Dichloroethene
Concen: 2.09 UG/L
RT: 3.13 min Scan# 301
Delta R.T. -0.01 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 96 Resp: 23099

Ion	Ratio	Lower	Upper
96	100		
61	194.7	114.1	171.1#
98	65.7	50.7	76.1

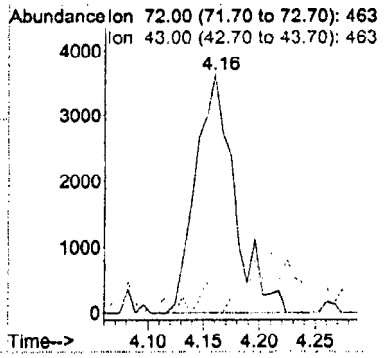


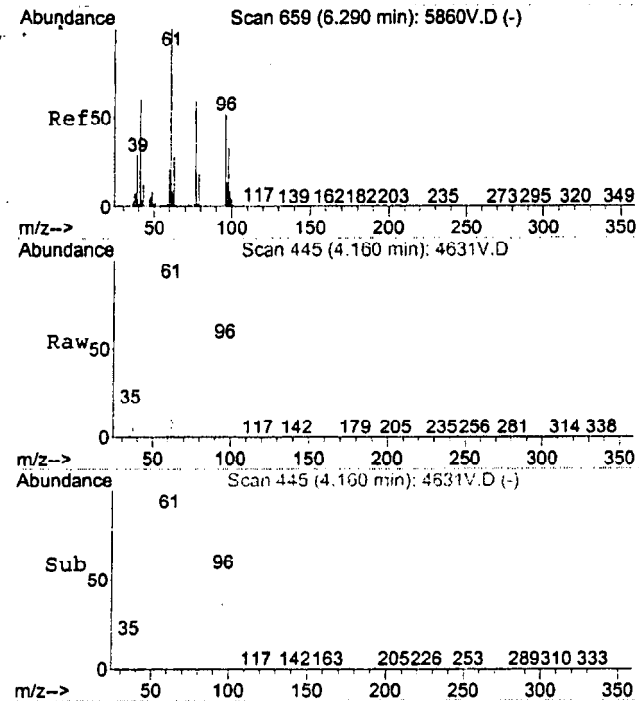


#21
2-Butanone
Concen: 5.03 UG/L
RT: 4.16 min Scan# 445
Delta R.T. -0.04 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 72 Resp: 8782

Ion	Ratio	Lower	Upper
72	100		
43	0.0	449.0	673.4#

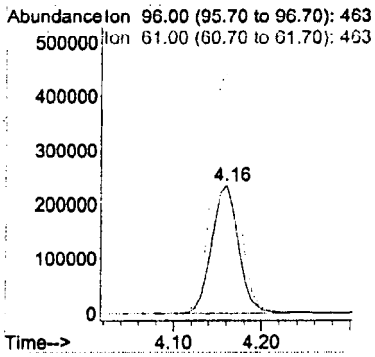


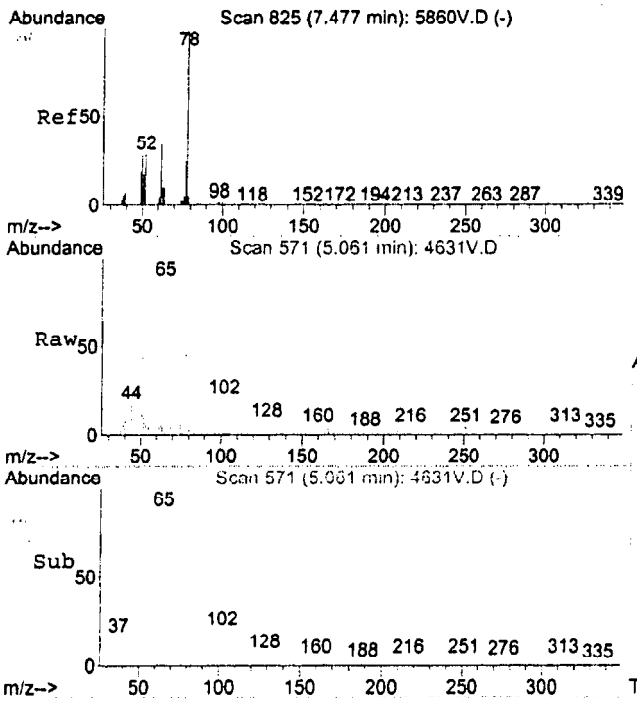


#23
cis-1,2-Dichloroethene
Concen: 40.77 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 96 Resp: 498169

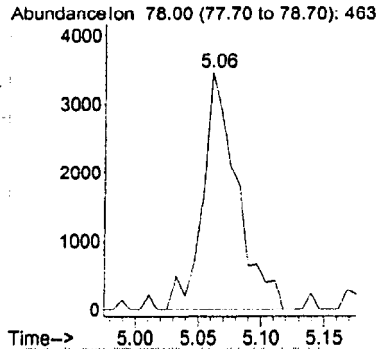
Ion	Ratio	Lower	Upper
96	100		
61	186.2	121.8	182.6#

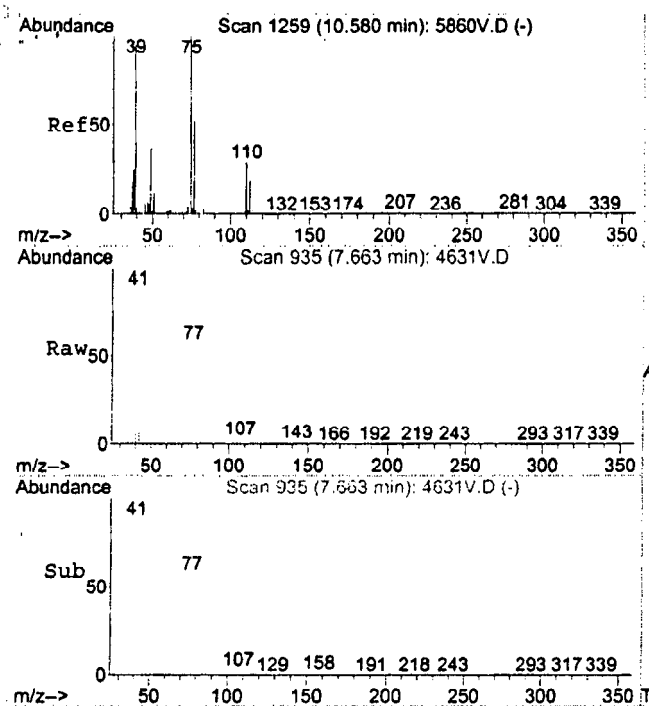




#39
Benzene
Concen: 0.15 UG/L
RT: 5.06 min Scan# 571
Delta R.T. -0.01 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

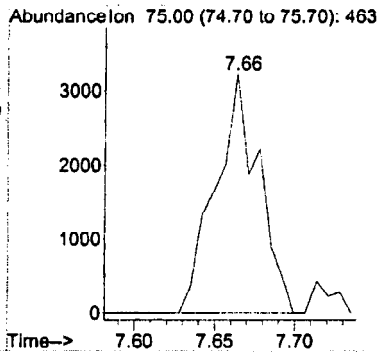
Tgt Ion: 78 Resp: 6625





#52
trans-1,3-Dichloropropene
Concen: 0.35 UG/L
RT: 7.66 min Scan# 935
Delta R.T. 0.07 min
Lab File: 4631V.D
Acq: 4 Jun 2008 16:17

Tgt Ion: 75 Resp: 6043



R536336

Heritage Environmental Services, LLC

A812342

GC/MS VOA

Method SW846-8260B
Sample Description MW-167D (DUP)
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.1
Analyst 1062 R. SHAMP
File 4632V.D Date/Time 04Jun08 16:43:00
Dilution Factor 10

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
156-59-2	246	CIS-1,2-DICHLOROETHENE	350		10	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	119			% RECOVERY	
2037-26-5	726	TOLUENE-D8	104			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	111			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	116			% RECOVERY	

Comment 1:10 Dilution Prep Method SW846-5030B Purge and Trap

6-6-08

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4632V.D Vial: 19
Acq On : 4 Jun 2008 16:43 Operator: REGI
Sample : A812342 1:10 REP1 Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 17:00:11 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	509831	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	166065	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	158542	11.60	UG/L	0.00
Spiked Amount 10.000			Recovery	=	116.00%	
35) 1,2-Dichloroethane-d4	5.03	65	304390	11.93	UG/L	0.00
Spiked Amount 10.000			Recovery	=	119.30%	
50) Toluene-d8	7.21	98	501618	10.36	UG/L	0.00
Spiked Amount 10.000			Recovery	=	103.60%	
69) 4-Bromofluorobenzene	10.49	174	108641	11.06	UG/L	0.00
Spiked Amount 10.000			Recovery	=	110.60%	

Target Compounds						Qvalue
4) ~~VINYL CHLORIDE~~	1.37	62	14126	2.34	UG/L	91
9) ~~Acetone~~	2.47	43	27696	3.29	UG/L #	81
14) ~~Methylene Chloride~~	2.87	84	37423	1.62	UG/L #	65
17) ~~MTBE~~	3.16	73	5032	0.15	UG/L	100
18) ~~trans-1,2-Dichloroethene~~	3.14	96	20300	1.82	UG/L #	72
21) ~~2-Butanone~~	4.16	72	7826	4.44	UG/L #	1
23) ~~cis~~-1,2-Dichloroethene 350	4.16	96	434831	35.23	UG/L #	75
39) ~~Benzene~~	5.07	78	10391	0.24	UG/L	100
52) ~~trans-1,3~~-Dichloropropene	7.66	75	6151	0.35	UG/L	100

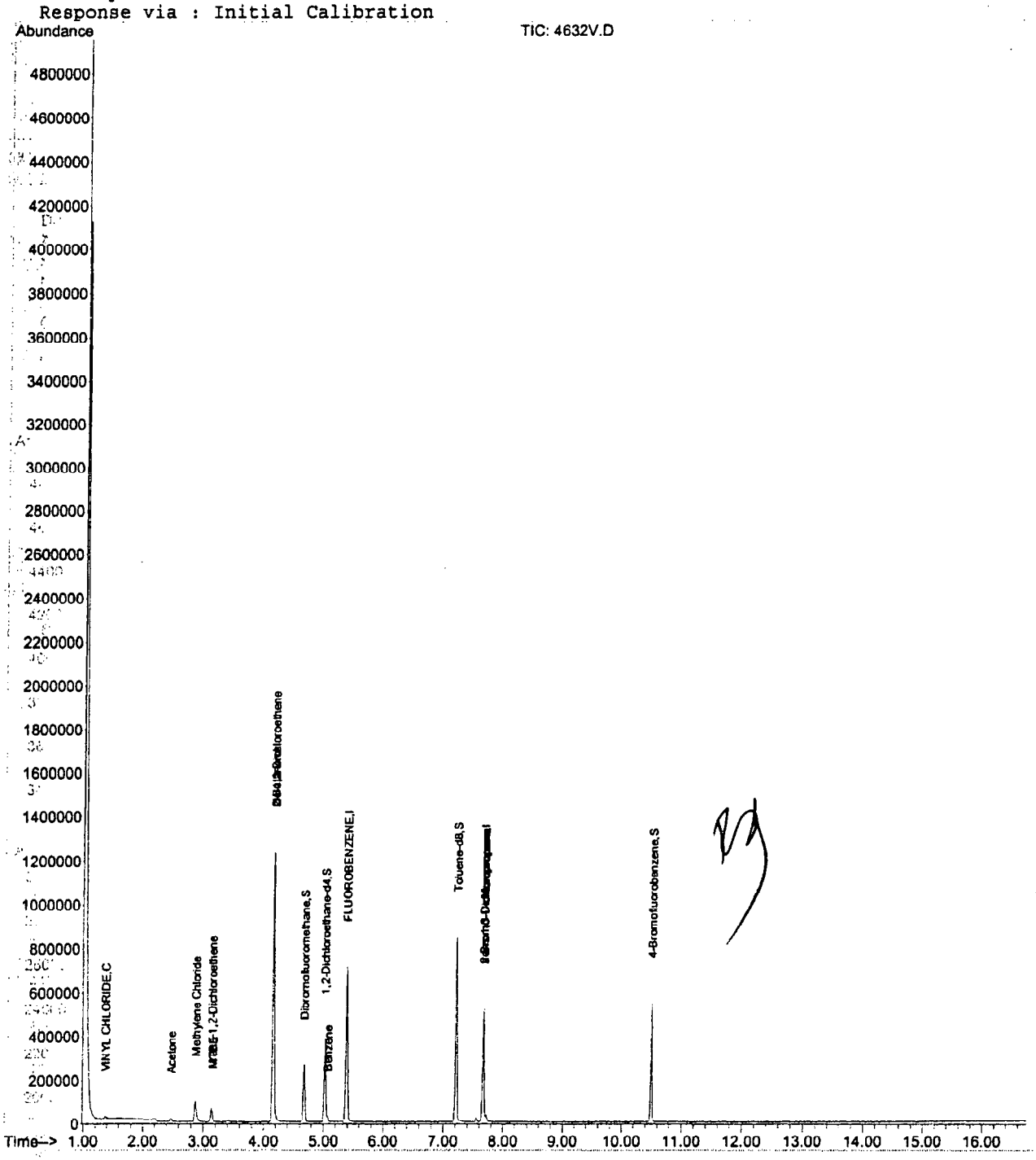
(#) = qualifier out of range (m) = manual integration

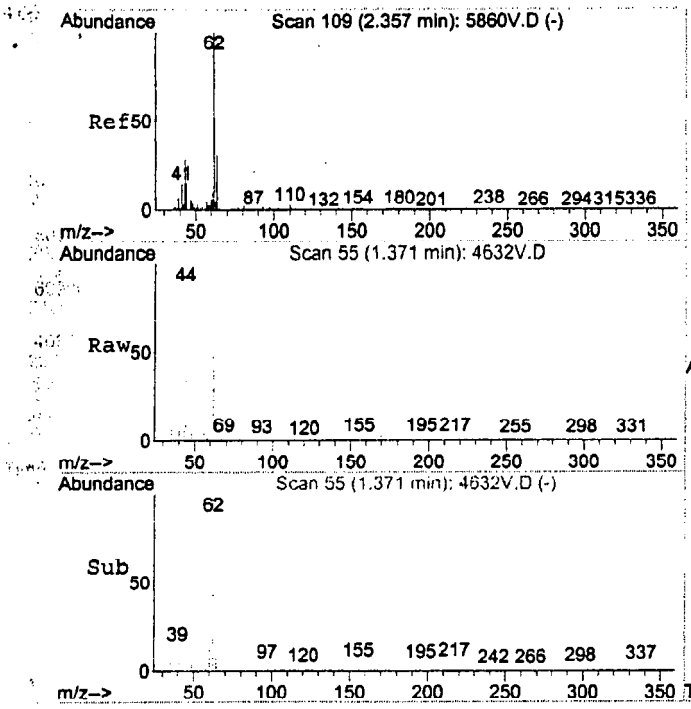
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4632V.D
Acq On : 4 Jun 2008 16:43
Sample : A812342 1:10 REP1
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 17:00 2008

Vial: 19
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

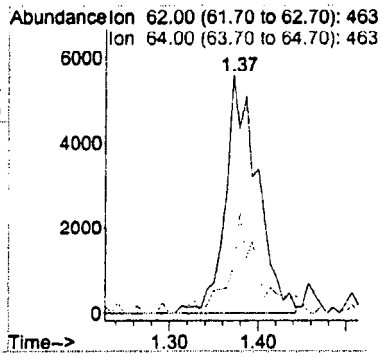


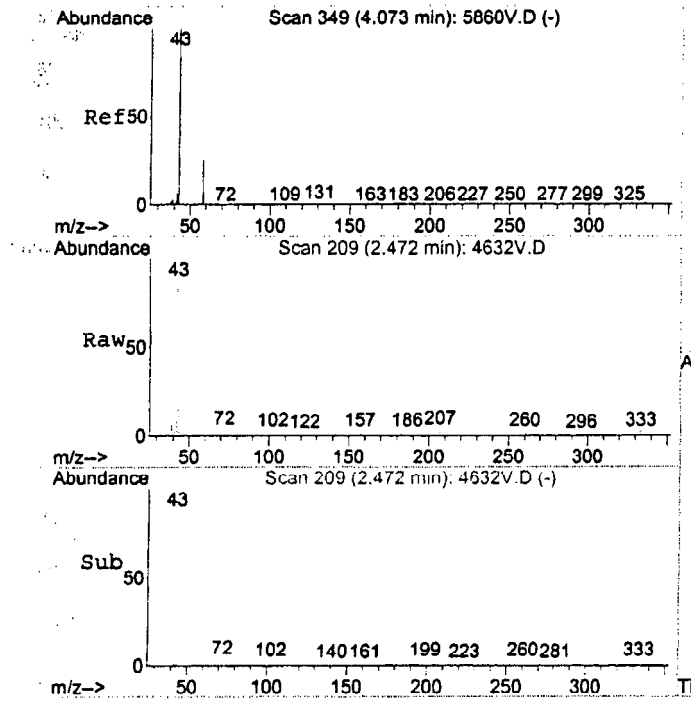


#4
VINYL CHLORIDE
Concen: 2.34 UG/L
RT: 1.37 min Scan# 55
Delta R.T. -0.01 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 62 Resp: 14126

Ion	Ratio	Lower	Upper
62	100		
64	36.2	24.9	37.3

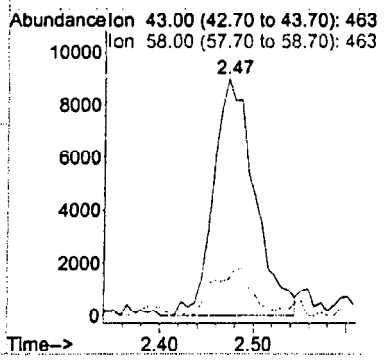


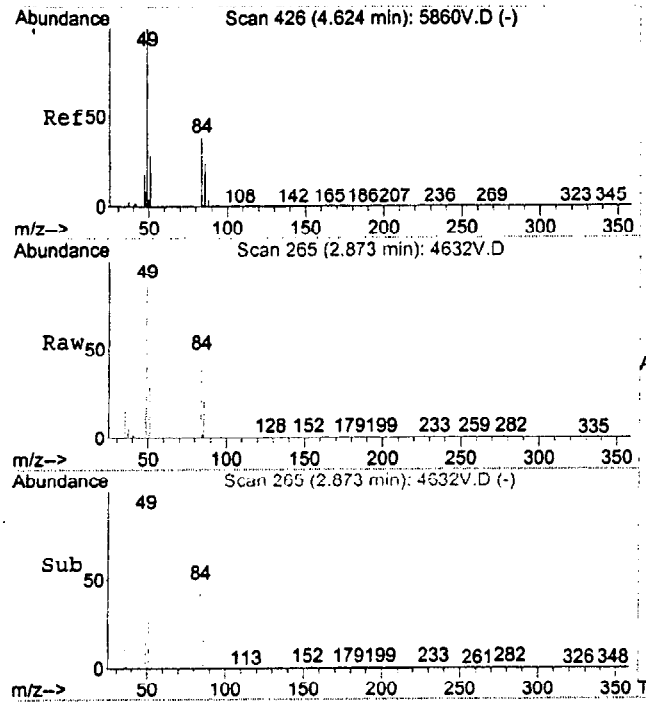


#9
Acetone
Concen: 3.29 UG/L
RT: 2.47 min Scan# 209
Delta R.T. -0.01 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 43 Resp: 27696

Ion	Ratio	Lower	Upper
43	100		
58	18.8	23.1	34.7#

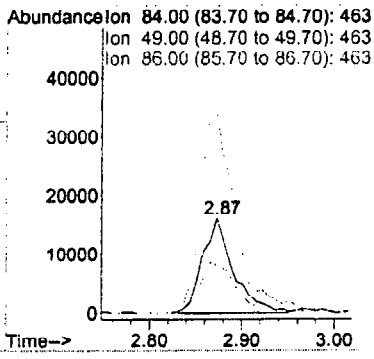


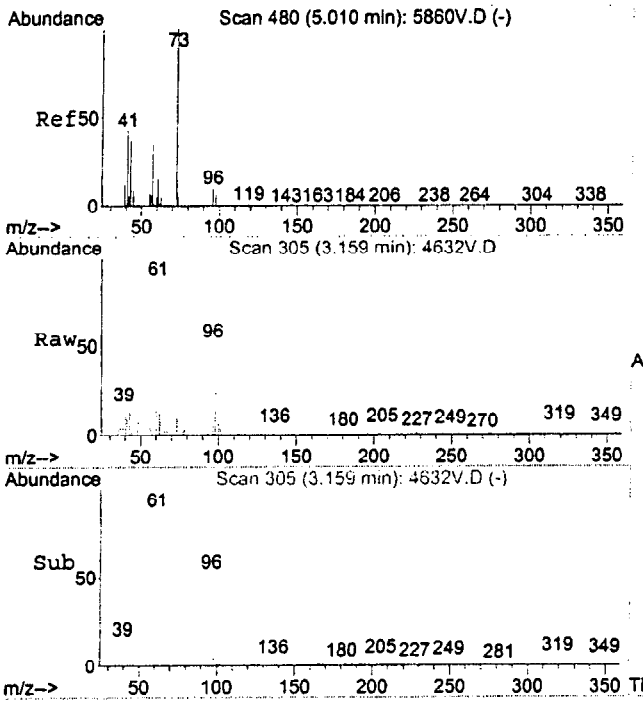


#14
Methylene Chloride
Concen: 1.62 UG/L
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 84 Resp: 37423

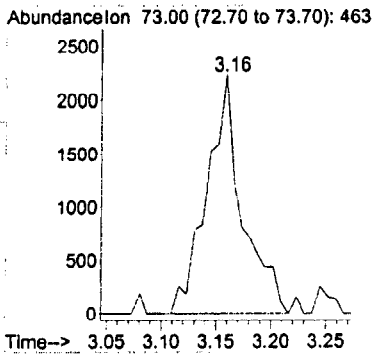
Ion	Ratio	Lower	Upper
84	100		
49	238.9	140.2	210.2#
86	59.6	51.1	76.7

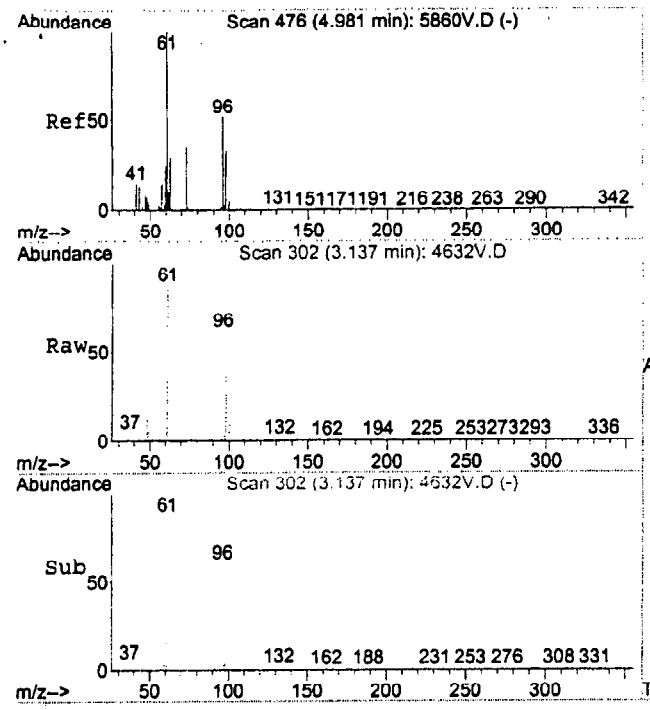




#17
MTBE
Concen: 0.15 UG/L
RT: 3.16 min Scan# 305
Delta R.T. 0.01 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 73 Resp: 5032

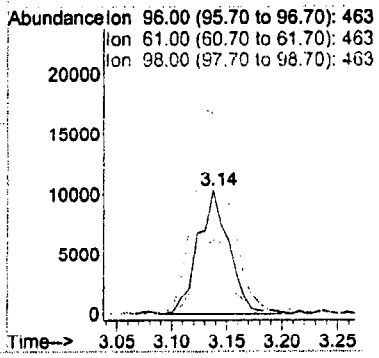


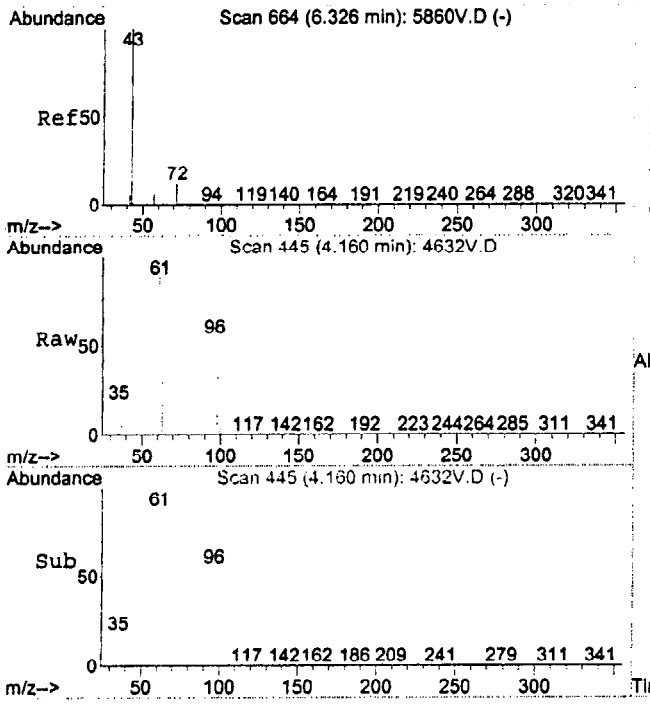


#18
trans-1,2-Dichloroethene
Concen: 1.82 UG/L
RT: 3.14 min Scan# 302
Delta R.T. 0.00 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 96 Resp: 20300

Ion	Ratio	Lower	Upper
96	100		
61	190.1	114.1	171.1#
98	66.0	50.7	76.1

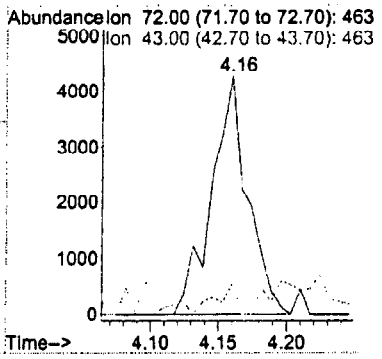


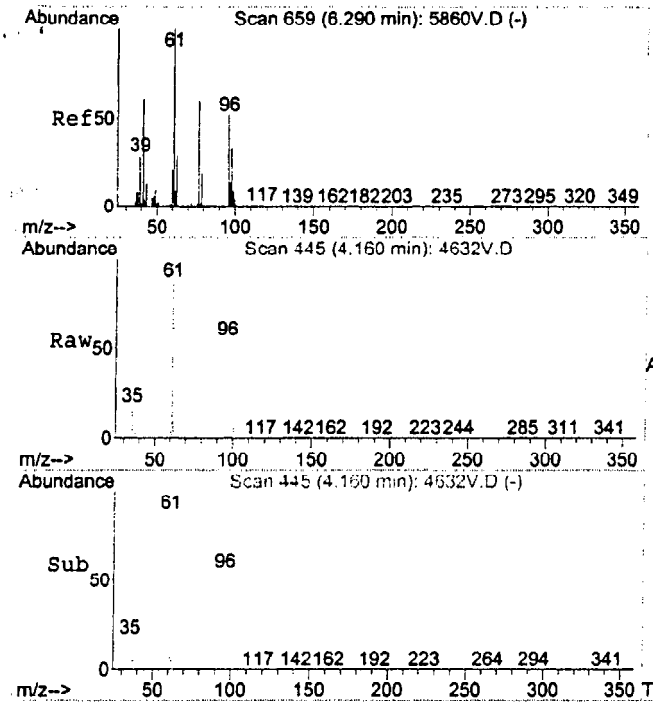


#21
2-Butanone
Concen: 4.44 UG/L
RT: 4.16 min Scan# 445
Delta R.T. -0.04 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 72 Resp: 7826

Ion	Ratio	Lower	Upper
72	100		
43	0.0	449.0	673.4#

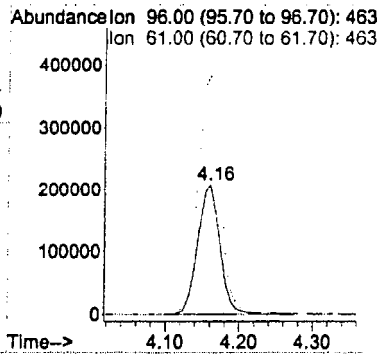


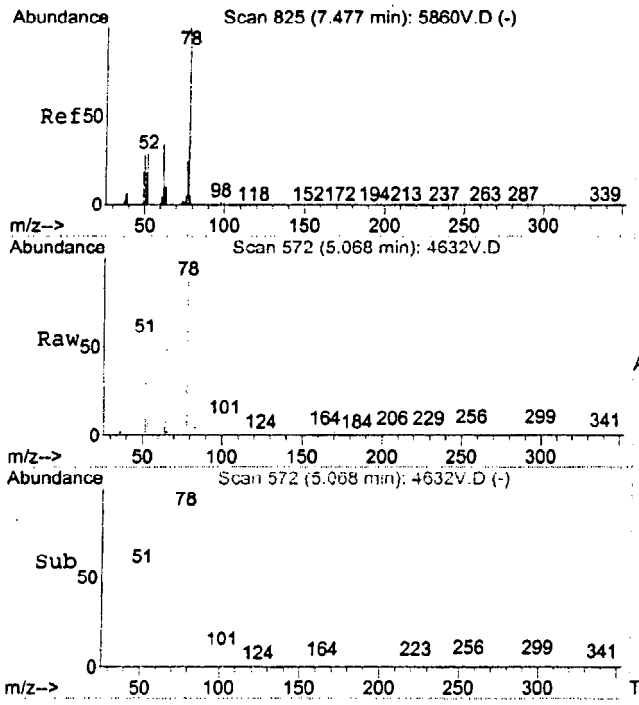


#23
cis-1,2-Dichloroethene
Concen: 35.23 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 96 Resp: 434831

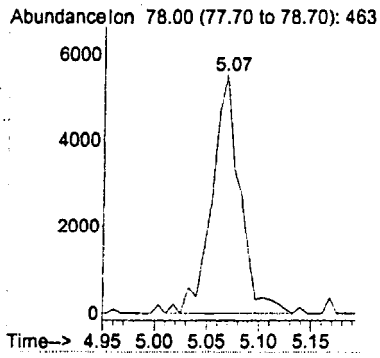
Ion	Ratio	Lower	Upper
96	100		
61	184.7	121.8	182.6#

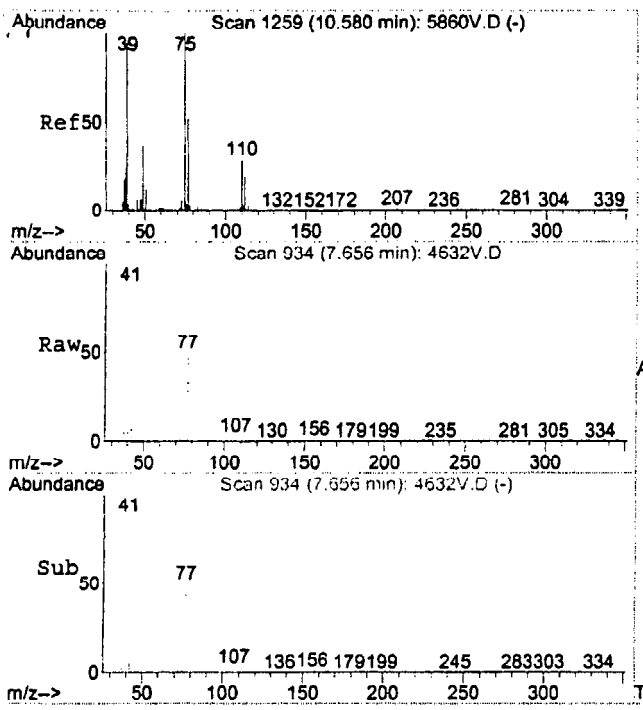




#39
Benzene
Concen: 0.24 UG/L
RT: 5.07 min Scan# 572
Delta R.T. 0.00 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

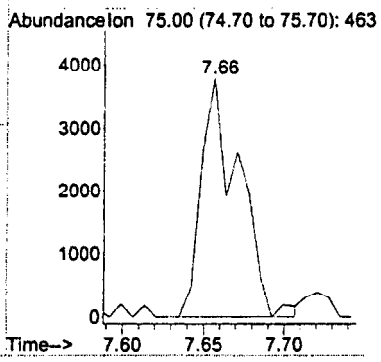
Tgt Ion: 78 Resp: 10391





#52
trans-1,3-Dichloropropene
Concen: 0.35 UG/L
RT: 7.66 min Scan# 934
Delta R.T. 0.06 min
Lab File: 4632V.D
Acq: 4 Jun 2008 16:43

Tgt Ion: 75 Resp: 6151



R536336 Heritage Environmental Services, LLC A812345

GC/MS VOA

Method SW846-8260B
Sample Description MW-166S
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.1
Analyst 1062 R. SHAMP
File 4633V.D Date/Time 04Jun08 17:09:00
Dilution Factor 10

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
156-59-2	246	CIS-1,2-DICHLOROETHENE	230		10	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	----------					
17060-07-0	301	DICHLOROETHANE-D4	120			% RECOVERY	
2037-26-5	726	TOLUENE-D8	101			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	110			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	117			% RECOVERY	

Comment 1:10 Dilution Prep Method SW846-5030B Purge and Trap

JA 6-08-08

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4633V.D
Acq On : 4 Jun 2008 17:09
Sample : A812345 1:10 REP1
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 04 17:26:33 2008

Vial: 20
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

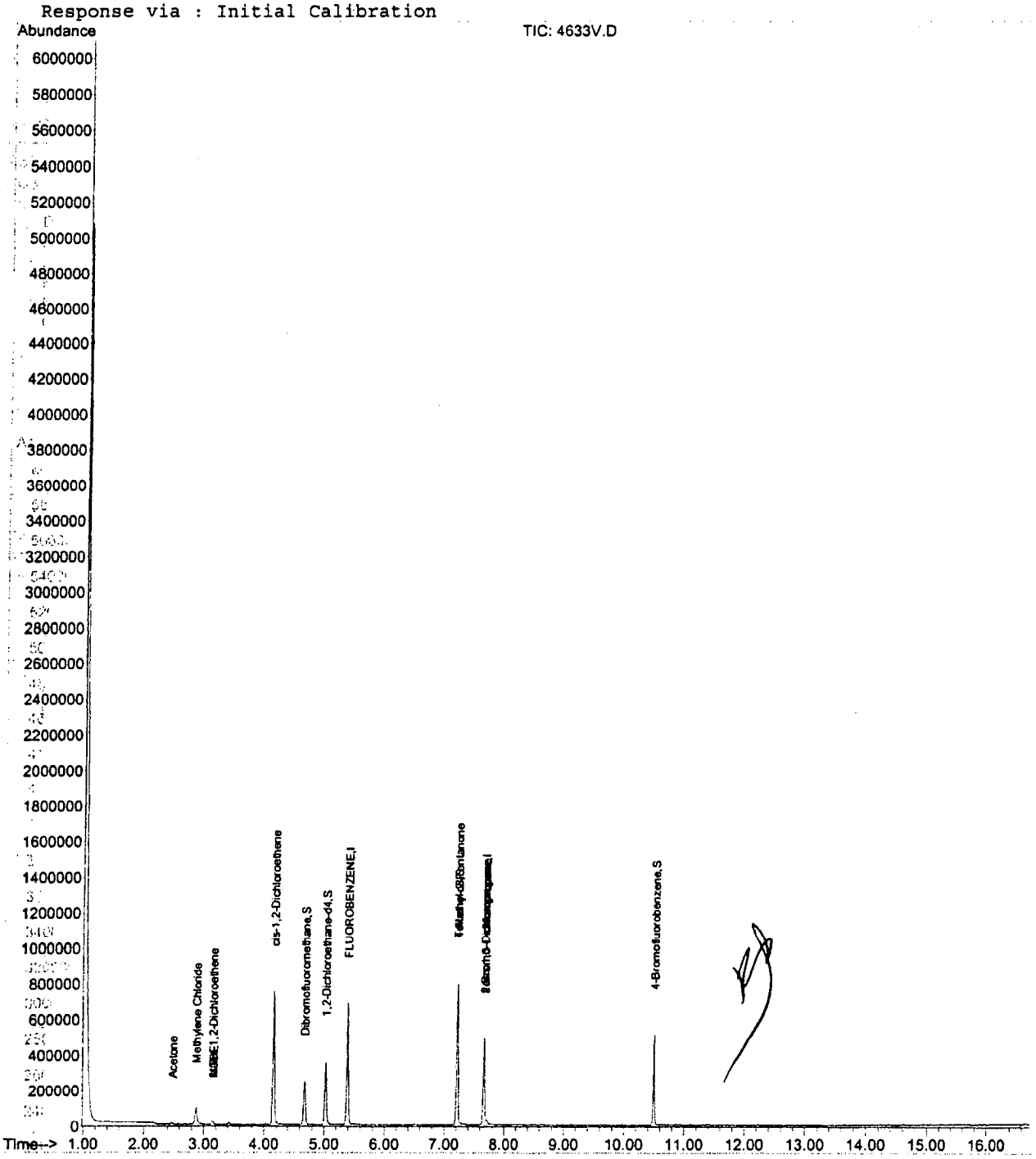
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	486012	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	160578	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	152330	11.69	UG/L	0.00
Spiked Amount 10.000			Recovery	=	116.90%	
35) 1,2-Dichloroethane-d4	5.02	65	290595	11.95	UG/L	0.00
Spiked Amount 10.000			Recovery	=	119.50%	
50) Toluene-d8	7.21	98	466589	10.11	UG/L	0.00
Spiked Amount 10.000			Recovery	=	101.10%	
69) 4-Bromofluorobenzene	10.49	174	104946	11.04	UG/L	0.00
Spiked Amount 10.000			Recovery	=	110.40%	
Target Compounds						Qvalue
9) Acetone	2.48	43	15644	1.95	UG/L #	46
14) Methylene Chloride	2.87	84	38493	1.91	UG/L #	61
17) MTBE	3.16	73	6060	0.18	UG/L	100
18) trans-1,2-Dichloroethene	3.14	96	5605	0.53	UG/L #	50
23) cis-1,2-Dichloroethene 230	4.16	96	268364	22.81	UG/L	76
47) 4-Methyl-2-Pentanone	7.21	43	5580	0.22	UG/L #	1
52) trans-1,3-Dichloropropene	7.67	75	5341	0.32	UG/L	100

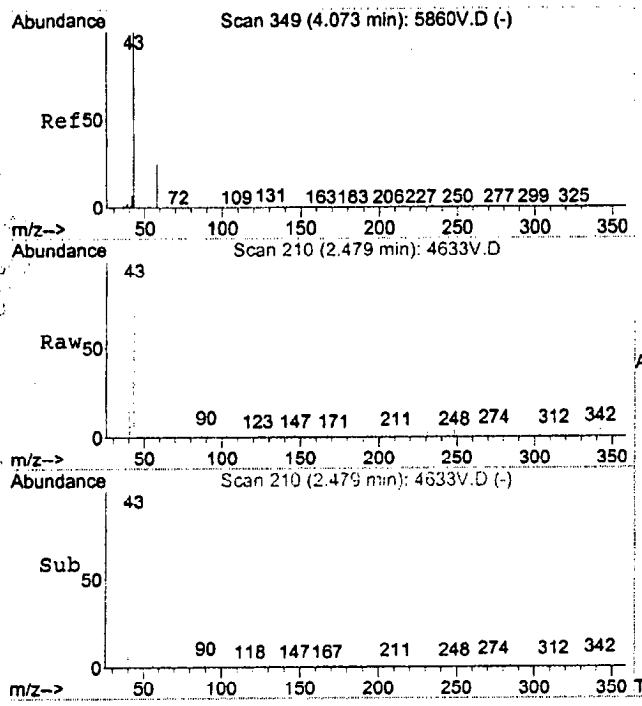
(#) = qualifier out of range (m) = manual integration
4633V.D 8260VOI.M Wed Jun 04 17:26:35 2008

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4633V.D Vial: 20
Acq On : 4 Jun 2008 17:09 Operator: REGI
Sample : A812345 1:10 REP1 Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 4 17:26 2008 Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration

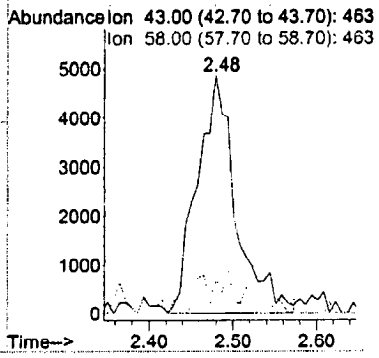


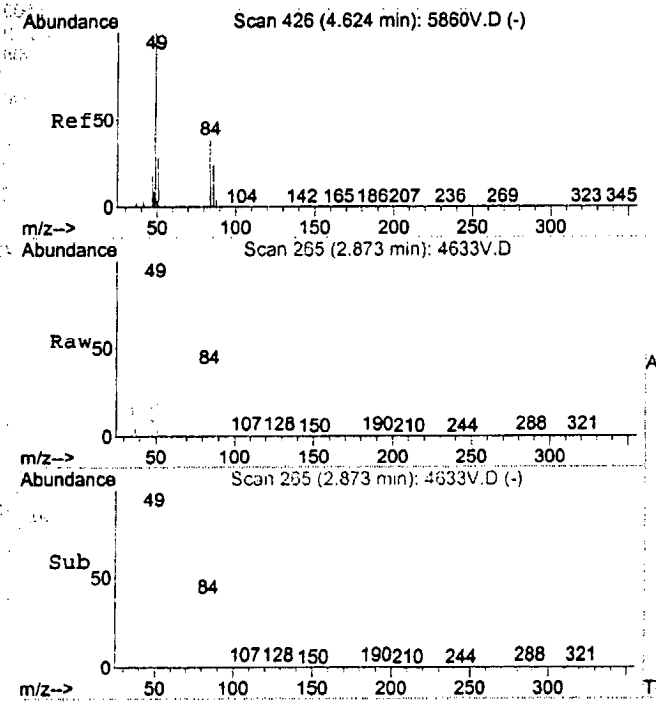


#9
Acetone
Concen: 1.95 UG/L
RT: 2.48 min Scan# 210
Delta R.T. -0.01 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 43 Resp: 15644

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

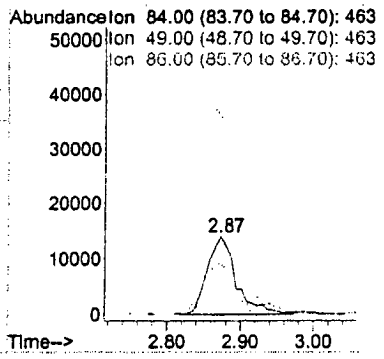


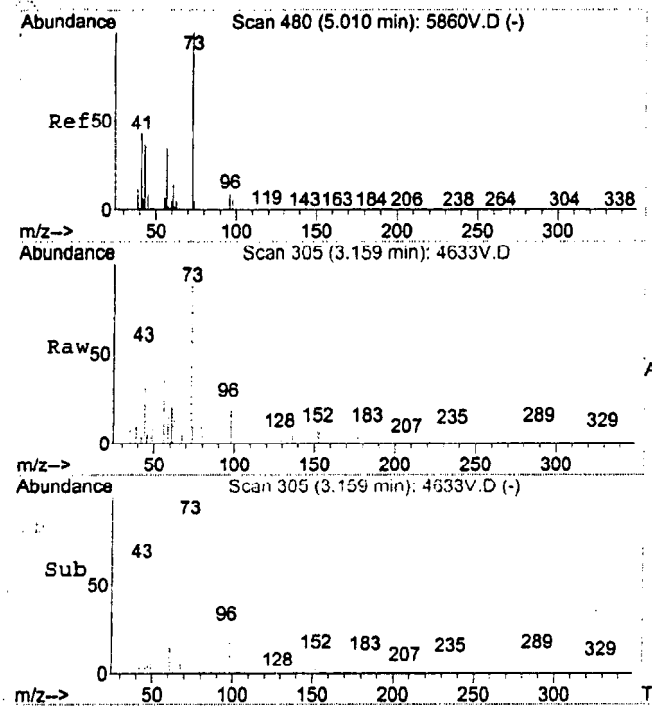


#14
Methylene Chloride
Concen: 1.91 UG/L
RT: 2.87 min Scan# 265
Delta R.T. 0.00 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 84 Resp: 38493

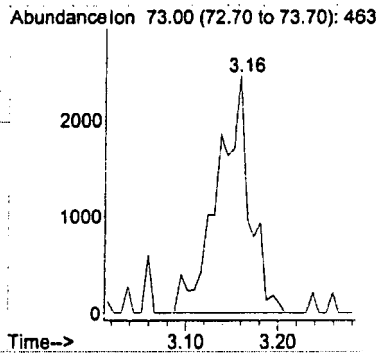
Ion	Ratio	Lower	Upper
84	100		
49	249.5	140.2	210.2#
86	64.9	51.1	76.7

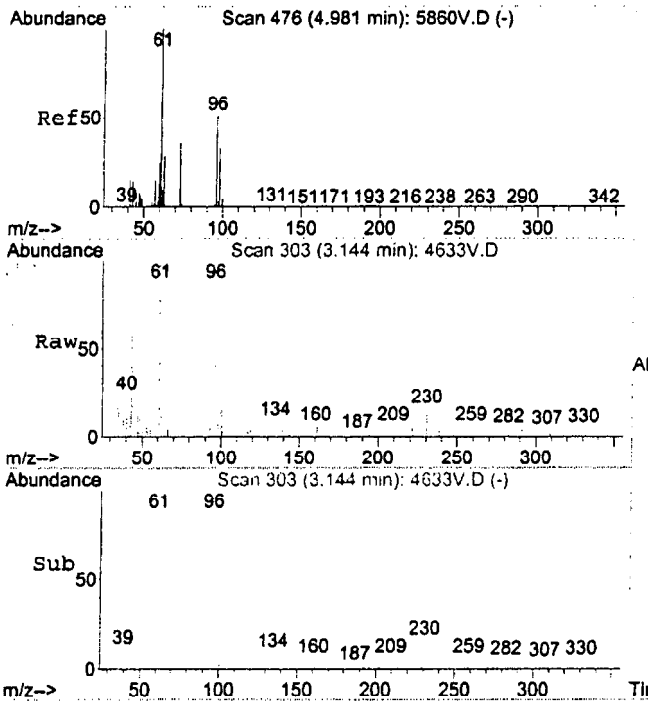




#17
MTBE
Concen: 0.18 UG/L
RT: 3.16 min Scan# 305
Delta R.T. 0.01 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 73 Resp: 6060

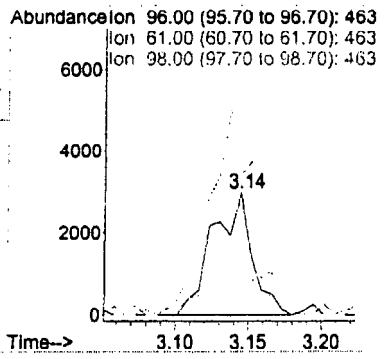


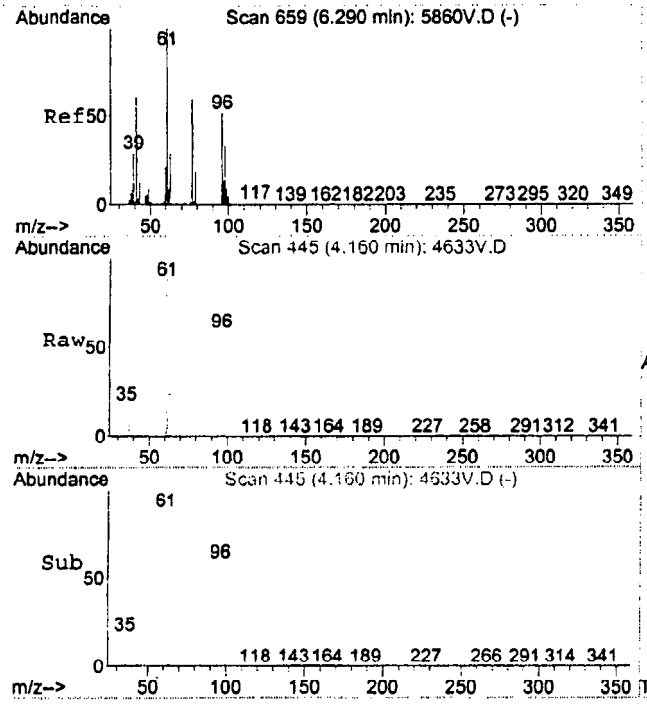


#18
trans-1,2-Dichloroethene
Concen: 0.53 UG/L
RT: 3.14 min Scan# 303
Delta R.T. 0.01 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 96 Resp: 5605

Ion	Ratio	Lower	Upper
96	100		
61	187.6	114.1	171.1#
98	0.0	50.7	76.1#

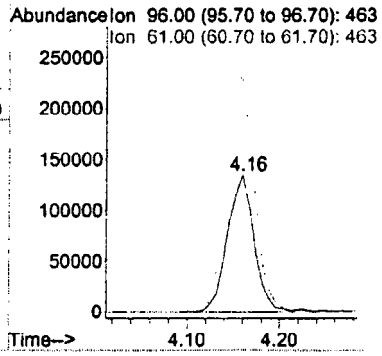


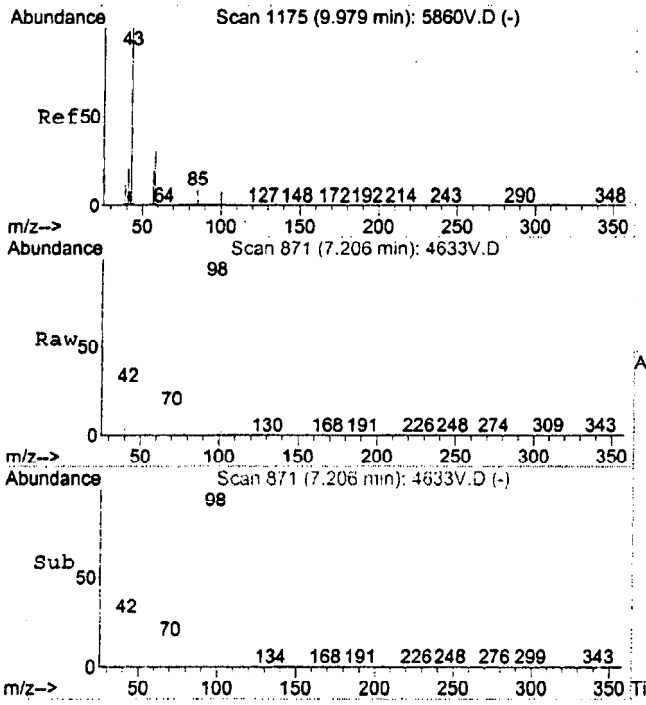


#23
cis-1,2-Dichloroethene
Concen: 22.81 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 96 Resp: 268364

Ion	Ratio	Lower	Upper
96	100		
61	182.5	121.8	182.6

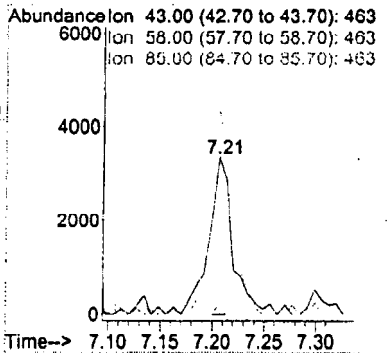


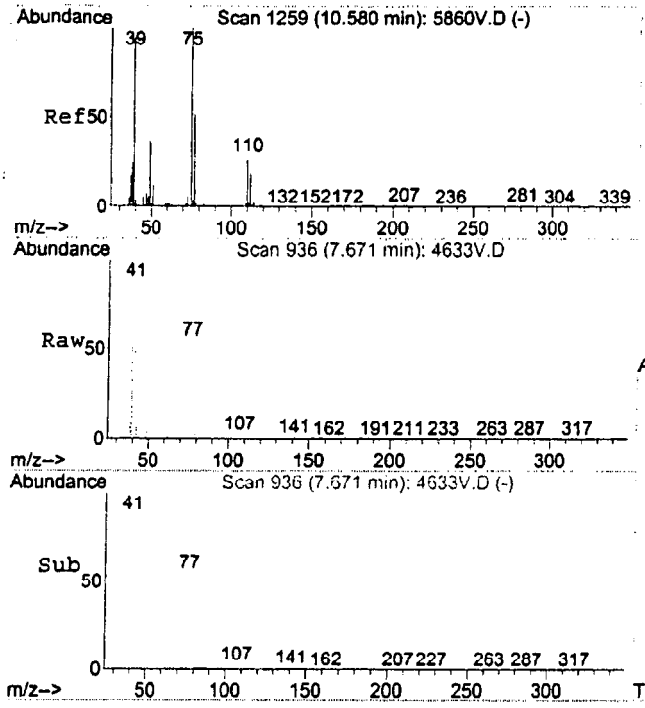


#47
4-Methyl-2-Pentanone
Concen: 0.22 UG/L
RT: 7.21 min Scan# 871
Delta R.T. 0.09 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 43 Resp: 5580

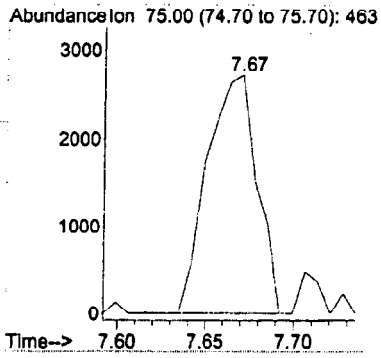
Ion	Ratio	Lower	Upper
43	100		
58	129.6	27.5	41.3#
85	0.0	9.6	14.4#





#52
trans-1,3-Dichloropropene
Concen: 0.32 UG/L
RT: 7.67 min Scan# 936
Delta R.T. 0.08 min
Lab File: 4633V.D
Acq: 4 Jun 2008 17:09

Tgt Ion: 75 Resp: 5341



R536336

Heritage Environmental Services, LLC

A812346

GC/MS VOA

Method SW846-8260B
Sample Description MW-166D
Submitter KERAMIDA ENVIRONMENTAL
Instrument 346 Channel 1

Test Code O510.5.1
Analyst 1062 R. SHAMP
File 4634V.D Date/Time 04Jun08 17:35:00
Dilution Factor 100

CAS	PRM	Parameter	Concentration	RQL	Limit	Units	RT
156-59-2	246	CIS-1,2-DICHLOROETHENE	1500		100	UG/L	
	1804	...					
	971	SURROGATE RECOVERY					
	972	————————					
17060-07-0	301	DICHLOROETHANE-D4	122			% RECOVERY	
2037-26-5	726	TOLUENE-D8	103			% RECOVERY	
460-00-4	196	4-BROMOFLUOROBENZENE	107			% RECOVERY	
1868-53-7	3362	DIBROMOFLUOROMETHANE	118			% RECOVERY	

Comment 1:100 Dilution Prep Method SW846-5030B Purge and Trap

JS MS 6/6/08

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\DATA\V060408\4634V.D Vial: 21
Acq On : 4 Jun 2008 17:35 Operator: REGI
Sample : A812346 1:100 REP1 Inst : Instrumen
Misc : 6/4/08 Multiplr: 1.00
MS Integration Params: rteint2.p
Quant Time: Jun 04 17:52:34 2008 Quant Results File: 8260VOI.RES

Quant Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration
DataAcq Meth : 8260VOI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE	5.38	96	485977	10.00	UG/L	0.00
55) 2-Bromo-1-chloropropane	7.66	77	160630	10.00	UG/L	0.00
System Monitoring Compounds						
33) Dibromofluoromethane	4.67	113	154025	11.82	UG/L	0.00
Spiked Amount 10.000			Recovery	=	118.20%	
35) 1,2-Dichloroethane-d4	5.02	65	297482	12.23	UG/L	0.00
Spiked Amount 10.000			Recovery	=	122.30%	
50) Toluene-d8	7.21	98	475903	10.31	UG/L	0.00
Spiked Amount 10.000			Recovery	=	103.10%	
69) 4-Bromofluorobenzene	10.49	174	101936	10.72	UG/L	0.00
Spiked Amount 10.000			Recovery	=	107.20%	
Target Compounds						Qvalue
4) VINYL CHLORIDE	1.38	62	17816	3.10	UG/L #	82
9) Acetone	2.48	43	13605	1.70	UG/L #	46
14) Methylene Chloride	2.88	84	37918	1.85	UG/L #	62
17) MTBE	3.17	73	5521	0.17	UG/L	100
23) cis-1,2-Dichloroethene 1500	4.16	96	181316	15.41	UG/L #	74
52) trans-1,3-Dichloropropene	7.67	75	6468	0.39	UG/L	100

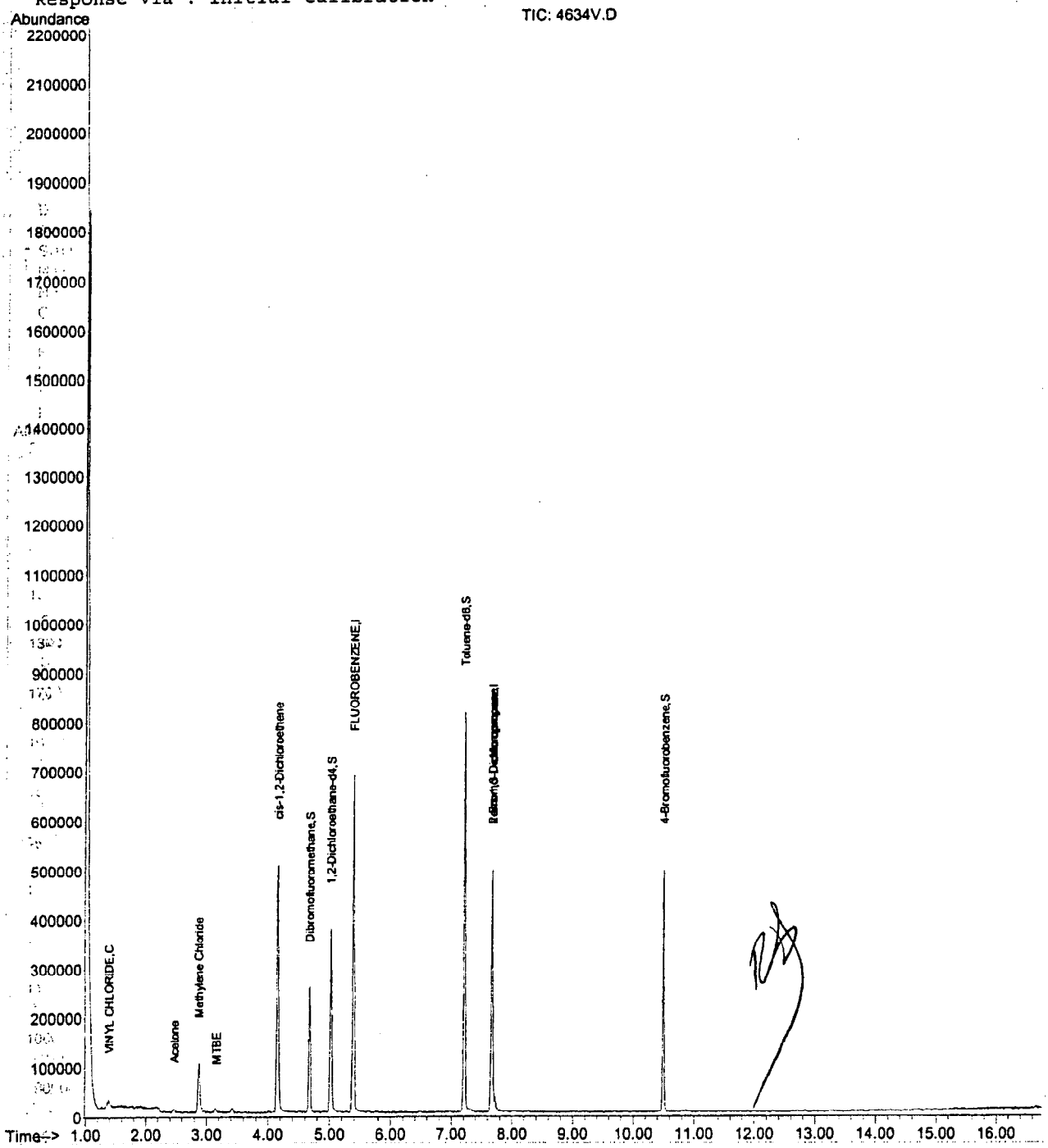
(#) = qualifier out of range (m) = manual integration
4634V.D 8260VOI.M Wed Jun 04 17:52:38 2008

Quantitation Report (Not Reviewed)

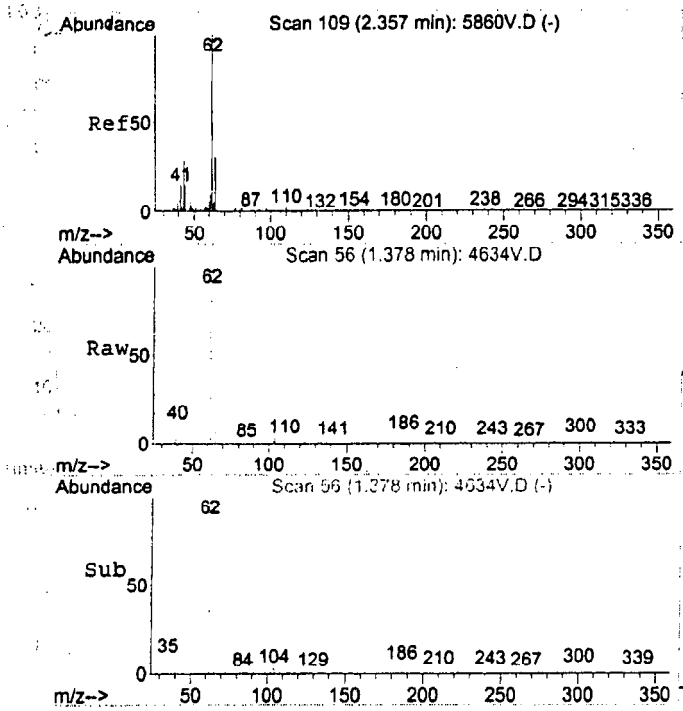
Data File : C:\HPCHEM\DATA\V060408\4634V.D
Acq On : 4 Jun 2008 17:35
Sample : A812346 1:100 REP1
Misc : 6/4/08
MS Integration Params: rteint2.p
Quant Time: Jun 4 17:52 2008

Vial: 21
Operator: REGI
Inst : Instrumen
Multiplr: 1.00
Quant Results File: 8260VOI.RES

Method : C:\MSDCHEM\1\METHODS\8260VOI.M (RTE Integrator)
Title : 8260 VOLATILES
Last Update : Mon Jun 02 06:38:28 2008
Response via : Initial Calibration



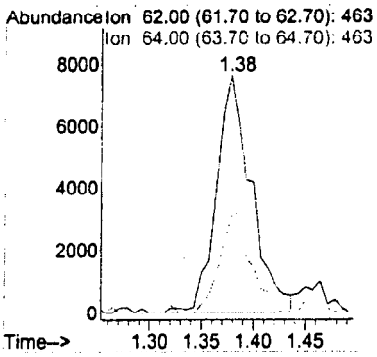
56911

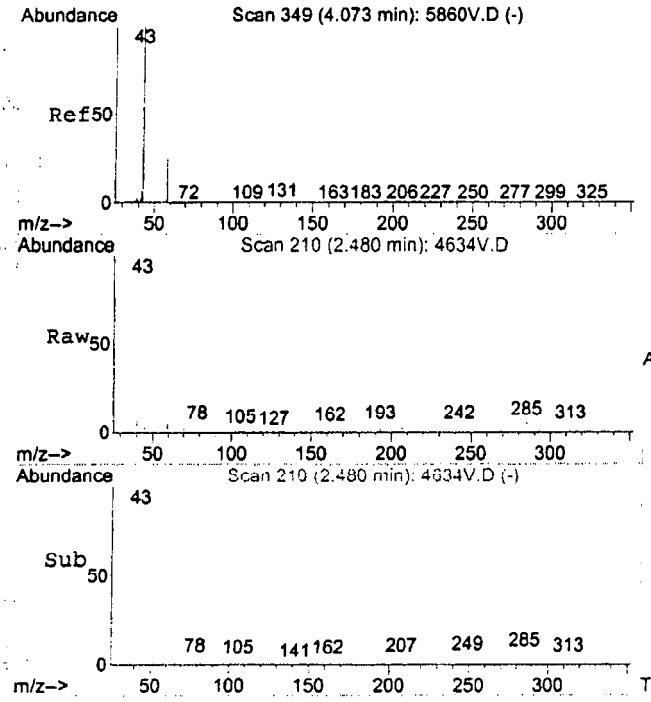


#4
VINYL CHLORIDE
Concen: 3.10 UG/L
RT: 1.38 min Scan# 56
Delta R.T. 0.00 min
Lab File: 4634V.D
Acq: 4 Jun 2008 17:35

Tgt Ion: 62 Resp: 17816

Ion	Ratio	Lower	Upper
62	100		
64	40.8	24.9	37.3#

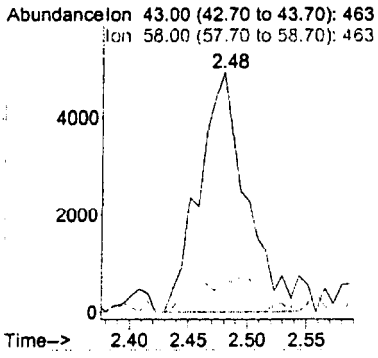


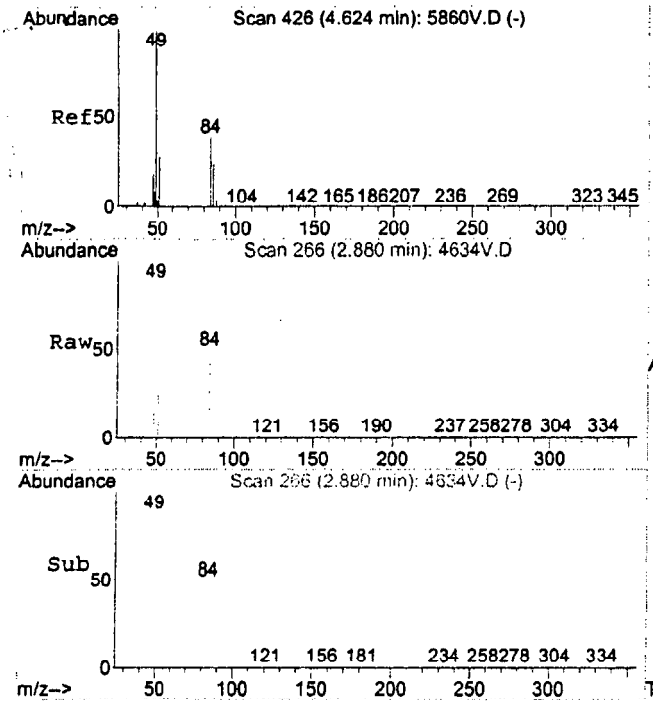


#9
Acetone
Concen: 1.70 UG/L
RT: 2.48 min Scan# 210
Delta R.T. -0.01 min
Lab File: 4634V.D
Acq: 4 Jun 2008 17:35

Tgt Ion: 43 Resp: 13605

Ion	Ratio	Lower	Upper
43	100		
58	0.0	23.1	34.7#

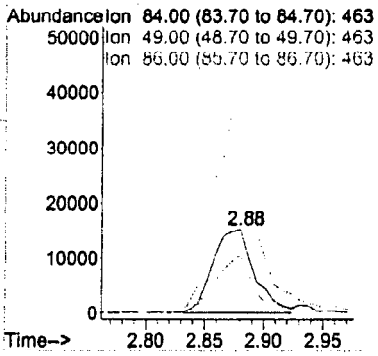


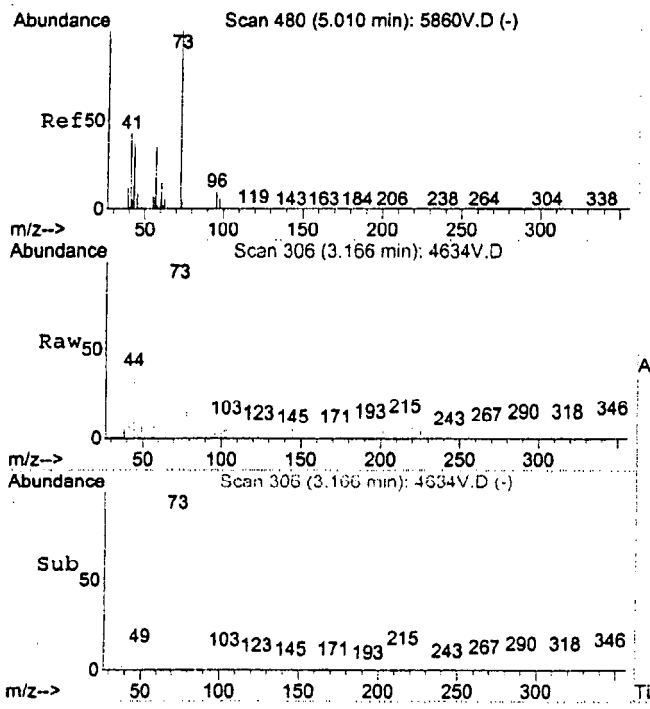


#14
Methylene Chloride
Concen: 1.85 UG/L
RT: 2.88 min Scan# 266
Delta R.T. 0.01 min
Lab File: 4634V.D
Acq: 4 Jun 2008 17:35

Tgt Ion: 84 Resp: 37918

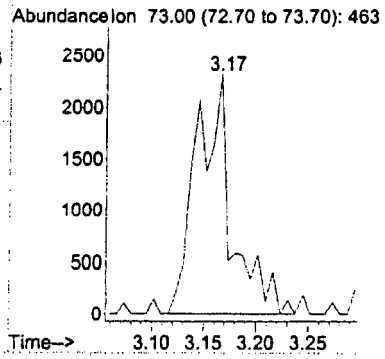
Ion	Ratio	Lower	Upper
84	100		
49	245.2	140.2	210.2#
86	66.7	51.1	76.7

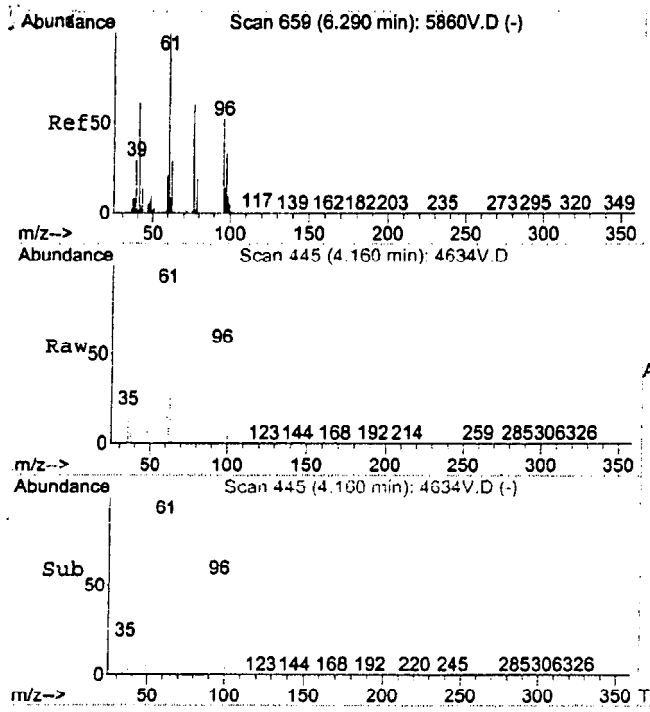




#17
MTBE
Concen: 0.17 UG/L
RT: 3.17 min Scan# 306
Delta R.T. 0.01 min
Lab File: 4634V.D
Acq: 4 Jun 2008 17:35

Tgt Ion: 73 Resp: 5521

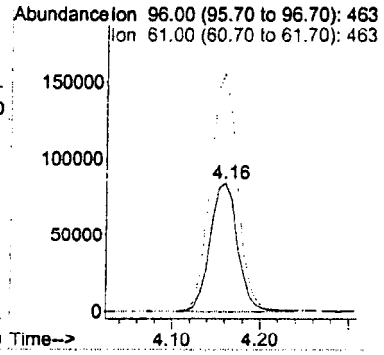


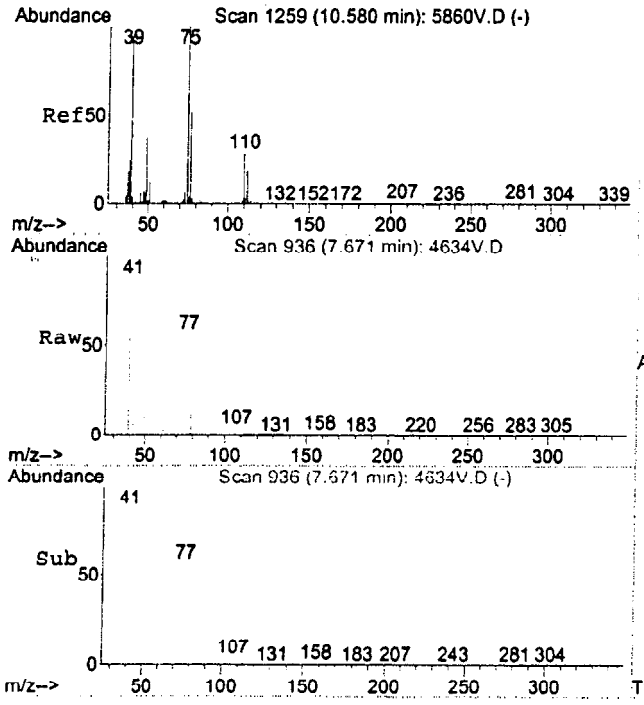


#23
cis-1,2-Dichloroethene
Concen: 15.41 UG/L
RT: 4.16 min Scan# 445
Delta R.T. 0.00 min
Lab File: 4634V.D
Acq: 4 Jun 2008 17:35

Tgt Ion: 96 Resp: 181316

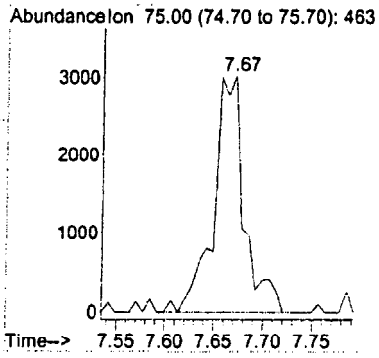
Ion	Ratio	Lower	Upper
96	100		
61	185.0	121.8	182.6#





#52
trans-1,3-Dichloropropene
Concen: 0.39 UG/L
RT: 7.67 min Scan# 936
Delta R.T. 0.08 min
Lab File: 4634V.D
Acq: 4 Jun 2008 17:35

Tgt Ion: 75 Resp: 6468



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