

QUARTERLY PROGRESS REPORT THIRD QUARTER 2001

**FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK**

PREPARED FOR:

**COMBUSTION ENGINEERING
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Third Quarter 2001
Former Taylor Instruments Site
Rochester, New York

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LIST OF ACRONYMS

CO ₂	carbon dioxide
cis-1,2-DCE	cis-1,2-dichloroethylene
DCE	dichloroethylene
DO	dissolved oxygen
DPVE	dual-phase vacuum extraction
EPA	Environmental Protection Agency (United States)
J	estimated value
µg/L	micrograms per liter
MCL	maximum contaminant level
mg/L	milligrams per liter
mL/min	milliliters per minute
MS	matrix spike
MS/MSD	matrix spike/matrix spike duplicate
MSD	matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
ORP	oxidation reduction potential
PARCC	precision, accuracy, representativeness, completeness, and comparability
PVC	polyvinyl chloride
QC	quality control
%R	recovery
RPD	relative percent difference
SQL	sample quantitation limit
System	dual-phase vacuum extraction and groundwater remedial treatment system
TCE	trichloroethylene
U	non-detect
VOC	volatile organic compound

1.0 INTRODUCTION

This report summarizes the activities and results for the third quarterly sampling event, which was conducted in September 2001, following implementation of the dual-phase vacuum extraction and groundwater remedial treatment system (System). A summary of the first and second quarterly sampling event results are also included. These activities occurred at the former Taylor Instruments Site – New York State Department of Environmental Conservation (NYSDEC) Site #828028a located at 95 Ames Street in Rochester, New York (Figure 1, Appendix A), pursuant to a Voluntary Cleanup Agreement. An operational summary of the System for the third quarter of operation is also presented. This monitoring program has been implemented to document remedial progress in reducing contaminants of concern.

2.0 SCOPE OF WORK

2.1 SEPTEMBER 2001 QUARTERLY SAMPLING EVENT

Harding ESE personnel performed the September sampling event to provide an inclusive set of groundwater analytical data for the third quarterly period following start-up of the groundwater conveyance and treatment system. Forty-three samples were collected and submitted to Columbia Analytical Services (Table 2-1). Forty-two samples were submitted for volatile organic analyses by U.S. Environmental Protection Agency (EPA) Method 8260B. Of the forty-three samples collected, eight were also submitted for natural biodegradation parameters which include nitrate, sulfate, and chloride by Method 300.0, total organic carbon by Method 415.1, sulfide by Method 376.1, ferrous iron by Method SM3500B, methane, ethane, and ethene by Method 8015B, carbon dioxide by Method SM4500B, and alkalinity by Method 310.1. One sample was submitted for selected natural biodegradation parameters, which were alkalinity, chloride, and carbon dioxide. Thirty-one of the samples were environmental samples collected from monitor and extraction wells located on the Site. Twelve of the forty-three samples were associated with quality control efforts. All environmental samples, including field duplicates and matrix spike/matrix spike duplicate (MS/MSD) samples, were collected using low-flow peristaltic pumps at flow rates <400 milliliters per minute (mL/min). A summary of analytical results for the overburden and bedrock monitor wells is presented in Tables 3-1, 3-2, and 3-3 and Figures 2 and 3, respectively. Laboratory reports and sample chain of custody forms for all samples are located in Appendix B and C, respectively. Field measurements of pH, Conductivity, temperature, turbidity, oxidation reduction potential, and dissolved oxygen (DO) were collected during purging. Purge and sample data are presented on the field data records located in Appendix D.

In addition to these samples, well TW-04 was collected as a split sample with volatile organic analysis Method 8260B being run by three independent laboratories. The laboratories used in addition to Columbia Analytical Services were Paradigm Environmental Services, Inc., and Test America Incorporated. This split sample was collected for quality control purposes.

2.2 TREATMENT SYSTEM OPERATION AND MAINTENANCE (O&M)

Harding ESE provides full-scale O&M services for the System at the subject site. The System is monitored remotely on a daily basis via telemetry. Key operational data and alarms are accessed through the programmable logic controller via phone line which allows Harding ESE to determine the status of the

**Table 2-1
Samples and Analysis,
September 2001 Sampling Event**

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Sample ID	Sample Date	VOCs ¹ Analysis	Natural Biodegradation Parameter Analysis ²	Description
QATB01	9/11/01	X		Trip Blank
QAFB01	9/11/01	X		Field Blank
QARB01	9/11/01	X		Rinsate Blank
W-2	9/11/01		X ³	Environmental Sample
BR-07	9/12/01	X		Environmental Sample
BR-07(DUP)	9/12/01	X		Duplicate
TW-13	9/12/01	X		Environmental Sample
BR-06	9/12/01	X		Environmental Sample
BR-06 (MS)	9/12/01	X		Matrix Spike
BR-06 (MSD)	9/12/01	X		Matrix Spike Duplicate
W-4	9/13/01	X		Environmental Sample
OB-06	9/13/01	X		Environmental Sample
BR-08	9/13/01	X		Environmental Sample
BR-17	9/13/01	X		Environmental Sample
BR-14	9/13/01	X		Environmental Sample
W-6	9/13/01	X		Environmental Sample
BR-03	9/14/01	X		Environmental Sample
BR-01	9/14/01	X		Environmental Sample
TW-17	9/14/01	X	X	Environmental Sample
TW-20	9/14/01	X	X	Environmental Sample
TW-04	9/14/01	X	X	Environmental Sample, Split Sample
TW-07	9/15/01	X	X	Environmental Sample
OB-09	9/15/01	X	X	Environmental Sample
BR-02	9/15/01	X		Environmental Sample
QATB02	9/15/01	X		Trip Blank
QAFB02	9/15/01	X		Field Blank
QARB02	9/15/01	X		Rinsate Blank
See notes at end of table.				

Table 2-1 (Continued)
Samples and Analysis,
June 2001 Sampling Event

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Sample ID	Sample Date	VOCs ¹ Analysis	Natural Biodegradation Parameter Analysis ²	Description
BR-16	9/15/01	X		Environmental Sample
BR-12	9/15/01	X		Environmental Sample
BR-13	9/16/01	X		Environmental Sample
BR-15	9/16/01	X		Environmental Sample
TW-09	9/16/01	X	X	Environmental Sample
BR-10	9/16/01	X		Environmental Sample
OB-07	9/17/01	X	X	Environmental Sample
OB-07(MS)	9/17/01	X		Matrix Spike
OB-07(MSD)	9/17/01	X		Matrix Spike Duplicate
W-5	9/17/01	X	X	Environmental Sample
W-5(DUP)	9/17/01	X		Duplicate
BR-04	9/17/01	X		Environmental Sample
BR-05	9/18/01	X		Environmental Sample
BR-09	9/18/01	X		Environmental Sample
OB-08	9/18/01	X		Environmental Sample
BR-11	9/18/01	X		Environmental Sample

¹ VOCs analyzed by Method 8260.

² Natural biodegradation parameters include nitrate by Method 300.0, sulfate by Method 300.0, chloride by Method 300.0, total organic carbon by Method 415.1, sulfide by Method 376.1, ferrous iron by Method SM3500B, methane by Method 8015B, ethane by Method 8015B, ethene by Method 8015B, carbon dioxide by Method SM4500B, and alkalinity by Method 310.1.

³ Analyzed for alkalinity by Method 310.1, chloride by Method 300.0, and carbon dioxide by Method SM4500B.

Notes: ID = identification
VOC = volatile organic compound
DUP = duplicate
MS = matrix spike
MD = matrix spike duplicate

System and quickly contact local O&M personnel, if necessary, thus maximizing System runtime. Routine O&M activities are conducted monthly and major activities are conducted quarterly. These activities include the following:

- Monthly
 - Collecting System operational data including line pressures, equipment runtime, flow rates, vacuum levels, and other pertinent data.
 - Checking operation of all equipment for vibration or unusual noise, leaks, and unusual operation.
 - Collecting water levels from site monitor wells.
 - Checking filters, operating fluid levels, and cleanliness of vacuum and transfer pumps and groundwater treatment components.
 - Collecting System performance and effluent compliance samples. Performance samples are collected from each vacuum pump and air stripper exhaust stack, and the influent and effluent of the air stripper. Compliance samples are collected from the effluent of the System prior to discharge to the Monroe County Pure Waters Sewer System.
- Quarterly
 - Completing all monthly activities
 - Checking pump motors for wear
 - Checking all electrical components for proper operation
 - Cleaning groundwater treatment equipment

The O&M manual for the System contains the above information and full details of all equipment and components (Harding ESE, 2001).

3.0 SUMMARY OF RESULTS

The wells sampled during the third quarterly (September 2001) event are divided into four categories. These categories are (1) the North and South Trichloroethylene (TCE) Source Areas; (2) Upgradient, which includes wells upgradient of the source areas; (3) Downgradient Perimeter, which includes wells downgradient of the source areas, and (4) Deep Bedrock, which includes BR-08 and BR-14. Well construction information is provided in Appendix E.

A summary of wells sampled and the analyses performed are found in Table 2-1. The sample results for the September 2001 sampling event are summarized in Tables 3-1, 3-2, and 3-3. These tables present only positive (i.e., detected) volatile organic compound (VOC) results. Sample VOC results are also presented in "flag boxes" in Appendix A, Figures 2 and 3, representing overburden monitor wells and bedrock monitor wells. TCE concentration trend graphs for both overburden and bedrock monitor wells are provided in Appendix F. These graphs present data from the Baseline, March 2001, June 2001, and September 2001 sampling events. Natural biodegradation results for the September 2001 event are summarized in Table 3-5 (see Section 3.7). Comprehensive results can be found in the laboratory reports located in Appendix B.

3.1 NORTH AND SOUTH TCE SOURCE AREAS

Overburden Monitor Wells

Monitor wells OB-04 and OB-06 are both located within the South TCE Source Area while OB-07 is within the plume. OB-04 was attempted to be sampled, however pumping conditions surrounding this well caused it to be dry. OB-06 displayed an elevation in TCE concentration from past events, with TCE being detected at 5,600 µg/L. Also, cis-1,2-DCE was detected at 240 µg/L, and trans-1,2-DCE was detected at 9 J (J flag indicates an estimated value) µg/L. OB-07 exhibited only 17 µg/L of TCE, which is consistent with past detections, as well as 1.8 J µg/L of cis-1,2-DCE.

Monitor wells OB-05 and OB-08 are both located within the North TCE Source Area while OB-09 is within the plume. OB-05 was dry during the September sampling event and, therefore, was not sampled. TCE concentrations in OB-08 remained consistent with Baseline and March 2001 levels, having TCE concentrations of 27,000 µg/L (29,000 µg/L in March 2001) and cis-1,2-DCE concentrations of 560 J µg/L. OB-09 remained consistent with past concentrations of TCE levels at 180 µg/L (concentrations of

Table 3-1
Summary of Extraction Well VOC Results for the
Baseline Sampling Event

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
EW-N-1*	11/10/00	2,400	93	28 J	--	--
EW-N-2*	11/10/00	7,200	1,100	--	--	--
EW-N-3*	11/10/00	13,000	490 J	--	--	--
EW-N-4*	11/11/00	840	31	--	--	--
EW-N-5*	11/11/00	640	--	--	--	--
EW-N-6*	11/11/00	6,800	130 J	--	--	--
EW-S-1S*	11/10/00	160	16 J	--	--	--
EW-S-1S (DUP)*	11/10/00	170	18 J	--	--	--
EW-S-1D*	11/10/00	200,000	11,000	--	--	--
EW-S-2*	11/08/00	360	180	18	180	4.5 J
EW-S-3*	10/27/00	1,100	60	--	--	--
EW-S-4*	10/26/00	60,000	36,000	--	--	--
EW-S-5*	10/27/00	590,000	--	--	--	--
EW-S-5**	03/21/01	38,000	--	--	--	--
EW-S-5*	06/20/01	67,000	520 J	--	--	--
EW-S-6*	10/27/00	13,000	1,200	--	--	--
EW-S-7*	11/08/00	130,000	1,900 J	--	--	--
EW-S-8*	10/27/00	570,000	--	--	--	--
EW-S-9*	11/08/00	16,000	460 J	--	--	--
EW-S-10*	11/09/00	--	--	--	--	--
EW-S-11*	11/08/00	--	--	--	--	--
EW-S-12*	11/08/00	--	--	--	--	--
EW-S-13*	11/09/00	--	--	--	--	--
EW-S-14*	11/09/00	--	--	--	--	--
EW-S-15*	11/09/00	--	--	--	--	--
EW-S-16*	11/09/00	--	--	--	--	--
BREW-N-1*	11/19/00	1,000	53	1.5 J	--	--
BREW-S-1*	11/19/00	250	140	3.1 J	--	--

See notes at end of table.

Table 3-1 (Continued)
Summary of Extraction Well VOC Results for the
Baseline Sampling Event

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Notes: -- = no detections
* = unique sampling event
** = EW-S-5 was sampled in March for natural biodegradation parameters
µg/L = micrograms per liter
1,1-DCE = 1,1-dichloroethylene
cis-1,2-DCE = cis-1,2-dichloroethylene
DUP = duplicate
ID = identification
J = estimated value
TCE = trichloroethylene
trans-1,2-DCE = trans-1,2-dichloroethylene
VOC = volatile organic compound

Table 3-2
Summary of Overburden VOC Results for the
Baseline, March 2001, June 2001, and September 2001 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
OB-04	11/19/00	70,000	2,900	--	--	--
OB-04	03/24/01	150	3.2 J	--	--	--
OB-04	06/18/01	39,000	21,000	--	--	--
OB-04	9/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	11/19/00	25,000	4,600	--	--	350
OB-05	03/25/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	06/14/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	9/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-06	11/17/00	2,600	60	--	--	--
OB-06 (DUP)	11/17/00	3,300	80 J	--	--	--
OB-06	03/21/01	540	--	--	--	--
OB-06	06/15/01	720	12 J	--	--	--
OB-06	9/13/01	5,600	240	9.0 J	--	--
OB-07	11/16/00	--	--	--	--	--
OB-07	03/28/01	7.5	--	--	--	--
OB-07	06/17/01	10 J	--	--	--	--
OB-07	9/17/01	17	1.8 J	--	--	--
OB-08	11/16/00	40,000	390 J	--	--	--
OB-08	03/20/01	29,000	390 J	--	--	--
OB-08	06/19/01	15,000	240 J	--	--	--
OB-08	9/18/01	27,000	560 J	--	--	--
OB-09	11/16/00	180	14	--	--	--
OB-09	03/26/01	150	16	--	--	--
OB-09	06/17/01	150	17	--	--	--
OB-09	9/15/01	180	23	3.5 J	--	--

See notes at end of table.

Table 3-2 (Continued)
Summary of Overburden VOC Results for the
Baseline, March 2001, June 2001, and September 2001 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
TW-01	10/24/00	--	--	--	--	--
TW-01*	03/01	NS	NS	NS	NS	NS
TW-01*	06/01	NS	NS	NS	NS	NS
TW-01*	9/01	NS	NS	NS	NS	NS
TW-04	10/24/00	42	79	--	--	--
TW-04	03/22/01	14	16	--	--	--
TW-04	06/15/01	--	--	--	--	--
TW-04	9/14/01	27	38	--	--	--
TW-07	10/25/00	28	7.2	28	--	--
TW-07	03/29/01	--	--	1.2 J	--	--
TW-07	06/16/01	27	3.9 J	13	--	--
TW-07	9/15/01	74	11	18	--	--
TW-09	10/24/00	230	36	--	--	--
TW-09	03/27/01	120	1.9 J	--	--	--
TW-09	06/16/01	200	7.4	--	--	--
TW-09	9/16/01	150	9.6	--	--	--
TW-13	11/16/00	--	--	--	--	--
TW-13	03/20/01	--	--	--	--	--
TW-13	06/14/01	--	--	--	--	--
TW-13	9/12/01	--	--	--	--	--
TW-17	11/17/00	1,000	7.9 J	--	--	--
TW-17	03/23/01	530	--	--	--	--
TW-17	06/16/01	490	--	--	--	--
TW-17	9/14/01	740	--	--	--	--
TW-20	10/25/00	5.2	--	--	--	--
TW-20	03/27/01	12	--	--	--	--
TW-20	06/16/01	2.9 J	--	--	--	--
TW-20	9/14/01	--	--	--	--	--

See notes at end of table.

Table 3-2 (Continued)
Summary of Overburden VOC Results for the
Baseline, March 2001, June 2001, and September 2001 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
W-2	10/21/00	--	--	--	--	--
W-2*	03/29/01	NS	NS	NS	NS	NS
W-2*	06/15/01	NS	NS	NS	NS	NS
W-2*	9/11/01	NS	NS	NS	NS	NS
W-4	11/17/00	--	--	--	--	--
W-4	03/22/01	1.6 J	--	--	--	--
W-4	06/15/01	1.1 J	--	--	--	--
W-4	9/13/01	--	--	--	--	--
W-5	11/16/00	--	27	11	--	--
W-5	03/23/01	120	25	8.1	--	--
W-5	06/18/01	62	23	9.6	--	--
W-5	9/17/01	64	9.1	6.5	--	--
W-5(DUP)	9/17/01	62	11	7.3	--	--
W-6	10/24/00	--	--	--	--	--
W-6**	03/01	NS	NS	NS	NS	NS
W-6**	06/01	NS	NS	NS	NS	NS
W-6	9/13/01	--	--	--	--	--

Notes: -- = no detections
* = will not be sampled during quarterly events.
** = W-6 was not sampled due to obstruction.
µg/L = micrograms per liter
1,1-DCE = 1,1-dichloroethylene
cis-1,2-DCE = cis-1,2-dichloroethylene
DUP = duplicate
ID = identification
J = estimated value
NS = not sampled
TCE = trichloroethylene
trans-1,2-DCE = trans-1,2-dichloroethylene
VOC = volatile organic compound

Table 3-3
Summary of Bedrock VOC Results for the
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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-01	11/17/00	180	550	4.3 J	--	3.5 J
BR-01	03/21/01	320	34	2.2 J	--	--
BR-01 (DUP)	03/21/01	320	35	2.4 J	--	--
BR-01	06/16/01	270	59	4.4 J	--	--
BR-01	9/14/01	31	170	16	--	--
BR-02	11/18/00	1,800	540	31 J	--	--
BR-02	03/21/01	1,200	95	--	--	--
BR-02	06/17/01	1,000	94	27 J	--	--
BR-02	9/15/01	7,000	1,500	63	31 J	--
BR-03	11/18/00	440	99	1.2 J	2.2 J	--
BR-03	03/22/01	810	12 J	--	3.2 J	--
BR-03	06/15/01	500	20 J	--	--	--
BR-03	9/14/01	330	7.8 J	--	--	--
BR-04	11/19/00	10,000	600	140	17 J	25 J
BR-04	03/24/01	9,000	400	95 J	--	--
BR-04	06/19/01	4,300	320	61 J	--	--
BR-04	9/17/01	5,000	420	100 J	--	--
BR-05	11/19/00	4,800	1,200	130	--	160
BR-05	03/25/01	5,800	850	120 J	--	160
BR-05	06/19/01	4,300	1,600	130	37 J	290
BR-05 (DUP)	06/19/01	3,700	1,500	--	--	270
BR-05	9/18/01	2,500	1,800	150	38 J	420
BR-06	11/17/00	--	--	--	--	--
BR-06	03/22/01	--	--	--	--	--
BR-06	06/15/01	1.6 J	--	--	--	--
BR-06	9/12/01	--	--	--	--	--

See notes at end of table.

Table 3-3 (Continued)
Summary of Bedrock VOC Results for the
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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-07	11/18/00	7.4	29	10	--	220
BR-07	03/23/01	3.4 J	34	13	--	210
BR-07	06/14/01	2.7 J	33	13	--	200
BR-07 (DUP)	06/14/01	2.2 J	34	12	--	200
BR-07	9/12/01	6.2	32	16	--	180
BR-07(DUP)	9/12/01	5.0	31	14	--	180
BR-08 (Deep)	11/19/00	540	44	5.2 J	--	7.0 J
BR-08 (Deep)	03/24/01	1,100	320	6.7 J	--	--
BR-08 (Deep)	06/15/01	720	210	--	--	--
BR-08 (Deep)	9/13/01	830	250	--	--	--
BR-09	11/18/00	13,000	190 J	--	--	--
BR-09	03/28/01	9,500	100 J	--	--	--
BR-09	06/19/01	1,500	36 J	--	--	--
BR-09	9/18/01	5,500	68 J	--	--	--
BR-10	11/18/00	4,000	450	27 J	--	--
BR-10	03/28/01	4,700	980	110 J	--	--
BR-10	06/18/01	8,500	1,000	--	--	--
BR-10	9/17/01	8,700	1,700	160 J	--	--
BR-11	11/18/00	1,400	320	52	--	13 J
BR-11	03/28/01	44,000	260	120	21	--
BR-11 (DUP)	03/28/01	52,000	270	120	19 J	21
BR-11	06/20/01	39,000	660 J	--	--	--
BR-11	9/18/01	60,000	--	--	--	--
BR-12	11/19/00	200	8.1	--	--	--
BR-12	03/25/01	130	21	--	--	--
BR-12	06/17/01	99	26	--	--	--
BR-12	9/15/01	27	37	2.1 J	--	--

See notes at end of table.

Table 3-3 (Continued)
Summary of Bedrock VOC Results for the
Baseline, March 2001, June 2001, and September 2001 Sampling Events

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Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-13	11/19/00	2.5 J	--	--	--	--
BR-13	03/25/01	3,200 J	150	14	1.7 J	1 J
BR-13	06/18/01	3,100	160	--	--	--
BR-13	9/16/01	2,600	160	--	--	--
BR-14 (Deep)	11/19/00	--	1.2 J	--	--	--
BR-14 (Deep)	03/23/01	1.2 J	--	--	--	--
BR-14 (Deep)	06/16/01	--	--	--	--	--
BR-14 (Deep)	9/13/01	--	--	--	--	--
BR-15	11/19/00	2,700	54 J	--	--	--
BR-15 (DUP)	11/19/00	2,700	49 J	--	--	--
BR-15	03/26/01	2,500	33 J	--	--	--
BR-15	06/18/01	2,300	49 J	--	--	--
BR-15	9/16/01	4,800	110 J	--	--	--
BR-16	11/19/00	6.0	3.8 J	--	--	--
BR-16	03/25/01	1.2 J	--	--	--	--
BR-16	06/17/01	--	--	--	--	--
BR-16	9/15/01	--	--	--	--	--
BR-17	11/18/00	840	160	84	3.6 J	--
BR-17	03/24/01	6,900	360	93	9.4 J	52
BR-17	06/15/01	5,200	260	68 J	--	46
BR-17	9/13/01	4,100	220	60 J	--	57 J

Notes: -- = no detections
µg/L = micrograms per liter
1,1-DCE = 1,1-dichloroethylene
cis-1,2-DCE = cis-1,2-dichloroethylene
DUP = duplicate
ID = identification
J = estimated value
TCE = trichloroethylene
trans-1,2-DCE = trans-1,2-dichloroethylene
VOC = volatile organic compound

150 µg/L in both March and June). OB-09 also displayed concentrations of cis-1,2-DCE at 23 µg/L and trans-1,2-DCE at 3.5 J µg/L.

Acetone was detected (8 J µg/L) in one source area well (OB-06). Acetone has no listed maximum contaminant level (MCL) and is a known laboratory artifact. Also, 2-Butanone was detected at 15 J µg/L in OB-06, as well as Freon 113 in OB-07 and OB-09 (9.8 and 7.3 µg/L). Since none of these compounds were determined to be a contaminant of concern for this site and have not been detected historically in on-site monitor wells, this contamination is not considered representative of site groundwater conditions.

Bedrock

Bedrock monitor wells BR-04, BR-09, BR-10, BR-11, and BR-17 are located within the South TCE Source Area. The TCE concentration in BR-04 was 5,000 µg/L as well the breakdown products cis-1,2-DCE and trans-1,2-DCE at 420 and 100 J µg/L. BR-09 exhibited TCE and daughter product concentrations at similar levels. TCE was detected at 5,500 µg/L and cis-1,2-DCE was detected at 68 J µg/L. TCE concentrations remained consistent (8,500 in June 2001 and 8,700 µg/L in September 2001) in well BR-10. Daughter products were also detected in BR-10 consisting of cis-1,2-DCE at 1,700 µg/L and trans-1,2-DCE at 160 J µg/L. In well BR-17, TCE concentrations dropped by 21 percent (from 5,200 in June 2001 to 4,100 µg/L in September 2001). Decreases in daughter products (cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride) were also recorded here. BR-11 TCE concentrations rose from 39,000 µg/L to 60,000 µg/L.

BR-05, BR-12, BR-15, and BR-16 are located in the North TCE Source Area. BR-15 showed an increase in TCE concentrations from the June 2001 (2,300 µg/L) event to the September 2001 (4,800 µg/L). BR-16 remained at non-detect levels. BR-05 showed a 26 percent decline in TCE. Daughter products in BR-05 also displayed a significant decline in concentrations. BR-12 showed a 73 percent decrease in TCE concentration from 99 to 27 µg/L.

Acetone was detected in the BR-05 sample at 76 J µg/L. Acetone has no listed MCL and is a known laboratory artifact. Since acetone was not determined as a contaminant of concern for this site and has not been detected historically in on-site monitor wells, this contamination is not considered representative of site groundwater conditions.

3.2 UPGRAIENT MONITOR WELLS

Overburden Monitor Wells

W-2 and W-6 are southwest of the source areas and are considered to be upgradient. Neither well contained detectable concentrations of TCE, or any of its daughter products during the Baseline sampling event. These wells have historically shown non-detectable levels.

Bedrock Monitor Wells

BR-06 is also an upgradient well, located southwest of the source areas. BR-06 displayed no detectable TCE or daughter product concentrations for the September 2001 sampling event. The BR-07 TCE concentration was 6.2 µg/L. Daughter product concentrations in BR-07 remained constant. The samples from BR-06 and BR-07 also displayed an acetone detections of 1.8 J and 3.9 J µg/L. Acetone has no listed MCL and is a known laboratory artifact. Benzene and toluene were also detected at low levels in BR-07. Since none of these detections were determined as contaminants of concern for this site and have not been detected historically in on-site monitor wells, this contamination is not considered representative of site groundwater conditions.

3.3 PERIMETER DOWNGRAIENT MONITOR WELLS

Overburden Monitor Wells

Downgradient well TW-13 showed no VOC detections. TW-04 displayed detections of TCE and breakdown product cis-1,2-DCE at 27 µg/L and 38 µg/L. TCE and daughter product concentrations in TW-20 dropped to non-detect levels. Concentrations of TCE in TW-17 rose to 740 µg/L while daughter products remained at non-detect levels. Measured concentrations TW-07 showed apparent increases from June to September in TCE (from 27 to 747 µg/L). In TW-09, however, TCE concentrations fell from 200 to 150 µg/L. TCE concentrations remained consistent (from 62 to 64 µg/L) in W-5 while cis-1,2-DCE and trans-1,2-DCE concentrations decreased. Acetone was detected in monitor wells TW-07 and TW-20 at concentrations of 3.4 J µg/L in both wells. Acetone has no listed MCL and is a known laboratory artifact. Since acetone was not determined as a contaminant of concern for this site and has not been detected historically in on-site monitor wells, this contamination is not considered representative of site groundwater conditions. 2-Butanone (TW-04), chloroform, and freon 113 (TW-07) were also detected, but, again, were not determined as contaminants of concern for this site and have not been detected

historically in on-site monitor wells, so this contamination is not considered representative of site groundwater conditions.

Bedrock Monitor Wells

The perimeter downgradient bedrock monitor wells are BR-01, BR-02, BR-03, and BR-13.

Concentrations of TCE decreased BR-01, BR-03, and BR-13. The most significant decline was in BR-01, where TCE levels dropped from 270 µg/L in June 2001 to 31 µg/L in September 2001. Daughter products in BR-01 increased in concentration, while levels in BR-13 remained constant and fell in BR-03. Concentrations in BR-02 rose, with TCE levels going from 1,000 µg/L during June activities to 7,000 µg/L in the September event, while daughter products displayed a similar trend. Acetone was detected at 3.6 J µg/L in BR-01. Acetone has no listed MCL and is a known laboratory artifact. Since acetone was not determined as a contaminant of concern for this site and has not been detected historically in on-site monitor wells, this contamination is not considered representative of site groundwater conditions.

3.4 DEEP BEDROCK MONITOR WELLS

BR-08 is the deep bedrock well located in the South TCE Source Area, while BR-14 is located in the North TCE Source Area. BR-08 showed slight elevations in concentrations of TCE-related products from the June event with TCE rising from 720 to 830 µg/L and cis-1,2-DCE concentrations rising from 210 to 250 µg/L. TCE-related product levels remained essentially stable in BR-14, with no reports above the detection limit.

Acetone was detected in the samples from both deep bedrock wells (990 and 19 J µg/L). Acetone has no listed MCL and is a known laboratory artifact. Since acetone was not determined as a contaminant of concern for this site and has not been detected historically in on-site monitor wells, this contamination is not considered representative of site groundwater conditions. 2-butanone, 2-hexanone, toluene, and m-,p-xylene were also detected at very low levels. All these detections were estimated values, and have not been detected historically in on-site monitor wells, so this contamination is not considered representative of site groundwater conditions.

3.5 SPLIT SAMPLE

TW-04 was collected and split to be analyzed by three laboratories. This was performed as a quality control check on laboratory results. The results are presented in Table 3-4. TW-04 was chosen due to its

recent elevated acetone results, among the highest present on the site. In splitting the sample between three laboratories, it was to be determined if the site-wide acetone results were in fact resulting from laboratory introduction.

Table 3-4 TW-04 Split Sample Results			
Quarterly Progress Report Third Quarter 2001 Former Taylor Instruments Site Rochester, New York			
Laboratory	Acetone (µg/L)	cis-1,2-DCE (µg/L)	TCE (µg/L)
Columbia Analytical Services	20 U	38	27
Paradigm Environmental Services, Inc.	10.0 U	32.0	24.6
Test America Incorporated	5 U	33.1	26.1

This evaluation reflects that acetone is conclusively below reasonable detection limits; therefore, it can be determined that it is not characteristic of site groundwater conditions.

In addition to this conclusion, evaluation of detections indicate good correlation between laboratories.

3.6 POTENTIOMETRIC SURFACE

A potentiometric surface map was generated to depict groundwater elevations for the overburden groundwater. Surfer™ (Version 7.0), a Windows-based program, was used to plot the potentiometric surface map in Appendix A, Figure 4. This program mathematically calculates contours based upon groundwater elevation measurements collected in the field.

The September 2001 map was based upon water level information collected immediately prior to sampling activities on the subject site. Overburden potentiometric surface mapping for the September 2001 event agrees with past mapping, which indicates that groundwater flow is being directly affected by pumping conditions.

Attempts were made to contour the bedrock potentiometric surface, but the bedrock water level data cannot readily be plotted due to the large variation in elevation heads. These variations are due to the fractured bedrock system. The head data appears to be bi-modally distributed possibly reflecting differing elevations of water bearing fractures. The absence of contaminants at the southwest corner of

the site (BR-06) and their presence in wells along the north and east site perimeter also support a supposition that bedrock flow is generally towards the north. Bedrock water level elevations are presented in Figure 5 in Appendix A.

3.7 NATURAL BIODEGRADATION

During the September 2001 sampling event, natural biodegradation parameters were collected from nine monitor wells including background well W-2 and perimeter wells TW-04, TW-07, TW-09, TW-17, TW-20, and W-5. Samples were also collected from OB-07 and OB-09, which are located within the TCE source areas. Table 3-5 shows a comparison between the natural biodegradation parameters in nine monitor wells and the values given in the EPA screening protocol as favorable for natural biodegradation of chlorinated solvents (EPA, 1998). Shaded values in the table show values favorable for natural biodegradation. W-2 data is provided for background values.

Table 3-6 shows that TCE daughter products were detected in six out of the eight perimeter and source area monitor wells. Several other parameters measured in each of these monitor wells containing TCE daughter products were indicative that natural biodegradation is occurring. Daughter products were not detected in TW-17 and TW-20. However, due to the concentration of TCE in the sample, the TW-17 analysis sample quantitation limits (SQLs) were increased to 25 µg/L for dichloroethylene (DCE) isomers and 5 µg/L for vinyl chloride, because the sample had to be diluted prior to analysis. This dilution may have masked the presence of daughter products in TW-17. Values for the following parameters from TW-17 indicated conditions conducive to natural biodegradation: ORP, pH, and carbon dioxide (CO₂). TW-20, while having four parameter readings possibly indicating natural biodegradation, is at the northeast corner of the property. It is the furthest downgradient monitor well, and the September 2001 results show no detectable concentration of TCE at an SQL of 5 µg/L. Concentrations of daughter products may be present in the TW-20 vicinity at concentrations less than the SQLs or daughter products may have completely degraded to non-toxic end products, such as CO₂, water, and chloride.

In summary, values for various natural biodegradation parameters and the presence of TCE daughter products indicate that natural biodegradation is occurring.

3.8 TREATMENT SYSTEM PERFORMANCE

The System was fully operational on January 6, 2001. Since then, it has operated 94 percent of available hours through September 2001. The system has operated 99 percent of available hours through the third

Table 3-5
Summary of Natural Biodegradation Results,
September 2001 Sampling Event¹

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Parameter	Value Favorable for Natural Biodegradation	TW-04	TW-07	TW-09	TW-17	TW-20	W-5	OB-07	OB-09	W-2 (background)
DO (mg/L)	<0.5	8.83	0.27	0.06	8.82	8.13	0.11	0.26	0.36	3.60
Nitrate (mg/L)	<1	<0.05	75.8	<5	1.74	<0.05	<5	17.6	0.283	NA
Iron II (mg/L)	>1	0.156	0.128	0.82	<0.1	<0.1	0.389	<0.1	0.128	NA
Sulfate (mg/L)	<20	275	464	430	102	98.1	265	756	432	NA
Sulfide (mg/L)	>1	<1	<1	<1	<1	<1	<1	<1	<1	NA
Methane (mg/L)	>0.5	<0.002	0.0023	0.019	<0.002	<0.002	<0.002	0.019	0.0069	NA
ORP (mV)	<50	-175	-30	-108	-33	-55	-137	-161	-98	36
pH	5<pH<9	7.16	6.55	6.76	7.10	7.05	6.77	7.73	6.91	7.59
TOC (mg/L)	>20	1.38	3.07	4.21	1.18	1.14	2.74	9.62	1.94	NA
Temperature (°C)	>20	17.0	16.5	17.2	16.5	16.2	18.2	20.3	17.4	17.8
CO ₂ (mg/L)	Note 1	37	180	70	50	57	150	3.8	1.94	11
Alkalinity (mg/L)	Note 1	265	350	237	342	378	492	130	270	250
Chloride (mg/L)	Note 1	13.7	48	7.94	16.2	16	23.7	126	38.1	8.42
BTEX (mg/L)	>0.1	<0.025	<0.025	<0.025	<0.625	<0.025	<0.025	<0.025	<0.025	NA
Ethene (mg/L)	>0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
Ethane (mg/L)	>0.01	<0.001	<0.001	0.0027	<0.001	<0.001	<0.001	<0.001	<0.001	NA
Daughter Products Detected	Any detection of daughter products	Yes	Yes	Yes	Note 2	No	Yes	Yes Note 3	Yes	NA

¹ W-2 is the background well; other wells are perimeter wells.

Note 1: A value greater than two times the background value is considered favorable for natural biodegradation. The W-2 value is the background value.

Note 2: None detected; somewhat elevated sample quantitation limits (25 µg/L for DCE isomers, 5 µg/L for vinyl chloride) due to TCE concentration.

Note 3: There was an estimated detection of cis-1,2-DCE in OB-07.

Note: Shading indicates parameters supportive of natural biodegradation.

Reference: EPA. 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* EPA/600/R-98/128 (September).

BTEX= benzene, toluene, ethylbenzene, and xylene

°C = degrees Celsius

CO₂ = carbon dioxide

DCE = dichloroethylene

DO = dissolved oxygen

EPA = Environmental Protection Agency (United States)

J = estimated

µg/L = micrograms per liter

mg/L = milligrams per liter

mV = millivolt

NA = not applicable

ORP = oxygen reduction potential

TCE = trichloroethylene

TOC = total organic compound

VOC = volatile organic compound

Table 3-6
System Operational Summary,
January 2001 – September 2001

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Third Quarter 2001
Former Taylor Instruments Site
Rochester, New York

Parameter	2001								
	January	February	March	April	May	June	July	August	September
System Up-time (%)	97	76	93	99.9	99.9	99.9	100	98	98
Average System Vacuum ¹									
South Source Area (in. Hg)	18	18	20	17	16	16	16	17	16
North Source Area (in. Hg)	14	14	18	18	20	15	16	17	16
Average System Groundwater Flowrates ²									
Total System (gpm)	23	27	29	26	26	25	25	24	24
Dual Phase Extraction (gpm)	5	8	11	8	7	7	7	6	6
Bedrock Extraction (gpm)	18	19	18	18	19	18	18	18	18
Average System Vapor Flowrates ¹									
Dual Phase Extraction South Source Area (CFM)	189	157	137	168	180	180	180	180	180
Dual Phase Extraction North Source Area (CFM)	112	117	123	110	110	120	180	175	170
System Mass Removal Rate (lbs./hr) ³	0.33	0.13	0.06	0.08	0.05	0.03	0.03	0.04	0.04
System Mass Removed (lbs.) ³	387	383	136	245	145	53	94	88	107
Cumulative Mass Removed (lbs.) ³	387	770	906	1151	1296	1349	1442	1530	1637
Air Stripper Removal Efficiency (%) ³	99.6	99.6	99.6	99.6	99.6	99.6	99.3	99.5	99.2
Cumulative Groundwater Recovered (gallons) ²	1,546,559	2,637,226	3,833,248	4,999,392	6,141,936	7,178,379	8,369,973	9,431,598	10,454,171

¹ Instantaneous.

² Continuous.

³ Calculated.

Notes: in. Hg = inches of mercury
gpm = gallons per minute
CFM = cubic feet per minute
lbs./hr = pounds per hour

quarter of operation from July to September 2001. Downtime of the System during the first quarter of operation is attributed to initial operating adjustments and routine O&M. The limited downtime during the third quarter of operation is attributed to routine O&M. Table 3-6 provides a summary of monthly System operational data.

The System is currently extracting soil vapor and groundwater from 23 dual-phase vacuum extraction (DPVE) wells: EW-S-1 through EW-S-16 and EW-N-1 through EW-N-6, and groundwater from two bedrock extraction wells BREW-S-1 and BREW-N-1 (see Figure 1, Appendix A). The vapor extracted from the dual-phase operation is discharged through the effluent piping manifold of the three vacuum pumps. The groundwater collected from both the DPVE wells and from the bedrock extraction wells is combined in an equalization tank prior to treatment via the tray air stripper. The system has extracted approximately 10.4 million gallons of groundwater through September 2001.

During the third quarter of operation, 3.2 million gallons of groundwater was extracted with an average flow rate of 24 gallons per minute, and a total of 289 pounds of VOCs were removed from the subsurface (see Figures 6 and 7, Appendix A). A total of 1,637 pounds of contaminants have been removed since startup of the system. The majority of VOCs are still being removed from the overburden through the vapor phase and stripped from groundwater during the vacuum extraction process. During the third quarter of operation, approximately 276 pounds (96 percent) of VOCs were removed by the vacuum extraction process and the remaining 13 pounds (4 percent) was removed by air stripping of the collected groundwater. Table 3-7 summarizes groundwater sample results from the equalization tank and vapor sampling results from the effluent of three vacuum pumps and air stripper. As indicated by the results, the total monthly mass of VOCs extracted by the treatment system has decreased during the third quarter of operation, which is expected since there is both less VOC mass to extract and it is expected that the more loosely bound and easily extracted VOCs were extracted first. This decrease in VOC mass can also be generally seen in the groundwater monitoring results discussed earlier in this report.

Table 3-7
System Analytical Data,
January 2001 – September 2001

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Third Quarter 2001
Former Taylor Instruments Site
Rochester, New York

Sample Location	Date	cis-1,2 DCE	trans-1,2 DCE	TCE	Vinyl Chloride
		Vapor Analytical Results (mg/m ³)			
Vacuum Pump #1 (South TCE Source Area)	1/6/01	<25	<25	914.00	<25
	2/7/01	2.70	<1.0	371.00	<1.0
	3/6/01	<5.0	<5.0	129.00	<5.0
	4/17/01	1.60	<1.0	215.00	<1.0
	5/16/01	1.20	<1.0	120.00	<1.0
	6/7/01	1.20	<1.0	110.00	<1.0
	7/13/01	<1.0	<1.0	80.00	<1.0
	8/7/01	<1.0	<1.0	90.00	<1.0
	9/12/01	1.10	<1.0	97.00	<1.0
Vacuum Pump #2 (South TCE Source Area)	1/6/01	<25	<25	963.00	<25
	2/7/01	<12.5	<12.5	425.00	<12.5
	3/6/01	<5.0	<5.0	140.00	<5.0
	4/17/01	2.30	<1.0	247.00	<1.0
	5/16/01	1.20	<1.0	110.00	<1.0
	6/7/01	NS	NS	NS	NS
	7/13/01	<1.0	<1.0	78.00	<1.0
	8/7/01	<1.0	<1.0	89.00	<1.0
	9/12/01	1.2	<1.0	110.00	<1.0
Vacuum Pump #3 (North TCE Source Area)	1/6/01	<1.0	<1.0	41.00	<1.0
	2/7/01	1.40	<1.0	38.00	<1.0
	3/6/01	<1.0	<1.0	35.00	<1.0
	4/17/01	1.10	<1.0	42.00	<1.0
	5/16/01	2.20	<1.0	95.00	<1.0
	6/7/01	<1.0	<1.0	26.00	<1.0
	7/13/01	<1.0	<1.0	31.00	<1.0
	8/7/01	<1.0	<1.0	28.00	<1.0
	9/12/01	<1.0	<1.0	21.00	<1.0
Air Stripper Effluent	1/6/01	1.20	<1.0	32.00	<1.0
	2/7/01	1.20	<1.0	17.00	<1.0
	3/6/01	2.10	<1.0	25.00	<1.0
	4/17/01	4.00	<1.0	40.00	<1.0
	5/16/01	4.90	<1.0	26.00	<1.0
	6/7/01	4.50	<1.0	17.00	<1.0
	7/13/01	4.90	<1.0	17.00	<1.0
	8/7/01	3.90	<1.0	14.00	<1.0
	9/12/01	3.20	<1.0	11.00	<1.0

See notes at end of table.

Table 3-7 (Continued)
System Analytical Data,
January 2001 – June 2001

Quarterly Progress Report
Second Quarter 2001
Former Taylor Instruments Site
Rochester, New York

Sample Location	Date	cis-1,2 DCE	trans-1,2 DCE	TCE	Vinyl Chloride
		Groundwater Analytical Results (µg/L)			
Air Stripper Influent	1/6/01	210	<130.00	5,000.00	<25.00
	2/7/01	300.00	12.00	4,100.00	1.10
	3/6/01	340.00	<130.00	4,000.00	<25.00
	4/17/01	390.00	12.00	3,500.00	<1.00
	5/16/01	660.00	16.00	3,200.00	<1.0
	6/7/01	750.00	15.00	3,000.00	1.50
	7/13/01	790.00	16.00	2,400.00	1.40
	8/7/01	1,100.00	16.00	3,200.00	<1.0
	9/12/01	660.00	10.00	1,800.00	3.00

Notes: < = less than
µg/L = micrograms per liter
DCE = dichloroethylene
EPA = Environmental Protection Agency (United States)
Groundwater Analysis = EPA Method 8260
mg/m³ = milligrams per cubic meter
NS = Vacuum Pump #2 was not sampled because it was shut down due to mechanical problems.
TCE = trichloroethylene
Vapor Analysis = EPA Method TO-14 Modified

4.0 ANALYTICAL PROGRAM

Overall data quality is assessed by grouping particular data evaluation findings and reviewing them in terms of precision, accuracy, representativeness, completeness, and comparability (PARCC) criteria. Data generated during this monitoring period were evaluated for PARCC criteria after receipt of all analytical data.

4.1 PRECISION

Precision is a quantitative evaluation of the repeatability of a measurement. Precision of analytical measurements is determined by calculating the relative percent difference (RPD) between the two numerical values. For precision, the matrix spike (MS) is performed in duplicate, and the values from both analyses are evaluated. Comparison of results from duplicate field samples may also be indicative of overall precision of a data set. However, field duplicates may be influenced by sampling precision and are not as controlled as laboratory duplicates.

For quality control purposes, a MS and matrix spike duplicate (MSD) was taken for each set of 20 samples with a net result of 2 MS/MSD analyses for the September 2001 sampling event. The evaluation of MS/MSD criteria was used to qualify the data. The evaluations of MS/MSD analyses are presented in the following tables.

BR-06

Analyte	MS % Recovery	MSD % Recovery	RPD	Control Limits	RPD Limit
Benzene	102	104	2	70 – 130	11
Chlorobenzene	102	102	0	70 – 130	13
1,1-Dichloroethylene	100	100	0	61 – 145	14
Toluene	104	106	2	70 – 130	13
Trichloroethylene	102	102	0	70 – 130	14

OB-07

Analyte	MS % Recovery	MSD % Recovery	RPD	Control Limits	RPD Limit
Benzene	100	98	2	70 – 130	11
Chlorobenzene	96	98	2	70 – 130	13
1,1-Dichloroethylene	98	98	0	61 – 145	14
Toluene	96	98	2	70 – 130	13
Trichloroethylene	100	98	2	70 – 130	14

These evaluations demonstrate that MS/MSD analyses are within acceptable limits.

Field duplicate sampling followed the same sampling outline as MS/MSD analysis. One duplicate sample was collected for each set of twenty field samples, resulting in two duplicate samples for the September 2001 sampling event. Field duplicate precision is presented in the following tables.

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
BR-07	cis-1,2-Dichloroethene	5.0	32		31		3
	trans-1,2-Dichloroethene	5.0	16		14		13
	Trichloroethene	5.0	6.2		5.0		19
	Vinyl Chloride	1.0	180		180		0
W-5	cis-1,2-Dichloroethene	5.0	9.1		11		17
	trans-1,2-Dichloroethene	5.0	6.5		7.3		11
	Trichloroethene	5.0	64		62		3

This table demonstrates that field duplicate precision is acceptable.

4.2 ACCURACY

Accuracy is a quantitative measurement of agreement between an analytical result and the true value. Accuracy is determined by comparing known amounts of analytes, which are added to the sample prior to analysis, to the field analytical results. Accuracy is expressed as a percentage of recovery (%R) of the total amount of spiked analyte. For VOC analyses, each sample was spiked with surrogate compounds prior to analysis (and extraction), and chosen samples were spiked (in duplicate) with additional spikes (MS). Surrogate and MS recoveries evaluate accuracy and identify interferences from the sample matrix.

Surrogate recoveries were acceptable for VOC analyses for this sampling event.

4.3 REPRESENTATIVENESS

Representativeness is a qualitative measurement of the degree to which analytical results reflect the true concentrations of analytes that may (or not) be present in a sample. Representativeness of organic analytical results of true site conditions is evaluated using trip blanks, field blanks, method blanks, and rinsates from decontaminated sampling equipment. Target organic compounds in quality control samples

may represent contamination during sampling or transportation of samples to the laboratory. Compliance with holding time and extraction criteria also assures representativeness of results.

Two field blanks for the September 2001 event were analyzed to characterize the water source used during these sampling events. Potable water was used by the field crews for field blanks. In both of the two field blanks analyzed, bromodichloromethane was detected at 3.2 J (J flag indicates an estimated value) and 3.6 J $\mu\text{g/L}$, chloroform was detected at 7.5 and 8.8 $\mu\text{g/L}$, as well as dibromochloromethane at 1.2 J $\mu\text{g/L}$ in both field blanks. Acetone was also detected in one of the field blanks at 4.2 J $\mu\text{g/L}$.

No target VOCs were detected above the reporting limit in any method blank.

Two trip blanks were analyzed as part of the VOC laboratory quality control (QC) program.

Trichloroethene was detected at 1.2 J $\mu\text{g/L}$ in one of these trip blanks.

Equipment rinse samples were collected per every 20 production samples, using potable water to rinse field equipment, and analyzed for all target constituents. Two rinsate blanks were collected during the September 2001 event. In both of the two rinse blanks analyzed, acetone was detected at 3.2 J and 4 J $\mu\text{g/L}$, bromodichloromethane at 2.8 J and 3.3 J $\mu\text{g/L}$, chloroform was detected at 6.8 and 8.3 $\mu\text{g/L}$, as well as dibromochloromethane at 1.2 J and 1 J $\mu\text{g/L}$.

Due to the detections of several analytes in the two field blanks, two rinsates, and one of the trip blanks, qualifications were made to the sample results associated with these quality control samples. Each Environmental Sample was examined for acetone, bromodichloromethane, chloroform, and dibromochloromethane detections. If a sample displayed less than five times that of its associated quality control sample, the detection limit was raised to the concentration found in the sample and a qualifier of U was added. Also, if the detection was an estimated value (flagged with a J) lower than both five times that of its associated QC sample and the detection limit for that sample, the value was raised to that of the detection limit and a U flag was added. These qualifications were made to W-6, BR-14, and TW-20 (for TCE) and BR-16, OB-07, and TW-09 (for acetone).

4.4 COMPLETENESS

Completeness is a quantitative measurement of the usability of a data set. Completeness is defined as the percentage of data that satisfy validation criteria. Rejected data are not usable. Data qualified as

estimated, however, is usable. Completeness goals were 100 percent for this report and are considered to be met.

4.5 COMPARABILITY

Comparability is a qualitative assessment of the confidence with which different data sets may be used to characterize a site. Comparability is a necessary criteria because sampling is often performed at different times and precision, accuracy, and representativeness are unique to each sampling event. Comparability between data generated at different times at a single site is evaluated by reviewing sample collection and handling procedures, sample matrix, and analytical methods used. Standardization of sampling protocols and analytical methods assures comparability as long as precision and accuracy criteria are satisfied for each data set. The overall analytical performance for this report was evaluated, and should be comparable to previous and future data sets.

5.0 CONCLUSIONS

A comparison of analytical data from the Baseline, first quarterly (March), second quarterly (June), and third quarterly (September) sampling events provides an evaluation of the System performance. The System has been successful in removing VOC contaminants from the subsurface as indicated by the groundwater monitoring data and mass removal quantities. Overall decreases in TCE concentrations have been observed in both the South and North TCE Source Areas. A decrease is also evident in the system influent data. The performance of the System will continue to be tracked through future quarterly sampling events.

6.0 REFERENCES

EPA. 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*. EPA/600/R-98/128 (September).

Harding ESE. 2001. *Quarterly Progress Report, First Quarter 2001, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York*. Prepared for Combustion Engineering, Norwalk, Connecticut (March).

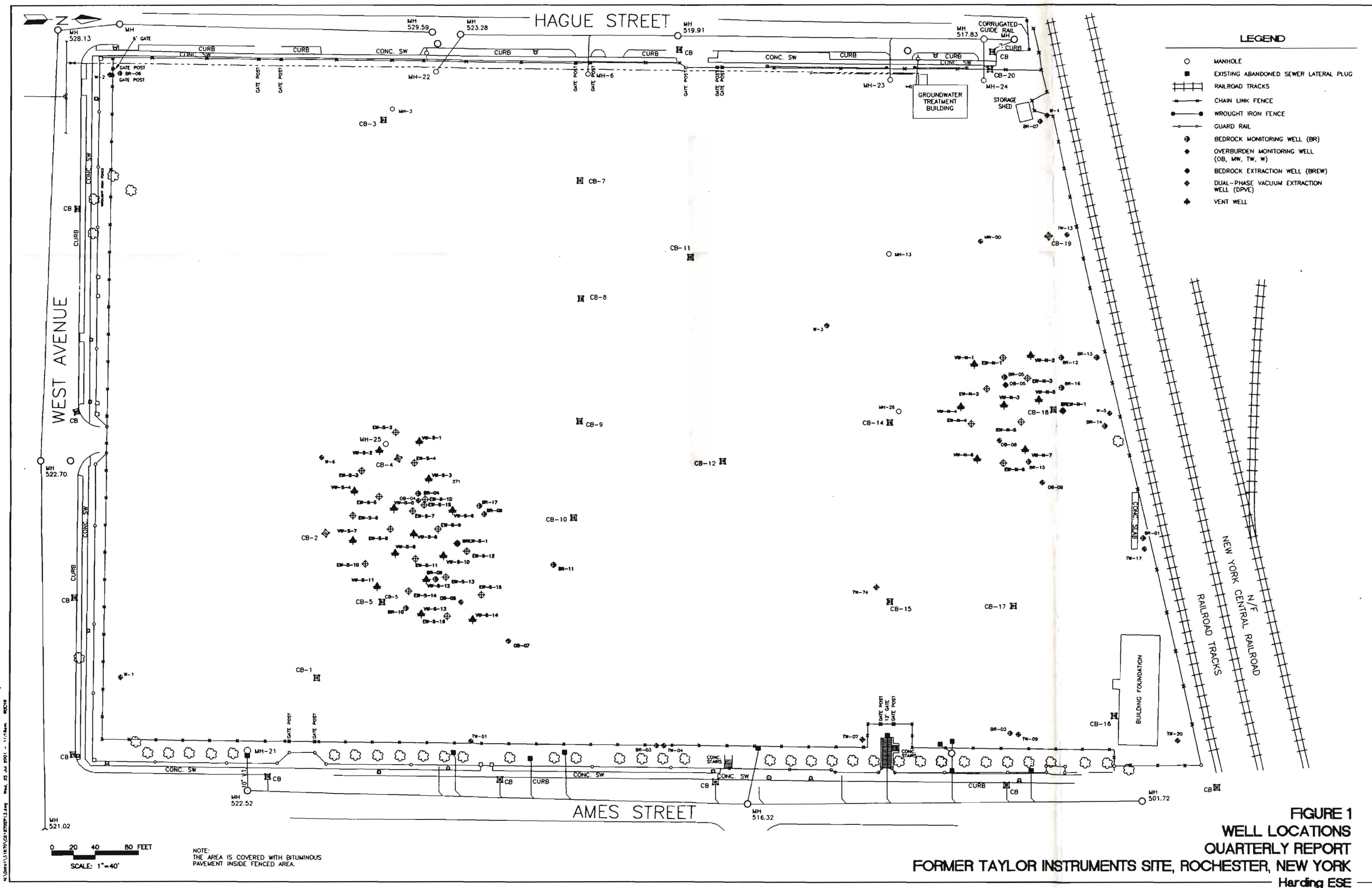
Harding ESE. 2001. *Dual-Phase Vacuum Extraction Remediation System Operation and Maintenance Manual*, prepared for the former Taylor Instruments Site, 95 Ames Street in Rochester, New York (March).

Harding ESE. 2001. *Quarterly Progress Report, Second Quarter 2001, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York*. Prepared for Combustion Engineering, Norwalk, Connecticut (August).

NYSDEC. 1997. Voluntary Cleanup Agreement regarding the Taylor Instruments Site, Number B8-0508-97-02 (November).

APPENDIX A

FIGURES



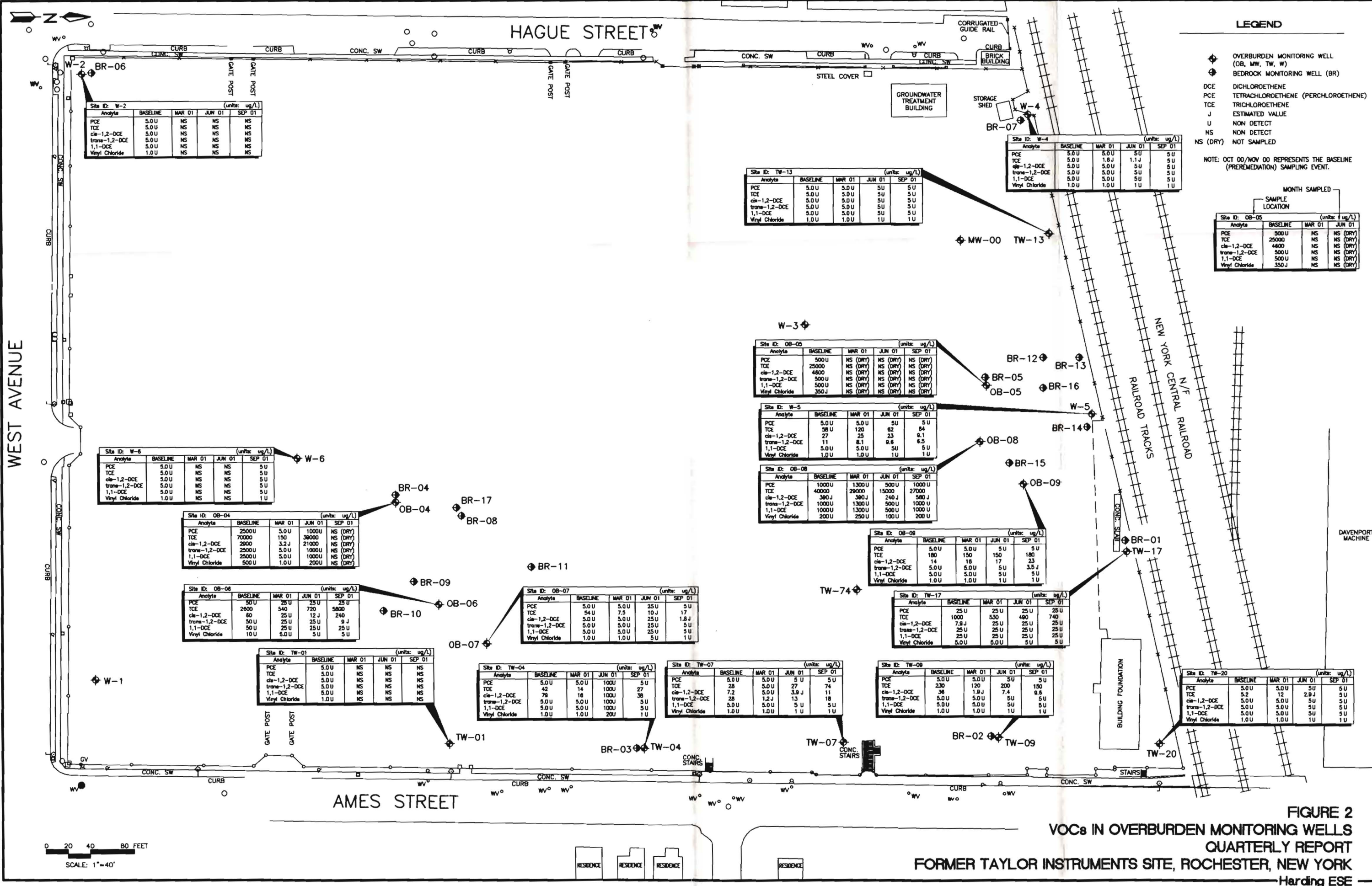
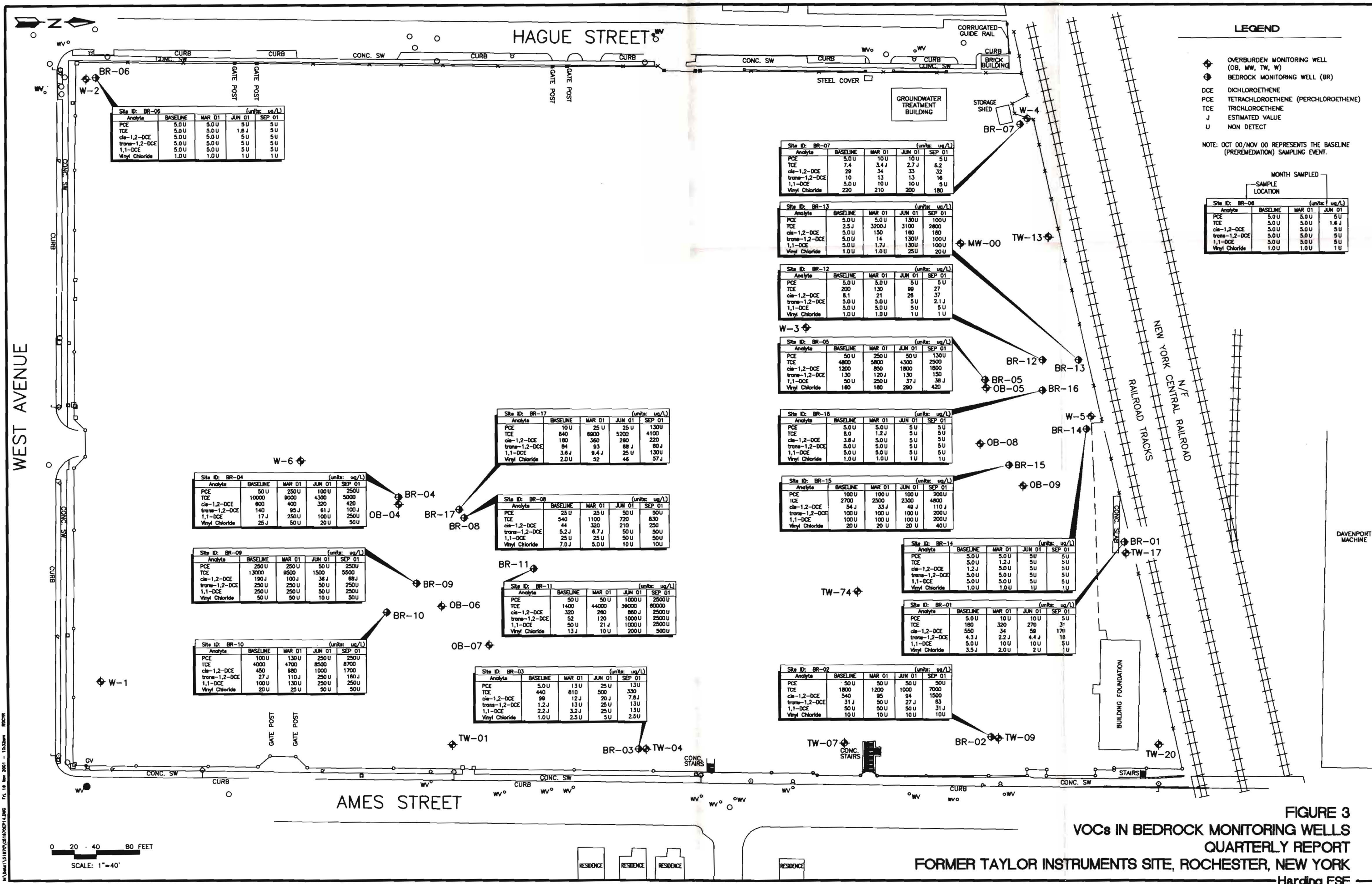
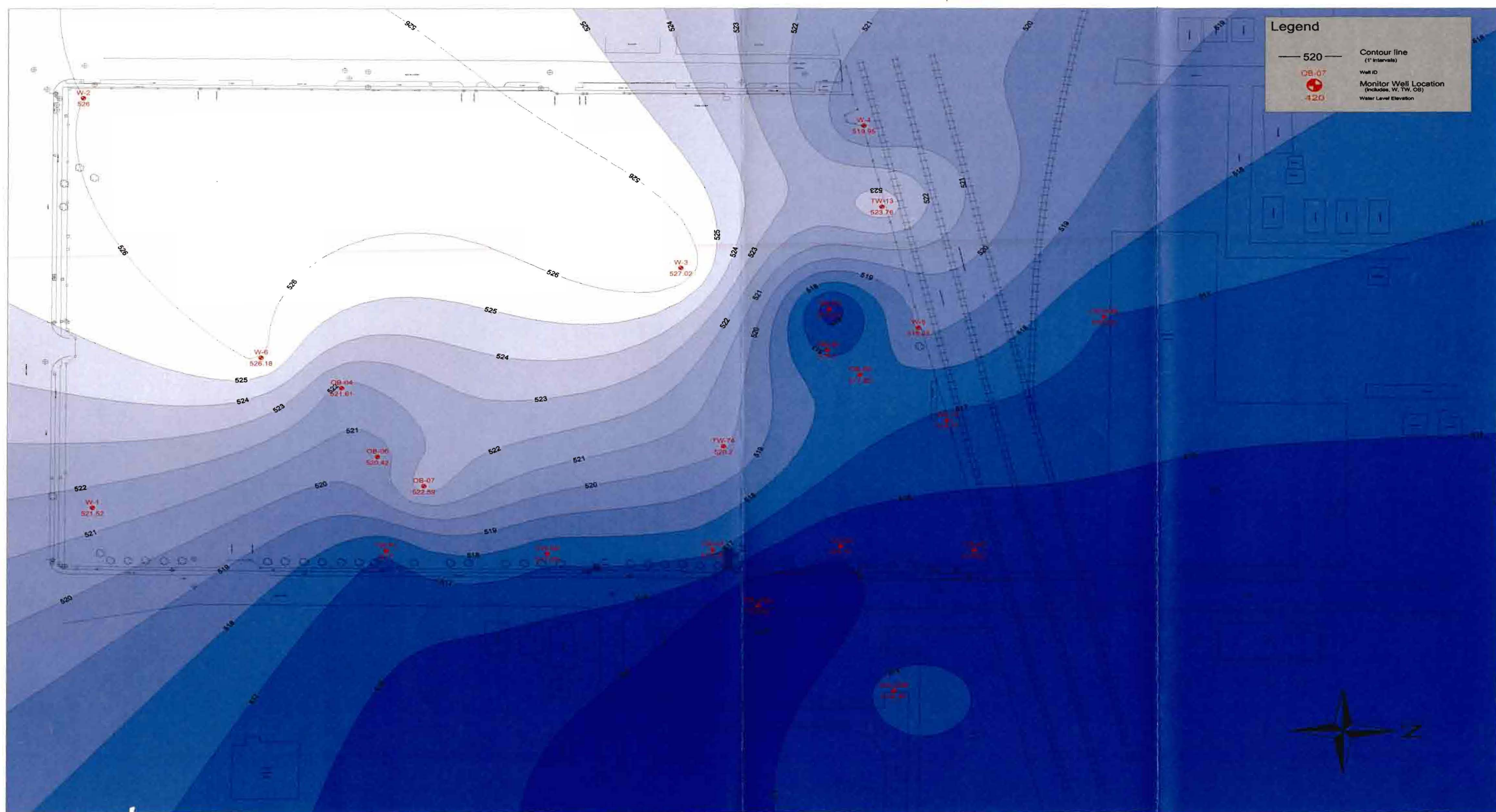


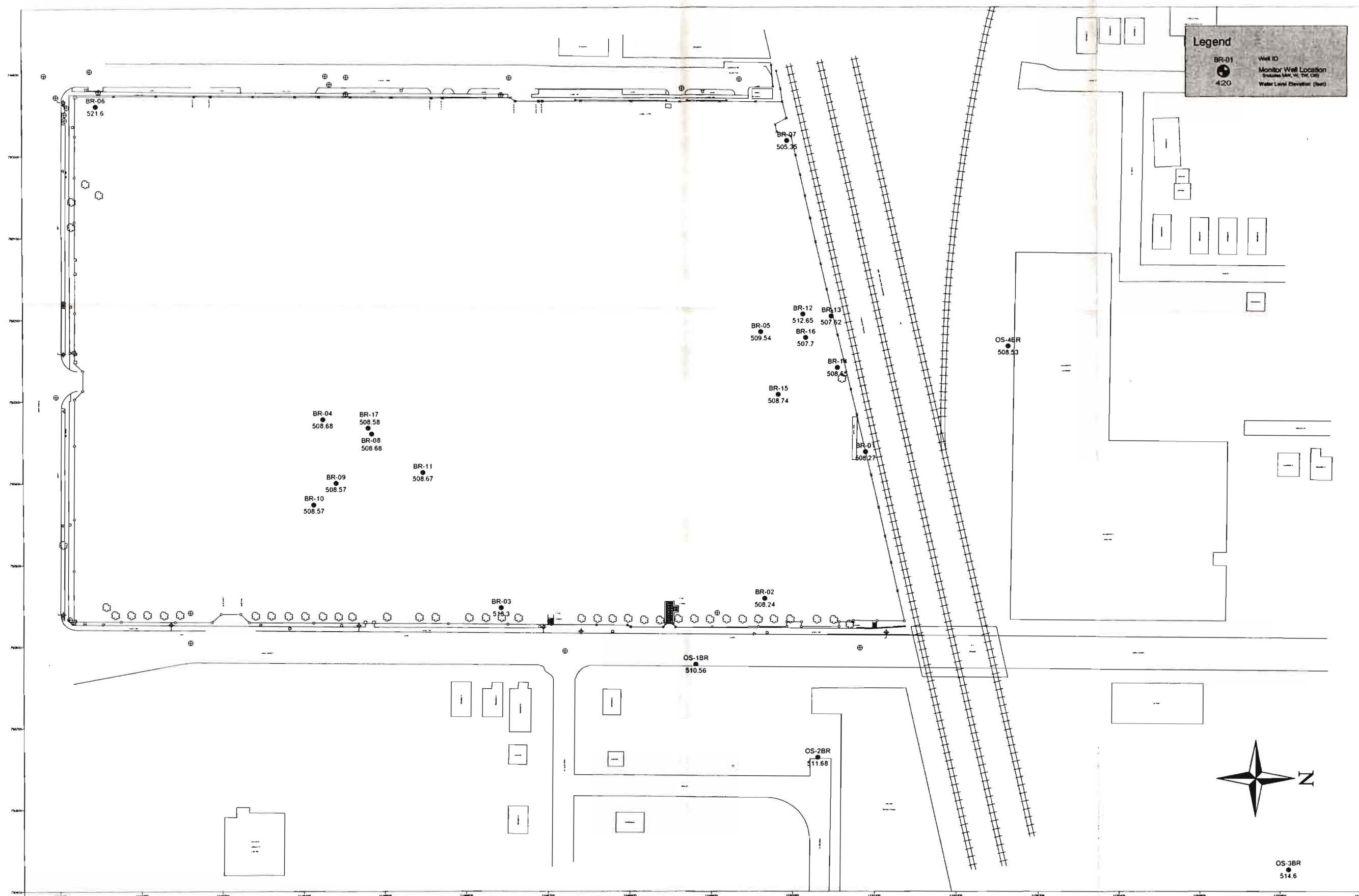
FIGURE 2
VOCs IN OVERBURDEN MONITORING WELLS
QUARTERLY REPORT
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
 Harding ESE





Note: Data for Monitor Wells OS-10B, OS-20B, OS-30B, and OS-40B was provided by Haley and Aldrich of New York. Data collected on September 10, 2001

FIGURE 4
OVERBURDEN POTENTIOMETRIC SURFACE MAP (SEP 2001)
QUARTERLY REPORT
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding ESE



Note: Data for Monitor Wells OS-1BR, OS-2BR, OS-3BR, and OS-4BR was provided by Haley and Aldrich of New York. Data collected on September 10, 2001

FIGURE 5
BEDROCK GROUNDWATER ELEVATIONS (SEP 2001)
QUARTERLY REPORT
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
 Harding ESE

Figure 6
Monthly Average Groundwater Flowrates

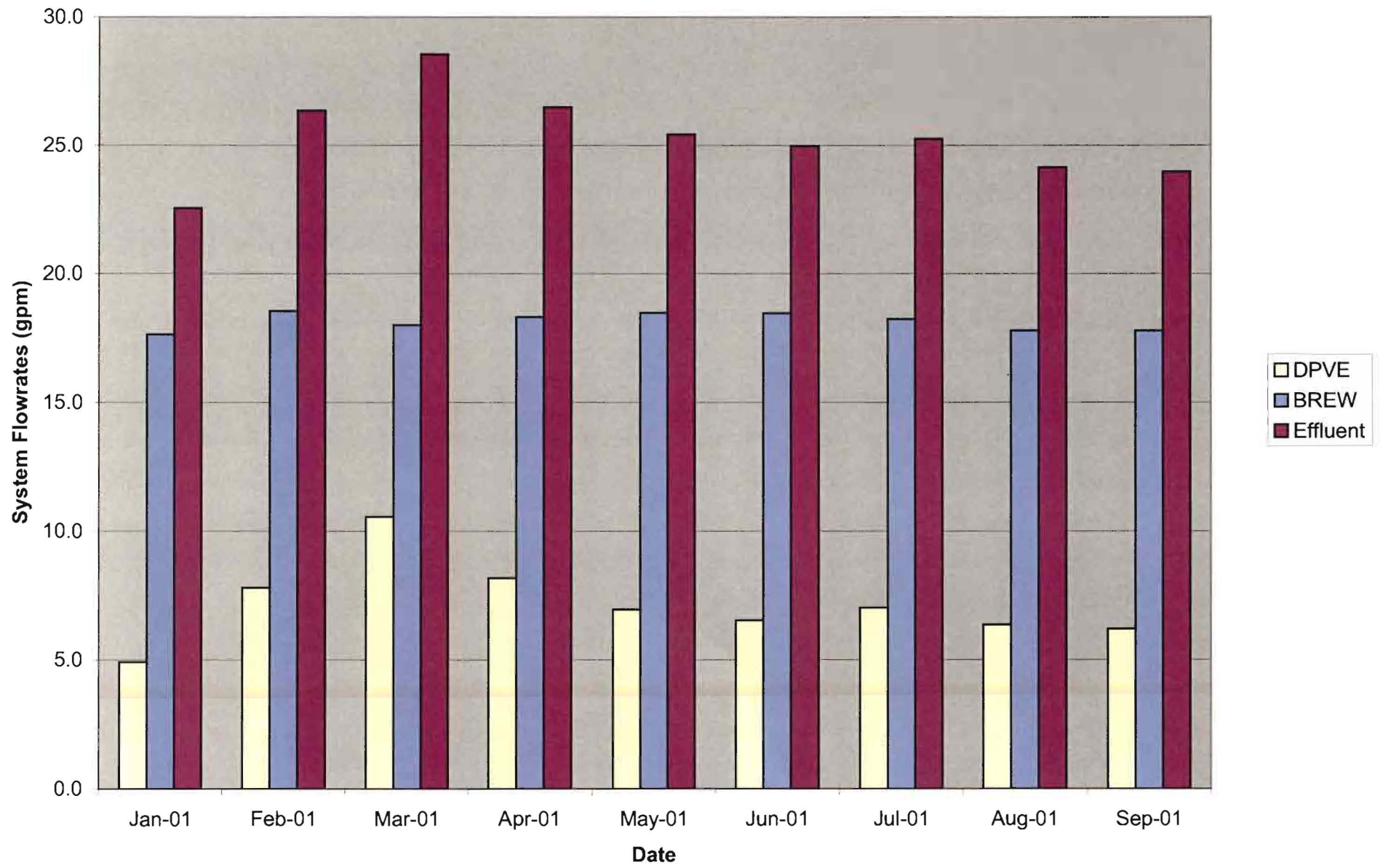
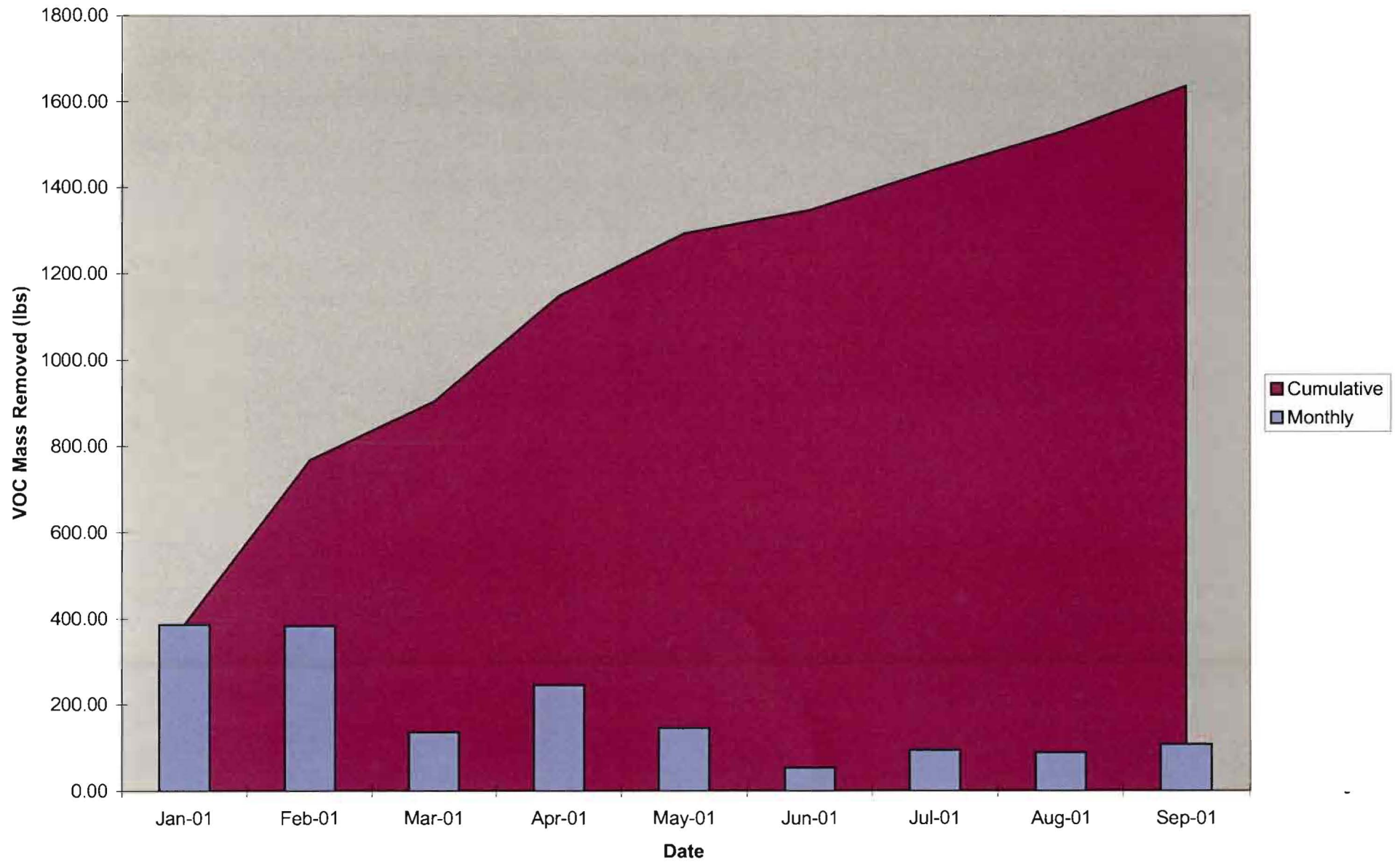


Figure 7
TCE Mass Removed



APPENDIX B

LABORATORY REPORTS, GROUNDWATER SAMPLING EVENTS



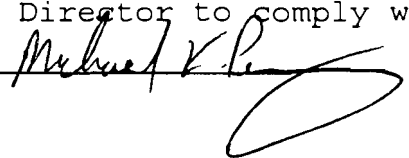
1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Harding ESE
Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY
Lab Submission # : R2108550
Reported : 10/23/01

Report Contains a total of 535 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. 

SDG NARRATIVE

NATURAL ATTENUATION ANALYSES

Eight samples were analyzed for the list of natural attenuation analytes. These samples were analyzed for: Total and Bicarbonate Alkalinity by EPA method 310.1; Chloride by EPA method 300.0; Ferrous Iron by SM method 3500D; Free Carbon dioxide by SM method 4500B; Nitrate by EPA method 300.0; Sulfate by EPA method 300.0; pH by EPA method 150.1; Total Dissolved Solids by EPA method 160.2; Total Sulfide by EPA method 376.1; and TOC by EPA method 415.1. These samples were also analyzed for Low Molecular Weight gases by GC method 8015B. One sample was analyzed for a partial list of the above analytes.

The Blank Spike recoveries (LCS) were all acceptable.

The Nitrate on sample OB-07 was analyzed 16 minute outside the 48 hour holding time.

No analytical or QC problems were encountered with these analyses.

CASE NARRATIVE

COMPANY: Harding ESE
Former Taylor Instruments Site - Ames Street
SUBMISSION #: R2108550

Samples were collected on 09/11/01 - 09/18/01 and received at CAS on 9/12/01 - 9/18/01 in good condition. A validation data package with QC has been prepared for the 8260 VOA analyses. A routine data with QC has been prepared for the Natural Attenuation parameters.

VOLATILE ORGANICS

Thirty-nine water samples were analyzed for TCL Volatiles plus Freon 113 by SW-846 method 8260B.

All Tuning criteria for BFB were within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were within acceptance limits.

All internal standard areas were within QC limits.

Matrix Spike/Matrix Spike Duplicate recoveries and the % RPD for samples BR-06, BR-07, and OB-7 were all within QC limits. The Blank Spike recoveries were all acceptable.

The Laboratory Blanks associated with these analyses were free of contamination.

Several samples were reanalyzed at higher dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with target analytes over the calibration range flagged with an "E".

To help facilitate seeing lower detection limits, all detected compounds between the reported PQL and the statistical MDL have been flagged with a "J" as being estimated. Also, Vinyl Chloride has been reported to a PQL of 1.0 ug/l

No other analytical or QC problems were encountered.

SDG #QATB01 CASE No.:		BATCH COMPLETE: <u>yes</u>		DATE REVISED:				
SUBMISSION R2108550		DISKETTE REQUESTED: Y <u>x</u> N <u> </u>		DATE DUE: 10/15/01				
CLIENT: Harding ESE		DATE: 09/20/01		PROTOCOL: ASP-B				
CLIENT REP: Michael Perry		CUSTODY SEAL: ABSENT:		SHIPPING No.:				
PROJECT: FORMER TAYLOR INSTRUMENTS S		CHAIN OF CUSTODY: PRESENT:						

CAS JOB #	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED	pH (SOLIDS)	% SOLIDS	REMARKS SAMPLE CONDITION
492383	QATB01	WATER	8260	9/11/01	9/12/01			
492384	QAFB01	WATER	8260	9/11/01	9/12/01			
492385	QARB01	WATER	8260	9/11/01	9/12/01			
492386	BR-06	WATER	8260	9/12/01	9/12/01			
492387	W-2	WATER	8260, TDS, CL, ALK, CO2	9/11/01	9/12/01			
493224	BR-07 + QC	WATER	8260	9/12/01	9/14/01			
493225	BR-07 (DUP)	WATER	8260	9/12/01	9/14/01			
493226	TW-13	WATER	8260	9/12/01	9/14/01			
493227	W-4	WATER	8260	9/13/01	9/14/01			
493228	OB-06	WATER	8260	9/13/01	9/14/01			
493229	BR-08	WATER	8260	9/13/01	9/14/01			
493230	BR-17	WATER	8260	9/13/01	9/14/01			
493231	BR-14	WATER	8260	9/13/01	9/14/01			
493232	W-6	WATER	8260	9/13/01	9/14/01			
493233	BR-01	WATER	8260	9/14/01	9/14/01			
493234	TW-17	WATER	8260, 8015LMO, WET*	9/14/01	9/14/01			
493235	TW-20	WATER	8260, 8015LMO, WET*	9/14/01	9/14/01			
493236	TW-04	WATER	8260, 8015LMO, WET*	9/14/01	9/14/01			
493237	BR-03	WATER	8260	9/14/01	9/15/01			
493238	TW-07	WATER	8260, 8015LMO, WET*	9/15/01	9/15/01			
493239	OB-09	WATER	8260, 8015LMO, WET*	9/15/01	9/15/01			
493354	BR-02	WATER	8260	9/15/01	9/17/01			
493355	QATB02	WATER	8260	9/15/01	9/17/01			
493356	QAFB02	WATER	8260	9/15/01	9/17/01			
493357	QARB02	WATER	8260	9/15/01	9/17/01			
493360	BR-16	WATER	8260	9/15/01	9/17/01			
493364	BR-12	WATER	8260	9/15/01	9/17/01			
493365	BR-13	WATER	8260	9/16/01	9/17/01			
493366	BR-15	WATER	8260	9/16/01	9/17/01			
493367	TW-09	WATER	8260, 8015LMO, WET*	9/16/01	9/17/01			
493368	BR-10	WATER	8260	9/17/01	9/17/01			



A FULL SERVICE ENVIRONMENTAL LABORATORY

October 23, 2001

Mr. Rick Ryan
Harding ESE
1400 Center Point Blvd.
Suite 158
Knoxville, TN 37932-1968

PROJECT: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY
Submission #: R2108550

Dear Mr. Ryan

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

A handwritten signature in black ink, appearing to read 'Michael K. Perry', is written over the typed name and title.

Michael Perry
Laboratory Director

Enc.

SDG #QATB01	CASE No.:	BATCH COMPLETE: <u>yes</u>	DATE REVISED:
SUBMISSION	R2108550	DISKETTE REQUESTED: Y <u>x</u> N <u> </u>	DATE DUE: 10/15/01
CLIENT:	Harding ESE	DATE: 09/20/01	PROTOCOL: ASP-B
CLIENT REP:	Michael Perry	CUSTODY SEAL: ABSENT:	SHIPPING No.:
PROJECT:	FORMER TAYLOR INSTRUMENTS S CHAIN OF CUSTODY: PRESENT:		

[illegible]



Effective 9/24/01

CAS LIST OF QUALIFIERS

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. For further explanation see case narrative / cover letter.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)
- * - Inorganic Duplicate analysis not within control limits. Flag the entire batch - Inorganic analysis only
- * - Organics QC data outside limits.
- D - Spike diluted out.
- S - Reported value determined by Method of Standard Additions. (MSA)
- X - As specified in the case narrative.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
New York ID # 10145
Connecticut ID # PH0556
Massachusetts ID # M-NY032
American Industrial Hygiene Assoc. ID #:100314
Navy Facilities Engineering Service Center Approved

Delaware Accredited
New Jersey ID # 73004
Rhode Island ID # 158
New Hampshire ID # 294100 A/B
West Virginia ID # 292
Florida ID # Pending



CHAINS OF CUSTODY

INTERNAL CHAINS



CAS Contact

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475 PAGE 1 OF 1

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-0101-08

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Harding - Lawson Submission Number 8550

Cooler received on 9-12-01 by: HE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 4°

Is the temperature within 0° - 6° C?: Yes ☒ Yes ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-12-01 @ 10:10

Thermometer ID: IR-Gun Temp Blank Sample Bottle Cooler Temp. IR. Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9/12/01 by: HE

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2					

Other Comments:

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475 PAGE 1 OF 2

SR #

CAS Contact

Project Name Former Taylor Instruments		Project Number 51870.4		ANALYSIS REQUESTED (Include Method Number and Container Preservative)													
Project Manager Rick Ryan		Report CC Ronny Fields		PRESERVATIVE 1													
Company/Address Harding ESE 1400 Centerpoint Blvd. Suite 158 Knoxville, TN 37932		Phone # (865) 531-1922		FAX# (865) 531-8226		NUMBER OF CONTAINERS GC/MS VOA's ☒ 8260 ☐ 624 ☐ CLP GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP GC VOA's ☐ 8021 ☐ 601/602 PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ CLP STAR'S LIST 8021 VOA's ☐ 8082 STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP TCLP ☐ TOTAL ☐ TCLP VOA's ☐ METALS WASTE CHARACTERIZATION ☐ React ☐ SVOA's ☐ H/P METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) Preservative Key 0. NONE 1. HCL 2. HNO₃ 3. H₂SO₄ 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO₄ 8. Other											
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name Robert A Ellis		REMARKS/ ALTERNATE DESCRIPTION													
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	TIME	MATRIX													
BR-07		09/12/01	1406	GW	3	3											
BR-07 (DUP)		09/12/01	1407	GW	3	3	Duplicate										
TN-13		09/12/01	1724	GW	3	3											
W-4		09/13/01	1037	GW	3	3											
OB-06		09/13/01	1228	GW	3	3											
BR-08		09/13/01	1436	GW	3	3											
BR-17		09/13/01	1545	GW	3	3											
BR-14		09/13/01	1728	GW	3	3											
W-6		09/13/01	1825	GW	3	3											
BR-01		09/14/01	0850	GW	3	3											
SPECIAL INSTRUCTIONS/COMMENTS Metals					TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 24 hr ☐ 48 hr ☐ 5 day ☐ ☒ STANDARD				REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data V. Specialized Forms / Custom Report Edata ☐ Yes ☐ No				INVOICE INFORMATION 6599 PO# BILL TO: R21-8550 SUBMISSION #:				
					REQUESTED FAX DATE				REQUESTED REPORT DATE								
See QAPP ☐					SAMPLE RECEIPT: CONDITION/COOLER TEMP: 40°C					CUSTODY SEALS: Y N							
RELINQUISHED BY <i>[Signature]</i> Signature Robert A Ellis Printed Name Harding ESE Firm 09/14/01 1721 Date/Time		RECEIVED BY <i>[Signature]</i> Signature WANDA SNOW Printed Name Wanda Snow Firm 09/14/01 1721 Date/Time		RELINQUISHED BY		RECEIVED BY <i>[Signature]</i> Signature Gregory P. Esmerian Printed Name CAS Firm 9-15-01 8:00 Date/Time		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY			

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Hawding-K Submission Number R2108550

Cooler received on 9-15-01 by: KE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES (NO)
2. Were custody papers properly filled out (ink, signed, etc.)? (YES) NO
3. Did all bottles arrive in good condition (unbroken)? (YES) NO
4. Did any VOA vials have significant air bubbles? YES (NO) N/A
5. Were Ice or Ice packs present? (YES) NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 4°

Is the temperature within 0° - 6° C?: Yes ☒ Yes ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-15-01 @ 8:05

Thermometer ID: IR Gun Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-17-01 by: YMC

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2			

Other Comments:

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Harding-K Submission Number R2108550

Cooler received on 9-15-01 by: ME COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 9c

Is the temperature within 0° - 6° C?: Yes ☐ No ☒ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐

If No, Explain Below No ☒ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-15-01 @ 12:00

Thermometer ID: IR-Gun Temp Blank Sample Bottle Cooler Temp. IR. Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-17-01 by: Ymc

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2					

Other Comments:

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475 PAGE 1 OF 1

SR #

CAS Contact

Project Name Former Taylor Instruments		Project Number 57870.4		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																													
Project Manager Rick Ryan		Report CC Ronny Fields		PRESERVATIVE																																													
Company/Address Harding ESE 1400 Centerpoint Blvd. Suite 158 Knoxville, TN 37932				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="writing-mode: vertical-rl; transform: rotate(180deg);">NUMBER OF CONTAINERS</td> <td>GC/MS VOA's</td><td>GC/MS SVOA's</td><td>GC VOA's</td><td>PESTICIDES/POB's</td><td>STAR'S LIST 8021 VOA's</td><td>TCLP</td><td>VOA's</td><td>WASTE CHARACTERIZATION</td><td>METALS, TOTAL</td><td>METALS, DISSOLVED</td><td>Methanol, Ethanol, Ethylene Glycol</td><td>Sulfide</td><td>Chloride, Nitrate, Sulfate, Iodide, Cyanide</td><td>Carbon Dioxide (Calculation)</td> <td rowspan="2">PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO₃ 3. H₂SO₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO₄ 8. Other _____</td> </tr> <tr> <td>8260</td><td>624</td><td>625</td><td>601/602</td><td>608</td><td>8021</td><td>8021</td><td>React</td><td>Corros.</td><td>Ignit.</td><td></td><td></td><td></td><td></td> </tr> </table>																NUMBER OF CONTAINERS	GC/MS VOA's	GC/MS SVOA's	GC VOA's	PESTICIDES/POB's	STAR'S LIST 8021 VOA's	TCLP	VOA's	WASTE CHARACTERIZATION	METALS, TOTAL	METALS, DISSOLVED	Methanol, Ethanol, Ethylene Glycol	Sulfide	Chloride, Nitrate, Sulfate, Iodide, Cyanide	Carbon Dioxide (Calculation)	PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____	8260	624	625	601/602	608	8021	8021	React	Corros.	Ignit.				
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Phone # (865) 531-1922		FAX # (865) 531-8226																																															
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name Robert A Ellis																																															
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE TIME		MATRIX																																													
BR-02		09/15/01 1502		GW	3	3																																											
QATB02		09/15/01 00:00		GW	3	3																																											
QAFB02		09/15/01 1539		GW	3	3																																											
QARB02		09/15/01 1546		GW	3	3																																											
BR-16		09/15/01 1700		GW	3	3																																											
BR-12		09/15/01 1827		GW	3	3																																											
BR-13		09/16/01 1055		GW	3	3																																											
BR-15		09/16/01 1222		GW	3	3																																											
TW-09		09/16/01 1417		GW	11	3																																											
BR-10		09/17/01 0913		GW	3	3																																											
SPECIAL INSTRUCTIONS/COMMENTS Metals					TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 24 hr _____ 48 hr _____ 5 day _____ X STANDARD					REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries X IV. Data Validation Report with Raw Data V. Specialized Forms / Custom Report					INVOICE INFORMATION 6599 PO# BILL TO: SUBMISSION #																																		
					REQUESTED FAX DATE					REQUESTED REPORT DATE																																							
See QAPP ☐																																																	
SAMPLE RECEIPT: CONDITION/Cooler Temp: 10C					CUSTODY SEALS: Y N																																												
RELINQUISHED BY <i>[Signature]</i> Robert A Ellis		RECEIVED BY <i>[Signature]</i> WANDA SNOW		RELINQUISHED BY		RECEIVED BY <i>[Signature]</i> MA. GELTER		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY																																			
Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature																																			
Printed Name Harding ESE		Printed Name CAS		Printed Name		Printed Name CAS		Printed Name		Printed Name		Printed Name		Printed Name																																			
Firm 09/17/01 11:13		Firm 09/17/01 11:13		Firm		Firm 9/17/01 11:13		Firm		Firm		Firm		Firm																																			
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time																																			

**Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form**

Project/Client Harding-K Submission Number RA108550

Cooler received on 9-17-01 by: HE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 1°

Is the temperature within 0° - 6° C?: Yes ☒ Yes ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-17-01 @ 11:24

Thermometer ID: IR-6wn Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-17-01 by: KMC

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO

4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A
Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2					

Other Comments:

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475 PAGE 1 OF 1

SR #

CAS Contact

Project Name Former Taylor Instruments		Project Number 51870.4		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																																												
Project Manager Rick Ryan		Report CC Ronny Fields		PRESERVATIVE																																																												
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Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name Robert A Ellis																																																														
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		SAMPLING DATE		TIME		MATRIX												REMARKS/ ALTERNATE DESCRIPTION																																												
OB-07				09/17/01		13:48		GW		11 3										3 1 1 1 2 0																																												
OB-07 (MS)				09/17/01		1349		GW		3 3										Matrix Spike																																												
OB-07 (MSD)				09/17/01		1349		GW		3 3										Matrix Spike Replicate																																												
W-5				09/17/01		1555		GW		11 3										3 1 1 1 2 0																																												
W-5 (DUP)				09/17/01		1555		GW		3 3										Duplicate																																												
BR-04				09/17/01		1832		GW		3 3																																																						
BR-05				09/18/01		0946		GW		3 3																																																						
BR-09				09/18/01		1118		GW		3 3																																																						
OB-08				09/18/01		1247		GW		3 3																																																						
BR-11				09/18/01		1522		GW		3 3																																																						
SPECIAL INSTRUCTIONS/COMMENTS Metals										TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 24 hr 48 hr 5 day X STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE					REPORT REQUIREMENTS I Results Only II Results + QC Summaries (LCS, DUP, MS/MSD as required) III Results + QC and Calibration Summaries X only 8260's IV Data Validation Report with Raw Data V Specialized Forms / Custom Report Edata Yes No					INVOICE INFORMATION 6599 PO# BILL TO: R21-8550 SUBMISSION #																																												
See QAPP ☐																																																																
SAMPLE RECEIPT: CONDITION/COOLER TEMP: 4°C										CUSTODY SEALS: N																																																						
RELINQUISHED BY <i>[Signature]</i> Robert A Ellis Harding ESE Firm 09/18/01 1604					RECEIVED BY <i>[Signature]</i> Cindy Toomey Firm 9/18/01 1604					RELINQUISHED BY <i>[Signature]</i> Kelly M Cook Firm 9-18-01 1604					RECEIVED BY <i>[Signature]</i> Kelly M Cook Firm 9-18-01 1604					RELINQUISHED BY <i>[Signature]</i> Kelly M Cook Firm 9-18-01 1604					RECEIVED BY <i>[Signature]</i> Kelly M Cook Firm 9-18-01 1604																																							

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Harding - K Submission Number R2-8550

Cooler received on 9-18-01 by: UAC COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES/NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 4°C

Is the temperature within 0° - 6° C?: Yes ☒ No ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-18-01 1615

Thermometer ID: IR-60N Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-19-01 by: He

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2					

Other Comments:

INTERNAL CHAINS

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/12/01 10:02:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	492383	3	<i>MB</i>	BA	9/12/01	1140	42	C-1	10/12/01
8260B	492384	3	✓	↓	✓	✓	↓	↓	10/12/01
8260B	492385	3	✓	↓	✓	✓	↓	↓	10/12/01
8260B	492386 QC	9	✓	↓	✓	✓	↓	↓	10/12/01

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/14/01 17:01:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	493224	QC 3	KMC	DR	9-17-01 1500	<2	C-1	10/14/01
8260B	493225	3						10/14/01
8260B	493226	3						10/14/01
8260B	493227	3						10/14/01
8260B	493228	3						10/14/01
8260B	493229	3						10/14/01
8260B	493230	3						10/14/01
8260B	493231	3						10/14/01
8260B	493232	3						10/14/01
8260B	493233	3						10/14/01
8260B	493234	3						10/14/01
8260B	493235	3						10/14/01
8260B	493236	3						10/14/01
8260B	493237	3						10/15/01
8260B	493238	3						10/15/01
8260B	493239	3						10/15/01

INTERNAL CHAINS

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/17/01 11:13:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	493354	3	unc	BA	9-17-01 1600	<2	C-1	10/17/01
8260B	493355	3	↓	↓	↓	↓	↓	10/17/01
8260B	493356	3						10/17/01
8260B	493357	3						10/17/01
8260B	493358	3						10/17/01
8260B	493360	3						10/17/01
8260B	493364	3						10/17/01
8260B	493365	3						10/17/01
8260B	493366	3	↓	↓	↓	↓	↓	10/17/01
8260B	493367	3						10/17/01
8260B	493368	3						10/17/01

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/18/01 16:04:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	493949 QC	9	HE	DL	9-17-01 8:30	C2	C-1	10/18/01
8260B	493950	3						10/18/01
8260B	493951	3						10/18/01
8260B	493952	3						10/18/01
8260B	493953	3						10/18/01
8260B	493954	3						10/18/01
8260B	493955	3						10/18/01
8260B	493956	3						10/18/01

VOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER

Spiked Order No. : 492386 Harding ESE

Client ID: BR-06

Test: 8260B TCL+FREON 113

Analytical Units: UG/L

Run Number : 70375

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	MATRIX SPIKE		MATRIX SPIKE DUP.				QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	
BENZENE	50.0	0	51.0	102	52.0	104	2	11	70 - 130	
CHLOROBENZENE	50.0	0	51.0	102	51.0	102	0	13	70 - 130	
1,1-DICHLOROETHENE	50.0	0	50.0	100	50.0	100	0	14	61 - 145	
TOLUENE	50.0	0	52.0	104	53.0	106	2	13	70 - 130	
TRICHLOROETHENE	50.0	0	51.0	102	51.0	102	0	14	70 - 130	

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER

Spiked Order No. : 493224 Harding ESE

Client ID: BR-07

Test: 8260B TCL+FREON 113

Analytical Units: UG/L

Run Number : 70376

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	MATRIX SPIKE		MATRIX SPIKE DUP.				QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	
BENZENE	50.0	7.00	57.0	100	56.0	98	2	11	70 - 130	
CHLOROBENZENE	50.0	0	50.0	100	48.0	96	4	13	70 - 130	
1,1-DICHLOROETHENE	50.0	0	50.0	100	46.0	92	8	14	61 - 145	
TOLUENE	50.0	5.80	58.0	104	54.0	96	7	13	70 - 130	
TRICHLOROETHENE	50.0	6.20	56.0	100	55.0	98	2	14	70 - 130	

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER

Spiked Order No. : 493949 Harding ESE

Client ID: OB-07

Test: 8260B TCL+FREON 113

Analytical Units: UG/L

Run Number : 70380

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	MATRIX SPIKE		MATRIX SPIKE DUP.				QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	
BENZENE	50.0	0	50.0	100	49.0	98	2	11	70 - 130	
CHLOROBENZENE	50.0	0	48.0	96	49.0	98	2	13	70 - 130	
1,1-DICHLOROETHENE	50.0	0	49.0	98	49.0	98	0	14	61 - 145	
TOLUENE	50.0	0	48.0	96	49.0	98	2	13	70 - 130	
TRICHLOROETHENE	50.0	17.0	67.0	100	66.0	98	2	14	70 - 130	

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL+FREON 113LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 502723

ANALYTICAL RUN #: 70375

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 9/18/2001			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	136	50 - 150
BENZENE	20.0	102	70 - 130
BROMODICHLOROMETHANE	20.0	97	70 - 130
BROMOFORM	20.0	100	70 - 130
BROMOMETHANE	20.0	59	50 - 150
2-BUTANONE (MEK)	20.0	98	50 - 150
CARBON DISULFIDE	20.0	89	70 - 130
CARBON TETRACHLORIDE	20.0	80	70 - 130
CHLOROBENZENE	20.0	102	70 - 130
CHLOROETHANE	20.0	102	70 - 130
CHLOROFORM	20.0	111	70 - 130
CHLOROMETHANE	20.0	107	70 - 130
DIBROMOCHLOROMETHANE	20.0	100	70 - 130
1,1-DICHLOROETHANE	20.0	114	70 - 130
1,2-DICHLOROETHANE	20.0	105	70 - 130
1,1-DICHLOROETHENE	20.0	99	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	104	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	104	70 - 130
1,2-DICHLOROPROPANE	20.0	102	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	95	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	104	70 - 130
ETHYLBENZENE	20.0	106	70 - 130
FREON 113	20.0	109	70 - 130
2-HEXANONE	20.0	104	70 - 130
METHYLENE CHLORIDE	20.0	108	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	104	70 - 130
STYRENE	20.0	101	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	113	70 - 130
TETRACHLOROETHENE	20.0	99	70 - 130
TOLUENE	20.0	105	70 - 130
1,1,1-TRICHLOROETHANE	20.0	96	70 - 130
1,1,2-TRICHLOROETHANE	20.0	105	70 - 130
TRICHLOROETHENE	20.0	100	70 - 130
VINYL CHLORIDE	20.0	120	70 - 130
O-XYLENE	20.0	99	70 - 130
M+P-XYLENE	40.0	104	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL+FREON 113LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 502804 ANALYTICAL RUN #: 70380

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 9/25/2001		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	65	50 - 150
BENZENE	20.0	97	70 - 130
BROMODICHLOROMETHANE	20.0	101	70 - 130
BROMOFORM	20.0	92	70 - 130
BROMOMETHANE	20.0	122	50 - 150
2-BUTANONE (MEK)	20.0	79	50 - 150
CARBON DISULFIDE	20.0	101	70 - 130
CARBON TETRACHLORIDE	20.0	98	70 - 130
CHLOROBENZENE	20.0	96	70 - 130
CHLOROETHANE	20.0	94	70 - 130
CHLOROFORM	20.0	100	70 - 130
CHLOROMETHANE	20.0	97	70 - 130
DIBROMOCHLOROMETHANE	20.0	98	70 - 130
1,1-DICHLOROETHANE	20.0	104	70 - 130
1,2-DICHLOROETHANE	20.0	95	70 - 130
1,1-DICHLOROETHENE	20.0	92	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	100	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	98	70 - 130
1,2-DICHLOROPROPANE	20.0	94	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	104	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	102	70 - 130
ETHYLBENZENE	20.0	97	70 - 130
FREON 113	20.0	111	70 - 130
2-HEXANONE	20.0	81	70 - 130
METHYLENE CHLORIDE	20.0	91	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	86	70 - 130
STYRENE	20.0	92	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	95	70 - 130
TETRACHLOROETHENE	20.0	98	70 - 130
TOLUENE	20.0	99	70 - 130
1,1,1-TRICHLOROETHANE	20.0	96	70 - 130
1,1,2-TRICHLOROETHANE	20.0	93	70 - 130
TRICHLOROETHENE	20.0	95	70 - 130
VINYL CHLORIDE	20.0	103	70 - 130
O-XYLENE	20.0	92	70 - 130
M+P-XYLENE	40.0	96	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL+FREON 113LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 502730

ANALYTICAL RUN #: 70376

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 9/19/2001			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	107	50 - 150
BENZENE	20.0	98	70 - 130
BROMODICHLOROMETHANE	20.0	105	70 - 130
BROMOFORM	20.0	98	70 - 130
BROMOMETHANE	20.0	59	50 - 150
2-BUTANONE (MEK)	20.0	102	50 - 150
CARBON DISULFIDE	20.0	91	70 - 130
CARBON TETRACHLORIDE	20.0	101	70 - 130
CHLOROBENZENE	20.0	98	70 - 130
CHLOROETHANE	20.0	96	70 - 130
CHLOROFORM	20.0	103	70 - 130
CHLOROMETHANE	20.0	102	70 - 130
DIBROMOCHLOROMETHANE	20.0	99	70 - 130
1,1-DICHLOROETHANE	20.0	106	70 - 130
1,2-DICHLOROETHANE	20.0	102	70 - 130
1,1-DICHLOROETHENE	20.0	91	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	99	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	99	70 - 130
1,2-DICHLOROPROPANE	20.0	95	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	101	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	107	70 - 130
ETHYLBENZENE	20.0	101	70 - 130
FREON 113	20.0	109	70 - 130
2-HEXANONE	20.0	97	70 - 130
METHYLENE CHLORIDE	20.0	96	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	104	70 - 130
STYRENE	20.0	95	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	103	70 - 130
TETRACHLOROETHENE	20.0	101	70 - 130
TOLUENE	20.0	101	70 - 130
1,1,1-TRICHLOROETHANE	20.0	100	70 - 130
1,1,2-TRICHLOROETHANE	20.0	97	70 - 130
TRICHLOROETHENE	20.0	94	70 - 130
VINYL CHLORIDE	20.0	111	70 - 130
O-XYLENE	20.0	96	70 - 130
M+P-XYLENE	40.0	99	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL+FREON 113LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 502734

ANALYTICAL RUN #: 70377

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 9/21/2001			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	114	50 - 150
BENZENE	20.0	94	70 - 130
BROMODICHLOROMETHANE	20.0	86	70 - 130
BROMOFORM	20.0	89	70 - 130
BROMOMETHANE	20.0	57	50 - 150
2-BUTANONE (MEK)	20.0	79	50 - 150
CARBON DISULFIDE	20.0	78	70 - 130
CARBON TETRACHLORIDE	20.0	70	70 - 130
CHLOROBENZENE	20.0	94	70 - 130
CHLOROETHANE	20.0	90	70 - 130
CHLOROFORM	20.0	98	70 - 130
CHLOROMETHANE	20.0	88	70 - 130
DIBROMOCHLOROMETHANE	20.0	89	70 - 130
1,1-DICHLOROETHANE	20.0	101	70 - 130
1,2-DICHLOROETHANE	20.0	92	70 - 130
1,1-DICHLOROETHENE	20.0	93	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	97	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	92	70 - 130
1,2-DICHLOROPROPANE	20.0	92	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	73	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	86	70 - 130
ETHYLBENZENE	20.0	97	70 - 130
FREON 113	20.0	103	70 - 130
2-HEXANONE	20.0	84	70 - 130
METHYLENE CHLORIDE	20.0	94	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	86	70 - 130
STYRENE	20.0	94	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	95	70 - 130
TETRACHLOROETHENE	20.0	96	70 - 130
TOLUENE	20.0	97	70 - 130
1,1,1-TRICHLOROETHANE	20.0	85	70 - 130
1,1,2-TRICHLOROETHANE	20.0	95	70 - 130
TRICHLOROETHENE	20.0	91	70 - 130
VINYL CHLORIDE	20.0	103	70 - 130
O-XYLENE	20.0	95	70 - 130
M+P-XYLENE	40.0	98	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL+FREON 113LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 502816

ANALYTICAL RUN #: 70380

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 9/26/2001			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	74	50 - 150
BENZENE	20.0	93	70 - 130
BROMODICHLOROMETHANE	20.0	97	70 - 130
BROMOFORM	20.0	85	70 - 130
BROMOMETHANE	20.0	123	50 - 150
2-BUTANONE (MEK)	20.0	95	50 - 150
CARBON DISULFIDE	20.0	96	70 - 130
CARBON TETRACHLORIDE	20.0	95	70 - 130
CHLOROBENZENE	20.0	90	70 - 130
CHLOROETHANE	20.0	98	70 - 130
CHLOROFORM	20.0	100	70 - 130
CHLROMETHANE	20.0	92	70 - 130
DIBROMOCHLOROMETHANE	20.0	89	70 - 130
1,1-DICHLOROETHANE	20.0	103	70 - 130
1,2-DICHLOROETHANE	20.0	96	70 - 130
1,1-DICHLOROETHENE	20.0	96	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	92	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	93	70 - 130
1,2-DICHLOROPROPANE	20.0	90	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	96	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	95	70 - 130
ETHYLBENZENE	20.0	91	70 - 130
FREON 113	20.0	114	70 - 130
2-HEXANONE	20.0	86	70 - 130
METHYLENE CHLORIDE	20.0	91	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	89	70 - 130
STYRENE	20.0	87	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	88	70 - 130
TETRACHLOROETHENE	20.0	88	70 - 130
TOLUENE	20.0	92	70 - 130
1,1,1-TRICHLOROETHANE	20.0	97	70 - 130
1,1,2-TRICHLOROETHANE	20.0	88	70 - 130
TRICHLOROETHENE	20.0	93	70 - 130
VINYL CHLORIDE	20.0	106	70 - 130
O-XYLENE	20.0	88	70 - 130
M+P-XYLENE	40.0	89	70 - 130

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: CAS/ROCH Contract: HLA

Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01

Lab File ID: V0674.D Lab Sample ID: 502722 1.0

Date Analyzed: 9/18/01 Time Analyzed: 12:32

GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: MS#7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS01	502723 1.0	V0675.D	13:13
02	QATB01	492383 1.0	V0683.D	18:27
03	QAFB01	492384 1.0	V0684.D	19:06
04	QARB01	492385 1.0	V0685.D	19:45
05	BR-06	492386 1.0	V0686.D	20:24
06	BR-06MS	492386 1.0MS	V0687.D	21:03
07	BR-06MSD	492386 1.0MSD	V0688.D	21:42
08	BR-07DUP	493225 1.0	V0689.D	22:21

COMMENTS

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0698.D Lab Sample ID: 502729 1.0
 Date Analyzed: 9/19/01 Time Analyzed: 12:23
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N
 Instrument ID: MS#7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS02	502730 1.0	V0699.D	13:23
02	OB-06	493228 5.0	V0701.D	15:15
03	BR-08	493229 10	V0703.D	16:34
04	BR-14	493231 1.0	V0705.D	17:56
05	W-6	493232 1.0	V0706.D	18:36
06	BR-01	493233 1.0	V0707.D	19:15
07	TW-17	493234 5.0	V0708.D	19:54
08	BR-07	493224 1.0	V0709.D	20:33
09	BR-07MS	493224 1.0MS	V0710.D	21:13
10	BR-07MSD	493224 1.0MSD	V0711.D	21:52

COMMENTS

VOLATILE METHOD BLANK SUMMARY

VBLK03

Lab Name: CAS/ROCH Contract: HLA

Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01

Lab File ID: V0748.D Lab Sample ID: 502733 1.0

Date Analyzed: 9/21/01 Time Analyzed: 13:21

GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: MS#7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS03	502734 1.0	V0747.D	12:45
02	TW-13	493226 1.0	V0749.D	13:59
03	W-4	493227 1.0	V0750.D	14:35
04	TW-20	493235 1.0	V0751.D	15:11
05	TW-20MS	493235 1.0MS	V0752.D	15:47
06	TW-20MSD	493235 1.0MSD	V0753.D	16:23
07	TW-07	493238 1.0	V0756.D	18:11
08	OB-09	493239 1.0	V0757.D	18:47
09	BR-02	493354 10	V0758.D	19:23
10	QATB02	493355 1.0	V0759.D	19:59
11	QAFB02	493356 1.0	V0760.D	20:35
12	QARB02	493357 1.0	V0761.D	21:11
13	BR-16	493360 1.0	V0762.D	21:47
14	BR-12	493364 1.0	V0763.D	22:23
15	BR-13	493365 20	V0764.D	22:59

COMMENTS

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBK04

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0808.D Lab Sample ID: 502803 1.0
 Date Analyzed: 9/25/01 Time Analyzed: 15:10
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N
 Instrument ID: MS#7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS04	502804 1.0	V0810.D	17:18
02	BR-17	493230 25	V0812.D	18:45
03	OB-06DL	493228 50	V0813.D	19:20
04	W-6DL	493232 2.0	V0814.D	19:56
05	BR-01DL	493233 2.0	V0815.D	20:31
06	TW-04	493236 1.0	V0816.D	21:07
07	BR-03	493237 2.5	V0817.D	21:42
08	BR-02DL	493354 100	V0818.D	22:17
09	OB-07	493949 1.0	V0819.D	22:53
10	OB-07MS	493949 1.0MS	V0820.D	23:28
11	OB-07MSD	493949 1.0MSD	V0821.D	0:04
12	BR-15	493366 40	V0822.D	0:40
13	TW-09	493367 1.0	V0823.D	1:16

COMMENTS

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK05

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0830.D Lab Sample ID: 502807 1.0
 Date Analyzed: 9/26/01 Time Analyzed: 12:09
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N
 Instrument ID: MS#7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS05	502816 1.0	V0831.D	12:44
02	BR-10	493368 50	V0832.D	13:29
03	W-5	493950 1.0	V0833.D	14:05
04	W-5DUP	493951 1.0	V0834.D	14:41
05	BR-04	493952 50	V0835.D	15:17
06	BR-05	493953 25	V0836.D	15:53
07	BR-09	493954 50	V0837.D	16:29
08	OB-08	493955 200	V0838.D	17:05
09	BR-11	493956 500	V0839.D	17:41

COMMENTS

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0622.D BFB Injection Date: 9/14/01
 Instrument ID: MS#7 BFB Injection Time: 11:37
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	31.2
75	30.0 - 66.0% of mass 95	52.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 120.0% of mass 95	72.0
175	4.0 - 9.0% of mass 174	5.1 (7.1)1
176	93.0 - 101.0% of mass 174	70.7 (98.2)1
177	5.0 - 9.0% of mass 176	4.7 (6.7)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	10PPB	10PPB	V0624.D	9/14/01	12:41
02	50PPB	50PPB	V0626.D	9/14/01	14:45
03	100PPB	100PPB	V0627.D	9/14/01	15:24
04	150PPB	150PPB	V0628.D	9/14/01	16:03
05	20PPB	200PPB	V0629.D	9/14/01	16:42
06	5PPB	5PPB	V0632.D	9/14/01	18:40

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0622.D

Vial: 4

Acq On : 14 Sep 2001 11:37 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

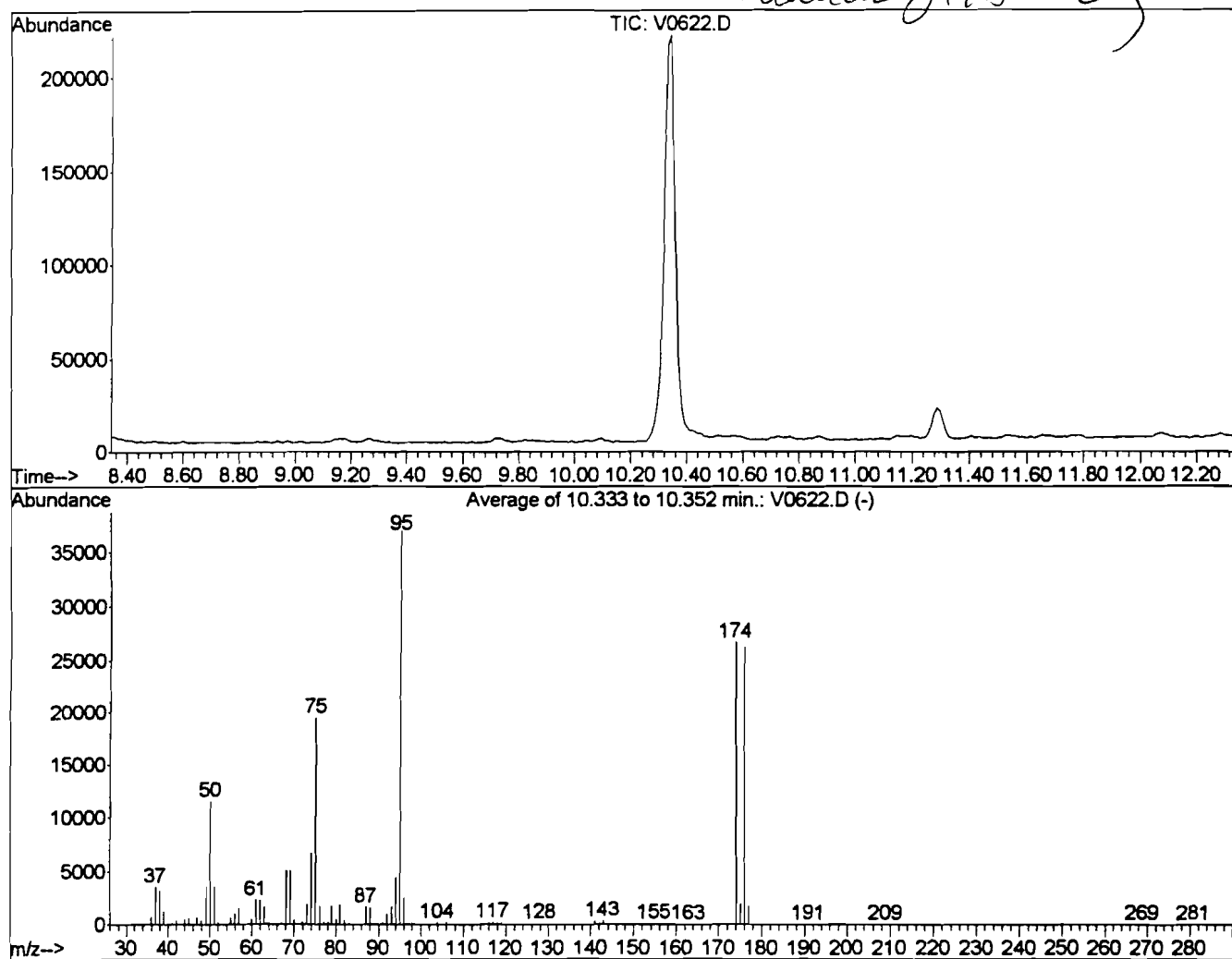
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 203, 204, 205; Background Corrected with Scan 194

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.2	11532	PASS
75	95	30	60	52.7	19460	PASS
95	95	100	100	100.0	36925	PASS
96	95	5	9	6.6	2438	PASS
173	174	0.00	2	0.2	59	PASS
174	95	50	120	72.0	26584	PASS
175	174	5	9	7.1	1875	PASS
176	174	95	101	98.2	26117	PASS
177	176	5	9	6.7	1738	PASS

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0671.D BFB Injection Date: 9/18/01
 Instrument ID: MS#7 BFB Injection Time: 10:38
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	31.4
75	30.0 - 66.0% of mass 95	56.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.9
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	69.5
175	4.0 - 9.0% of mass 174	5.3 (7.6)1
176	93.0 - 101.0% of mass 174	68.6 (98.7)1
177	5.0 - 9.0% of mass 176	3.7 (5.3)2

1-Value is % mass 174

2-Value is % mass 176

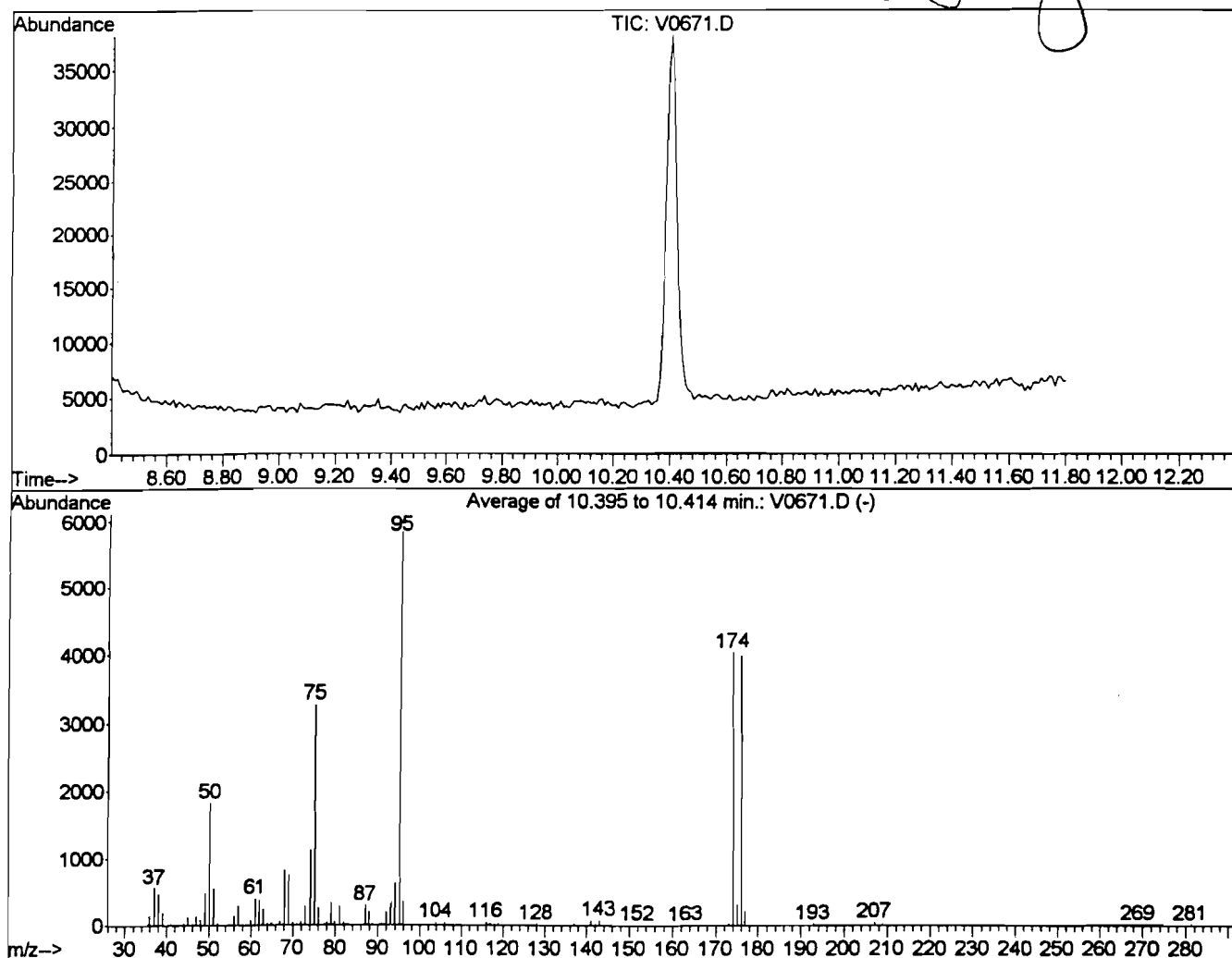
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD01	CCV	V0673.D	9/18/01	11:53
02	VBLK01	502722 1.0	V0674.D	9/18/01	12:32
03	LCS01	502723 1.0	V0675.D	9/18/01	13:13
04	QATB01	492383 1.0	V0683.D	9/18/01	18:27
05	QAFB01	492384 1.0	V0684.D	9/18/01	19:06
06	QARB01	492385 1.0	V0685.D	9/18/01	19:45
07	BR-06	492386 1.0	V0686.D	9/18/01	20:24
08	BR-06MS	492386 1.0MS	V0687.D	9/18/01	21:03
09	BR-06MSD	492386 1.0MSD	V0688.D	9/18/01	21:42
10	BR-07DUP	493225 1.0	V0689.D	9/18/01	22:21

BFB

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0671.D
Acq On : 18 Sep 2001 10:38 am
Sample : tune check
Misc :
MS Integration Params: rteint.p
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa

Vial: 3
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00



AutoFind: Scans 209, 210, 211; Background Corrected with Scan 199

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.4	1826	PASS
75	95	30	60	56.3	3277	PASS
95	95	100	100	100.0	5824	PASS
96	95	5	9	5.9	346	PASS
173	174	0.00	2	0.6	25	PASS
174	95	50	120	69.5	4047	PASS
175	174	5	9	7.6	309	PASS
176	174	95	101	98.7	3993	PASS
177	176	5	9	5.3	213	PASS

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0695.D BFB Injection Date: 9/19/01
 Instrument ID: MS#7 BFB Injection Time: 10:18
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	31.4
75	30.0 - 66.0% of mass 95	54.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 120.0% of mass 95	70.5
175	4.0 - 9.0% of mass 174	4.9 (7.0)1
176	93.0 - 101.0% of mass 174	69.3 (98.3)1
177	5.0 - 9.0% of mass 176	4.5 (6.4)2

1-Value is % mass 174

2-Value is % mass 176

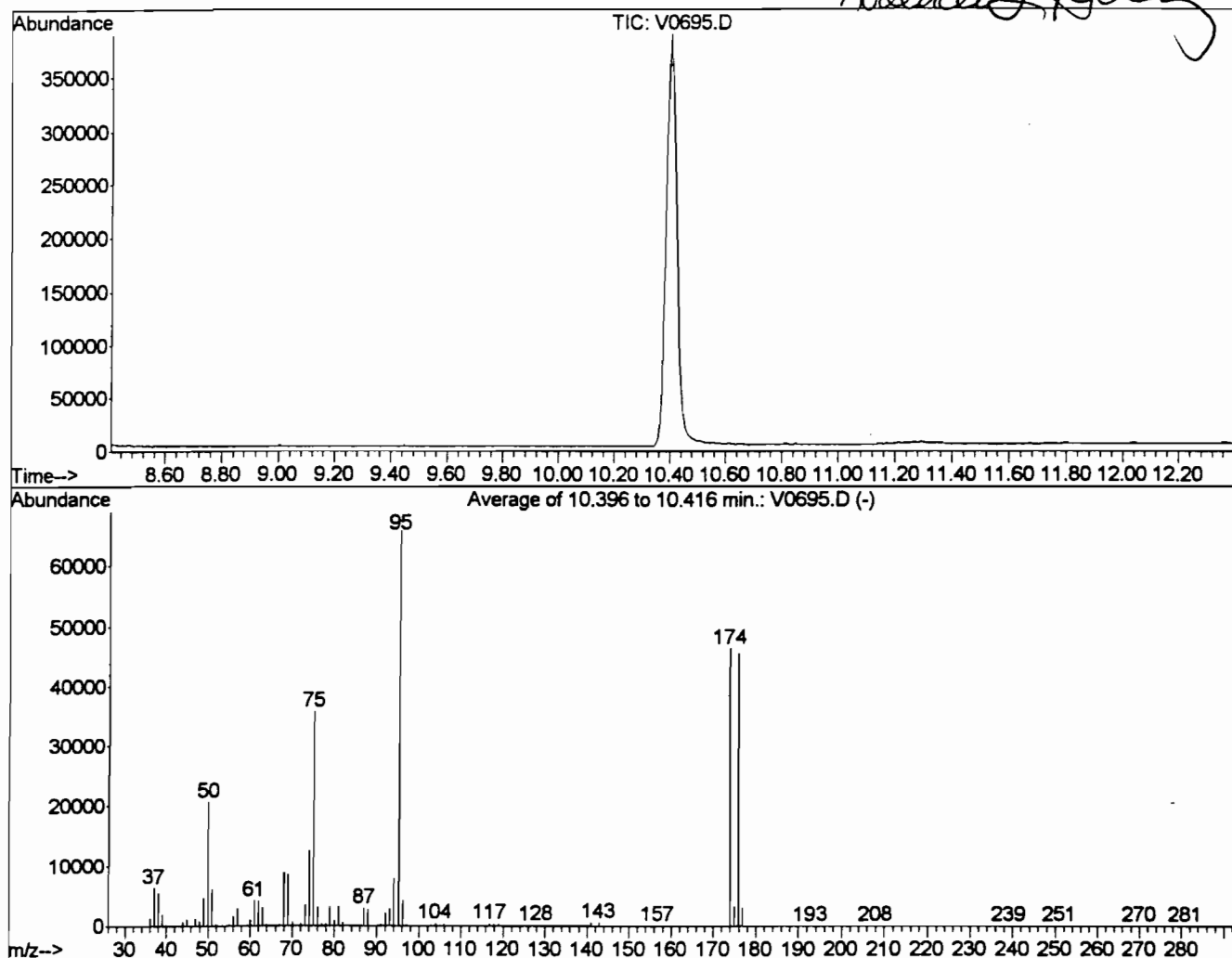
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD02	CCV	V0697.D	9/19/01	11:44
02	VBLK02	502729 1.0	V0698.D	9/19/01	12:23
03	LCS02	502730 1.0	V0699.D	9/19/01	13:23
04	OB-06	493228 5.0	V0701.D	9/19/01	15:15
05	BR-08	493229 10	V0703.D	9/19/01	16:34
06	BR-14	493231 1.0	V0705.D	9/19/01	17:56
07	W-6	493232 1.0	V0706.D	9/19/01	18:36
08	BR-01	493233 1.0	V0707.D	9/19/01	19:15
09	TW-17	493234 5.0	V0708.D	9/19/01	19:54
10	BR-07	493224 1.0	V0709.D	9/19/01	20:33
11	BR-07MS	493224 1.0MS	V0710.D	9/19/01	21:13
12	BR-07MSD	493224 1.0MSD	V0711.D	9/19/01	21:52

BFB

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0695.D
Acq On : 19 Sep 2001 10:18 am
Sample : tune check
Misc :
MS Integration Params: rteint.p
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa

Vial: 3
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00



AutoFind: Scans 209, 210, 211; Background Corrected with Scan 201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.4	20617	PASS
75	95	30	60	54.4	35669	PASS
95	95	100	100	100.0	65576	PASS
96	95	5	9	6.5	4248	PASS
173	174	0.00	2	0.4	180	PASS
174	95	50	120	70.5	46227	PASS
175	174	5	9	7.0	3213	PASS
176	174	95	101	98.3	45461	PASS
177	176	5	9	6.4	2921	PASS

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01
 Lab File ID: V0745.D BFB Injection Date: 9/21/01
 Instrument ID: MS#7 BFB Injection Time: 11:31
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	32.4
75	30.0 - 66.0% of mass 95	55.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.9
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	70.7
175	4.0 - 9.0% of mass 174	4.9 (6.9)1
176	93.0 - 101.0% of mass 174	69.5 (98.3)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)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	VSTD03	CCV	V0746.D	9/21/01	12:05
02	LCS03	502734 1.0	V0747.D	9/21/01	12:45
03	VBLK03	502733 1.0	V0748.D	9/21/01	13:21
04	TW-13	493226 1.0	V0749.D	9/21/01	13:59
05	W-4	493227 1.0	V0750.D	9/21/01	14:35
06	TW-20	493235 1.0	V0751.D	9/21/01	15:11
07	TW-20MS	493235 1.0MS	V0752.D	9/21/01	15:47
08	TW-20MSD	493235 1.0MSD	V0753.D	9/21/01	16:23
09	TW-07	493238 1.0	V0756.D	9/21/01	18:11
10	OB-09	493239 1.0	V0757.D	9/21/01	18:47
11	BR-02	493354 10	V0758.D	9/21/01	19:23
12	QATB02	493355 1.0	V0759.D	9/21/01	19:59
13	QAFB02	493356 1.0	V0760.D	9/21/01	20:35
14	QARB02	493357 1.0	V0761.D	9/21/01	21:11
15	BR-16	493360 1.0	V0762.D	9/21/01	21:47
16	BR-12	493364 1.0	V0763.D	9/21/01	22:23
17	BR-13	493365 20	V0764.D	9/21/01	22:59

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0745.D

Vial: 4

Acq On : 21 Sep 2001 11:31 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

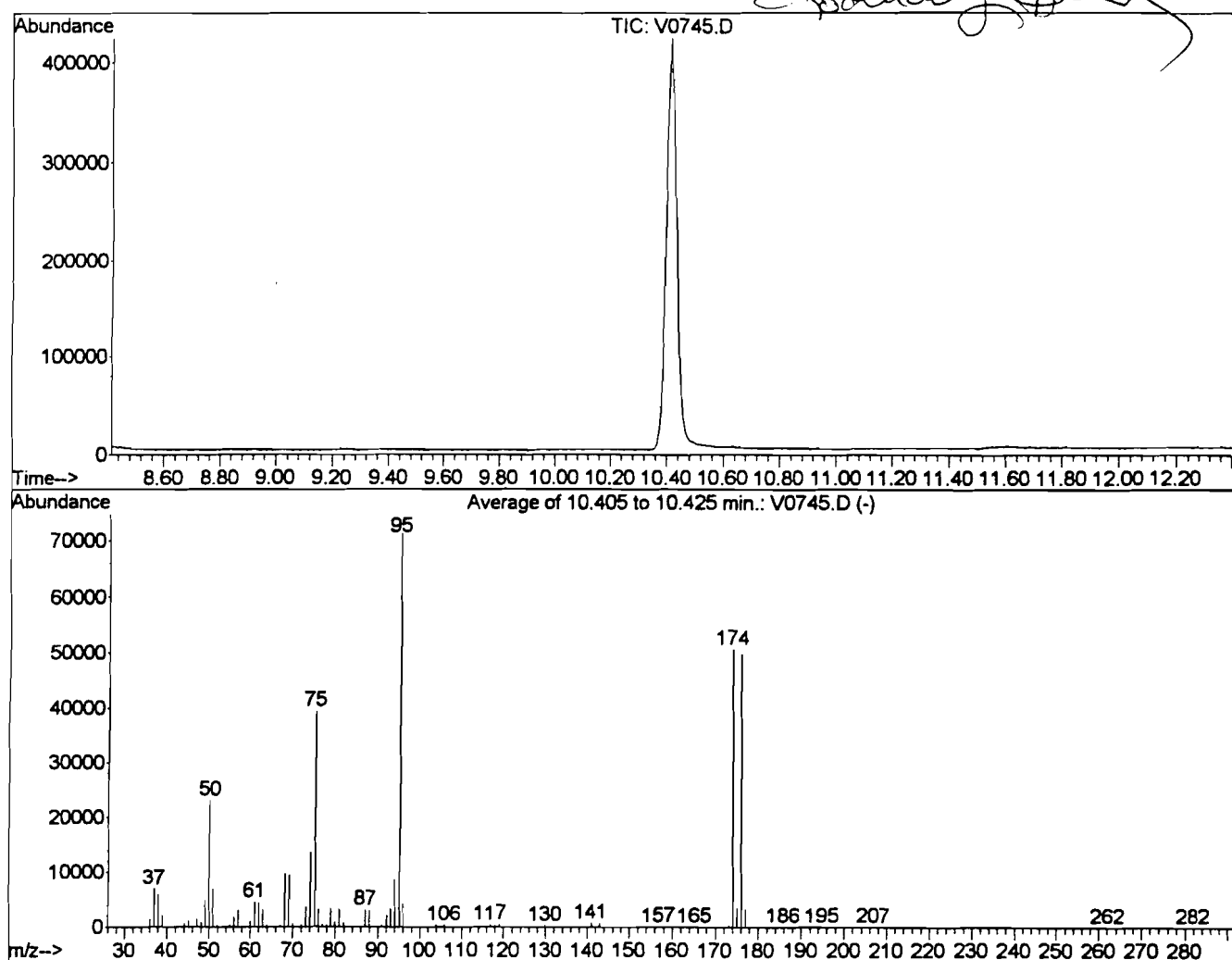
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 210, 211, 212; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	32.4	23120	PASS
75	95	30	60	55.2	39349	PASS
95	95	100	100	100.0	71257	PASS
96	95	5	9	5.9	4227	PASS
173	174	0.00	2	0.6	295	PASS
174	95	50	120	70.7	50363	PASS
175	174	5	9	6.9	3476	PASS
176	174	95	101	98.3	49523	PASS
177	176	5	9	6.6	3248	PASS

5A

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0792.D BFB Injection Date: 9/24/01
 Instrument ID: MS#7 BFB Injection Time: 16:22
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	33.6
75	30.0 - 66.0% of mass 95	56.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 120.0% of mass 95	67.6
175	4.0 - 9.0% of mass 174	4.9 (7.2)1
176	93.0 - 101.0% of mass 174	67.3 (99.5)1
177	5.0 - 9.0% of mass 176	4.4 (6.6)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	5PPB	5PPB	V0794.D	9/24/01	17:32
02	10PPB	10PPB	V0795.D	9/24/01	18:08
03	50PPB	50PPB	V0796.D	9/24/01	18:44
04	100PPB	100PPB	V0797.D	9/24/01	19:20
05	150PPB	150PPB	V0798.D	9/24/01	19:56
06	200PPB	200PPB	V0799.D	9/24/01	20:32

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0792.D

Vial: 9

Acq On : 24 Sep 2001 4:22 pm

Operator: herring

Sample : tune check

Inst : GC/MS Ins

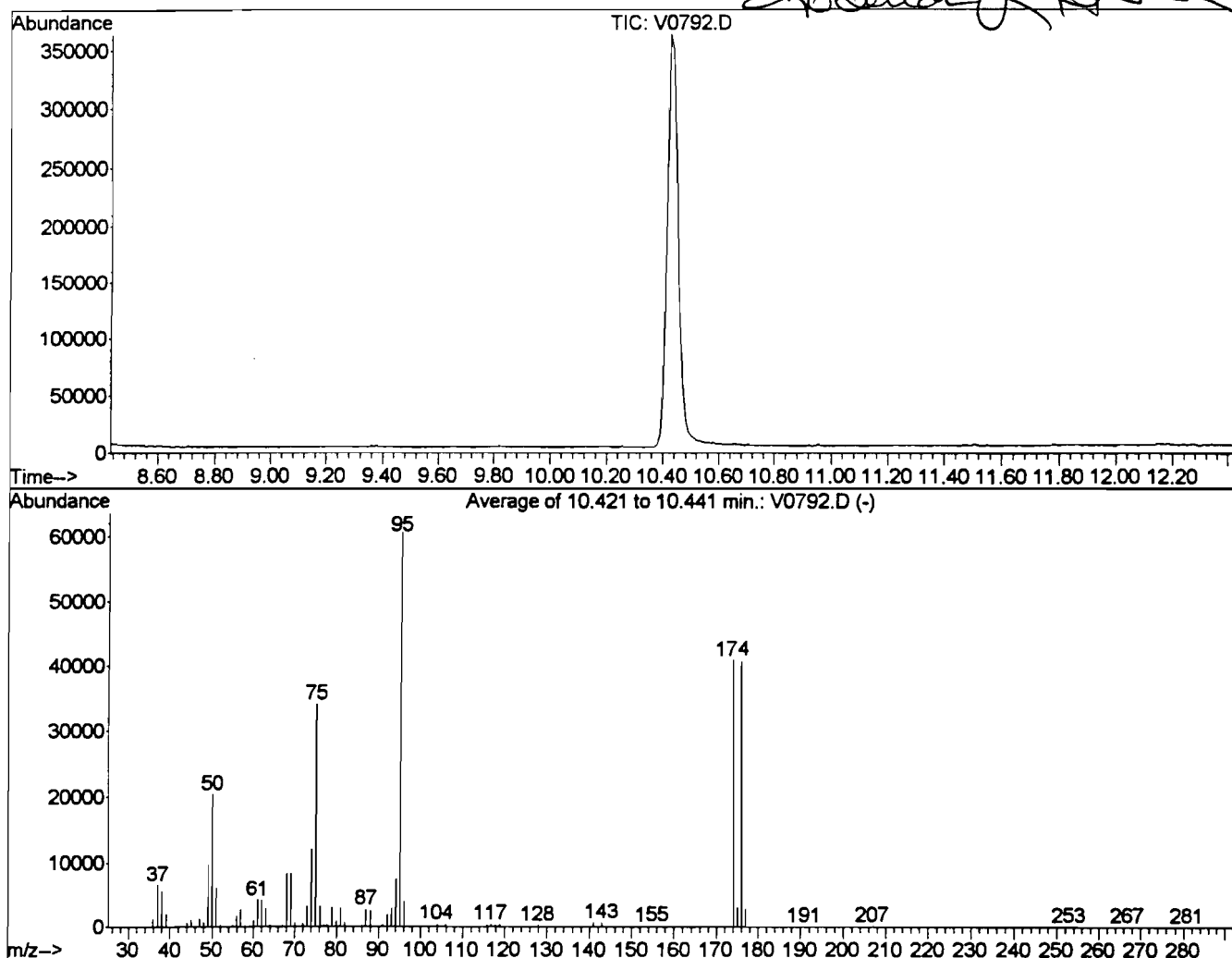
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 212, 213, 214; Background Corrected with Scan 205

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	33.6	20309	PASS
75	95	30	60	56.4	34099	PASS
95	95	100	100	100.0	60472	PASS
96	95	5	9	6.4	3874	PASS
173	174	0.00	2	0.4	155	PASS
174	95	50	120	67.6	40875	PASS
175	174	5	9	7.2	2955	PASS
176	174	95	101	99.5	40685	PASS
177	176	5	9	6.6	2690	PASS

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0806.D BFB Injection Date: 9/25/01
 Instrument ID: MS#7 BFB Injection Time: 13:47
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	32.8
75	30.0 - 66.0% of mass 95	55.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	50.0 - 120.0% of mass 95	71.3
175	4.0 - 9.0% of mass 174	5.2 (7.3)1
176	93.0 - 101.0% of mass 174	69.8 (97.8)1
177	5.0 - 9.0% of mass 176	4.7 (6.7)2

1-Value is % mass 174

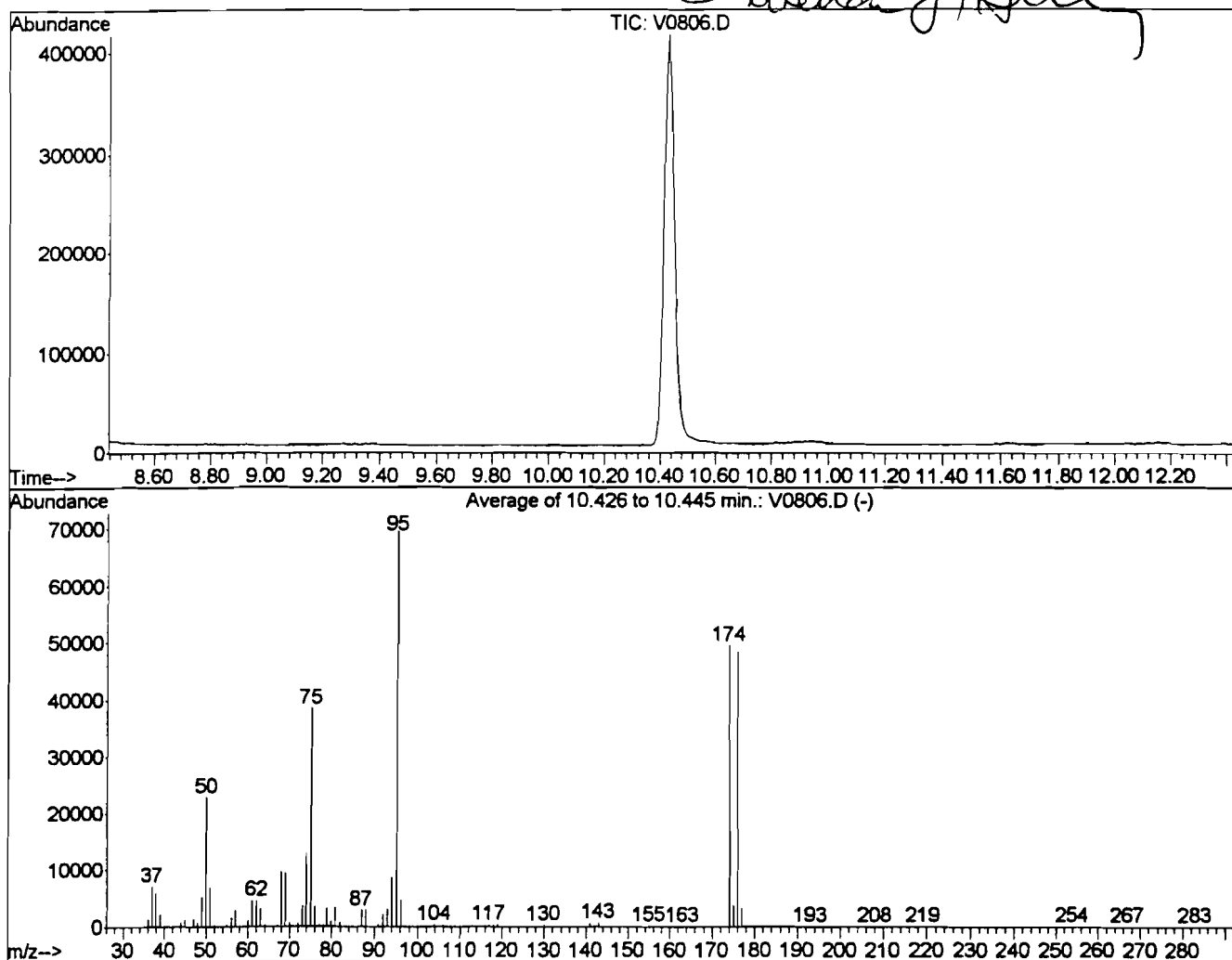
2-Value is % mass 176

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	VSTD04	CCV	V0807.D	9/25/01	14:21
02	VBLK04	502803 1.0	V0808.D	9/25/01	15:10
03	LCS04	502804 1.0	V0810.D	9/25/01	17:18
04	BR-17	493230 25	V0812.D	9/25/01	18:45
05	OB-06DL	493228 50	V0813.D	9/25/01	19:20
06	W-6DL	493232 2.0	V0814.D	9/25/01	19:56
07	BR-01DL	493233 2.0	V0815.D	9/25/01	20:31
08	TW-04	493236 1.0	V0816.D	9/25/01	21:07
09	BR-03	493237 2.5	V0817.D	9/25/01	21:42
10	BR-02DL	493354 100	V0818.D	9/25/01	22:17
11	OB-07	493949 1.0	V0819.D	9/25/01	22:53
12	OB-07MS	493949 1.0MS	V0820.D	9/25/01	23:28
13	OB-07MSD	493949 1.0MSD	V0821.D	9/26/01	0:04
14	BR-15	493366 40	V0822.D	9/26/01	0:40
15	TW-09	493367 1.0	V0823.D	9/26/01	1:16

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0806.D
 Acq On : 25 Sep 2001 1:47 pm
 Sample : tune check
 Misc :
 MS Integration Params: RTEINT.P
 Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa

Vial: 4
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00



AutoFind: Scans 212, 213, 214; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	32.8	22773	PASS
75	95	30	60	55.5	38493	PASS
95	95	100	100	100.0	69365	PASS
96	95	5	9	6.7	4672	PASS
173	174	0.00	2	0.2	102	PASS
174	95	50	120	71.3	49485	PASS
175	174	5	9	7.3	3607	PASS
176	174	95	101	97.8	48403	PASS
177	176	5	9	6.7	3228	PASS

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID: V0828.D BFB Injection Date: 9/26/01
 Instrument ID: MS#7 BFB Injection Time: 10:45
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	34.1
75	30.0 - 66.0% of mass 95	54.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	50.0 - 120.0% of mass 95	69.6
175	4.0 - 9.0% of mass 174	5.0 (7.2)1
176	93.0 - 101.0% of mass 174	68.0 (97.6)1
177	5.0 - 9.0% of mass 176	4.6 (6.7)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	VSTD05	CCV	V0829.D	9/26/01	11:19
02	VBLK05	502807 1.0	V0830.D	9/26/01	12:09
03	LCS05	502816 1.0	V0831.D	9/26/01	12:44
04	BR-10	493368 50	V0832.D	9/26/01	13:29
05	W-5	493950 1.0	V0833.D	9/26/01	14:05
06	W-5DUP	493951 1.0	V0834.D	9/26/01	14:41
07	BR-04	493952 50	V0835.D	9/26/01	15:17
08	BR-05	493953 25	V0836.D	9/26/01	15:53
09	BR-09	493954 50	V0837.D	9/26/01	16:29
10	OB-08	493955 200	V0838.D	9/26/01	17:05
11	BR-11	493956 500	V0839.D	9/26/01	17:41

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0828.D

Vial: 4

Acq On : 26 Sep 2001 10:45 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

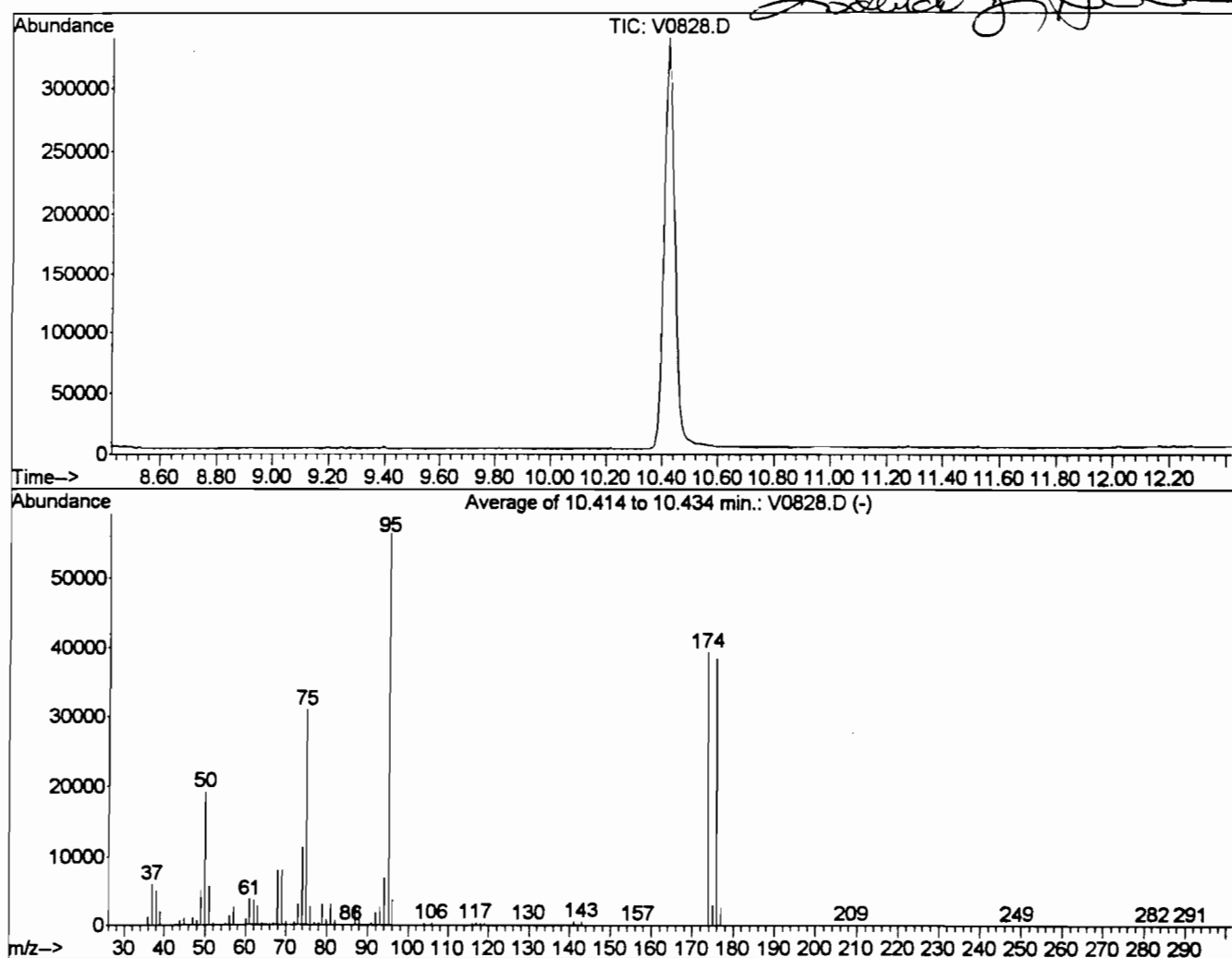
Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 211, 212, 213; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	34.1	19220	PASS
75	95	30	60	54.9	30911	PASS
95	95	100	100	100.0	56325	PASS
96	95	5	9	6.6	3723	PASS
173	174	0.00	2	0.2	69	PASS
174	95	50	120	69.6	39224	PASS
175	174	5	9	7.2	2834	PASS
176	174	95	101	97.6	38283	PASS
177	176	5	9	6.7	2580	PASS

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID (Standard): V0673.D Date Analyzed: 9/18/01
 Instrument ID: MS#7 Time Analyzed: 11:53
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	144915	10.40	255911	11.73	213818	17.23
	UPPER LIMIT	289830	10.90	511822	12.23	427636	17.73
	LOWER LIMIT	72458	9.90	127956	11.23	106909	16.73
	EPA SAMPLE NO.						
01	VBLK01	150509	10.40	260944	11.73	219680	17.23
02	LCS01	135261	10.40	234234	11.74	200979	17.23
03	QATB01	136353	10.39	238413	11.73	201121	17.24
04	QAFB01	132071	10.40	233130	11.73	193117	17.23
05	QARB01	128290	10.40	228075	11.73	190699	17.23
06	BR-06	129389	10.39	228156	11.73	189990	17.23
07	BR-06MS	126289	10.40	231782	11.73	194944	17.23
08	BR-06MSD	137037	10.39	246402	11.72	207945	17.23
09	BR-07DUP	145089	10.39	251442	11.73	210833	17.23

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID (Standard): V0673.D Date Analyzed: 09/18/01
 Instrument ID: MS#7 Time Analyzed: 11:53
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): X N *R24 10/23*

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	94752	21.99				
UPPER LIMIT	189504	21.49				
LOWER LIMIT	47376	22.49				
EPA SAMPLE NO.						
01 VBLK01	87811	21.99				
02 LCS01	85482	21.99				
03 QATB01	80455	21.99				
04 QAFB01	80612	21.99				
05 QARB01	78079	21.99				
06 BR-06	77628	21.99				
07 BR-06MS	88278	21.98				
08 BR-06MSD	92196	21.98				
09 BR-07DUP	85292	21.99				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01
 Lab File ID (Standard): V0697.D Date Analyzed: 9/19/01
 Instrument ID: MS#7 Time Analyzed: 11:44
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	148899	10.41	257988	11.74	221394	17.24
UPPER LIMIT	297798	10.91	515976	12.24	442788	17.74
LOWER LIMIT	74450	9.91	128994	11.24	110697	16.74
EPA SAMPLE NO.						
01 VBLK02	160268	10.41	277353	11.73	232509	17.24
02 LCS02	156441	10.40	274112	11.73	227149	17.24
03 OB-06	147007	10.41	256712	11.75	214535	17.25
04 BR-08	134525	10.41	238601	11.74	203295	17.25
05 BR-14	132515	10.41	233949	11.75	195826	17.25
06 W-6	130845	10.41	231072	11.74	197111	17.25
07 BR-01	129213	10.41	224963	11.74	189240	17.25
08 TW-17	124701	10.41	222029	11.74	189108	17.25
09 BR-07	125191	10.41	218741	11.75	186618	17.25
10 BR-07MS	125834	10.41	226809	11.75	190235	17.25
11 BR-07MSD	140077	10.41	243162	11.75	209007	17.25

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID (Standard): V0697.D Date Analyzed: 09/19/01
 Instrument ID: MS#7 Time Analyzed: 11:44
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): X N *Post 10/23*

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	96954	22.00				
UPPER LIMIT	193908	21.50				
LOWER LIMIT	48477	22.50				
EPA SAMPLE NO.						
01 VBLK02	92387	22.00				
02 LCS02	97192	22.00				
03 OB-06	86693	22.00				
04 BR-08	82581	22.01				
05 BR-14	80779	22.00				
06 W-6	79855	22.00				
07 BR-01	78636	22.00				
08 TW-17	75777	22.01				
09 BR-07	75793	22.00				
10 BR-07MS	87564	22.00				
11 BR-07MSD	90309	22.01				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01
 Lab File ID (Standard): V0746.D Date Analyzed: 9/21/01
 Instrument ID: MS#7 Time Analyzed: 12:05
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	155368	10.41	267918	11.74	228924	17.25
UPPER LIMIT	310736	10.91	535836	12.24	457848	17.75
LOWER LIMIT	77684	9.91	133959	11.24	114462	16.75
EPA SAMPLE NO.						
01 LCS03	156008	10.42	272710	11.75	229173	17.25
02 VBLK03	160092	10.40	276801	11.74	235085	17.25
03 TW-13	145260	10.42	245190	11.75	211008	17.25
04 W-4	148334	10.41	255462	11.75	218401	17.26
05 TW-20	142010	10.42	248039	11.75	210231	17.25
06 TW-20MS	139412	10.41	246230	11.74	208350	17.25
07 TW-20MSD	147746	10.41	258274	11.75	217954	17.25
08 TW-07	133512	10.41	239872	11.75	201555	17.25
09 OB-09	133285	10.42	234546	11.75	197342	17.25
10 BR-02	129861	10.41	229382	11.75	192589	17.25
11 QATB02	126601	10.42	223262	11.75	190836	17.26
12 QAFB02	124758	10.41	223524	11.75	187672	17.26
13 QARB02	122398	10.42	217428	11.75	185022	17.25
14 BR-16	121161	10.41	216981	11.75	184117	17.25
15 BR-12	120470	10.41	209180	11.75	181448	17.26
16 BR-13	117782	10.42	208009	11.76	177719	17.26

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01
 Lab File ID (Standard): V0746.D Date Analyzed: 09/21/01
 Instrument ID: MS#7 Time Analyzed: 12:05
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): Y

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	101181	22.00				
UPPER LIMIT	202362	21.50				
LOWER LIMIT	50591	22.50				
EPA SAMPLE NO.						
01 LCS03	97239	22.00				
02 VBLK03	93954	22.01				
03 TW-13	87635	22.01				
04 W-4	89610	22.01				
05 TW-20	85321	22.01				
06 TW-20MS	92306	22.01				
07 TW-20MSD	94548	22.01				
08 TW-07	81363	22.01				
09 OB-09	79417	22.01				
10 BR-02	80429	22.00				
11 QATB02	76317	22.01				
12 QAFB02	74674	22.01				
13 QARB02	76130	22.01				
14 BR-16	74893	22.01				
15 BR-12	74208	22.01				
16 BR-13	71915	22.01				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: SDG No.: QATB01
 Lab File ID (Standard): V0807.D Date Analyzed: 9/25/01
 Instrument ID: MS#7 Time Analyzed: 14:21
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	166948	10.42	282841	11.76	238207	17.27
UPPER LIMIT	333896	10.92	565682	12.26	476414	17.77
LOWER LIMIT	83474	9.92	141421	11.26	119104	16.77
EPA SAMPLE NO.						
01 VBLK04	170313	10.42	304321	11.76	244750	17.27
02 LCS04	171637	10.42	305629	11.76	244779	17.27
03 BR-17	160244	10.42	285967	11.75	234009	17.27
04 OB-06DL	153357	10.42	269734	11.76	218991	17.26
05 W-6DL	151478	10.41	262628	11.75	215021	17.26
06 BR-01DL	147978	10.42	257171	11.76	209081	17.26
07 TW-04	140683	10.42	246776	11.75	206233	17.26
08 BR-03	136498	10.41	244935	11.75	198399	17.26
09 BR-02DL	134406	10.42	241252	11.75	197220	17.26
10 OB-07	134117	10.41	235871	11.75	196373	17.26
11 OB-07MS	135400	10.42	238363	11.75	200630	17.26
12 OB-07MSD	148173	10.42	259379	11.75	211602	17.26
13 BR-15	146358	10.42	257877	11.75	207117	17.26
14 TW-09	141529	10.42	246627	11.75	203638	17.25

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID (Standard): V0807.D Date Analyzed: 09/25/01
 Instrument ID: MS#7 Time Analyzed: 14:21
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): ~~Y~~ N *RJH 10/23*

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	102905	22.03				
UPPER LIMIT	205810	21.53				
LOWER LIMIT	51453	22.53				
EPA SAMPLE NO.						
01 VBLK04	95611	22.02				
02 LCS04	98917	22.02				
03 BR-17	91017	22.02				
04 OB-06DL	84382	22.02				
05 W-6DL	84636	22.02				
06 BR-01DL	82661	22.01				
07 TW-04	78919	22.01				
08 BR-03	76484	22.01				
09 BR-02DL	77677	22.02				
10 OB-07	76923	22.01				
11 OB-07MS	85655	22.01				
12 OB-07MSD	90636	22.01				
13 BR-15	80251	22.02				
14 TW-09	79413	22.01				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID (Standard): V0829.D Date Analyzed: 9/26/01
 Instrument ID: MS#7 Time Analyzed: 11:19
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	136362	10.42	240762	11.76	202111	17.25
UPPER LIMIT	272724	10.92	481524	12.26	404222	17.75
LOWER LIMIT	68181	9.92	120381	11.26	101056	16.75
EPA SAMPLE NO.						
01 VBLK05	137666	10.42	235688	11.76	200062	17.26
02 LCS05	142793	10.42	252863	11.75	206450	17.25
03 BR-10	130681	10.42	228877	11.76	193665	17.26
04 W-5	139331	10.41	248322	11.75	203551	17.26
05 W-5DUP	138255	10.42	246893	11.76	201261	17.26
06 BR-04	134056	10.42	236145	11.75	192738	17.26
07 BR-05	132392	10.42	232634	11.75	193548	17.27
08 BR-09	129383	10.42	231992	11.75	193614	17.27
09 OB-08	125608	10.42	225834	11.75	186739	17.26
10 BR-11	130420	10.42	230389	11.76	190617	17.26

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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: CAS/ROCH Contract: HLA
 Lab Code: 10145 Case No.: R21-8550 SAS No.: _____ SDG No.: QATB01
 Lab File ID (Standard): V0829.D Date Analyzed: 09/26/01
 Instrument ID: MS#7 Time Analyzed: 11:19
 GC Column: SPB-624 ID: 0.32 (mm) Heated Purge (Y/N): X *N 10/23*

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	90810	22.01				
UPPER LIMIT	181620	21.51				
LOWER LIMIT	45405	22.51				
EPA SAMPLE NO.						
01 VBLK05	80375	22.01				
02 LCS05	86286	22.01				
03 BR-10	77857	22.02				
04 W-5	79545	22.02				
05 W-5DUP	77268	22.02				
06 BR-04	76860	22.02				
07 BR-05	74968	22.02				
08 BR-09	75735	22.01				
09 OB-08	74348	22.02				
10 BR-11	74446	22.02				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

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

Report Date : 26-Sep-2001 15:00

Columbia Analytical Services, INC (ROC)
METHOD DETECTION LIMIT SUMMARY REPORTMethod File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b\APPIX0906.m
Batch File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b
Inst ID: ms7.iGCMS# 7 water
MDL
9/6/01

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL10
FILENAME:	V0484	V0485	V0486	V0487	V0488	V0489	V0490	V0491	V0492	V0493
INJ. DATE:	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001	07-SEP-2001
INJ. TIME:	15:48	16:25	17:01	17:38	18:15	18:52	19:28	20:05	20:42	21:19

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL10	AVG CONC	STD DEV	MDL
1 Dichlorodifluoromethan	5.17	4.81	4.83	4.35	4.48	4.63	4.41	4.40	4.56	4.27	4.59	0.27	0.77
2 chloromethane	5.67	4.67	4.93	4.52	4.36	4.25	4.56	4.29	4.60	4.22	4.61	0.43	1.23
3 vinyl chloride	5.10	4.63	4.69	4.41	4.47	4.56	4.41	4.22	3.98	3.92	4.44	0.35	0.98
4 bromomethane	8.32	8.28	8.13	8.27	8.09	8.11	8.24	7.98	7.89	7.86	8.11	0.16	0.46
5 chloroethane	5.08	4.78	4.70	4.78	4.73	4.76	4.73	4.70	5.00	4.62	4.79	0.14	0.41
6 Trichlorofluoromethane	5.00	4.77	4.80	4.74	4.63	4.69	4.66	4.52	4.70	4.39	4.69	0.16	0.47
7 Diethyl Ether	4.88	5.15	4.99	5.08	4.78	4.97	4.98	4.90	5.14	4.96	4.98	0.12	0.33
8 Acrolein	24.41	23.00	22.15	24.87	24.35	21.46	23.04	21.80	20.70	19.85	22.56	1.67	4.72
9 freon 113	5.16	4.95	4.79	4.73	4.81	4.79	4.48	4.59	4.53	4.27	4.71	0.25	0.71
10 1,1-dichloroethene	4.97	4.90	4.52	4.62	4.48	4.52	4.71	4.58	4.63	4.37	4.63	0.19	0.52
11 acetone	6.75	6.55	7.50	6.65	6.53	6.82	7.13	8.06	7.51	7.65	7.11	0.54	1.51
12 Iodomethane	3.31	3.94	3.66	4.01	4.24	3.91	3.80	3.74	4.02	3.85	3.85	0.25	0.71
13 carbon disulfide	5.03	4.75	4.85	4.60	4.62	4.67	4.54	4.46	4.56	4.32	4.64	0.20	0.56
14 Acetonitrile	28.13	25.35	28.25	28.72	28.57	28.43	29.20	27.91	29.14	28.62	28.23	1.09	3.08
15 Allyl Chloride	4.98	4.83	4.54	4.60	4.29	4.82	4.11	4.06	4.18	4.22	4.46	0.34	0.95
16 methylene chloride	5.33	4.94	4.87	4.92	5.00	5.01	4.76	4.79	4.76	4.81	4.92	0.17	0.48
17 TBA	118.51	117.20	117.51	123.40	119.43	123.11	124.97	121.39	125.27	121.67	121.25	2.97	8.38

Reviewer 1
Reviewer 2Set up by RHH
[Signature]

Date:

Date:

9/7

9/26

Report Date : 26-Sep-2001 15:00

Columbia Analytical Services, INC (ROC)
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b\APPIX0906.m

Batch File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b

Inst ID: ms7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL10	AVG CONC	STD DEV	MDL

18 Acrylonitrile	27.56	26.44	25.69	27.21	26.47	27.09	27.40	26.88	27.39	27.78	26.99	0.63	1.79
19 methyl tert-butyl ethe	5.21	5.14	5.16	5.08	5.01	4.99	5.01	5.00	4.98	5.00	5.06	0.08	0.24
20 trans-1,2-dichloroethe	4.73	4.66	4.59	4.83	4.52	4.73	4.40	4.56	4.60	4.22	4.58	0.18	0.50
21 Vinyl Acetate	4.41	3.95	3.73	3.52	3.20	2.97	2.87	2.02	2.46	1.90	3.10	0.82	2.32

22 1,1-dichloroethane	5.18	4.91	4.86	4.86	4.72	4.82	4.79	4.69	4.63	4.58	4.80	0.17	0.48
23 2-Chloro-1,3-Butadiene	4.91	4.90	4.87	4.87	4.73	4.63	4.58	4.64	4.42	4.34	4.69	0.20	0.57
24 2-butanone (MEK)	6.19	5.70	6.46	6.00	6.08	6.22	6.32	5.96	6.29	6.09	6.13	0.21	0.60
25 2,2-Dichloropropane	4.74	4.41	4.15	3.99	3.97	4.04	3.71	3.44	3.25	3.04	3.87	0.52	1.48
26 cis-1,2-Dichloroethene	5.13	4.83	4.54	4.57	4.71	4.70	4.56	4.42	4.38	4.63	4.65	0.21	0.61
27 Propionitrile	28.30	26.48	26.30	26.92	27.70	29.09	27.10	29.09	29.56	26.53	27.71	1.22	3.46
28 Methacrylonitrile	5.12	5.13	5.28	5.19	5.36	5.36	5.38	4.90	5.25	5.20	5.22	0.14	0.41

29 Bromochloromethane	5.11	4.97	4.86	5.23	5.30	5.28	4.82	5.25	5.08	4.86	5.08	0.19	0.53
30 Tetrahydrofuran	4.26	3.88	4.07	4.08	4.57	4.81	4.91	4.58	4.56	4.78	4.45	0.35	1.00
31 chloroform	5.27	5.11	4.77	4.88	4.89	4.87	4.81	4.85	4.83	4.73	4.90	0.16	0.46
32 Pentafluorobenzene	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
33 Dibromofluoromethane	50.37	49.31	48.95	49.88	49.78	49.86	51.20	50.58	50.08	50.07	50.01	0.63	1.78
34 1,1,1-trichloroethane	4.87	4.74	4.76	4.73	4.66	4.65	4.65	4.65	4.53	4.16	4.64	0.19	0.54
35 1,1-Dichloropropene	4.86	4.76	4.91	4.40	4.46	4.56	4.47	4.55	4.48	4.19	4.57	0.22	0.63

36 Iso-Butyl Alcohol	106.39	129.11	110.45	118.19	113.65	116.64	114.71	118.27	116.63	122.79	116.68	6.27	17.70
37 carbon tetrachloride	4.94	4.50	4.48	4.32	4.35	4.48	4.27	4.42	4.26	4.11	4.41	0.22	0.63
38 benzene	4.81	4.83	4.58	4.57	4.54	4.57	4.61	4.57	4.51	4.39	4.60	0.13	0.37
39 1,2-dichloroethane	5.11	4.80	4.92	4.82	5.07	5.01	4.89	4.97	4.85	5.11	4.96	0.12	0.33

Report Date : 26-Sep-2001 15:00

Columbia Analytical Services, INC (ROC)
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b\APPIX0906.m

Batch File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b

Inst ID: ms7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL10	AVG CONC	STD DEV	MDL
40 N-Heptane	4.81	4.67	4.60	4.73	4.61	4.46	4.17	4.30	3.92	3.85	4.41	0.34	0.95
* 41 1,4-Difluorobenzene	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
42 trichloroethene	4.83	5.12	4.94	5.00	5.17	5.20	4.78	5.28	5.34	5.29	5.09	0.20	0.56
43 1,2-dichloropropane	4.99	4.87	4.61	4.70	4.65	4.55	4.62	4.37	4.61	4.66	4.66	0.17	0.48
44 Methyl Methacrylate	4.77	5.06	4.87	5.35	4.97	4.85	4.98	4.90	4.97	4.96	4.97	0.16	0.44
45 1,4-Dioxane	118.13	127.25	122.63	131.70	125.45	122.42	124.95	121.19	129.20	132.21	125.51	4.61	13.00
46 Dibromomethane	5.40	5.34	5.38	5.48	5.53	5.56	5.65	5.34	5.63	5.18	5.45	0.15	0.42
47 bromodichloromethane	4.75	4.47	4.53	4.55	4.51	4.52	4.49	4.38	4.49	4.39	4.51	0.10	0.29
48 2-Nitropropane	9.61	9.39	9.64	9.97	9.51	9.35	9.55	9.74	9.17	9.41	9.54	0.22	0.63
49 2-Chloroethylvinyl Eth	4.69	4.23	4.56	4.55	4.48	5.01	4.68	4.78	4.24	4.05	4.53	0.29	0.82
50 cis-1,3-dichloropropen	5.00	4.60	4.67	4.59	4.47	4.53	4.30	4.35	4.08	4.16	4.48	0.27	0.76
51 4-methyl-2-pentanone	5.53	5.12	5.33	5.44	5.37	5.51	6.04	5.21	5.46	5.30	5.43	0.25	0.71
\$ 52 toluene-d8	48.69	48.83	48.63	48.56	48.04	48.73	48.90	48.98	48.05	48.54	48.59	0.32	0.91
53 toluene	4.78	4.57	4.75	4.42	4.53	4.47	4.46	4.43	4.39	4.18	4.50	0.17	0.49
54 trans-1,3-dichloroprop	4.66	4.51	4.60	4.66	4.50	4.56	4.34	4.32	4.46	4.20	4.48	0.15	0.43
55 Ethyl Methacrylate	4.81	4.80	4.68	4.79	4.87	4.94	4.76	4.56	4.90	4.80	4.79	0.11	0.31
56 1,1,2-trichloroethane	4.84	4.89	4.88	4.58	4.76	4.91	4.92	4.78	4.79	4.85	4.82	0.10	0.29
57 1,3-Dichloropropane	4.77	4.91	4.79	4.79	4.72	4.96	4.79	4.91	4.81	4.79	4.82	0.08	0.22
58 tetrachloroethene	4.81	4.65	4.45	4.33	4.63	4.51	4.54	4.29	4.43	4.10	4.47	0.20	0.57
59 2-hexanone	5.48	5.51	5.28	5.40	5.85	5.62	5.52	5.43	5.58	5.57	5.52	0.15	0.42
60 dibromochloromethane	4.53	4.64	4.57	4.66	4.65	4.51	4.60	4.64	4.66	4.66	4.61	0.06	0.16
61 1,2-Dibromoethane	4.87	4.75	4.87	4.71	4.72	4.78	4.57	4.89	4.81	4.70	4.77	0.10	0.27
* 62 chlorobenzene-d5	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
63 chlorobenzene	4.80	4.81	4.71	4.68	4.68	4.62	4.57	4.36	4.41	4.37	4.60	0.17	0.48

Report Date : 26-Sep-2001 15:00

Columbia Analytical Services, INC (ROC)
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b\APPIX0906.m

Batch File: \\C-ROCH1\CSV\CHEM\ms7.i\mdl.b

Inst ID: ms7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL10	AVG CONC	STD DEV	MDL
87 1,4-Dichlorobenzene	4.69	4.67	4.71	4.58	4.69	4.40	4.52	4.58	4.53	4.29	4.56	0.14	0.39
88 n-Butylbenzene	9.72	4.79	4.83	4.55	4.34	4.62	4.36	4.29	4.28	4.04	4.98	1.68	4.75
89 1,2-Dichlorobenzene	4.93	4.71	4.72	4.70	4.70	4.68	4.54	4.31	4.71	4.46	4.65	0.17	0.48
90 1,2-dibromo-3-chloropr	5.88	5.74	5.63	6.01	5.16	5.49	6.32	6.61	6.22	5.90	5.90	0.42	1.19
91 Nitrobenzene	29.50	26.66	20.45	25.20	25.20	26.11	27.71	26.84	26.18	27.71	26.16	2.38	6.72
92 1,2,4-Trichlorobenzene	4.89	4.65	4.64	4.40	4.53	4.61	4.55	4.48	4.63	4.31	4.57	0.16	0.45
93 Hexachlorobutadiene	4.84	4.84	4.99	4.45	4.48	4.55	4.62	4.35	4.37	4.24	4.57	0.25	0.69
94 Naphthalene	4.98	4.91	4.99	4.97	4.79	5.01	4.88	5.02	5.04	4.82	4.94	0.09	0.24
95 1,2,3-Trichlorobenzene	4.96	4.92	4.86	4.78	4.82	4.69	4.69	4.82	4.65	4.51	4.77	0.14	0.38

VOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : QATB01

Date Sampled : 09/11/01 Order #: 492383 Sample Matrix: WATER
 Date Received: 09/12/01 Submission #: R2108550 Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0683.D

Vial: 15

Acq On : 18 Sep 2001 6:27 pm

Operator: herring

Sample : 492383 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 18:59 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.39	168	136353	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.73	114	238413	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.24	117	201121	50.00	ppb	0.03
73) d4 - Dichlorobenzene	21.99	152	80455	50.00	ppb	0.03

System Monitoring Compounds

35) surr4, Dibrflmethane	10.42	113	96050	51.16	ppb	0.02
Spiked Amount	50.000		Recovery	=	102.32%	
57) surr3, Toluene-d8	14.43	98	253688	48.79	ppb	0.02
Spiked Amount	50.000		Recovery	=	97.58%	
58) surr2, bfb	19.56	95	99473	46.44	ppb	0.02
Spiked Amount	50.000		Recovery	=	92.88%	

Target Compounds

						Qvalue
12) Acetone	6.68	43	1101	1.45	ppb	# 73 <
18) TBA	7.54	59	176	1.03	ppb	# 60
26) 2-Butanone	9.64	43	5378	4.29	ppb	# 63
32) Tetrahydrofuran	10.15	42	2748	3.64	ppb	94 NT
38) Iso-Butyl Alcohol	10.72	43	218	2.15	ppb	61
45) 1,4-Dioxane	12.68	88	35	2.15	ppb	96

RSH 9/18

(#) = qualifier out of range (m) = manual integration
V0683.D EXP0914.M Tue Sep 18 18:59:37 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0683.D

Vial: 15

Acq On : 18 Sep 2001 6:27 pm

Operator: herring

Sample : 492383 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 18:59 2001

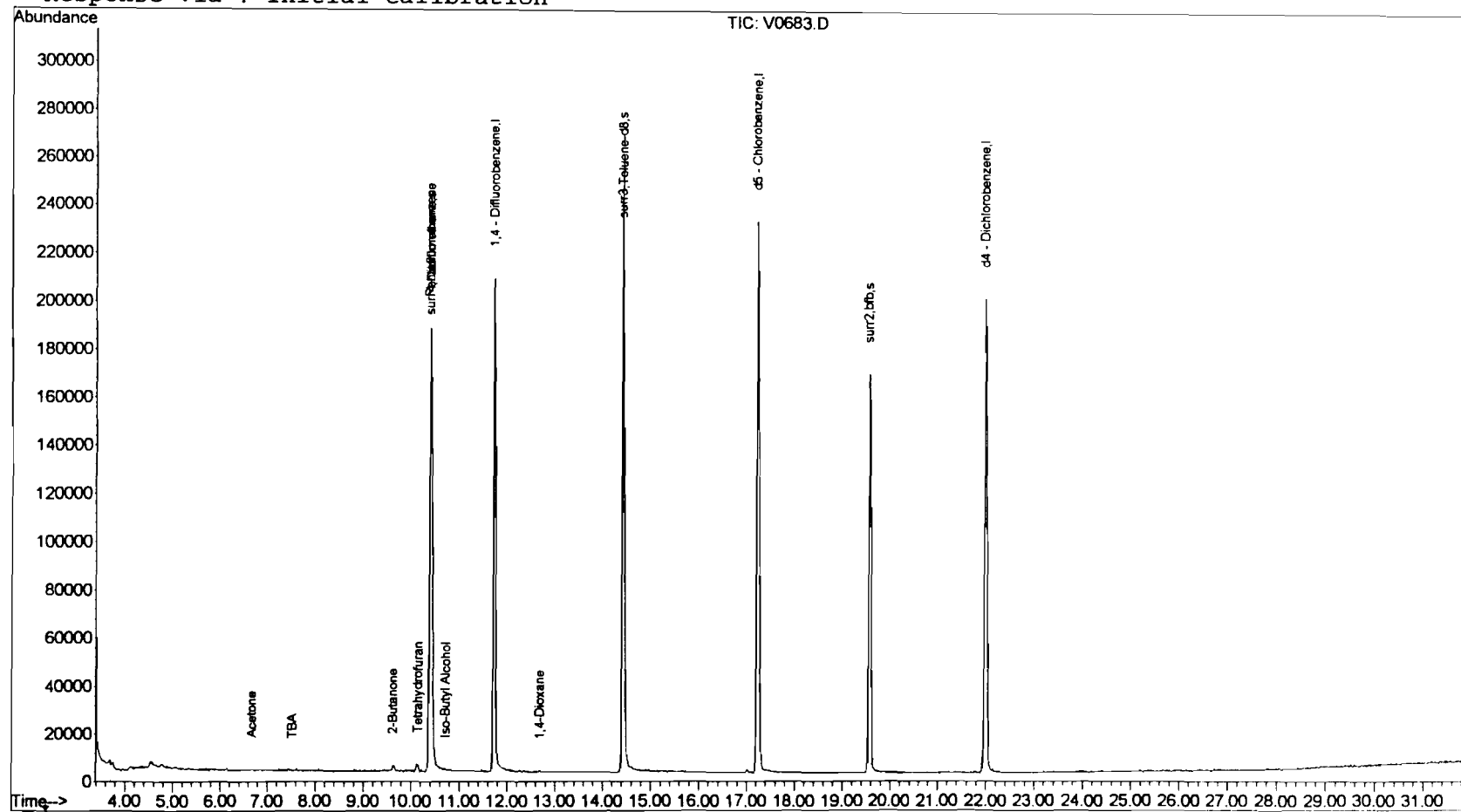
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : QAFB01

Date Sampled : 09/11/01 16:29 Order #: 492384 Sample Matrix: WATER
Date Received: 09/12/01 Submission #: R2108550 Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	3.2 J	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	7.5	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1.2 J	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0684.D

Vial: 16

Acq On : 18 Sep 2001 7:06 pm

Operator: herring

Sample : 492384 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 19:38 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.40	168	132071	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.73	114	233130	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.23	117	193117	50.00	ppb	0.02
73) d4 - Dichlorobenzene	21.99	152	80612	50.00	ppb	0.03

System Monitoring Compounds

35) surr4,Dibrflmethane	10.42	113	92479	50.37	ppb	0.02
Spiked Amount	50.000		Recovery	=	100.74%	
57) surr3,Toluene-d8	14.43	98	246651	49.40	ppb	0.02
Spiked Amount	50.000		Recovery	=	98.80%	
58) surr2,bfb	19.57	95	96745	47.04	ppb	0.03
Spiked Amount	50.000		Recovery	=	94.08%	

Target Compounds

						Qvalue
18) TBA	7.54	59	480	2.89	ppb	# 4
26) 2-Butanone	9.64	43	2842	2.34	ppb	# 63
31) Chloroform	10.15	83	22425	7.54	ppb	97
45) 1,4-Dioxane	12.85	88	79	4.96	ppb	# 9
47) Bromodichloromethane	13.12	83	7492	3.19	ppb	97 J
62) Dibromochloromethane	16.10	129	1789	1.16	ppb	92 J

RST 10/1

(#) = qualifier out of range (m) = manual integration
 V0684.D EXP0914.M Tue Sep 18 19:38:52 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0684.D

Vial: 16

Acq On : 18 Sep 2001 7:06 pm

Operator: herring

Sample : 492384 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 19:38 2001

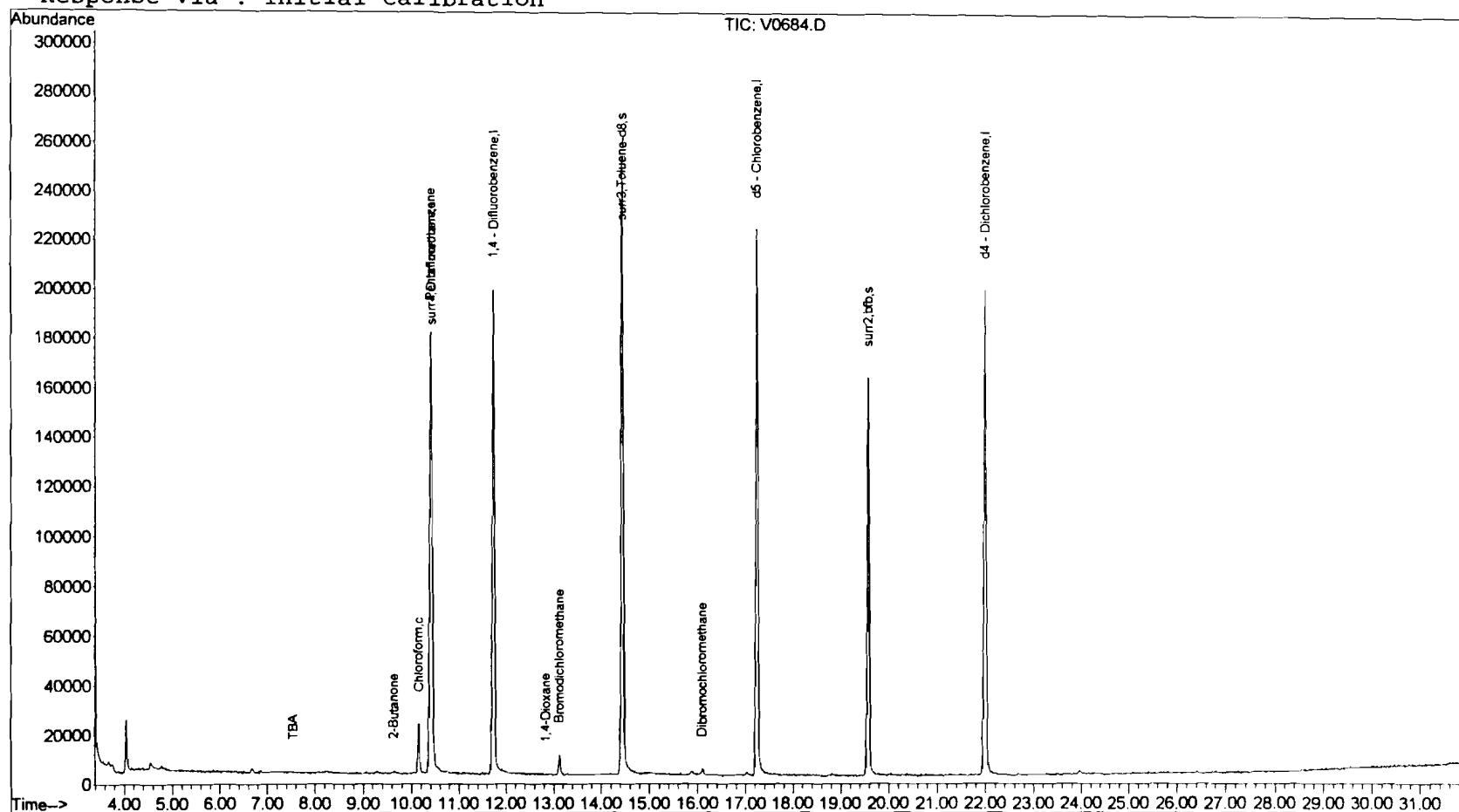
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

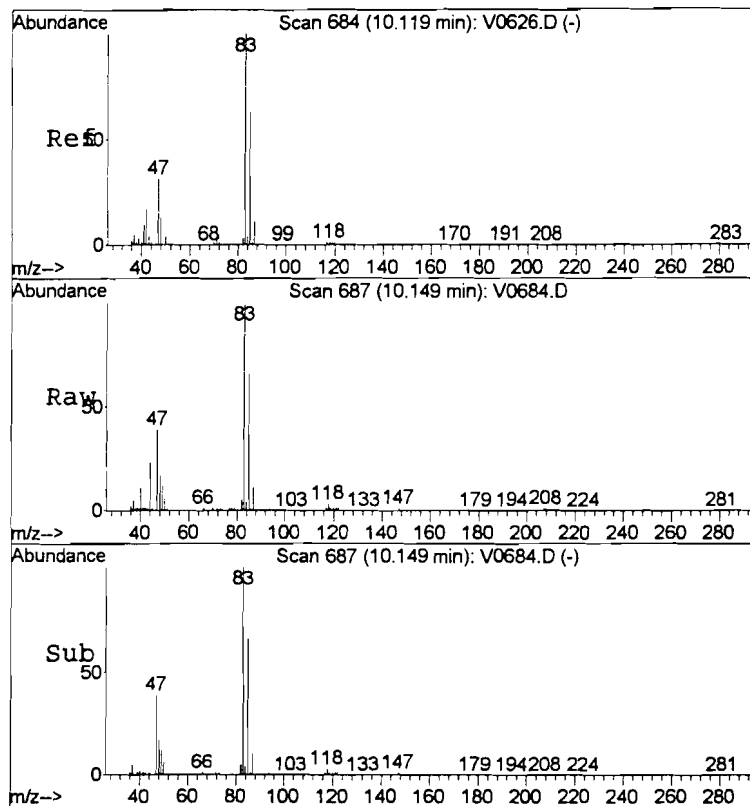
Response via : Initial Calibration



V0684.D EXP0914.M

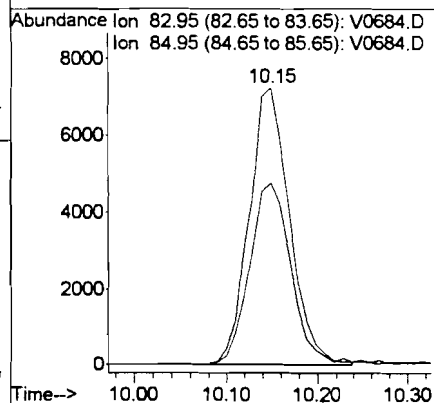
Tue Sep 18 19:38:52 2001

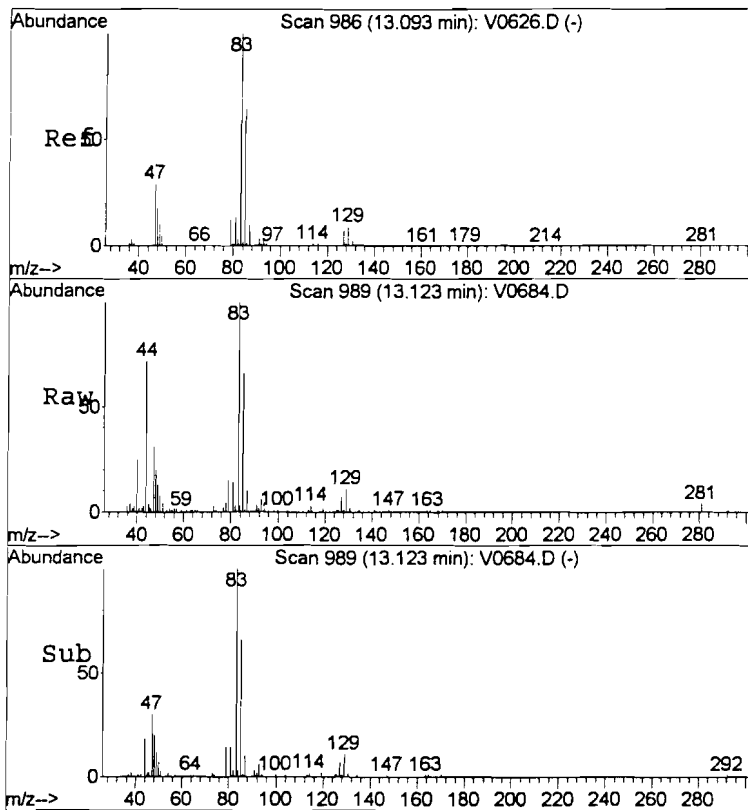
Page 2



#31
 Chloroform
 Concen: 7.54 ppb
 RT: 10.15 min Scan# 687
 Delta R.T. 0.02 min
 Lab File: V0684.D
 Acq: 18 Sep 2001 7:06 pm

Tgt Ion: 83 Resp: 22425
 Ion Ratio Lower Upper
 83 100
 85 65.7 50.5 75.7





#47

Bromodichloromethane

Concen: 3.19 ppb

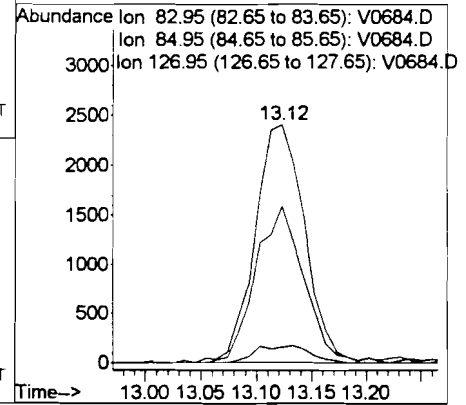
RT: 13.12 min Scan# 989

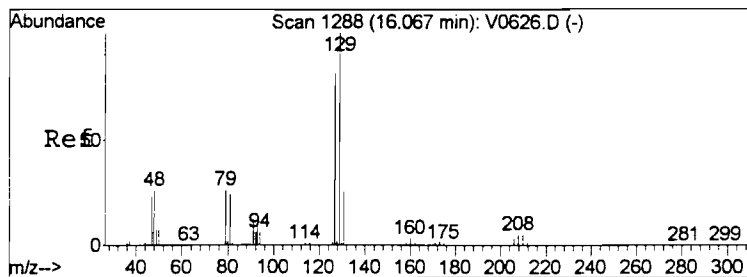
Delta R.T. 0.03 min

Lab File: V0684.D

Acq: 18 Sep 2001 7:06 pm

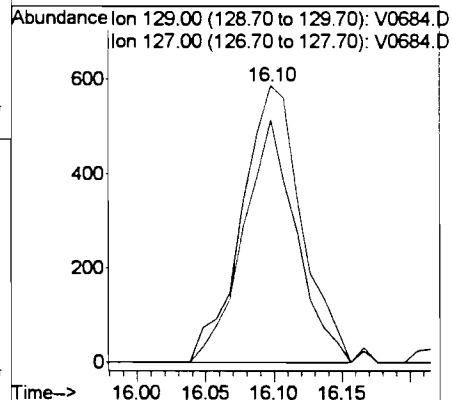
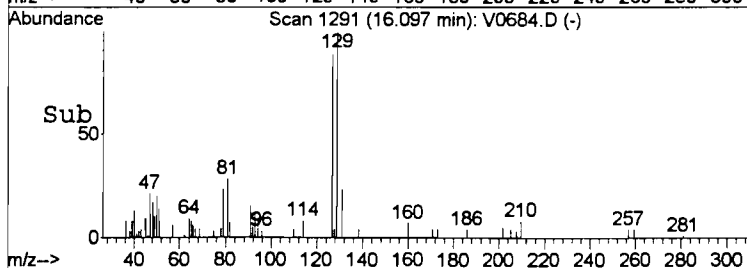
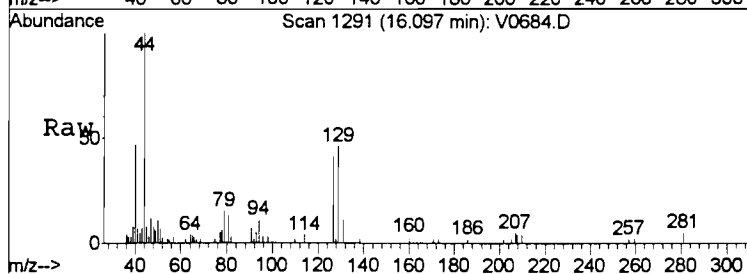
Tgt Ion	Resp	Lower	Upper
83	7492		
85	65.9	50.9	76.3
127	6.6	5.8	8.8





#62
 Dibromochloromethane
 Concen: 1.16 ppb
 RT: 16.10 min Scan# 1291
 Delta R.T. 0.03 min
 Lab File: V0684.D
 Acq: 18 Sep 2001 7:06 pm

Tgt Ion: 129 Resp: 1789
 Ion Ratio Lower Upper
 129 100
 127 87.7 64.8 97.2



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : QARB01

Date Sampled : 09/11/01 16:37 Order #: 492385 Sample Matrix: WATER
 Date Received: 09/12/01 Submission #: R2108550 Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	3.2 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	2.8 J	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	6.8	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1.2 J	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0685.D

Vial: 17

Acq On : 18 Sep 2001 7:45 pm

Operator: herring

Sample : 492385 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 20:17 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.40	168	128290	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.73	114	228075	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.23	117	190699	50.00	ppb	0.02
73) d4 - Dichlorobenzene	21.99	152	78079	50.00	ppb	0.03

System Monitoring Compounds

35) surr4,Dibrflmethane	10.42	113	90485	50.38	ppb	0.02
Spiked Amount	50.000		Recovery	=	100.76%	
57) surr3,Toluene-d8	14.43	98	240356	48.75	ppb	0.02
Spiked Amount	50.000		Recovery	=	97.50%	
58) surr2,bfb	19.56	95	95210	46.88	ppb	0.02
Spiked Amount	50.000		Recovery	=	93.76%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.67	43	2270	3.18	ppb	100 J
15) Acetonitrile	7.17	41	485	1.60	ppb	# 1
31) Chloroform	10.14	83	19680	6.81	ppb	98
45) 1,4 Dioxane	12.86	88	68	4.36	ppb	# 97
47) Bromodichloromethane	13.12	83	6411	2.79	ppb	# 85 J
62) Dibromochloromethane	16.10	129	1791	1.17	ppb	# 78 J

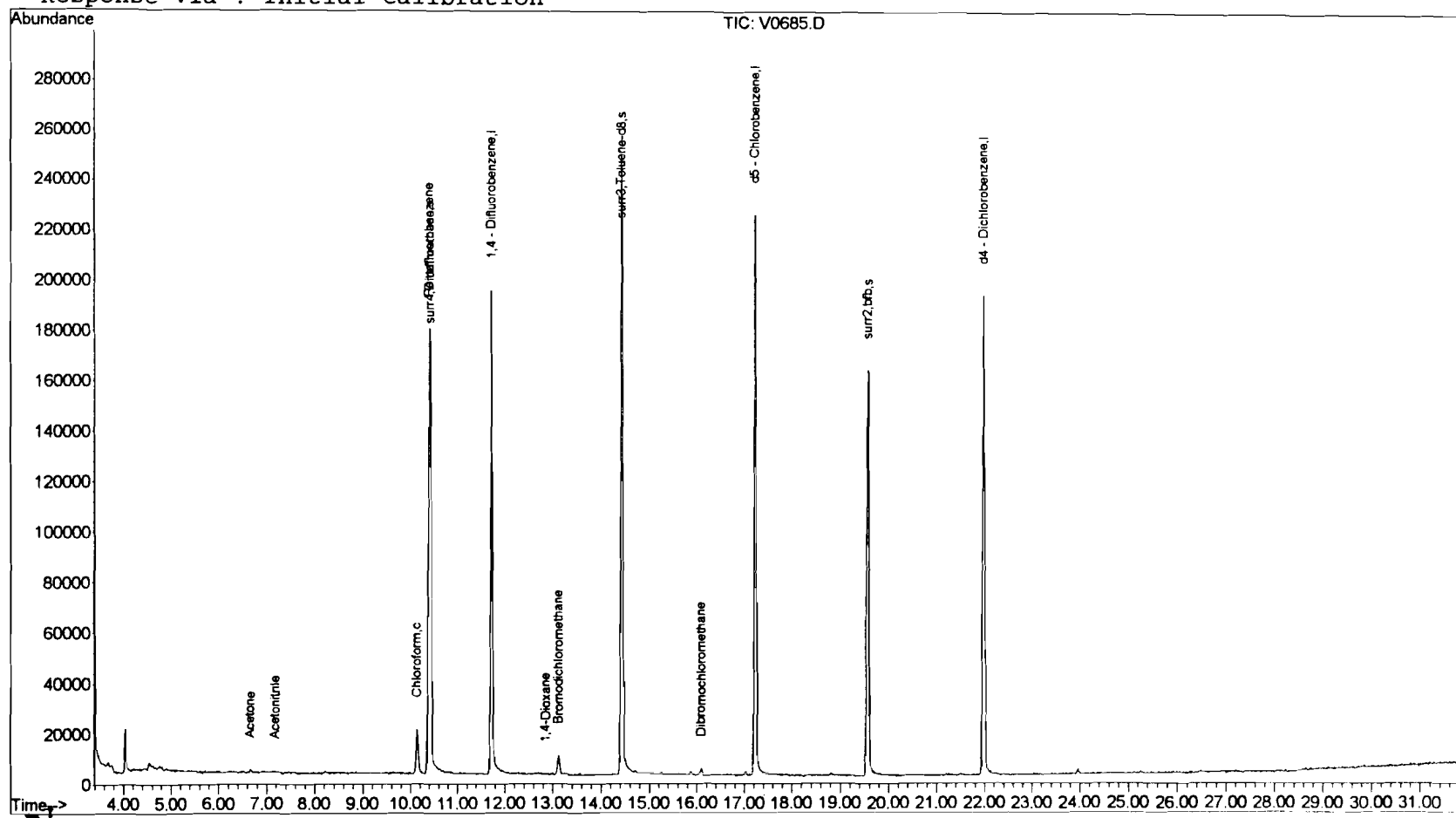
(#) = qualifier out of range (m) = manual integration
V0685.D EXP0914.M Tue Sep 18 20:18:05 2001

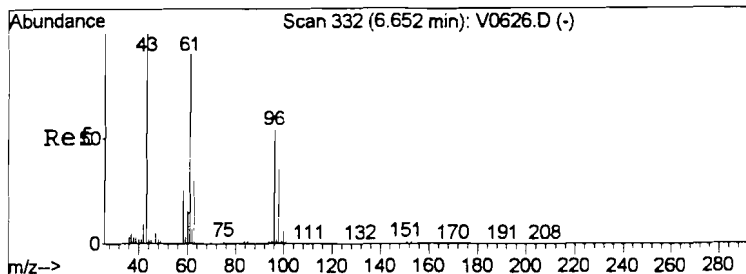
RSH 10/1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0685.D Vial: 17
 Acq On : 18 Sep 2001 7:45 pm Operator: herring
 Sample : 492385 1.0 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 20:17 2001 Quant Results File: EXP0914.RES

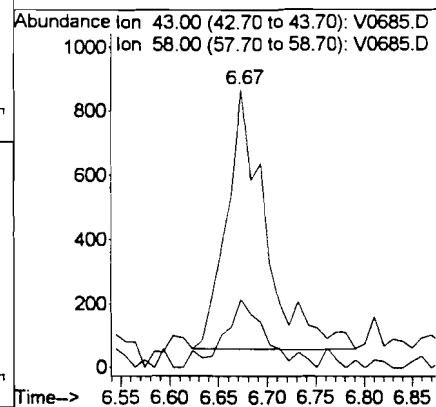
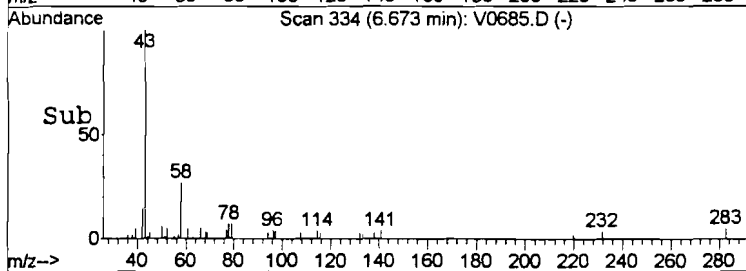
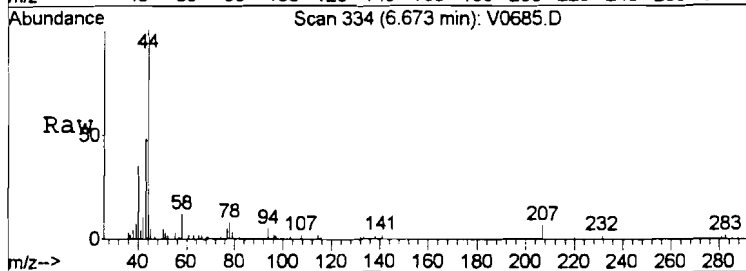
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration

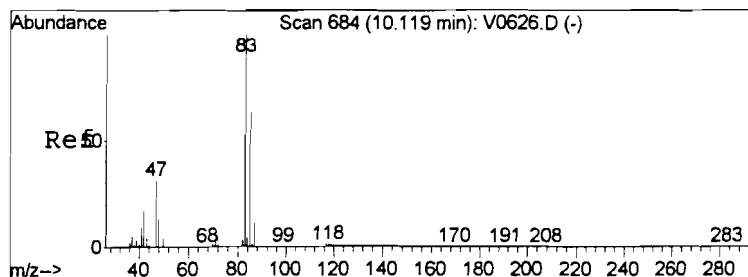




#12
 Acetone
 Concen: 3.18 ppb
 RT: 6.67 min Scan# 334
 Delta R.T. 0.02 min
 Lab File: V0685.D
 Acq: 18 Sep 2001 7:45 pm

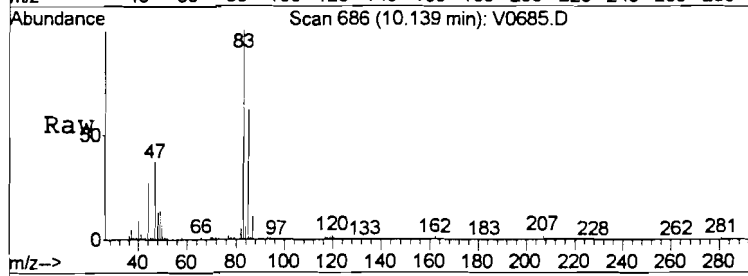
Tgt Ion: 43 Resp: 2270
 Ion Ratio Lower Upper
 43 100
 58 24.7 19.7 29.5



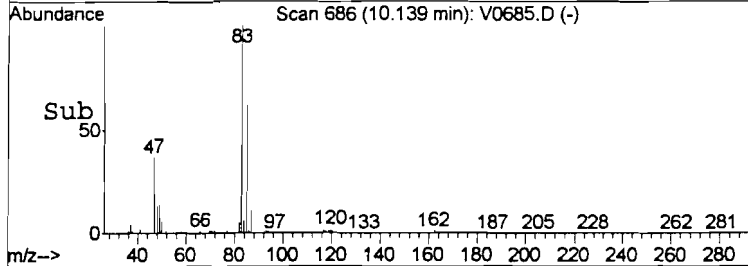
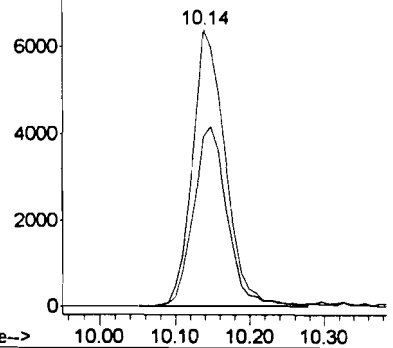


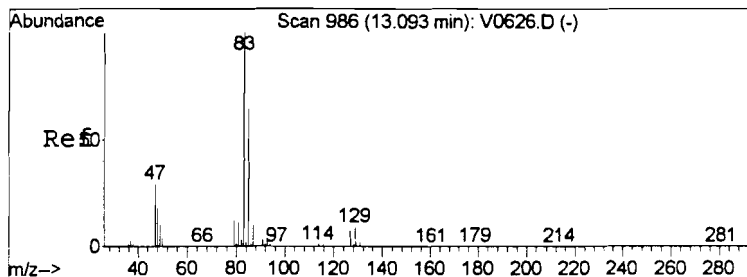
#31
 Chloroform
 Concen: 6.81 ppb
 RT: 10.14 min Scan# 686
 Delta R.T. 0.01 min
 Lab File: V0685.D
 Acq: 18 Sep 2001 7:45 pm

Tgt Ion: 83 Resp: 19680
 Ion Ratio Lower Upper
 83 100
 85 61.5 50.5 75.7



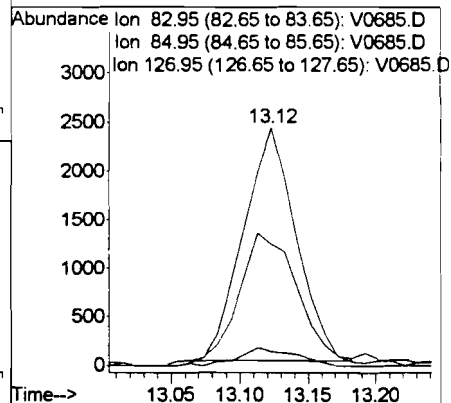
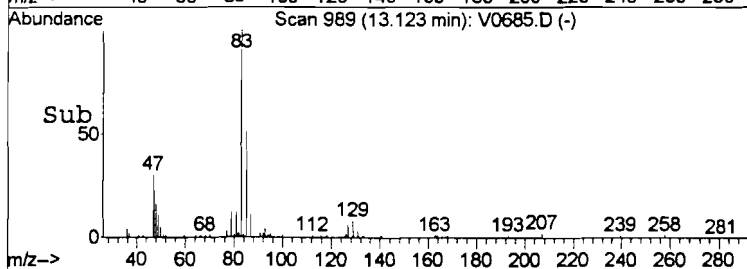
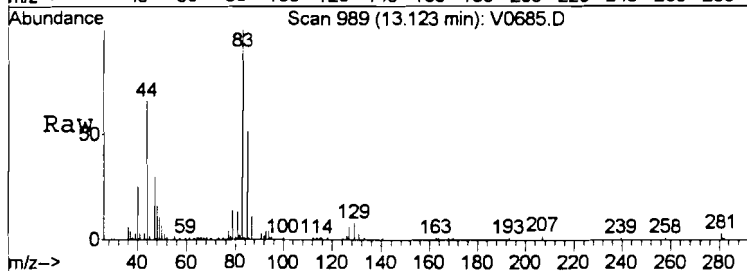
Abundance Ion 82.95 (82.65 to 83.65): V0685.D
 Ion 84.95 (84.65 to 85.65): V0685.D

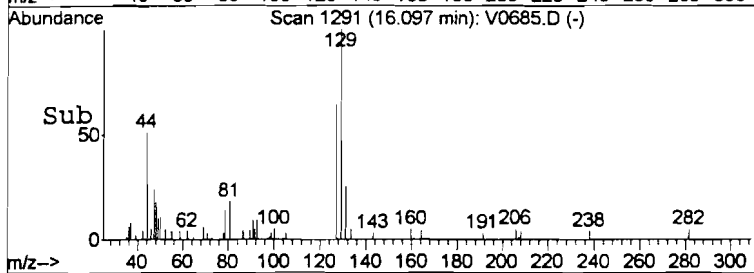
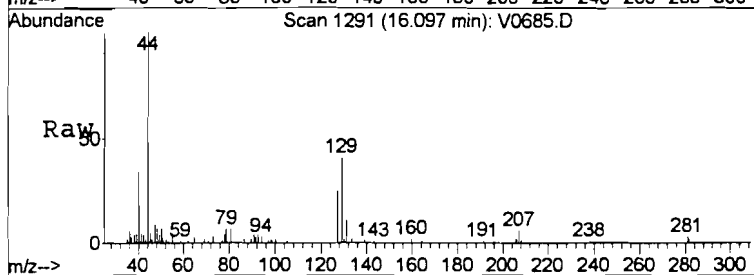
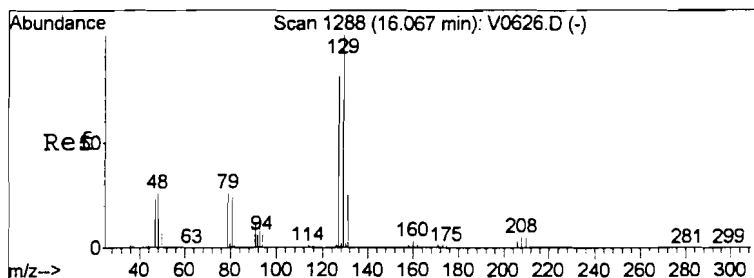




#47
 Bromodichloromethane
 Concen: 2.79 ppb
 RT: 13.12 min Scan# 989
 Delta R.T. 0.03 min
 Lab File: V0685.D
 Acq: 18 Sep 2001 7:45 pm

Tgt Ion: 83 Resp: 6411
 Ion Ratio Lower Upper
 83 100
 85 50.8 50.9 76.3#
 127 5.7 5.8 8.8#





#62

Dibromochloromethane

Concen: 1.17 ppb

RT: 16.10 min Scan# 1291

Delta R.T. 0.03 min

Lab File: V0685.D

Acq: 18 Sep 2001 7:45 pm

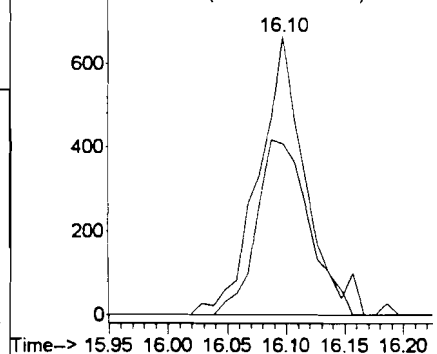
Tgt Ion: 129 Resp: 1791

Ion Ratio Lower Upper

129 100

127 61.0 64.8 97.2#

Abundance Ion 129.00 (128.70 to 129.70): V0685.D
Ion 127.00 (126.70 to 127.70): V0685.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-06

Date Sampled : 09/12/01 09:05 Order #: 492386 Sample Matrix: WATER
Date Received: 09/12/01 Submission #: R2108550 Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	1.8 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0686.D

Vial: 18

Acq On : 18 Sep 2001 8:24 pm

Operator: herring

Sample : 492386 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 20:56 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.39	168	129389	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.73	114	228156	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.23	117	189990	50.00	ppb	0.02
73) d4 - Dichlorobenzene	21.99	152	77628	50.00	ppb	0.03

System Monitoring Compounds

35) surr4, Dibrflmethane	10.42	113	90937	50.61	ppb	0.02
Spiked Amount 50.000			Recovery	=	101.22%	
57) surr3, Toluene-d8	14.43	98	243602	49.59	ppb	0.02
Spiked Amount 50.000			Recovery	=	99.18%	
58) surr2, bfb	19.56	95	95096	47.00	ppb	0.02
Spiked Amount 50.000			Recovery	=	94.00%	

Target Compounds

						Qvalue
12) Acetone	6.67	43	1335	1.85	ppb	98 J
18) TBA	7.54	59	516	3.17	ppb	# 1
26) 2-Butanone	9.65	43	1843	1.55	ppb	# 63
38) Iso-Butyl Alcohol	10.82	43	289	2.98	ppb	91
45) 1,4-Dioxane	12.94	88	61	3.91	ppb	96

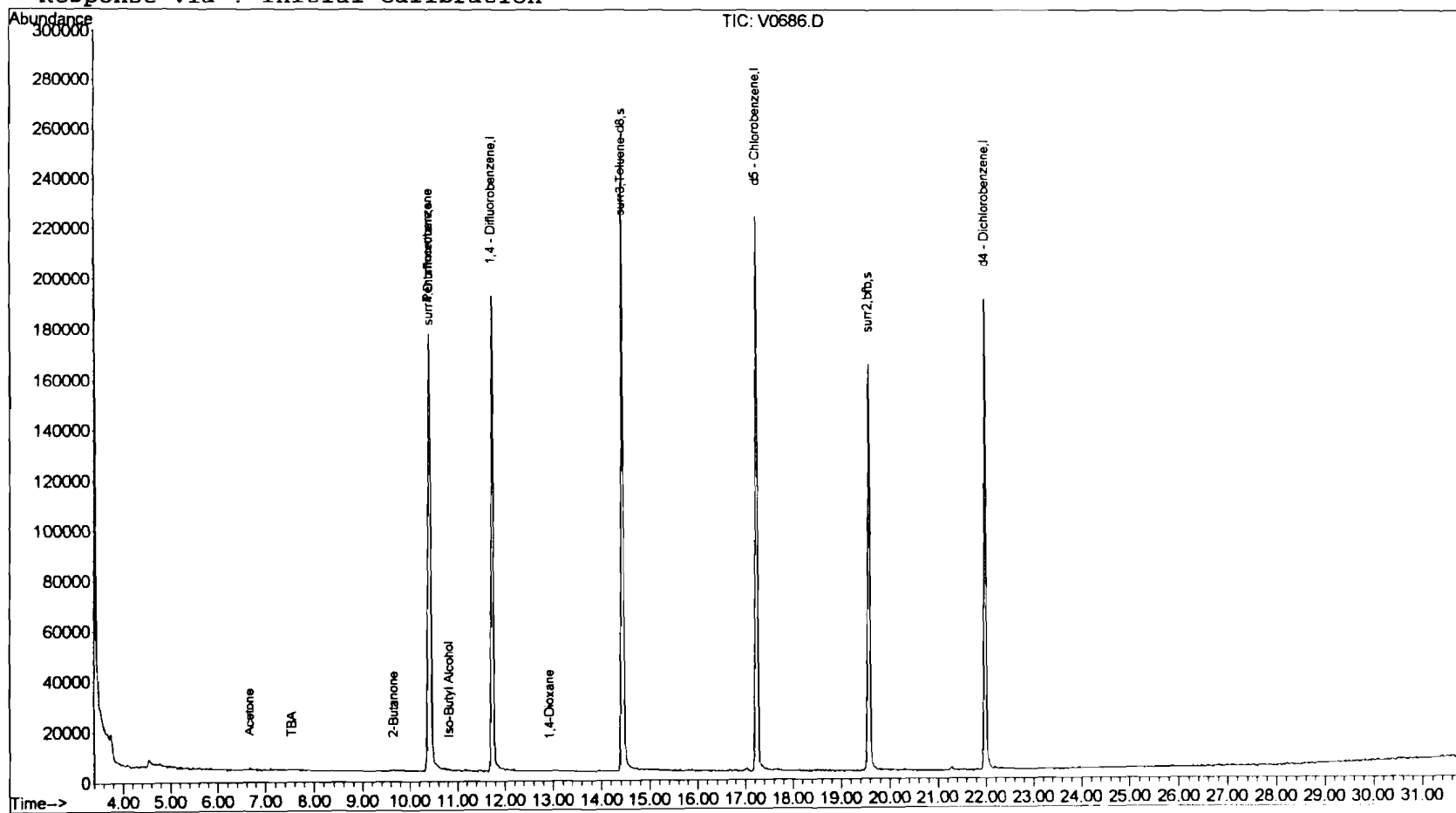
R2H 10/1

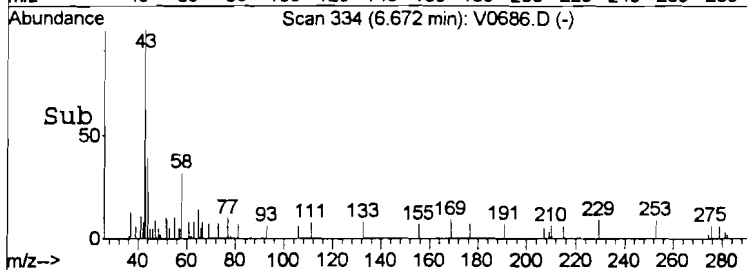
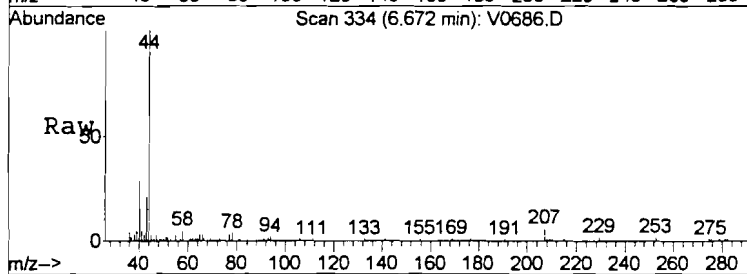
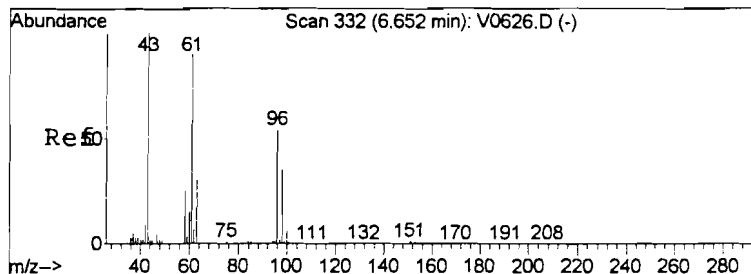
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 V0686.D EXP0914.M Tue Sep 18 20:57:07 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0686.D Vial: 18
Acq On : 18 Sep 2001 8:24 pm Operator: herring
Sample : 492386 1.0 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 18 20:56 2001 Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration





#12

Acetone

Concen: 1.85 ppb

RT: 6.67 min Scan# 334

Delta R.T. 0.02 min

Lab File: V0686.D

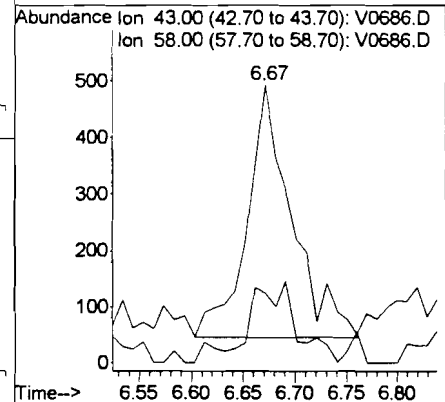
Acq: 18 Sep 2001 8:24 pm

Tgt Ion: 43 Resp: 1335

Ion Ratio Lower Upper

43 100

58 25.4 19.7 29.5



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-07

Date Sampled : 09/12/01 14:06 Order #: 493224 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	3.9 J	UG/L
BENZENE	5.0	7.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	32	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	16	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.8	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	6.2	UG/L
VINYL CHLORIDE	1.0	180	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0709.D

Vial: 17

Acq On : 19 Sep 2001 8:33 pm

Operator: herring

Sample : 493224 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 21:05 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	125191	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	218741	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	186618	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.00	152	75793	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	88016	51.10	ppb	0.04
Spiked Amount 50.000			Recovery	=	102.20%	
57) surr3,Toluene-d8	14.45	98	234639	48.63	ppb	0.04
Spiked Amount 50.000			Recovery	=	97.26%	
58) surr2,bfb	19.59	95	94501	47.55	ppb	0.05
Spiked Amount 50.000			Recovery	=	95.10%	

Target Compounds

						Qvalue
4) Vinyl Chloride	4.35	62	121179	179.68	ppb	97
12) Acetone	6.69	43	2721	3.90	ppb	98
18) TBA	7.56	59	670	4.26	ppb	# 1
21) trans-1,2-Dichloroethene	7.96	96	23849	15.51	ppb	93
26) 2-Butanone	9.65	43	1691	1.47	ppb	# 50
27) cis-1,2-Dichloroethene	9.65	96	54565	31.98	ppb	88
39) Benzene	11.18	78	42131	6.98	ppb	96
42) Trichloroethene	12.27	95	9948	6.20	ppb	98
45) 1,4-Dioxane	12.87	88	100	12.58	ppb	# 55
53) Toluene	14.58	91	33759	5.84	ppb	99

R/H 10/11

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

V0709.D EXP0914.M

Wed Sep 19 21:06:05 2001

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Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0709.D

Vial: 17

Acq On : 19 Sep 2001 8:33 pm

Operator: herring

Sample : 493224 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 21:05 2001

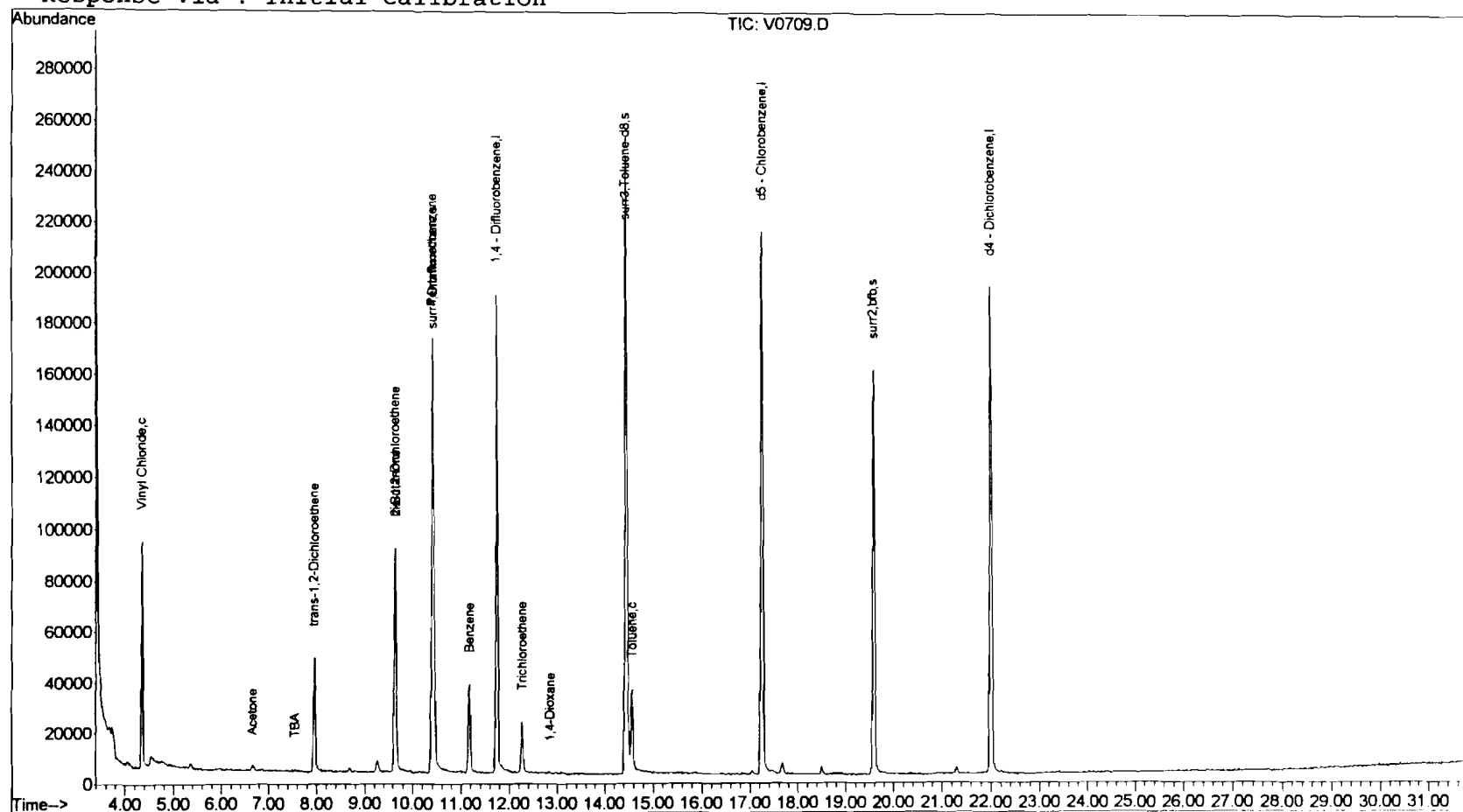
Quant Results File: EXP0914.RES

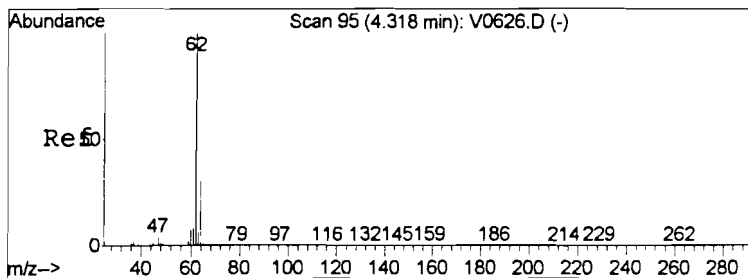
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Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

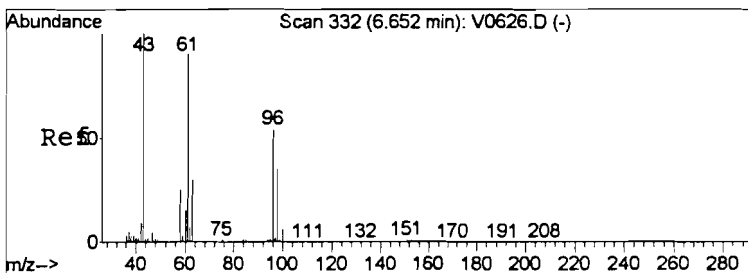
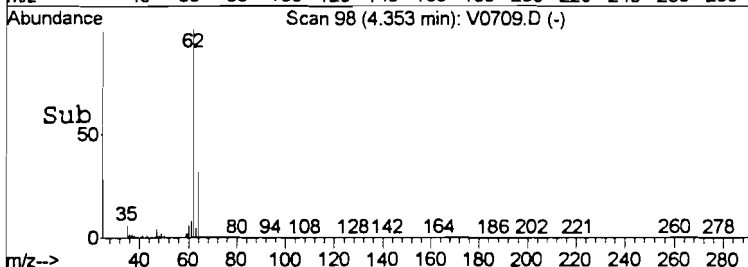
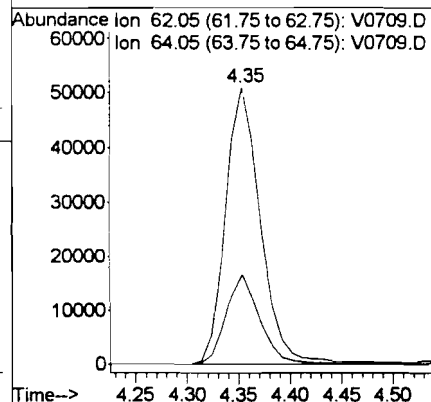
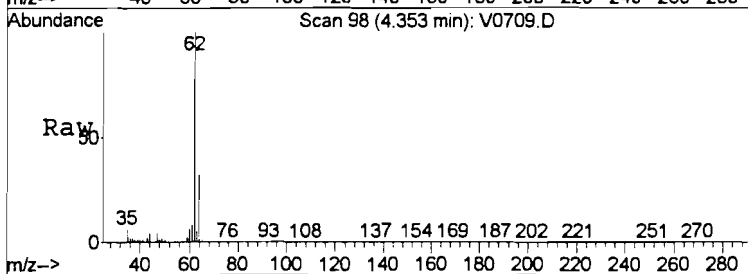
Response via : Initial Calibration





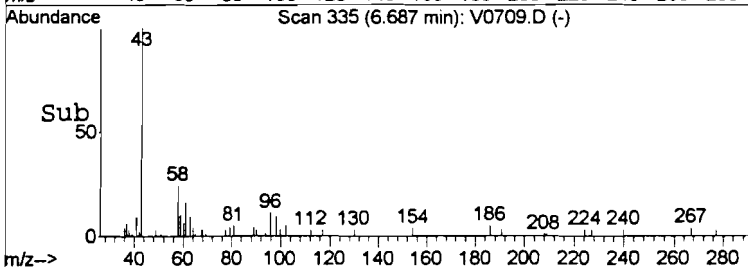
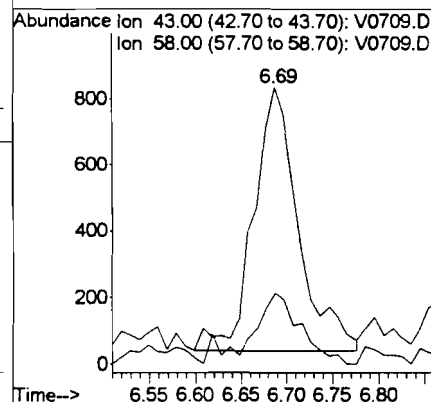
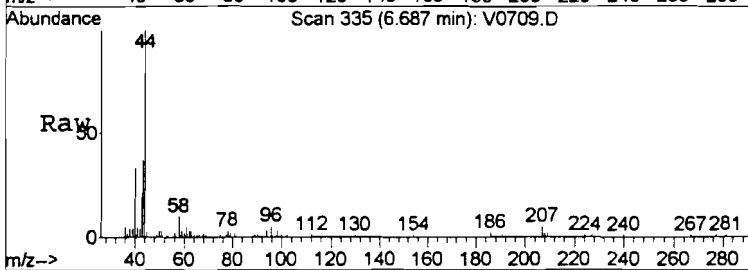
#4
 Vinyl Chloride
 Concen: 179.68 ppb
 RT: 4.35 min Scan# 98
 Delta R.T. 0.04 min
 Lab File: V0709.D
 Acq: 19 Sep 2001 8:33 pm

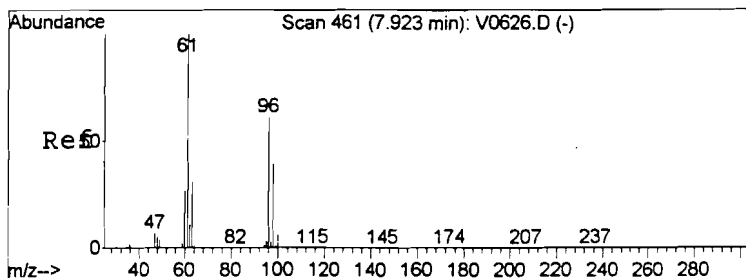
Tgt Ion: 62 Resp: 121179
 Ion Ratio Lower Upper
 62 100
 64 32.4 24.6 37.0



#12
 Acetone
 Concen: 3.90 ppb
 RT: 6.69 min Scan# 335
 Delta R.T. 0.04 min
 Lab File: V0709.D
 Acq: 19 Sep 2001 8:33 pm

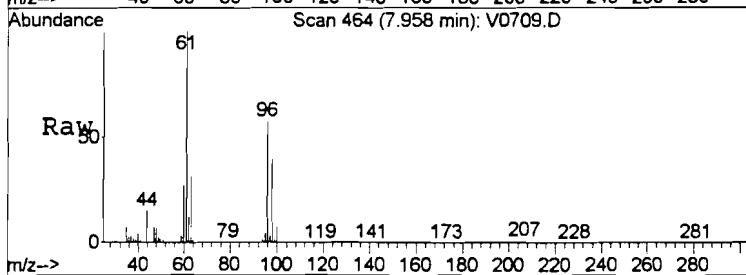
Tgt Ion: 43 Resp: 2721
 Ion Ratio Lower Upper
 43 100
 58 25.5 19.7 29.5





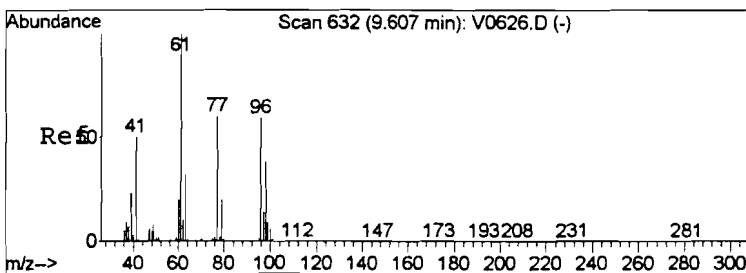
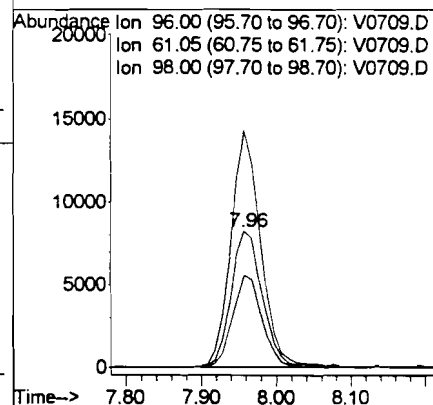
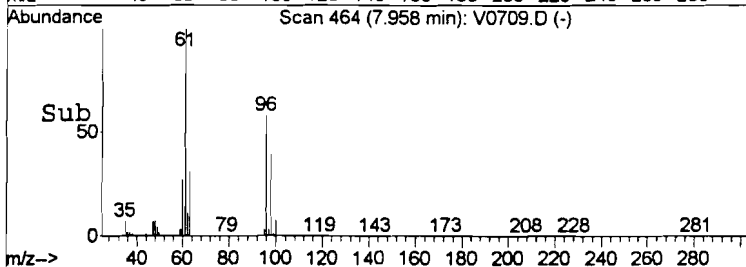
#21
trans-1,2-Dichloroethene
Concen: 15.51 ppb
RT: 7.96 min Scan# 464
Delta R.T. 0.03 min
Lab File: V0709.D
Acq: 19 Sep 2001 8:33 pm

Tgt Ion: 96 Resp: 23849
Ion Ratio Lower Upper
96 100
61 174.0 130.2 195.4
98 67.9 51.1 76.7



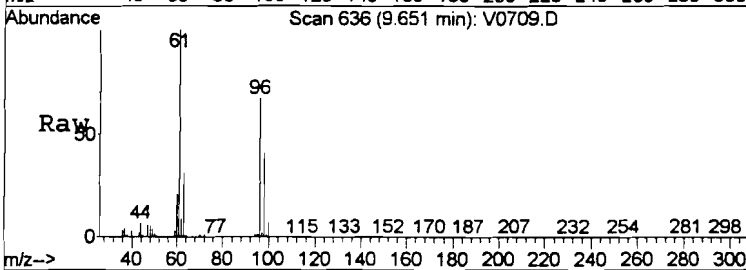
Abundance

Ion 96.00 (95.70 to 96.70): V0709.D
Ion 61.05 (60.75 to 61.75): V0709.D
Ion 98.00 (97.70 to 98.70): V0709.D



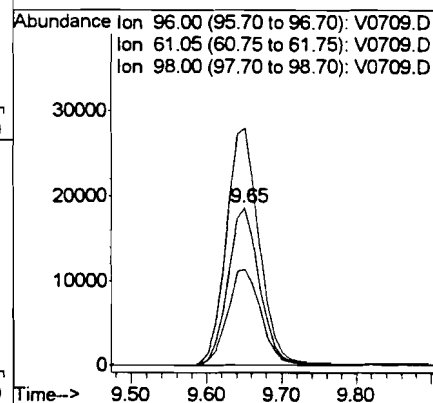
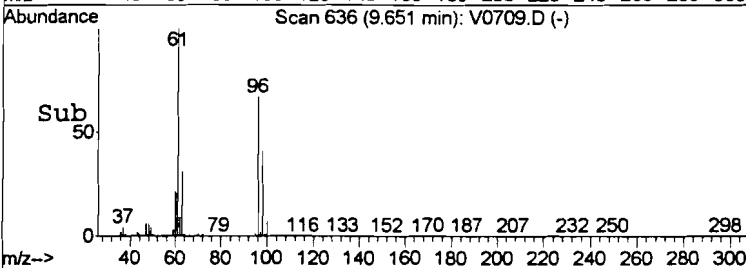
#27
cis-1,2-Dichloroethene
Concen: 31.98 ppb
RT: 9.65 min Scan# 636
Delta R.T. 0.04 min
Lab File: V0709.D
Acq: 19 Sep 2001 8:33 pm

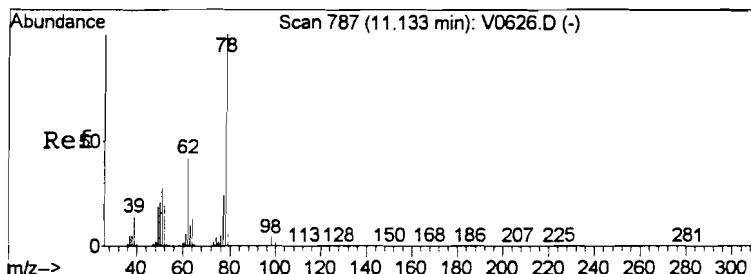
Tgt Ion: 96 Resp: 54565
Ion Ratio Lower Upper
96 100
61 150.1 136.0 204.0
98 61.0 51.8 77.6



Abundance

Ion 96.00 (95.70 to 96.70): V0709.D
Ion 61.05 (60.75 to 61.75): V0709.D
Ion 98.00 (97.70 to 98.70): V0709.D





#39

Benzene

Concen: 6.98 ppb

RT: 11.18 min Scan# 791

Delta R.T. 0.05 min

Lab File: V0709.D

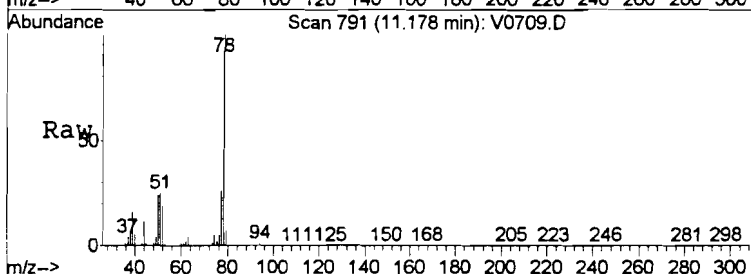
Acq: 19 Sep 2001 8:33 pm

Tgt Ion: 78 Resp: 42131

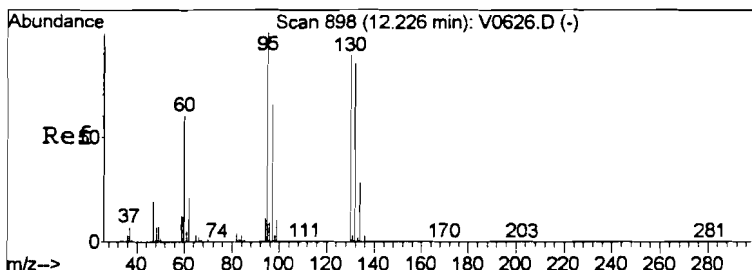
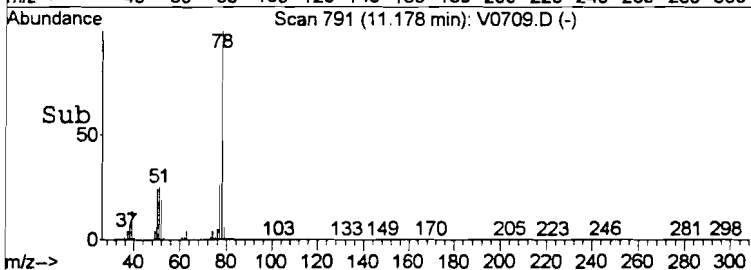
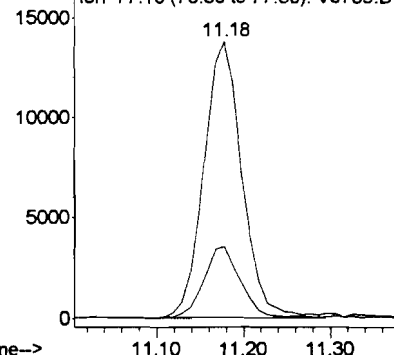
Ion Ratio Lower Upper

78 100

77 26.0 16.7 31.1



Abundance Ion 78.10 (77.80 to 78.80): V0709.D
Ion 77.10 (76.80 to 77.80): V0709.D



#42

Trichloroethene

Concen: 6.20 ppb

RT: 12.27 min Scan# 902

Delta R.T. 0.04 min

Lab File: V0709.D

Acq: 19 Sep 2001 8:33 pm

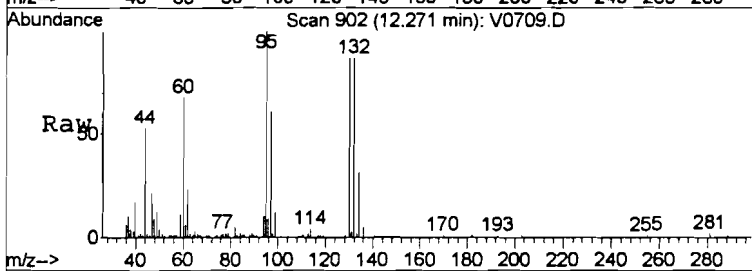
Tgt Ion: 95 Resp: 9948

Ion Ratio Lower Upper

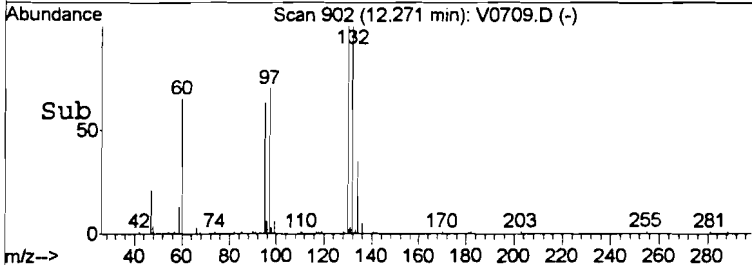
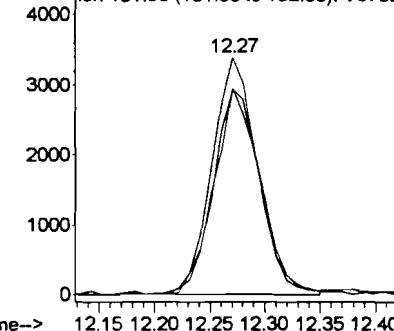
95 100

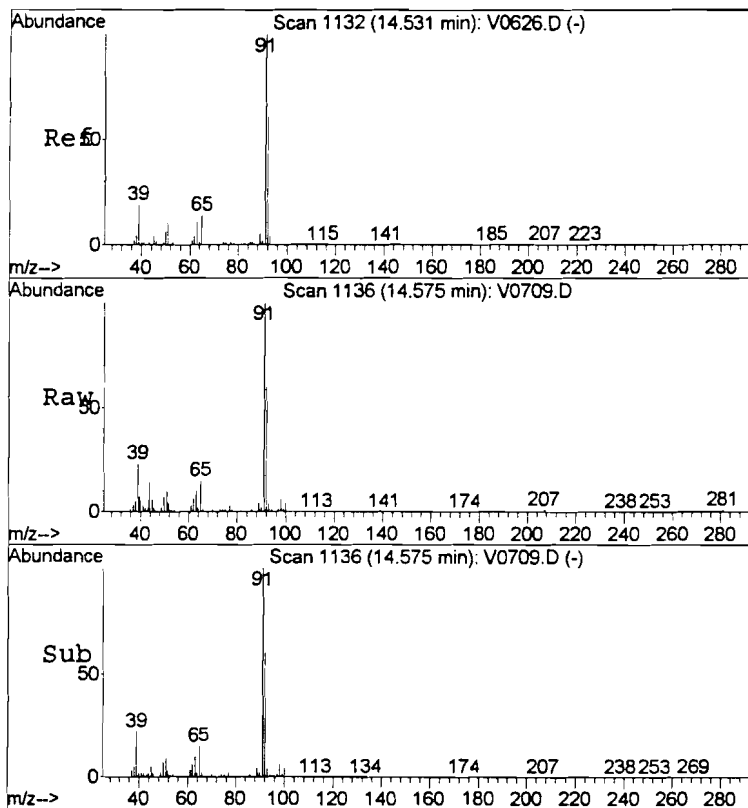
130 86.5 71.6 107.4

132 86.9 68.4 102.6



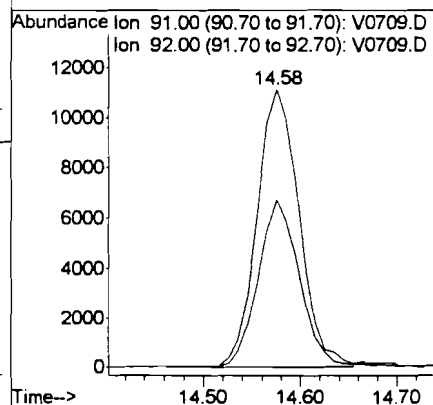
Abundance Ion 95.00 (94.70 to 95.70): V0709.D
Ion 129.95 (129.65 to 130.65): V0709.D
Ion 131.90 (131.60 to 132.60): V0709.D





#53
 Toluene
 Concen: 5.84 ppb
 RT: 14.58 min Scan# 1136
 Delta R.T. 0.04 min
 Lab File: V0709.D
 Acq: 19 Sep 2001 8:33 pm

Tgt Ion: 91 Resp: 33759
 Ion Ratio Lower Upper
 91 100
 92 60.3 48.8 73.2



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-07 (DUP)

Date Sampled : 09/12/01 14:07 Order #: 493225 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	2.0 J	UG/L
BENZENE	5.0	6.8	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	31	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	14	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.9	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	1.0	180	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	92	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	103	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0689.D

Vial: 21

Acq On : 18 Sep 2001 10:21 pm

Operator: herring

Sample : 493225 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 22:53 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.39	168	145089	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.73	114	251442	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.23	117	210833	50.00	ppb	0.02
73) d4 - Dichlorobenzene	21.99	152	85292	50.00	ppb	0.03

System Monitoring Compounds

35) surr4,Dibrflmethane	10.42	113	101707	51.36	ppb	0.02
Spiked Amount 50.000			Recovery	=	102.72%	
57) surr3,Toluene-d8	14.43	98	270008	49.54	ppb	0.02
Spiked Amount 50.000			Recovery	=	99.08%	
58) surr2,bfb	19.56	95	102780	45.78	ppb	0.02
Spiked Amount 50.000			Recovery	=	91.56%	

Target Compounds

						Qvalue
4) Vinyl Chloride	4.34	62	137590	176.03	ppb	99
9) Acrolein	6.42	56	389	1.11	ppb	93
12) Acetone	6.68	43	1633	2.02	ppb	99 J
18) TBA	7.55	59	1441	7.90	ppb	# 50
21) trans-1,2-Dichloroethene	7.94	96	25328	14.22	ppb	94
27) cis-1,2-Dichloroethene	9.64	96	61987	31.34	ppb	89
28) Propionitrile	9.70	54	359	1.18	ppb	# 56
38) Iso-Butyl Alcohol	10.79	43	778	7.28	ppb	96
39) Benzene	11.16	78	47297	6.81	ppb	99
42) Trichloroethene	12.25	95	9245	5.02	ppb	95
45) 1,4-Dioxane	13.13	88	48	2.79	ppb	80
53) Toluene	14.56	91	38634	5.91	ppb	94
72) Cyclohexanone	19.46	55	1080	4.33	ppb	98

254 10/1

(#) = qualifier out of range (m) = manual integration
 V0689.D EXP0914.M Tue Sep 18 22:53:58 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0689.D

Vial: 21

Acq On : 18 Sep 2001 10:21 pm

Operator: herring

Sample : 493225 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 22:53 2001

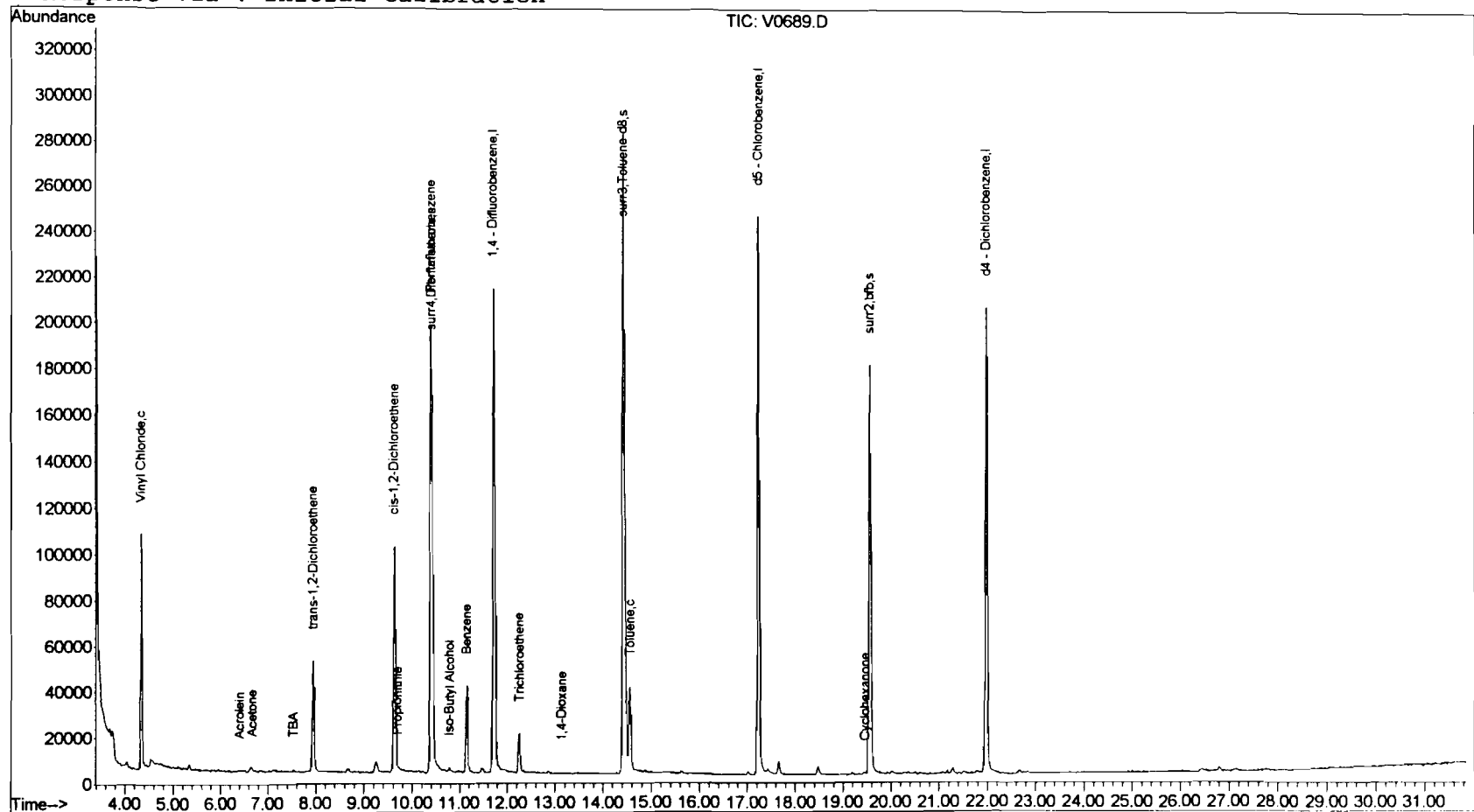
Quant Results File: EXP0914.RES

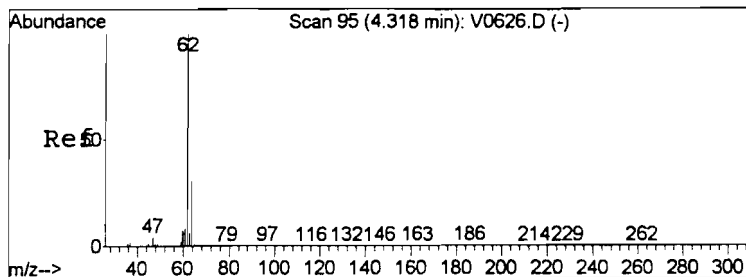
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

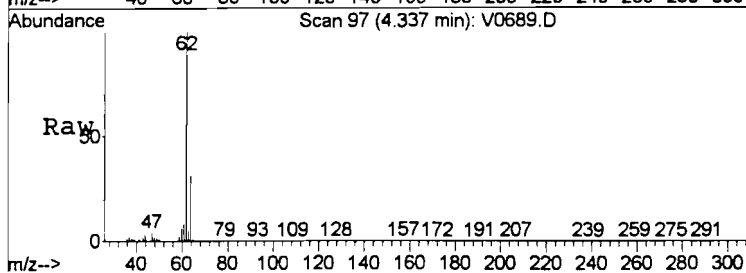
Response via : Initial Calibration



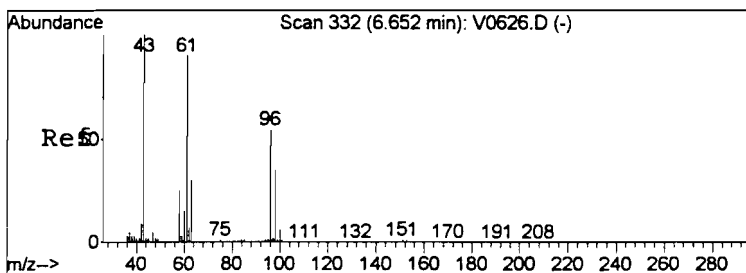
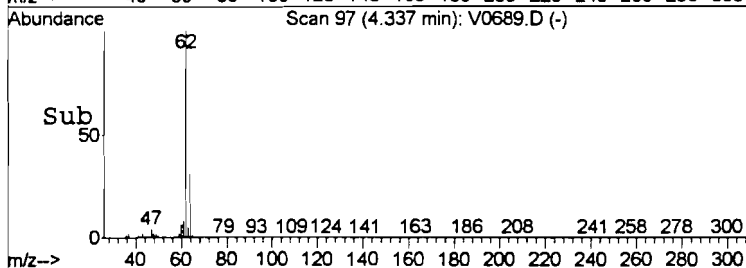
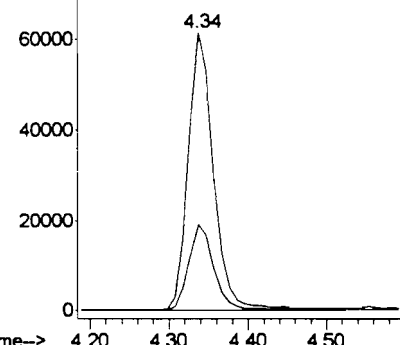


#4
 Vinyl Chloride
 Concen: 176.03 ppb
 RT: 4.34 min Scan# 97
 Delta R.T. 0.02 min
 Lab File: V0689.D
 Acq: 18 Sep 2001 10:21 pm

Tgt Ion: 62 Resp: 137590
 Ion Ratio Lower Upper
 62 100
 64 31.3 24.6 37.0

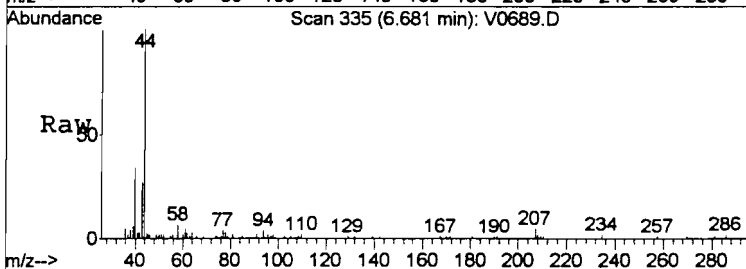


Abundance Ion 62.05 (61.75 to 62.75): V0689.D
 Ion 64.05 (63.75 to 64.75): V0689.D

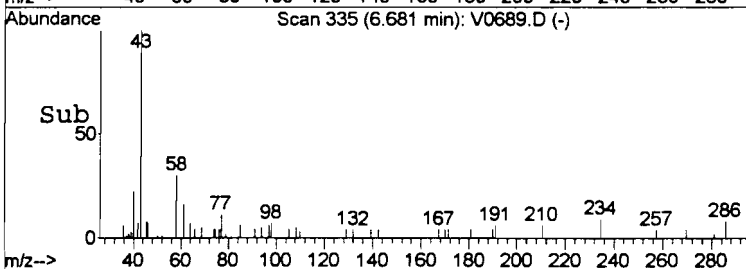
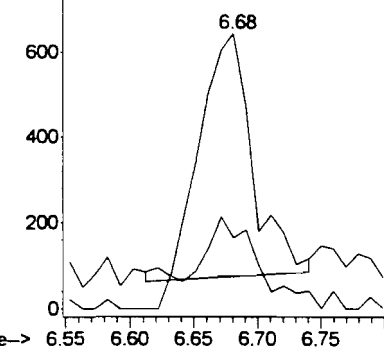


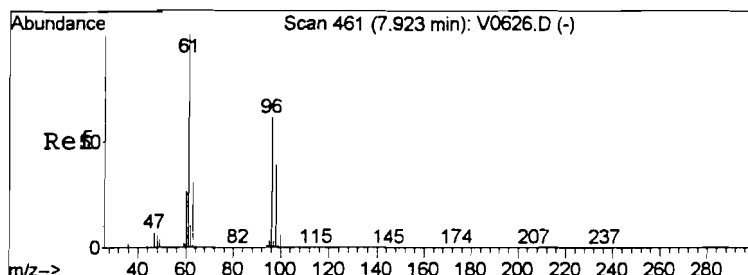
#12
 Acetone
 Concen: 2.02 ppb
 RT: 6.68 min Scan# 335
 Delta R.T. 0.03 min
 Lab File: V0689.D
 Acq: 18 Sep 2001 10:21 pm

Tgt Ion: 43 Resp: 1633
 Ion Ratio Lower Upper
 43 100
 58 25.2 19.7 29.5



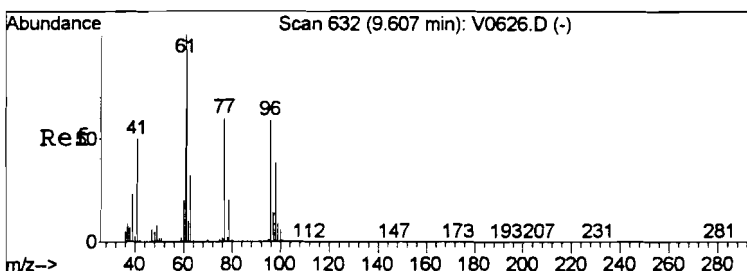
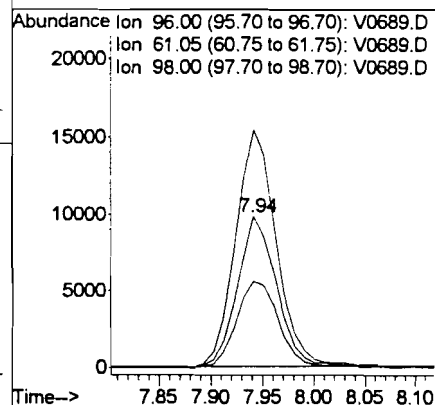
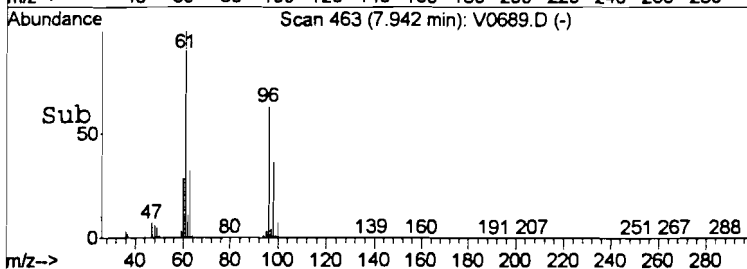
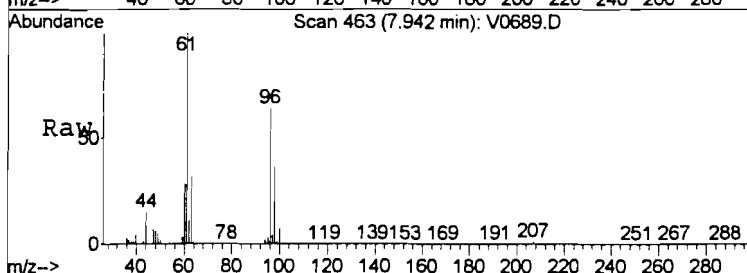
Abundance Ion 43.00 (42.70 to 43.70): V0689.D
 Ion 58.00 (57.70 to 58.70): V0689.D





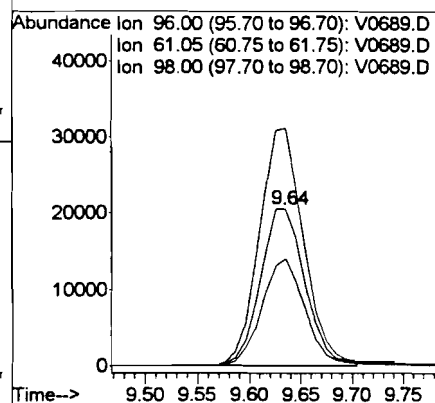
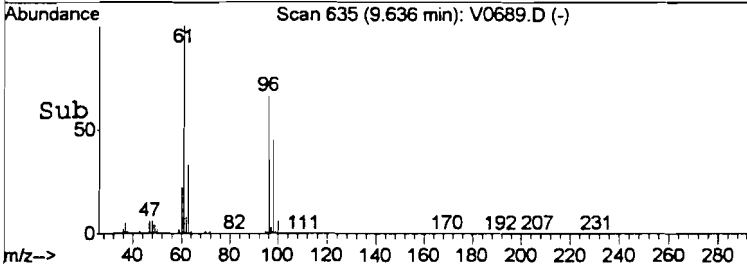
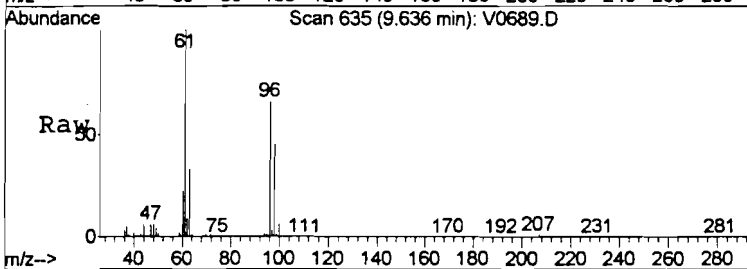
#21
trans-1,2-Dichloroethene
Concen: 14.22 ppb
RT: 7.94 min Scan# 463
Delta R.T. 0.01 min
Lab File: V0689.D
Acq: 18 Sep 2001 10:21 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	157.1	130.2	195.4
98	56.9	51.1	76.7

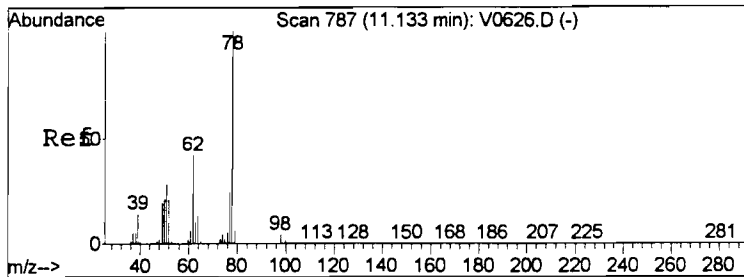


#27
cis-1,2-Dichloroethene
Concen: 31.34 ppb
RT: 9.64 min Scan# 635
Delta R.T. 0.02 min
Lab File: V0689.D
Acq: 18 Sep 2001 10:21 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	152.3	136.0	204.0
98	68.2	51.8	77.6



99



#39

Benzene

Concen: 6.81 ppb

RT: 11.16 min Scan# 790

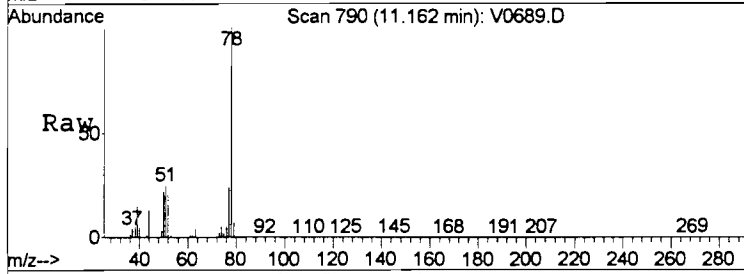
Delta R.T. 0.03 min

Lab File: V0689.D

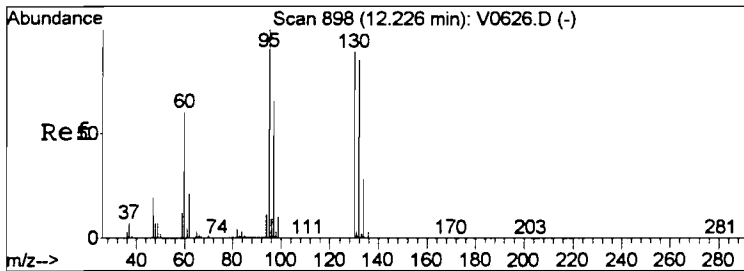
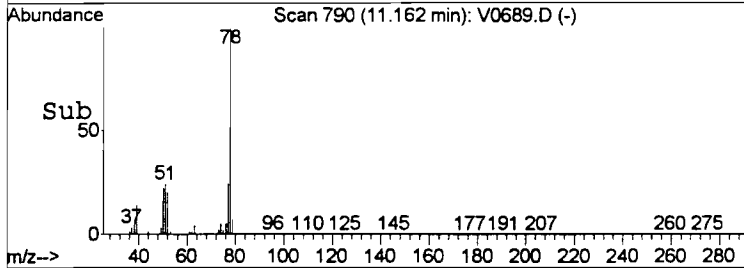
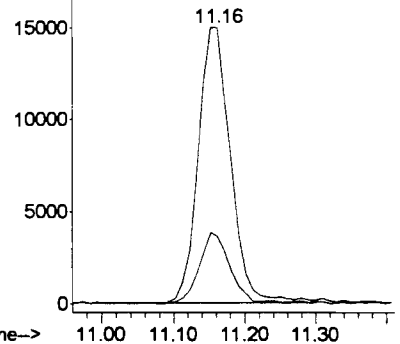
Acq: 18 Sep 2001 10:21 pm

Tgt Ion: 78 Resp: 47297

Ion	Ratio	Lower	Upper
78	100		
77	24.2	16.7	31.1



Abundance Ion 78.10 (77.80 to 78.80): V0689.D
Ion 77.10 (76.80 to 77.80): V0689.D



#42

Trichloroethene

Concen: 5.02 ppb

RT: 12.25 min Scan# 900

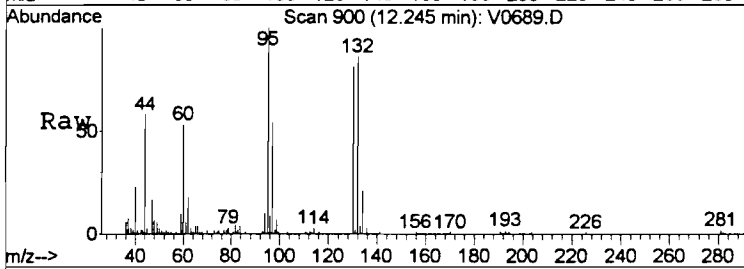
Delta R.T. 0.01 min

Lab File: V0689.D

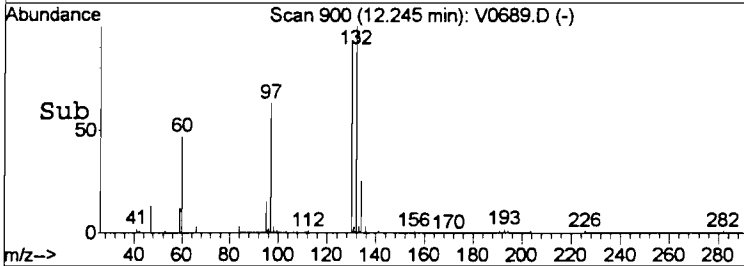
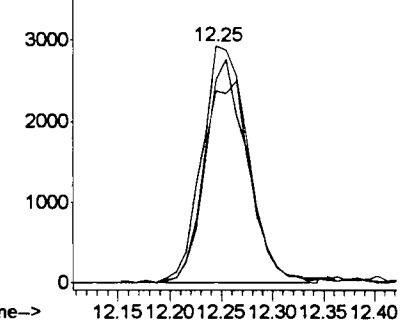
Acq: 18 Sep 2001 10:21 pm

Tgt Ion: 95 Resp: 9245

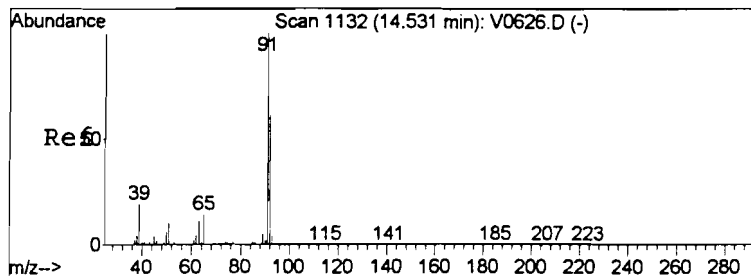
Ion	Ratio	Lower	Upper
95	100		
130	81.1	71.6	107.4
132	85.8	68.4	102.6



Abundance Ion 95.00 (94.70 to 95.70): V0689.D
Ion 129.95 (129.65 to 130.65): V0689.D
Ion 131.90 (131.60 to 132.60): V0689.D



100



#53

Toluene

Concen: 5.91 ppb

RT: 14.56 min Scan# 1135

Delta R.T. 0.02 min

Lab File: V0689.D

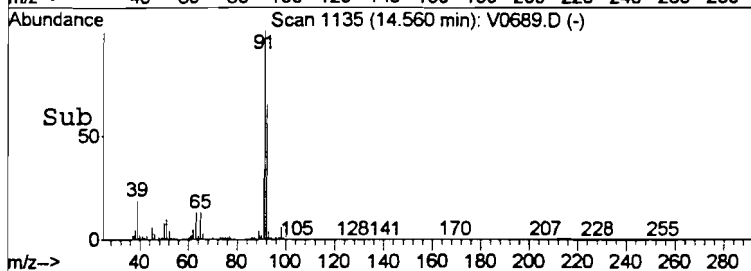
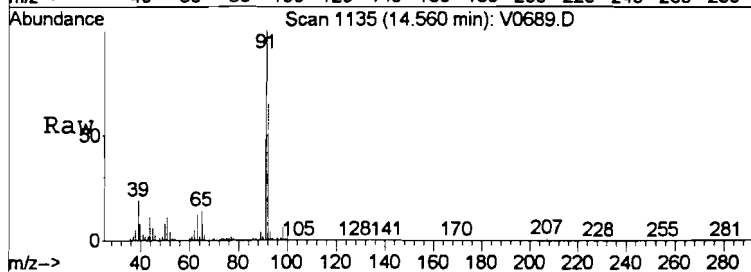
Acq: 18 Sep 2001 10:21 pm

Tgt Ion: 91 Resp: 38634

Ion Ratio Lower Upper

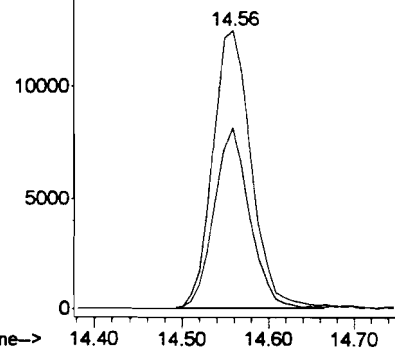
91 100

92 65.5 48.8 73.2



Abundance Ion 91.00 (90.70 to 91.70): V0689.D

Ion 92.00 (91.70 to 92.70): V0689.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-13

Date Sampled : 09/12/01 17:24 Order #: 493226 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	99	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0749.D

Vial: 8

Acq On : 21 Sep 2001 1:59 pm

Operator: herring

Sample : 493226 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 14:28 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	145260	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.75	114	245190	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	211008	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	87635	50.00	ppb	0.06
System Monitoring Compounds						
35) surr4,Dibrflmethane	10.45	113	95874	49.65	ppb	0.05
Spiked Amount	50.000		Recovery	=	99.30%	
57) surr3,Toluene-d8	14.46	98	264478	48.48	ppb	0.05
Spiked Amount	50.000		Recovery	=	96.96%	
58) surr2,bfb	19.59	95	106171	47.25	ppb	0.05
Spiked Amount	50.000		Recovery	=	94.50%	
Target Compounds						Qvalue
12) Acetone	6.70	43	1368	1.69	ppb	95
16) Allyl Chloride	7.12	76	931	1.26	ppb	# 1
26) 2-Butanone	9.66	43	1744	1.31	ppb	# 63
38) Iso-Butyl Alcohol	10.77	43	625	5.99	ppb	100
45) 1,4-Dioxane	12.60	88	103	6.15	ppb	78

2.4.10/14

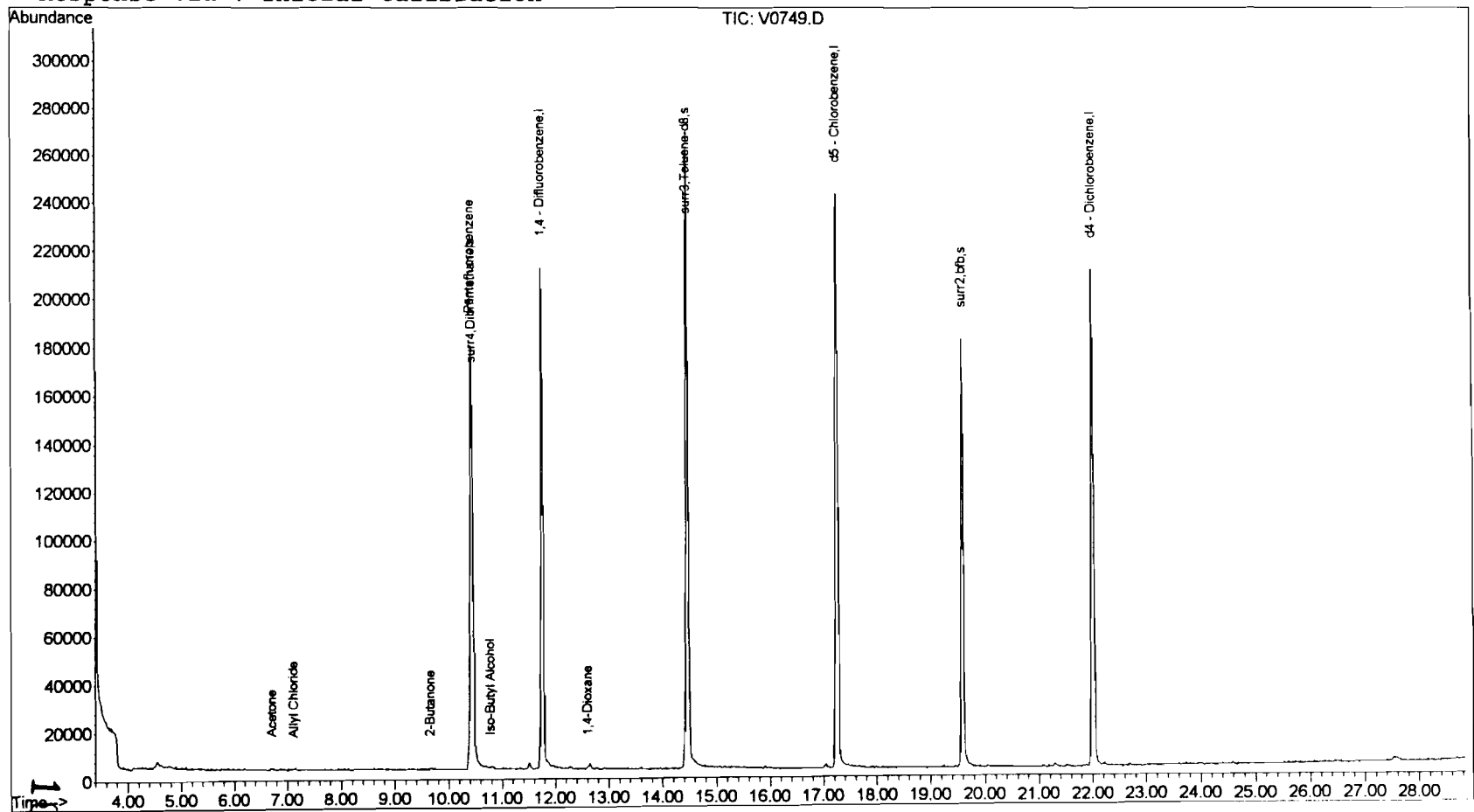
(#) = qualifier out of range (m) = manual integration
V0749.D EXP0914.M Fri Sep 21 14:28:37 2001

103
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0749.D Vial: 8
Acq On : 21 Sep 2001 1:59 pm Operator: herring
Sample : 493226 1.0 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 21 14:28 2001 Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-4

Date Sampled : 09/13/01 10:37 Order #: 493227 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	3.4 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	92	%
TOLUENE-D8	(87 - 108 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0750.D

Vial: 9

Acq On : 21 Sep 2001 2:35 pm

Operator: herring

Sample : 493227 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 15:04 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	148334	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	255462	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.26	117	218401	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	89610	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	101924	50.66	ppb	0.04
Spiked Amount	50.000		Recovery	=	101.32%	
57) surr3,Toluene-d8	14.45	98	269854	47.79	ppb	0.04
Spiked Amount	50.000		Recovery	=	95.58%	
58) surr2,bfb	19.58	95	106944	45.98	ppb	0.04
Spiked Amount	50.000		Recovery	=	91.96%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.68	43	2822	3.42	ppb	100 J
41) N-Heptane	11.51	43	4103	1.14	ppb	96 <
45) 1,4-Dioxane	12.78	88	67	3.84	ppb	99

RHT 10/19

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0750.D

Vial: 9

Acq On : 21 Sep 2001 2:35 pm

Operator: herring

Sample : 493227 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 15:04 2001

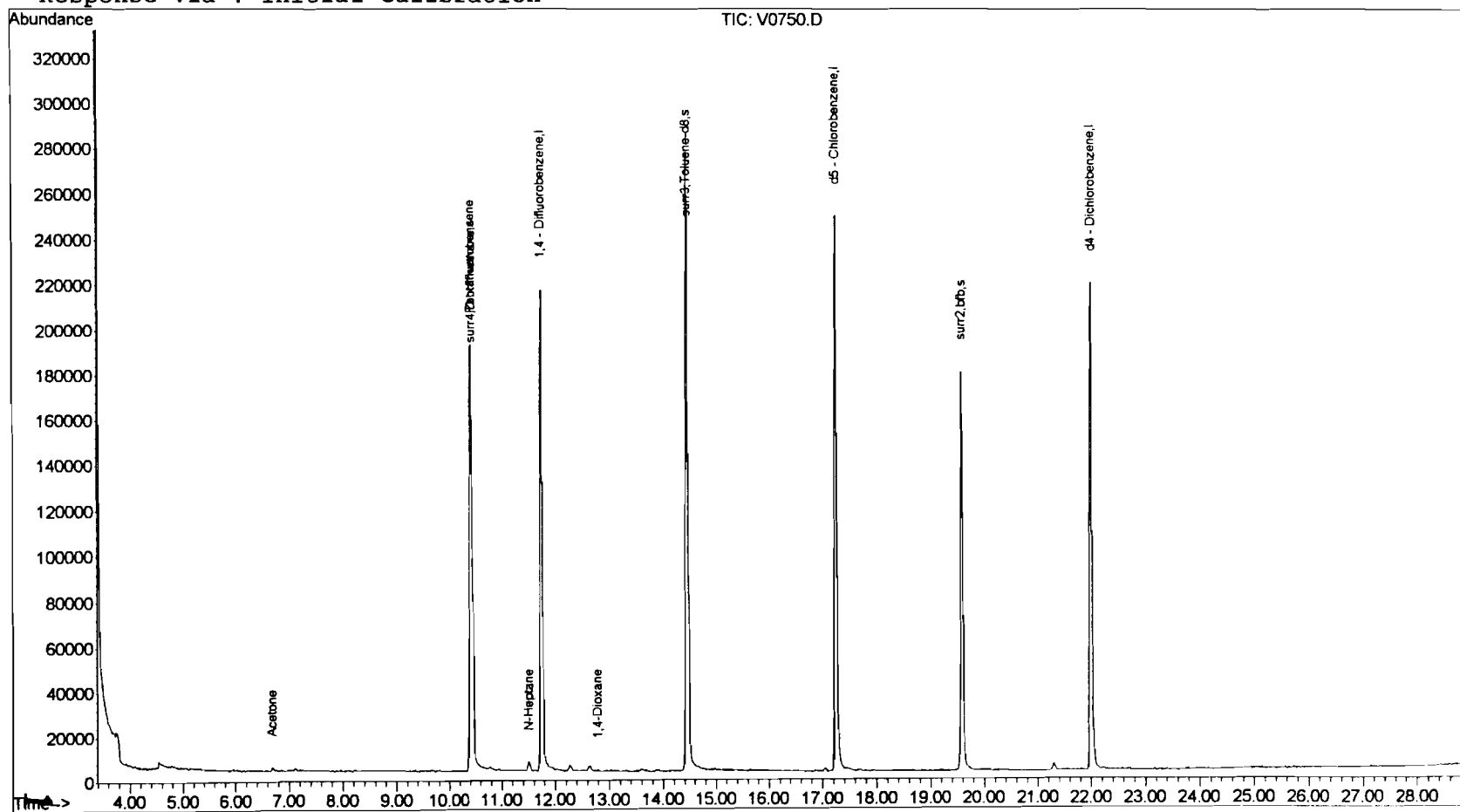
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Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-06

Date Sampled : 09/13/01 12:28 Order #: 493228 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
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DATE ANALYZED : 09/19/01
ANALYTICAL DILUTION: 5.00

ACETONE	20	8.0 J	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	15 J	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	240	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	9.0 J	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
FREON 113	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	6500 E	UG/L
VINYL CHLORIDE	1.0	5.0 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0701.D
 Acq On : 19 Sep 2001 3:15 pm
 Sample : 493228 5.0
 Misc : hla r-8550 8260b.tclf
 MS Integration Params: rteint.p
 Quant Time: Sep 19 15:46 2001

Vial: 9
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	147007	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	256712	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	214535	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.00	152	86693	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	101490	50.20	ppb	0.04
Spiked Amount	50.000		Recovery	=	100.40%	
57) surr3,Toluene-d8	14.44	98	269188	48.53	ppb	0.04
Spiked Amount	50.000		Recovery	=	97.06%	
58) surr2,bfb	19.57	95	106727	46.71	ppb	0.04
Spiked Amount	50.000		Recovery	=	93.42%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.68	43	1301	1.59	ppb	99 J
18) TBA	7.53	59	233	1.26	ppb	# 1
21) trans-1,2-Dichloroethene	7.95	96	3223	1.79	ppb	95 J
26) 2-Butanone	9.67	43	4051	3.00	ppb	# 83 J
27) cis-1,2-Dichloroethene	9.65	96	95295	47.56	ppb	87
32) Tetrahydrofuran	10.14	42	2134	2.62	ppb	94 N
38) Iso Butyl Alcohol	10.86	43	402	3.68	ppb	68
42) Trichloroethene	12.27	95	2443027	1298.37	ppb	86 E
45) 1,4-Dioxane	12.76	88	51	2.91	ppb	87
72) Cyclohexanone	19.47	55	296	1.17	ppb	# 44

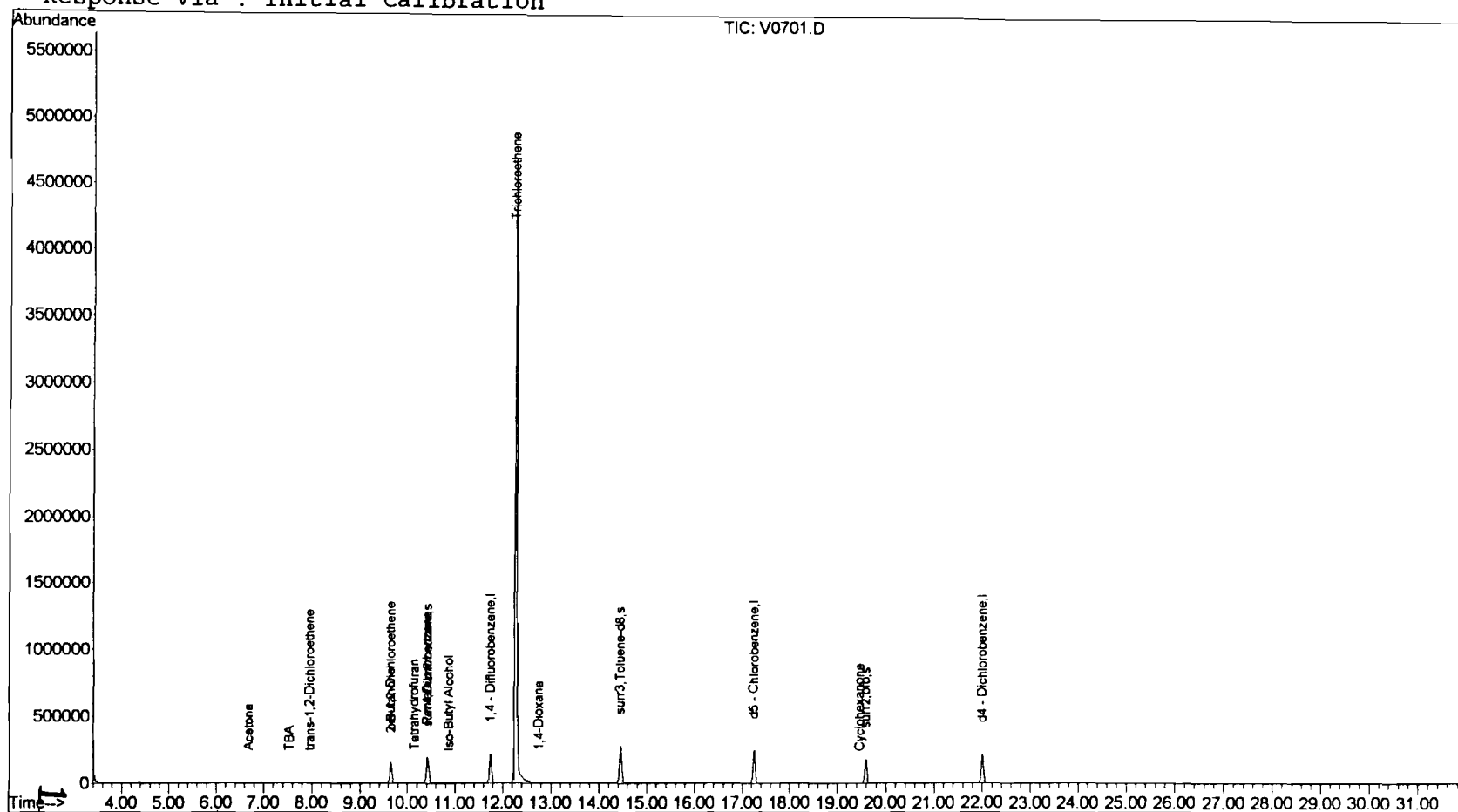
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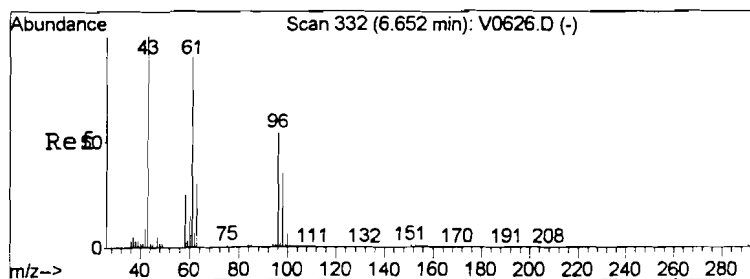
RS# 10/10

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0701.D Vial: 9
Acq On : 19 Sep 2001 3:15 pm Operator: herring
Sample : 493228 5.0 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 19 15:46 2001 Quant Results File: EXP0914.RES

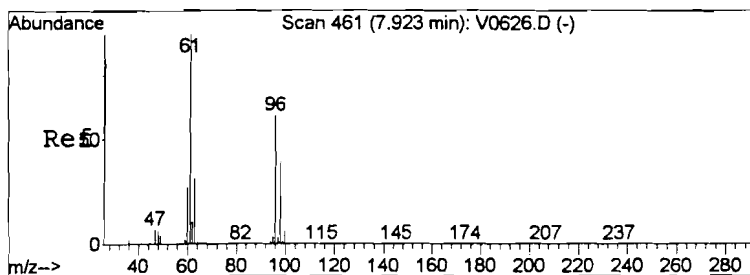
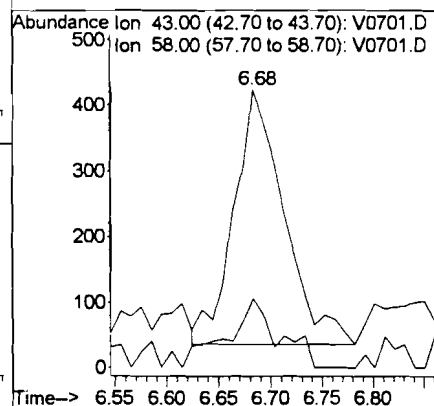
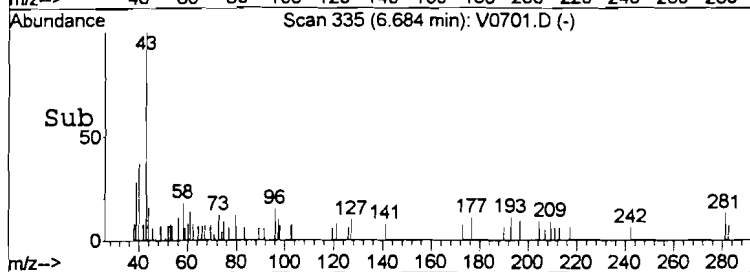
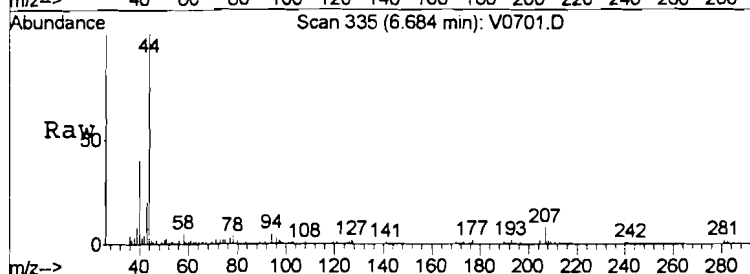
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration





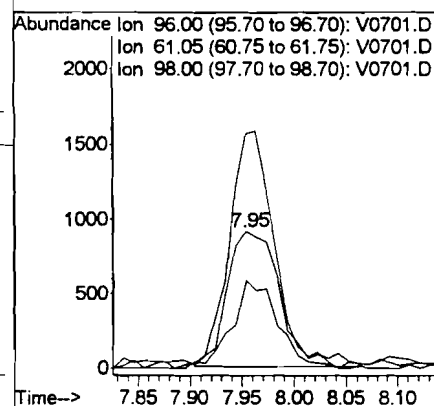
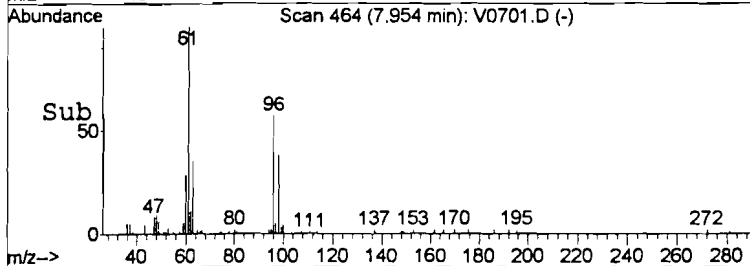
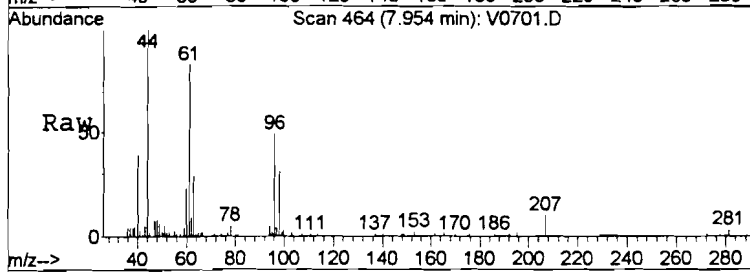
#12
Acetone
Concen: 1.59 ppb
RT: 6.68 min Scan# 335
Delta R.T. 0.04 min
Lab File: V0701.D
Acq: 19 Sep 2001 3:15 pm

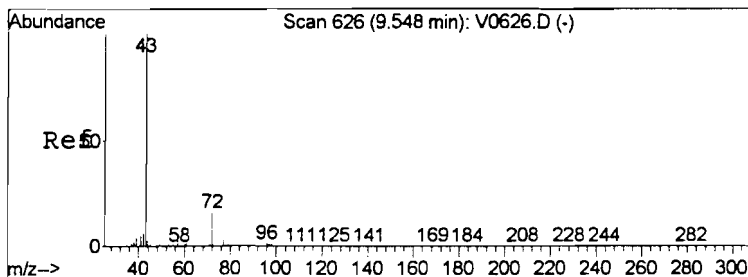
Tgt Ion: 43 Resp: 1301
Ion Ratio Lower Upper
43 100
58 25.1 19.7 29.5



#21
trans-1,2-Dichloroethene
Concen: 1.79 ppb
RT: 7.95 min Scan# 464
Delta R.T. 0.03 min
Lab File: V0701.D
Acq: 19 Sep 2001 3:15 pm

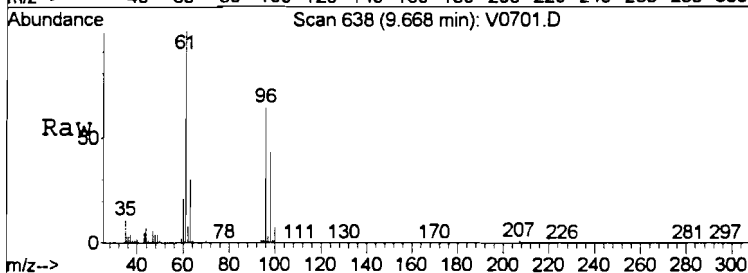
Tgt Ion: 96 Resp: 3223
Ion Ratio Lower Upper
96 100
61 171.1 130.2 195.4
98 64.2 51.1 76.7



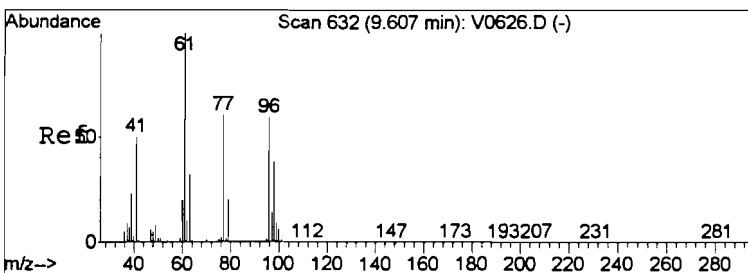
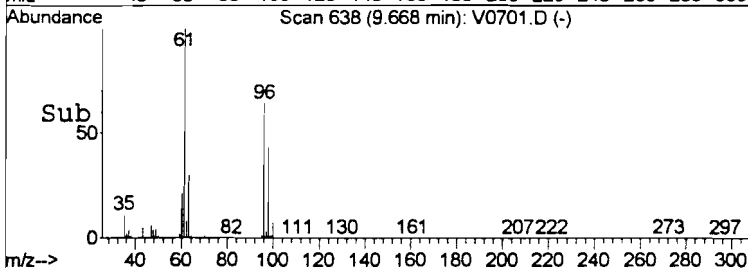
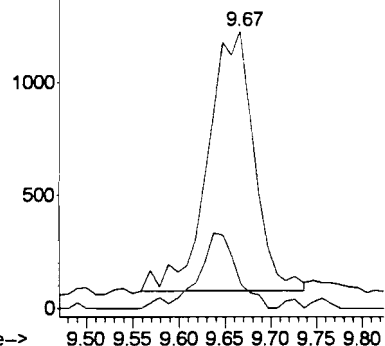


#26
2-Butanone
Concen: 3.00 ppb
RT: 9.67 min Scan# 638
Delta R.T. 0.11 min
Lab File: V0701.D
Acq: 19 Sep 2001 3:15 pm

Tgt Ion: 43 Resp: 4051
Ion Ratio Lower Upper
43 100
72 8.4 11.6 19.4#

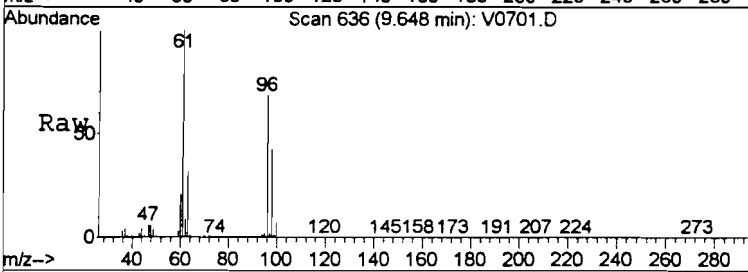


Abundance Ion 43.00 (42.70 to 43.70): V0701.D
Ion 72.10 (71.80 to 72.80): V0701.D

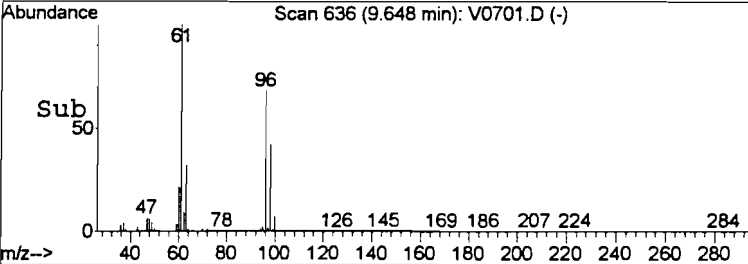
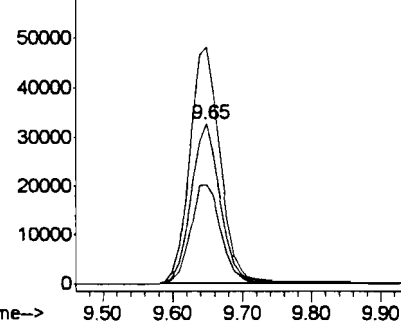


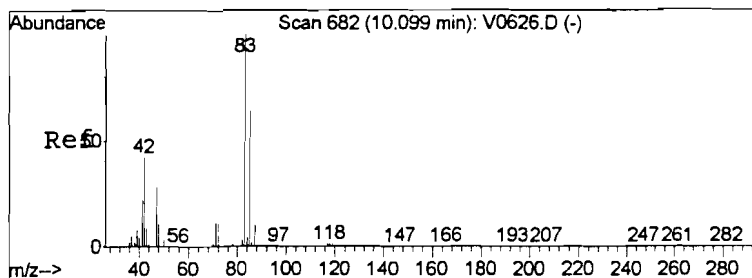
#27
cis-1,2-Dichloroethene
Concen: 47.56 ppb
RT: 9.65 min Scan# 636
Delta R.T. 0.04 min
Lab File: V0701.D
Acq: 19 Sep 2001 3:15 pm

Tgt Ion: 96 Resp: 95295
Ion Ratio Lower Upper
96 100
61 146.7 136.0 204.0
98 61.8 51.8 77.6



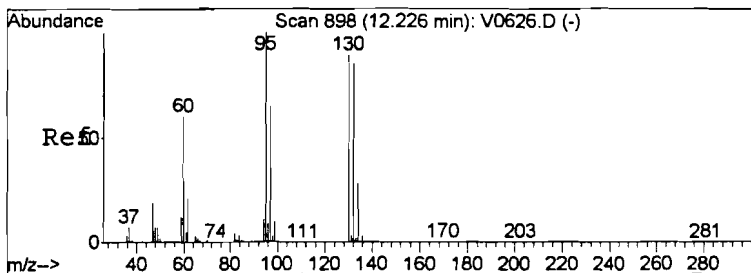
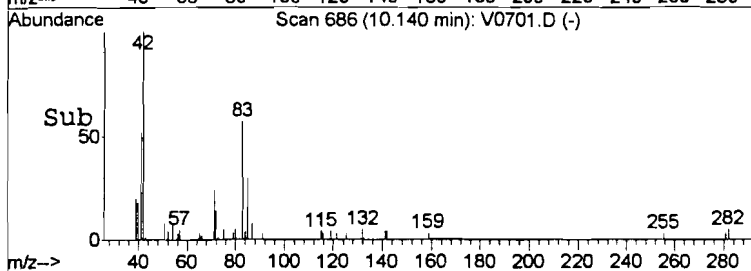
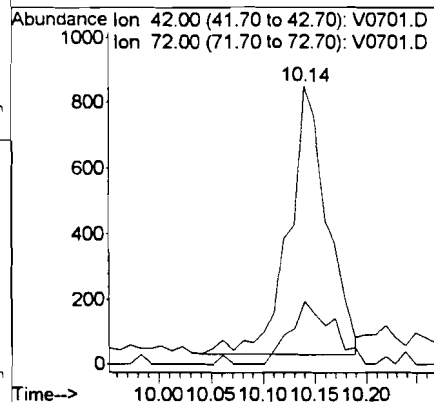
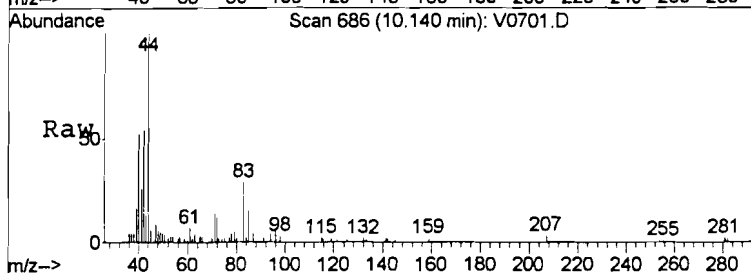
Abundance Ion 96.00 (95.70 to 96.70): V0701.D
Ion 61.05 (60.75 to 61.75): V0701.D
Ion 98.00 (97.70 to 98.70): V0701.D





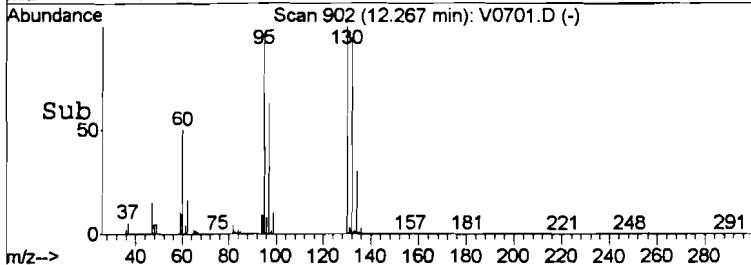
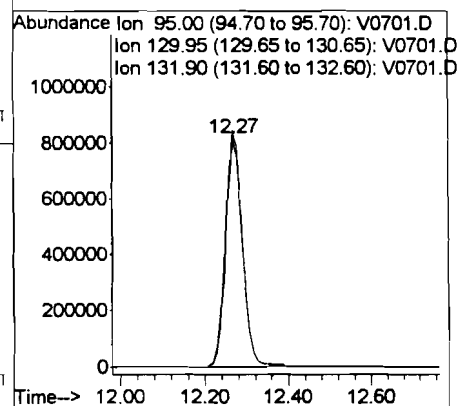
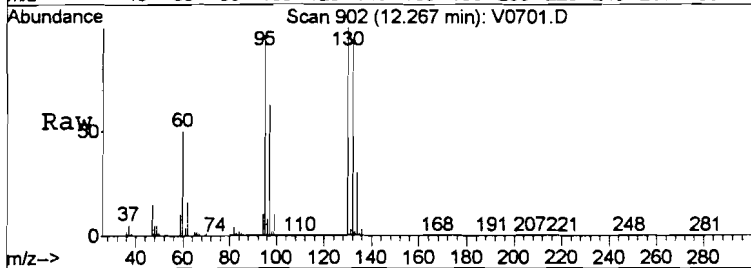
#32
Tetrahydrofuran
Concen: 2.62 ppb
RT: 10.14 min Scan# 686
Delta R.T. 0.04 min
Lab File: V0701.D
Acq: 19 Sep 2001 3:15 pm

Tgt Ion: 42 Resp: 2134
Ion Ratio Lower Upper
42 100
72 26.2 22.3 37.1



#42
Trichloroethene
Concen: 1298.37 ppb
RT: 12.27 min Scan# 902
Delta R.T. 0.04 min
Lab File: V0701.D
Acq: 19 Sep 2001 3:15 pm

Tgt Ion: 95 Resp: 2443027
Ion Ratio Lower Upper
95 100
130 103.2 71.6 107.4
132 98.1 68.4 102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-06

Date Sampled : 09/13/01 12:28 Order #: 493228 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/25/01		
ANALYTICAL DILUTION:	50.00		
ACETONE	20	1000 U	UG/L
BENZENE	5.0	250 U	UG/L
BROMODICHLOROMETHANE	5.0	250 U	UG/L
BROMOFORM	5.0	250 U	UG/L
BROMOMETHANE	5.0	250 U	UG/L
2-BUTANONE (MEK)	10	500 U	UG/L
CARBON DISULFIDE	10	500 U	UG/L
CARBON TETRACHLORIDE	5.0	250 U	UG/L
CHLOROBENZENE	5.0	250 U	UG/L
CHLOROETHANE	5.0	250 U	UG/L
CHLOROFORM	5.0	250 U	UG/L
CHLOROMETHANE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHANE	5.0	250 U	UG/L
1,2-DICHLOROETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHENE	5.0	250 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	220 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	250 U	UG/L
1,2-DICHLOROPROPANE	5.0	250 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
ETHYLBENZENE	5.0	250 U	UG/L
FREON 113	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
METHYLENE CHLORIDE	5.0	250 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	500 U	UG/L
STYRENE	5.0	250 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	250 U	UG/L
TETRACHLOROETHENE	5.0	250 U	UG/L
TOLUENE	5.0	250 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	250 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	250 U	UG/L
TRICHLOROETHENE	5.0	5600	UG/L
VINYL CHLORIDE	1.0	50 U	UG/L
O-XYLENE	5.0	250 U	UG/L
M+P-XYLENE	5.0	250 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	103	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0813.D
Acq On : 25 Sep 2001 7:20 pm
Sample : 493228 50
Misc : hla r-8550 8260b.tclf
MS Integration Params: RTEINT.P
Quant Time: Sep 25 19:49 2001

Vial: 11
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 25 16:41:28 2001
Response via : Initial Calibration
DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	153357	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	269734	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	218991	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	84382	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.45	113	106090	51.58	ppb	0.00
Spiked Amount	50.000		Recovery	=	103.16%	
58) surr3,Toluene-d8	14.46	98	286259	51.79	ppb	-0.01
Spiked Amount	50.000		Recovery	=	103.58%	
59) surr2,bfb	19.60	95	107538	47.94	ppb	0.00
Spiked Amount	50.000		Recovery	=	95.88%	

Target Compounds

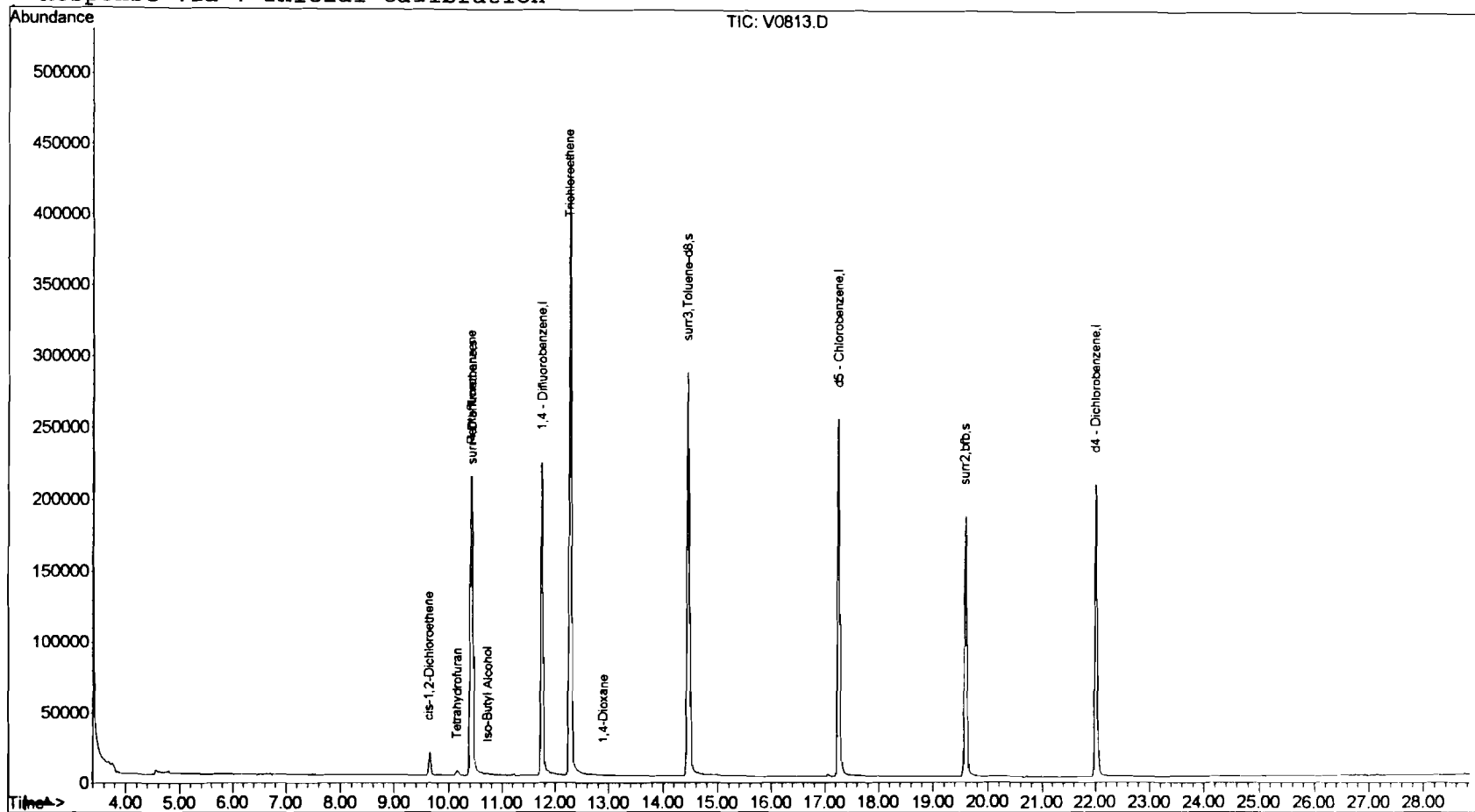
						Qvalue
28) cis-1,2-Dichloroethene	9.66	96	10174	4.48	ppb	86 J
33) Tetrahydrofuran	10.15	42	2830	3.03	ppb	# 81
39) Iso Butyl Alcohol	10.73	43	255	2.09	ppb	93
43) Trichloroethene	12.28	95	226512	111.48	ppb	96
46) 1,4-Dioxane	12.91	88	28	1.73	ppb	# 56

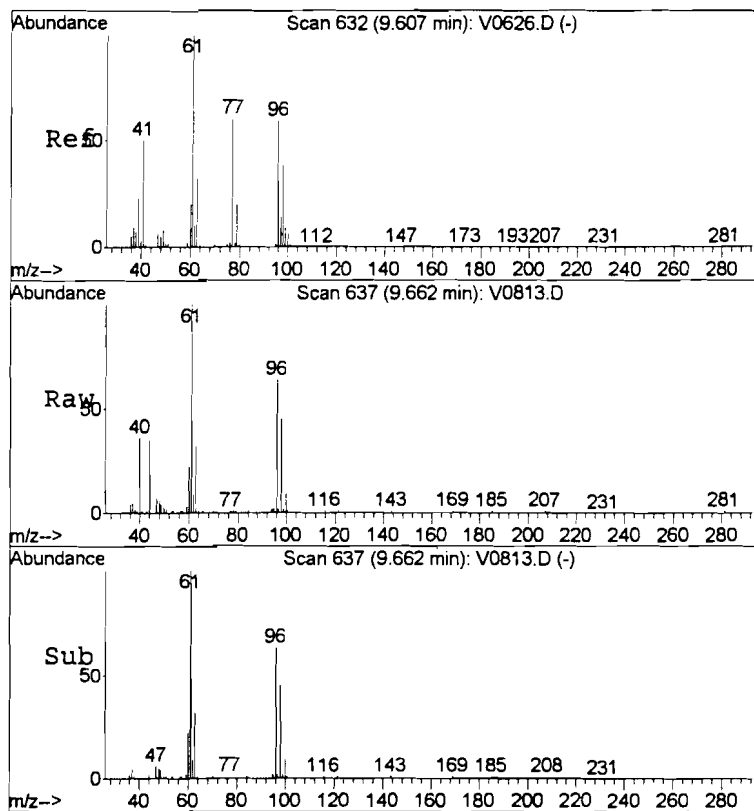
RJH 9/26
Replicate
@ dilution

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0813.D Vial: 11
Acq On : 25 Sep 2001 7:20 pm Operator: herring
Sample : 493228 50 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 25 19:49 2001 Quant Results File: EXP0924.RES

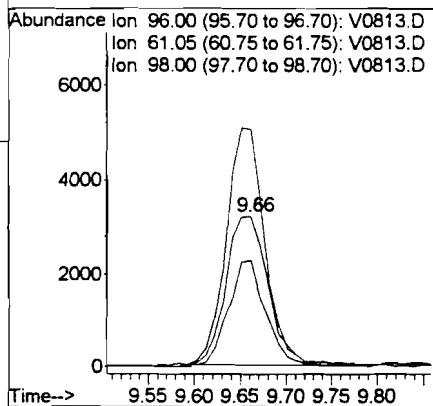
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 25 16:41:28 2001
Response via : Initial Calibration

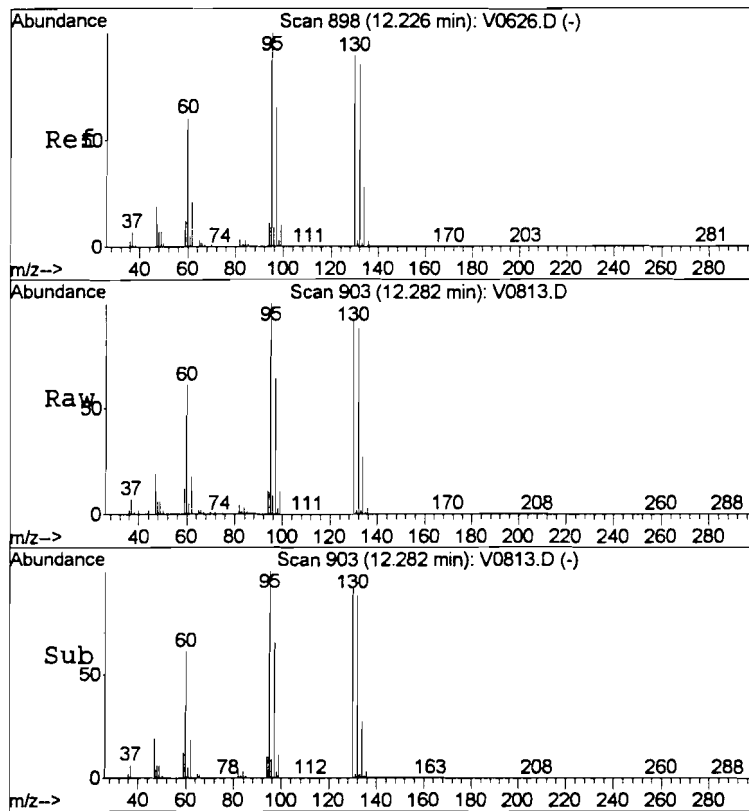




#28
 cis-1,2-Dichloroethene
 Concen: 4.48 ppb
 RT: 9.66 min Scan# 637
 Delta R.T. -0.00 min
 Lab File: V0813.D
 Acq: 25 Sep 2001 7:20 pm

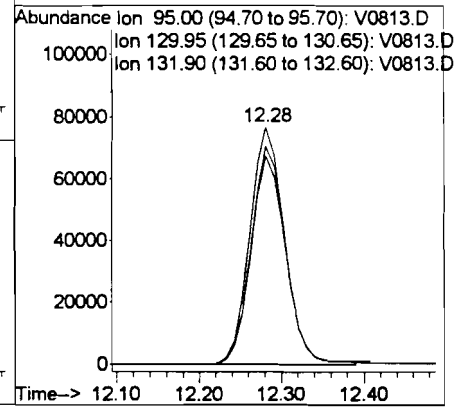
Tgt Ion: 96 Resp: 10174
 Ion Ratio Lower Upper
 96 100
 61 156.8 143.6 215.4
 98 71.3 50.8 76.2





#43
 Trichloroethene
 Concen: 111.48 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.01 min
 Lab File: V0813.D
 Acq: 25 Sep 2001 7:20 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	92.0	70.0	105.0
132	87.7	68.2	102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-08

Date Sampled : 09/13/01 14:36 Order #: 493229 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 10.00			
ACETONE	20	990	UG/L
BENZENE	5.0	50 U	UG/L
BROMODICHLOROMETHANE	5.0	50 U	UG/L
BROMOFORM	5.0	50 U	UG/L
BROMOMETHANE	5.0	50 U	UG/L
2-BUTANONE (MEK)	10	26 J	UG/L
CARBON DISULFIDE	10	100 U	UG/L
CARBON TETRACHLORIDE	5.0	50 U	UG/L
CHLOROBENZENE	5.0	50 U	UG/L
CHLOROETHANE	5.0	50 U	UG/L
CHLOROFORM	5.0	50 U	UG/L
CHLOROMETHANE	5.0	50 U	UG/L
DIBROMOCHLOROMETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHANE	5.0	50 U	UG/L
1,2-DICHLOROETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHENE	5.0	50 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	250	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
ETHYLBENZENE	5.0	50 U	UG/L
FREON 113	5.0	50 U	UG/L
2-HEXANONE	10	13 J	UG/L
METHYLENE CHLORIDE	5.0	50 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100 U	UG/L
STYRENE	5.0	50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50 U	UG/L
TETRACHLOROETHENE	5.0	50 U	UG/L
TOLUENE	5.0	50 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	50 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	50 U	UG/L
TRICHLOROETHENE	5.0	830	UG/L
VINYL CHLORIDE	1.0	10 U	UG/L
O-XYLENE	5.0	50 U	UG/L
M+P-XYLENE	5.0	50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0703.D
Acq On : 19 Sep 2001 4:34 pm
Sample : 493229 10
Misc : hla r-8550 8260b.tclf
MS Integration Params: rteint.p
Quant Time: Sep 19 17:05 2001

Vial: 11
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration
DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.41	168	134525	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.74	114	238601	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	203295	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.01	152	82581	50.00	ppb	0.05

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	94474	50.28	ppb	0.04
Spiked Amount 50.000			Recovery	=	100.56%	
57) surr3, Toluene-d8	14.45	98	257080	48.91	ppb	0.04
Spiked Amount 50.000			Recovery	=	97.82%	
58) surr2, bfb	19.58	95	102170	47.19	ppb	0.04
Spiked Amount 50.000			Recovery	=	94.38%	

Target Compounds

						Qvalue
12) Acetone	6.68	43	74260	99.18	ppb	96
18) TBA	7.55	59	203	1.20	ppb	# 1
26) 2-Butanone	9.60	43	3177	2.57	ppb	94 J
27) cis-1,2-Dichloroethene	9.65	96	45438	24.78	ppb	89
32) Tetrahydrofuran	10.14	42	2717	3.65	ppb	100 NT
38) Iso-Butyl Alcohol	10.78	43	712	7.02	ppb	63
42) Trichloroethene	12.28	95	145887	83.42	ppb	98
45) 1,4-Dioxane	12.65	88	90	5.52	ppb	95
60) 2-Hexanone	15.67	43	2510	1.32	ppb	93 J

R2A-10/10

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0703.D

Vial: 11

Acq On : 19 Sep 2001 4:34 pm

Operator: herring

Sample : 493229 10

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 17:05 2001

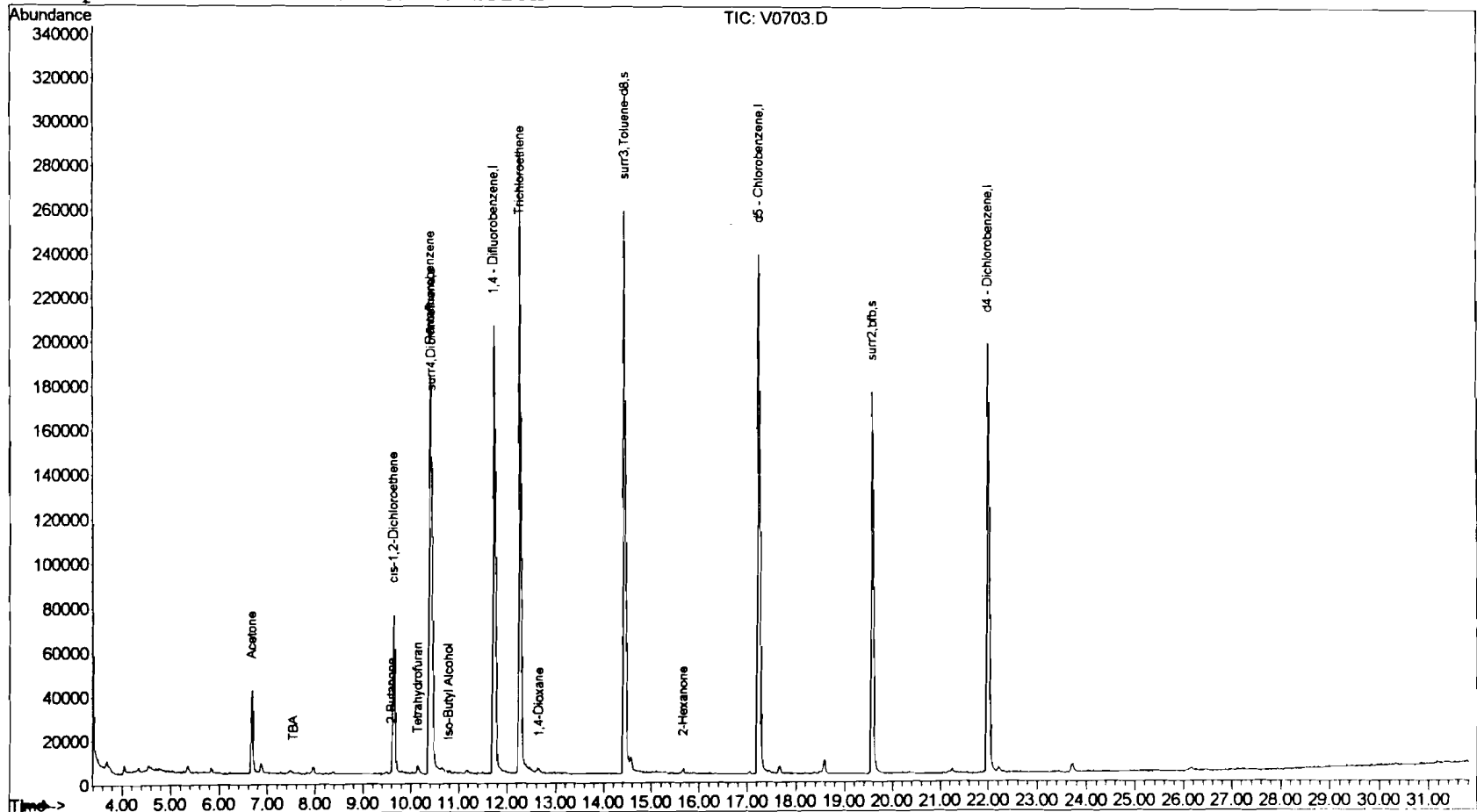
Quant Results File: EXP0914.RES

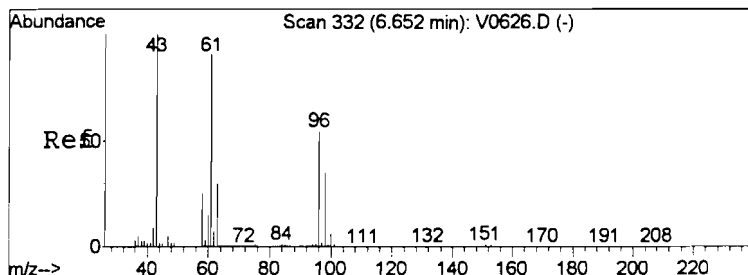
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

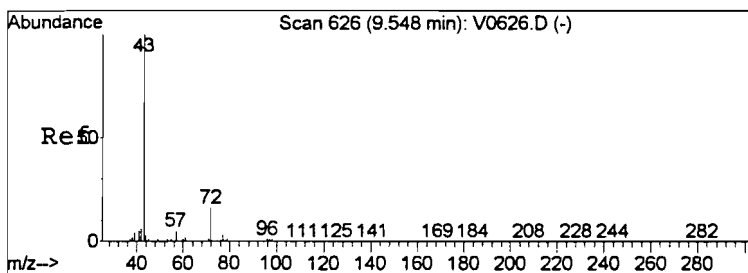
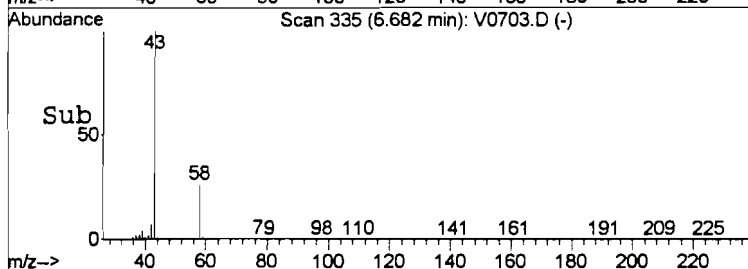
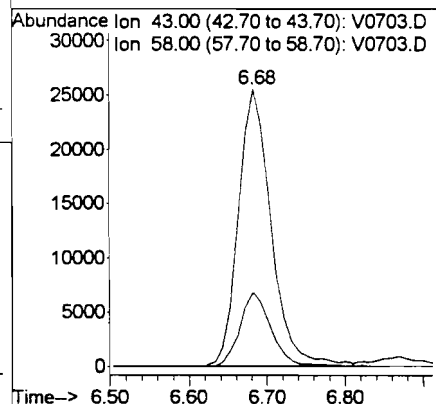
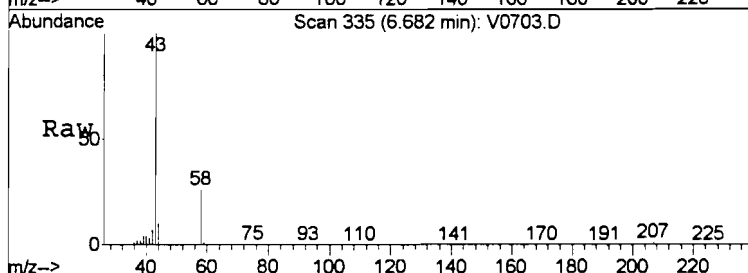
Response via : Initial Calibration





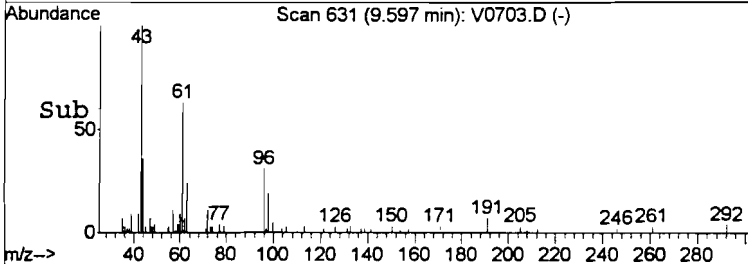
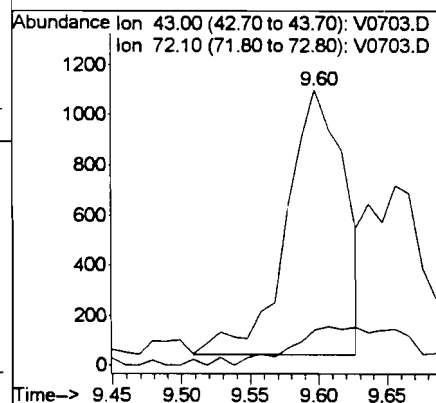
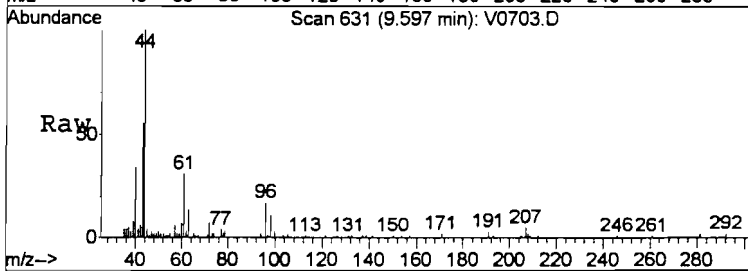
#12
Acetone
Concen: 99.18 ppb
RT: 6.68 min Scan# 335
Delta R.T. 0.03 min
Lab File: V0703.D
Acq: 19 Sep 2001 4:34 pm

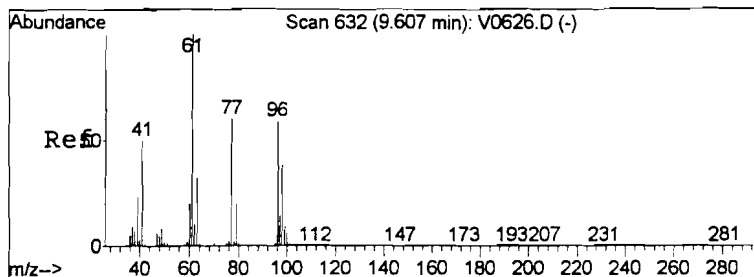
Tgt Ion: 43 Resp: 74260
Ion Ratio Lower Upper
43 100
58 26.4 19.7 29.5



#26
2-Butanone
Concen: 2.57 ppb
RT: 9.60 min Scan# 631
Delta R.T. 0.04 min
Lab File: V0703.D
Acq: 19 Sep 2001 4:34 pm

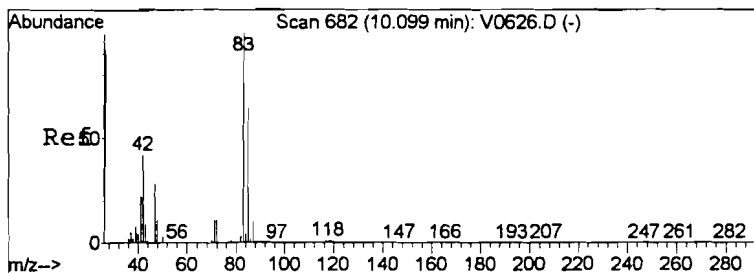
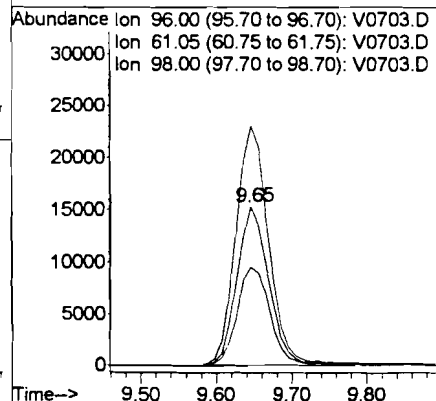
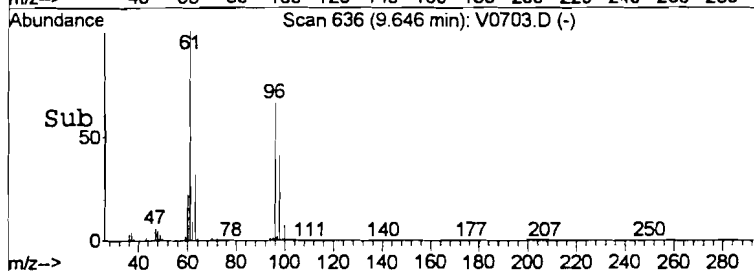
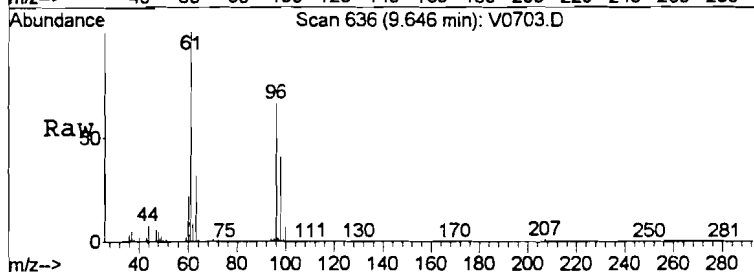
Tgt Ion: 43 Resp: 3177
Ion Ratio Lower Upper
43 100
72 12.9 11.6 19.4





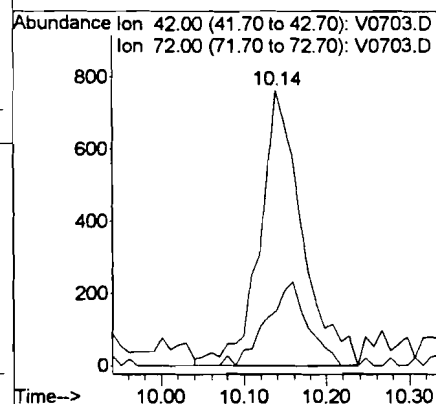
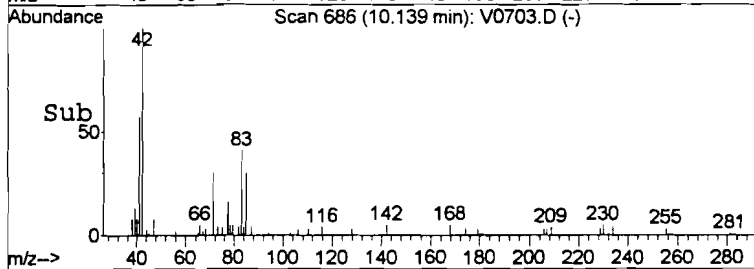
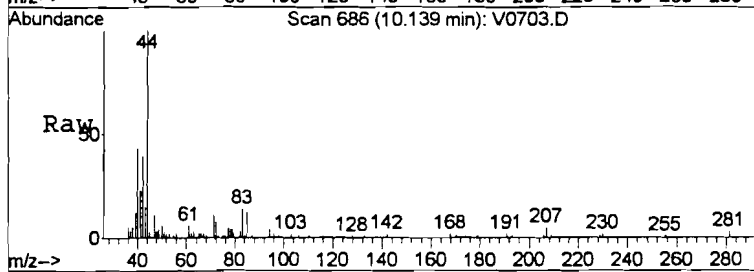
#27
 cis-1,2-Dichloroethene
 Concen: 24.78 ppb
 RT: 9.65 min Scan# 636
 Delta R.T. 0.03 min
 Lab File: V0703.D
 Acq: 19 Sep 2001 4:34 pm

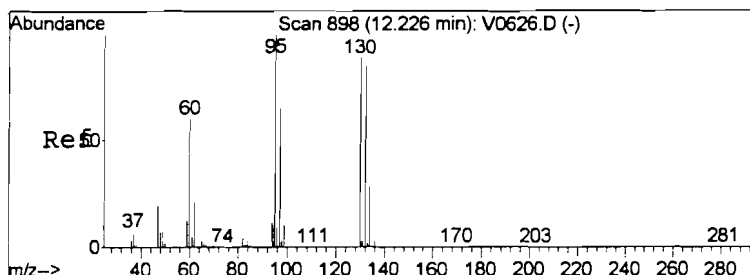
Tgt Ion: 96 Resp: 45438
 Ion Ratio Lower Upper
 96 100
 61 150.4 136.0 204.0
 98 62.3 51.8 77.6



#32
 Tetrahydrofuran
 Concen: 3.65 ppb
 RT: 10.14 min Scan# 686
 Delta R.T. 0.03 min
 Lab File: V0703.D
 Acq: 19 Sep 2001 4:34 pm

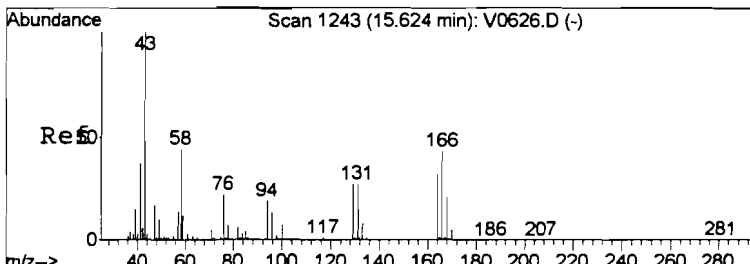
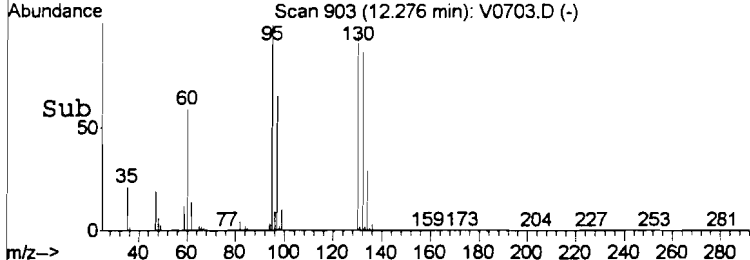
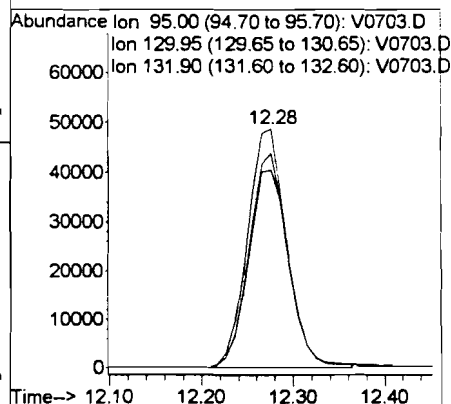
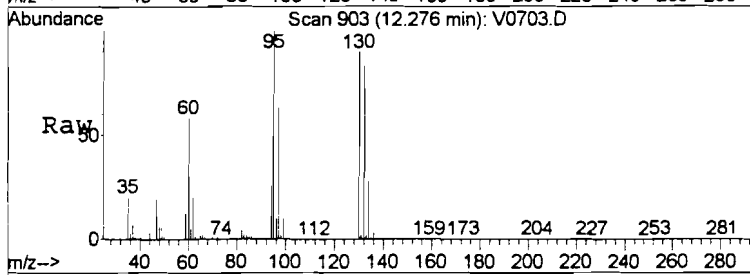
Tgt Ion: 42 Resp: 2717
 Ion Ratio Lower Upper
 42 100
 72 29.8 22.3 37.1





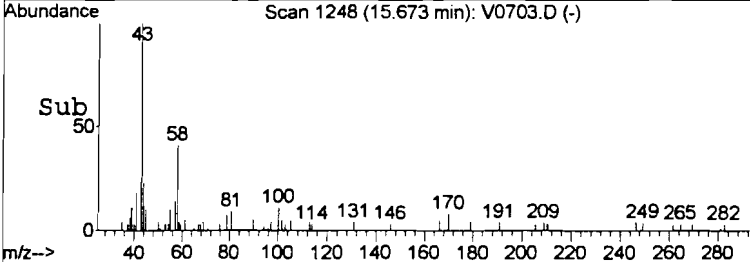
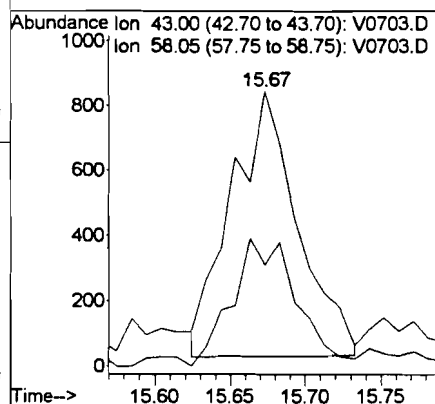
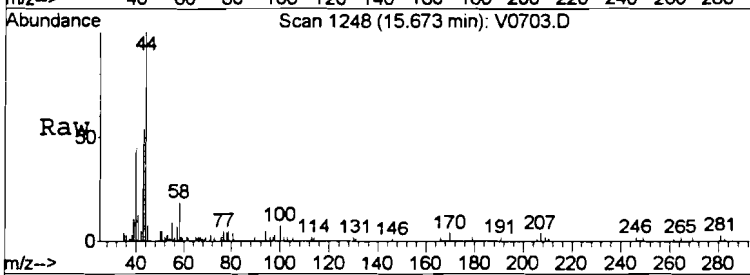
#42
 Trichloroethene
 Concen: 83.42 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. 0.04 min
 Lab File: V0703.D
 Acq: 19 Sep 2001 4:34 pm

Tgt Ion:	95	Resp:	145887
Ion Ratio	Lower	Upper	
95	100		
130	89.9	71.6	107.4
132	83.0	68.4	102.6



#60
 2-Hexanone
 Concen: 1.32 ppb
 RT: 15.67 min Scan# 1248
 Delta R.T. 0.05 min
 Lab File: V0703.D
 Acq: 19 Sep 2001 4:34 pm

Tgt Ion:	43	Resp:	2510
Ion Ratio	Lower	Upper	
43	100		
58	39.4	35.2	52.8



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-17

Date Sampled : 09/13/01 15:45 Order #: 493230 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 25.00			
ACETONE	20	500 U	UG/L
BENZENE	5.0	130 U	UG/L
BROMODICHLOROMETHANE	5.0	130 U	UG/L
BROMOFORM	5.0	130 U	UG/L
BROMOMETHANE	5.0	130 U	UG/L
2-BUTANONE (MEK)	10	250 U	UG/L
CARBON DISULFIDE	10	250 U	UG/L
CARBON TETRACHLORIDE	5.0	130 U	UG/L
CHLOROBENZENE	5.0	130 U	UG/L
CHLOROETHANE	5.0	130 U	UG/L
CHLOROFORM	5.0	130 U	UG/L
CHLOROMETHANE	5.0	130 U	UG/L
DIBROMOCHLOROMETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHANE	5.0	130 U	UG/L
1,2-DICHLOROETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHENE	5.0	130 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	220	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	60 J	UG/L
1,2-DICHLOROPROPANE	5.0	130 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
ETHYLBENZENE	5.0	130 U	UG/L
FREON 113	5.0	130 U	UG/L
2-HEXANONE	10	250 U	UG/L
METHYLENE CHLORIDE	5.0	130 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	250 U	UG/L
STYRENE	5.0	130 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	130 U	UG/L
TETRACHLOROETHENE	5.0	130 U	UG/L
TOLUENE	5.0	130 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	130 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	130 U	UG/L
TRICHLOROETHENE	5.0	4100	UG/L
VINYL CHLORIDE	1.0	57 J	UG/L
O-XYLENE	5.0	130 U	UG/L
M+P-XYLENE	5.0	130 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	104	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0812.D

Vial: 10

Acq On : 25 Sep 2001 6:45 pm

Operator: herring

Sample : 493230 25

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 19:13 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260v0a

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	160244	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	285967	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	234009	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	91017	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.44	113	113181	51.91	ppb	0.00
Spiked Amount 50.000			Recovery	=	103.82%	
58) surr3,Toluene-d8	14.46	98	303381	51.36	ppb	0.00
Spiked Amount 50.000			Recovery	=	102.72%	
59) surr2,bfb	19.59	95	113006	47.15	ppb	0.00
Spiked Amount 50.000			Recovery	=	94.30%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	4.36	62	2269	2.29	ppb	100 J
21) trans-1,2-Dichloroethene	7.96	96	4985	2.39	ppb	89 J
28) cis-1,2-Dichloroethene	9.66	96	20584	8.68	ppb	80
43) Trichloroethene	12.29	95	350506	162.71	ppb	95
46) 1,4 Dioxane	12.76	88	33	1.93	ppb	92

RJH 9/25

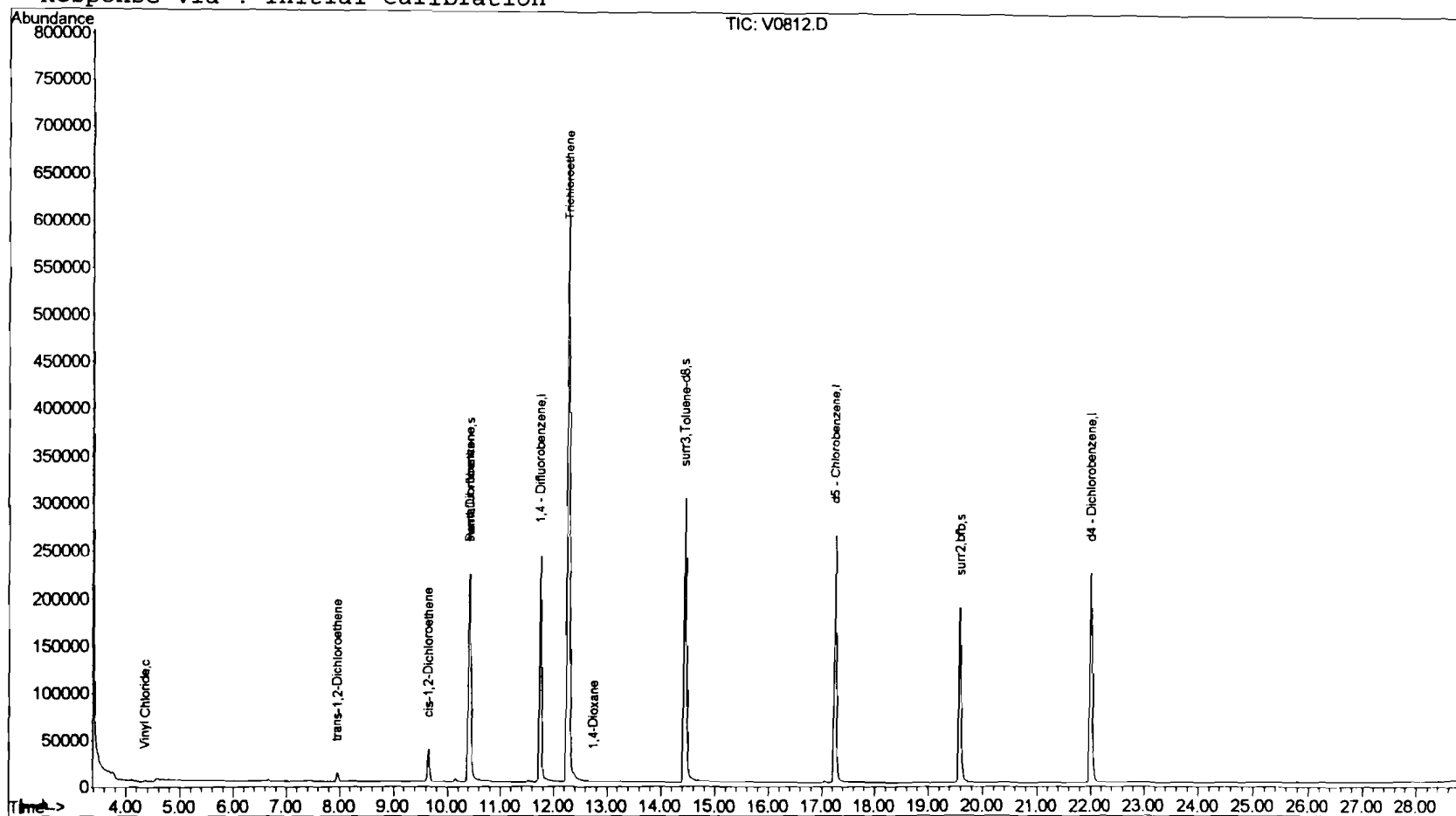
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 V0812.D EXP0924.M Tue Sep 25 19:14:27 2001

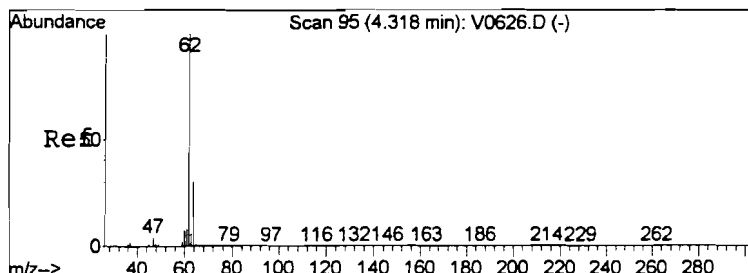
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 Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0812.D Vial: 10
 Acq On : 25 Sep 2001 6:45 pm Operator: herring
 Sample : 493230 25 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 19:13 2001 Quant Results File: EXP0924.RES

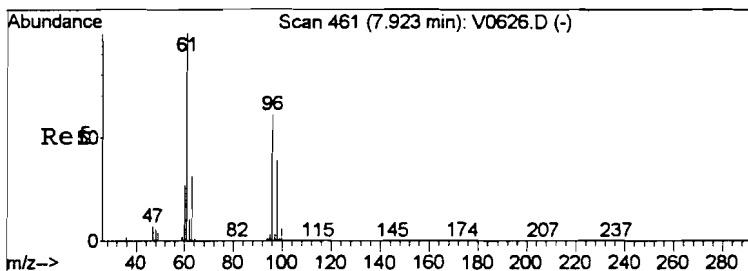
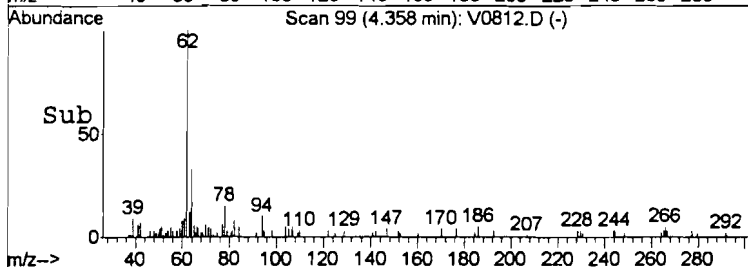
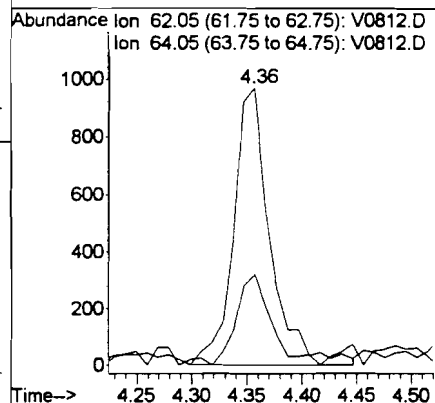
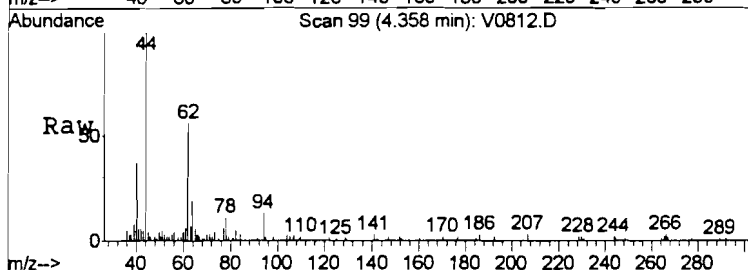
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:41:28 2001
 Response via : Initial Calibration





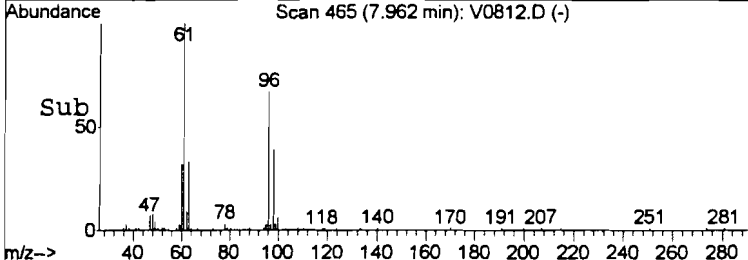
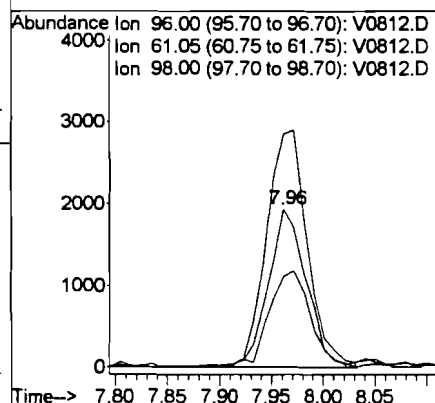
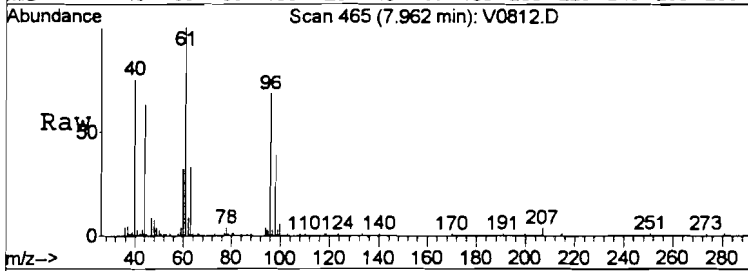
#4
 Vinyl Chloride
 Concen: 2.29 ppb
 RT: 4.36 min Scan# 99
 Delta R.T. -0.01 min
 Lab File: V0812.D
 Acq: 25 Sep 2001 6:45 pm

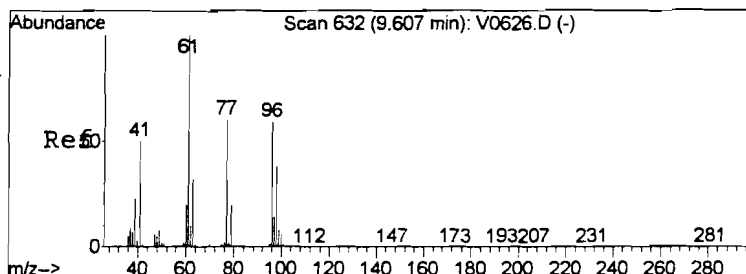
Tgt Ion: 62 Resp: 2269
 Ion Ratio Lower Upper
 62 100
 64 33.2 26.6 39.8



#21
 trans-1,2-Dichloroethene
 Concen: 2.39 ppb
 RT: 7.96 min Scan# 465
 Delta R.T. -0.02 min
 Lab File: V0812.D
 Acq: 25 Sep 2001 6:45 pm

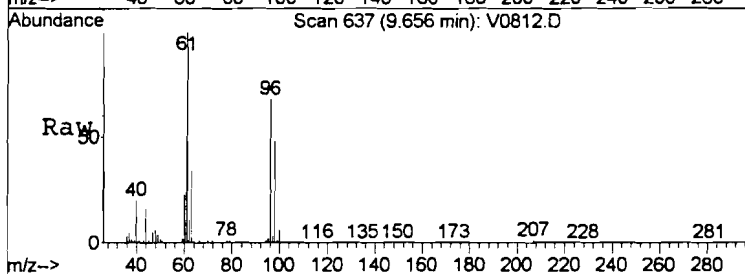
Tgt Ion: 96 Resp: 4985
 Ion Ratio Lower Upper
 96 100
 61 147.6 130.2 195.4
 98 57.2 51.9 77.9





#28
 cis-1,2-Dichloroethene
 Concen: 8.68 ppb
 RT: 9.66 min Scan# 637
 Delta R.T. -0.01 min
 Lab File: V0812.D
 Acq: 25 Sep 2001 6:45 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	146.2	143.6	215.4
98	70.5	50.8	76.2

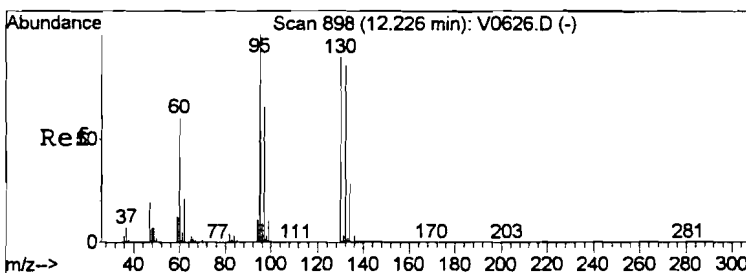
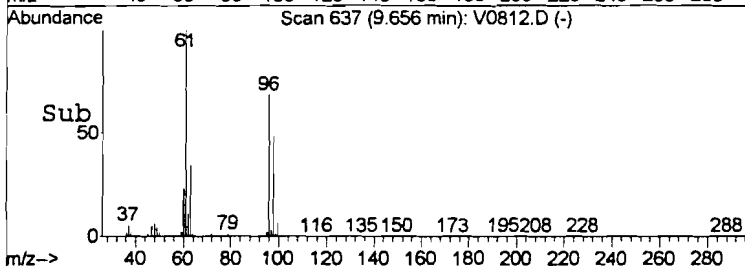
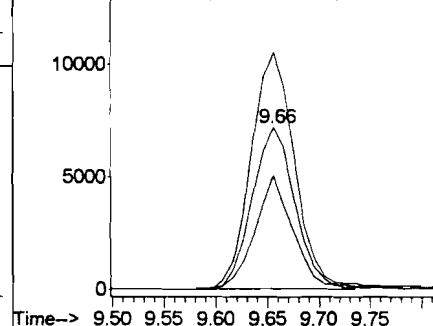


Abundance

Ion 96.00 (95.70 to 96.70): V0812.D

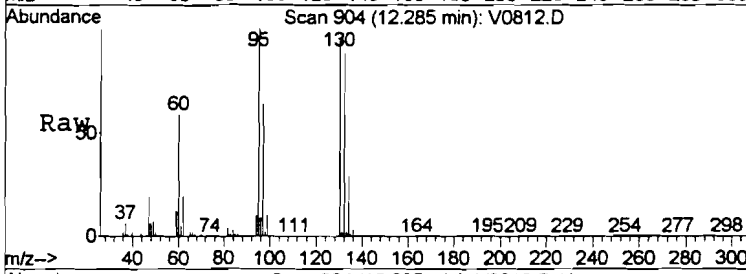
Ion 61.05 (60.75 to 61.75): V0812.D

Ion 98.00 (97.70 to 98.70): V0812.D



#43
 Trichloroethene
 Concen: 162.71 ppb
 RT: 12.29 min Scan# 904
 Delta R.T. -0.01 min
 Lab File: V0812.D
 Acq: 25 Sep 2001 6:45 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	94.6	70.0	105.0
132	87.9	68.2	102.4

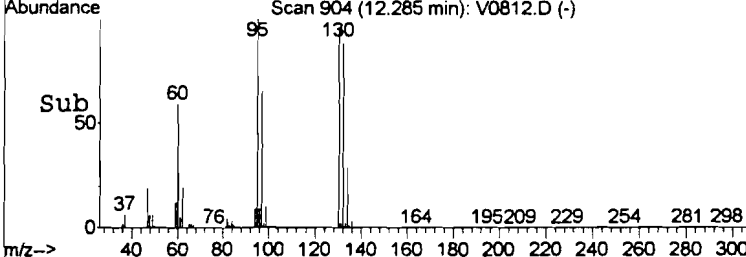
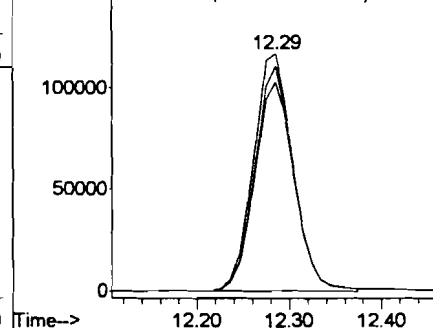


Abundance

Ion 95.00 (94.70 to 95.70): V0812.D

Ion 129.95 (129.65 to 130.65): V0812.D

Ion 131.90 (131.60 to 132.60): V0812.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-14

Date Sampled : 09/13/01 17:28 Order #: 493231 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	19 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	5.5 J	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	1.9 J	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	4.3 J	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	1.5 J	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	2.4 J	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0705.D

Vial: 13

Acq On : 19 Sep 2001 5:56 pm

Operator: herring

Sample : 493231 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 18:28 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	132515	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	233949	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	195826	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.00	152	80779	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	93691	50.85	ppb	0.04
Spiked Amount 50.000			Recovery	=	101.70%	
57) surr3,Toluene-d8	14.45	98	247580	48.90	ppb	0.04
Spiked Amount 50.000			Recovery	=	97.80%	
58) surr2,bfb	19.59	95	100290	48.09	ppb	0.05
Spiked Amount 50.000			Recovery	=	96.18%	

Target Compounds

						Qvalue
12) Acetone	6.68	43	13997	18.98	ppb	98 J
18) TBA	7.54	59	372	2.23	ppb	# 1
26) 2-Butanone	9.60	43	6684	5.48	ppb	99 J
38) Iso Butyl Alcohol	10.76	43	4791	48.15	ppb	# 32
41) N-Heptane	11.51	43	8222	2.49	ppb	# 96
42) Trichloroethene	12.27	95	2561	1.49	ppb	91 J
44) Methyl Methacrylate	12.64	69	4277	3.51	ppb	# 18
45) 1,4-Dioxane	12.88	88	43	2.69	ppb	# 78
53) Toluene	14.58	91	26235	4.32	ppb	98 J
60) 2-Hexanone	15.67	43	3424	1.86	ppb	91 J
67) (m+p)Xylene	17.68	106	5847	2.36	ppb	93 J
72) Cyclohexanone	19.47	55	242	1.05	ppb	# 44
79) 1,3,5-Trimethylbenzene	20.38	105	4695	1.01	ppb	95 NT
83) 1,2,4-Trimethylbenzene	21.19	105	7835	1.67	ppb	98 NT

(#) = qualifier out of range (m) = manual integration
V0705.D EXP0914.M Wed Sep 19 18:28:49 2001

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Page 1

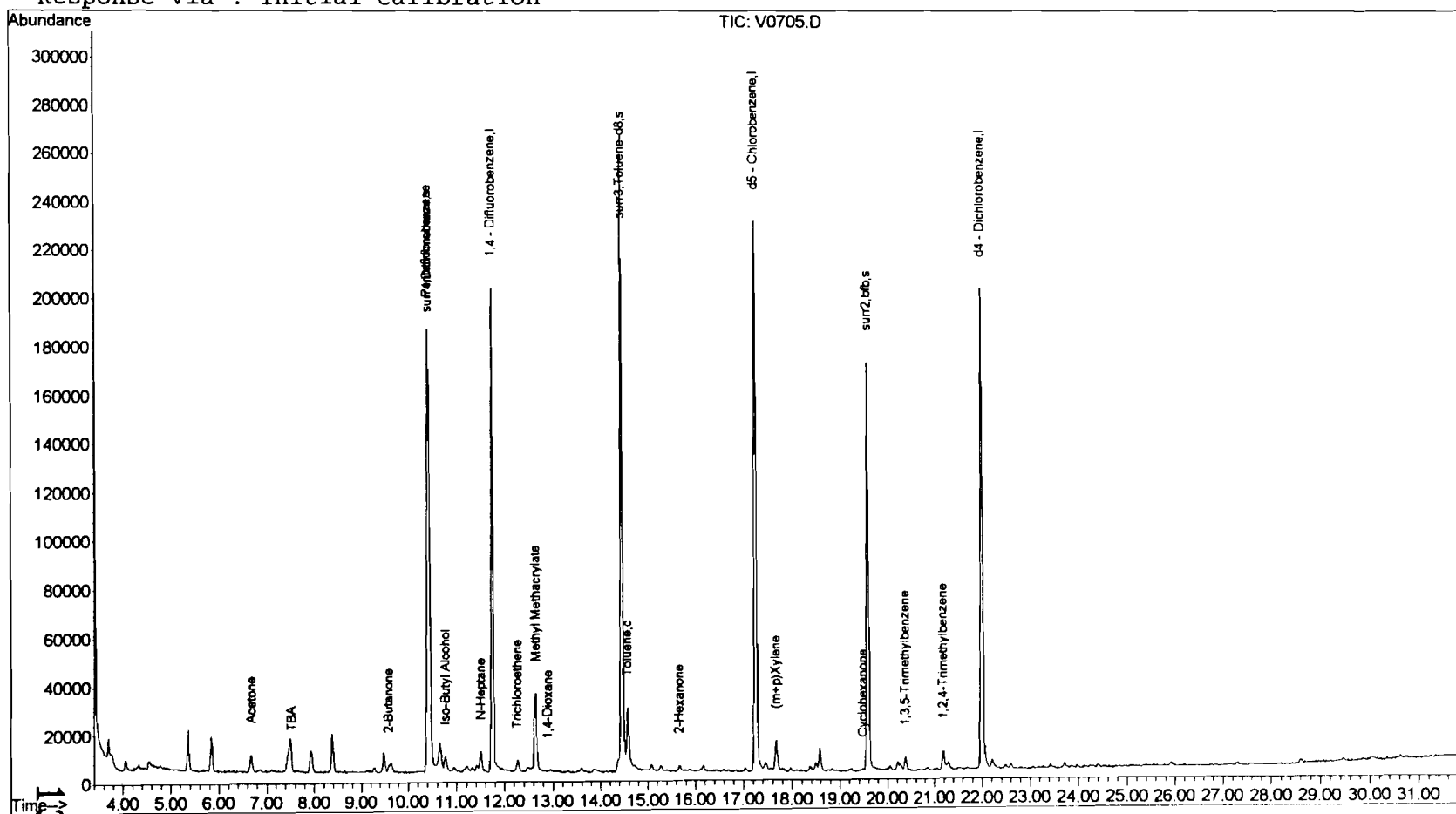
Quantitation Report

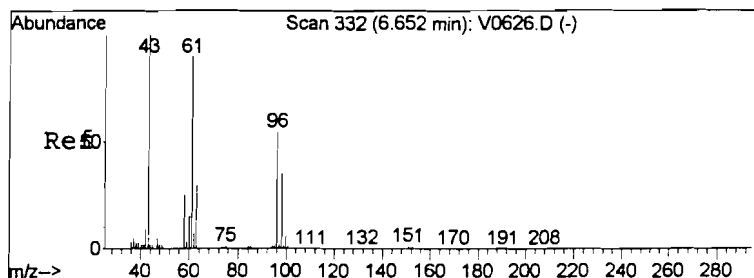
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 Sample : 493231 1.0
 Misc : hla r-8550 8260b.tclf
 MS Integration Params: rteint.p
 Quant Time: Sep 19 18:28 2001

Vial: 13
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: EXP0914.RES

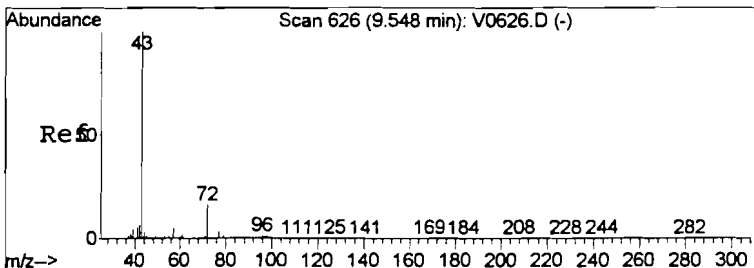
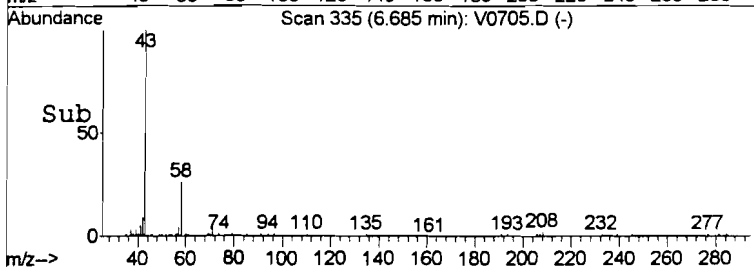
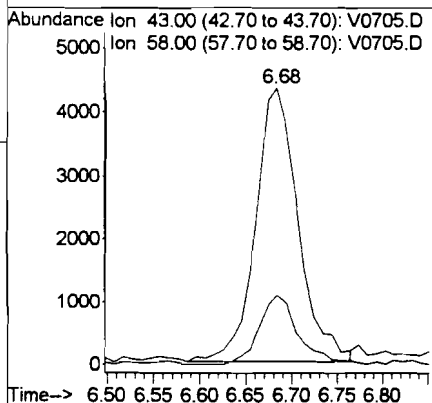
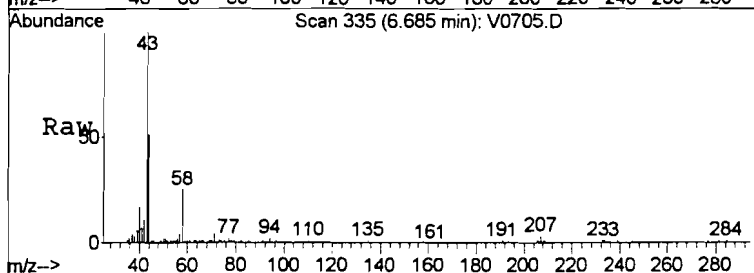
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 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration





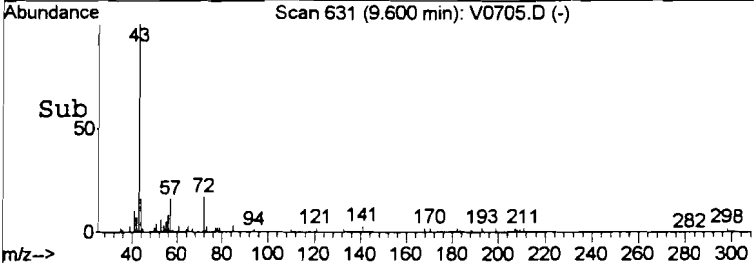
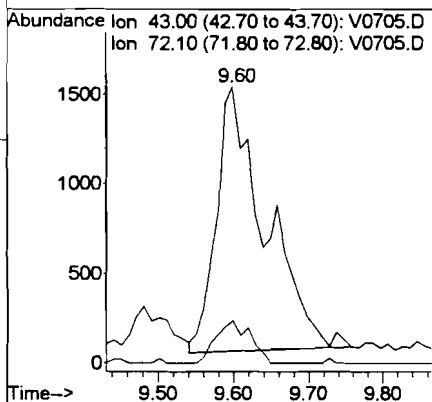
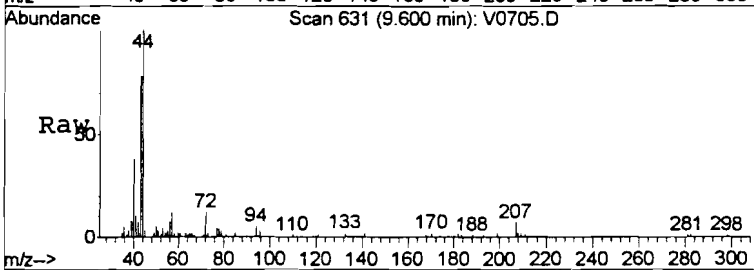
#12
Acetone
Concen: 18.98 ppb
RT: 6.68 min Scan# 335
Delta R.T. 0.04 min
Lab File: V0705.D
Acq: 19 Sep 2001 5:56 pm

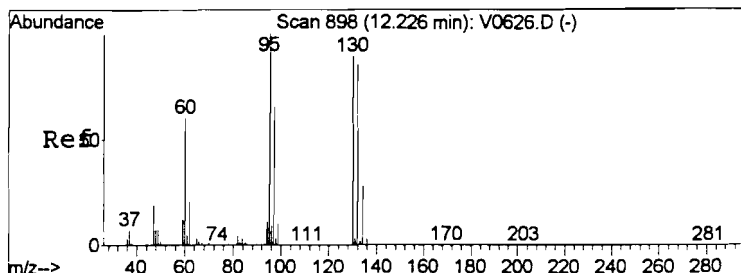
Tgt Ion: 43 Resp: 13997
Ion Ratio Lower Upper
43 100
58 25.4 19.7 29.5



#26
2-Butanone
Concen: 5.48 ppb
RT: 9.60 min Scan# 631
Delta R.T. 0.05 min
Lab File: V0705.D
Acq: 19 Sep 2001 5:56 pm

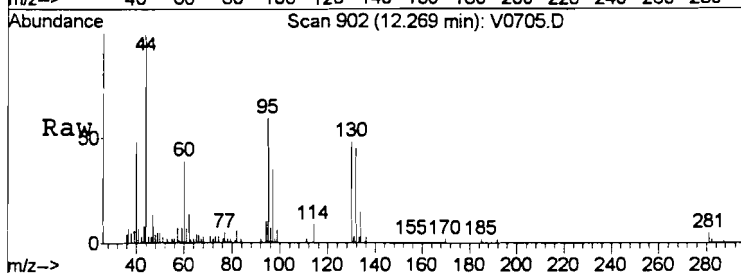
Tgt Ion: 43 Resp: 6684
Ion Ratio Lower Upper
43 100
72 15.8 11.6 19.4



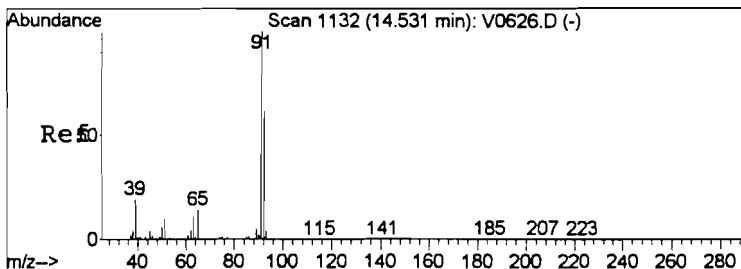
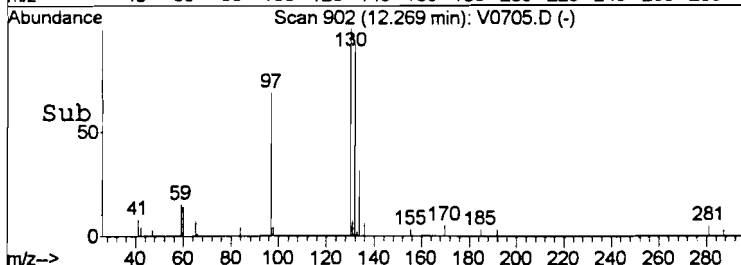
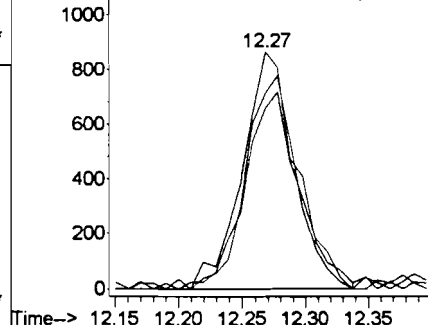


#42
Trichloroethene
Concen: 1.49 ppb
RT: 12.27 min Scan# 902
Delta R.T. 0.04 min
Lab File: V0705.D
Acq: 19 Sep 2001 5:56 pm

Tgt Ion: 95 Resp: 2561
Ion Ratio Lower Upper
95 100
130 82.6 71.6 107.4
132 76.2 68.4 102.6

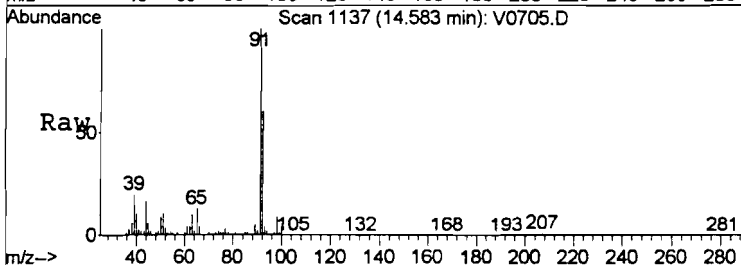


Abundance Ion 95.00 (94.70 to 95.70): V0705.D
Ion 129.95 (129.65 to 130.65): V0705.D
Ion 131.90 (131.60 to 132.60): V0705.D

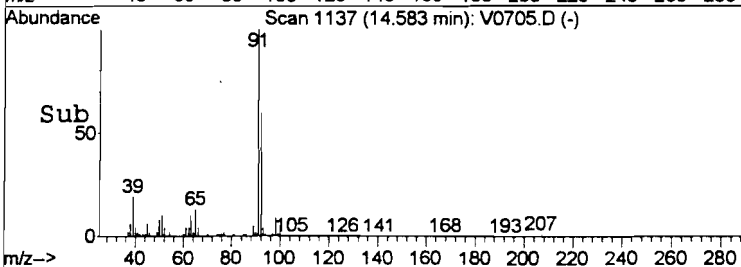
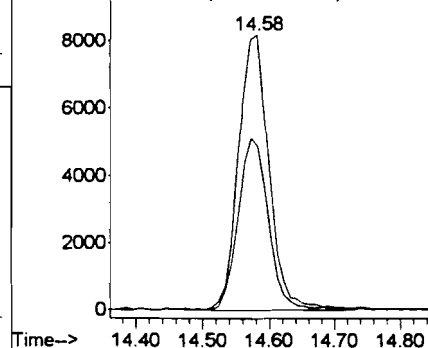


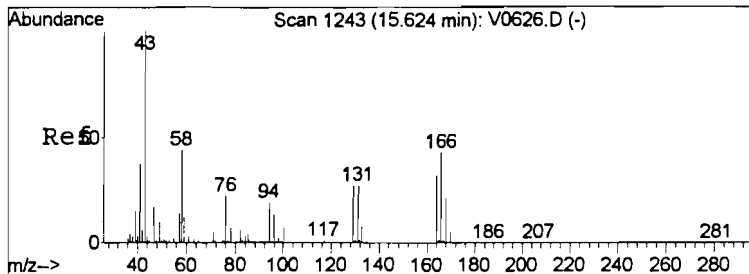
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Toluene
Concen: 4.32 ppb
RT: 14.58 min Scan# 1137
Delta R.T. 0.05 min
Lab File: V0705.D
Acq: 19 Sep 2001 5:56 pm

Tgt Ion: 91 Resp: 26235
Ion Ratio Lower Upper
91 100
92 59.7 48.8 73.2



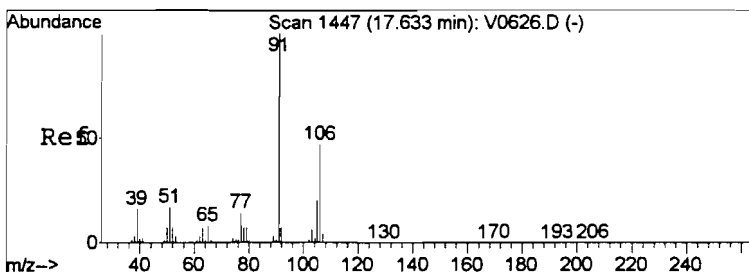
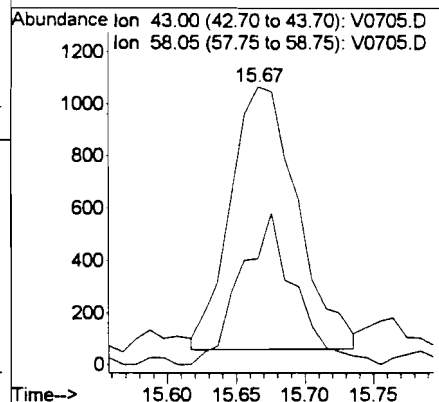
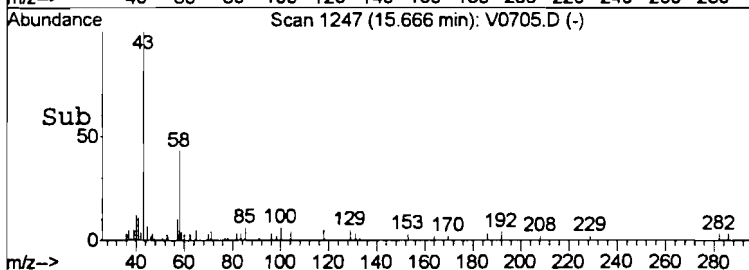
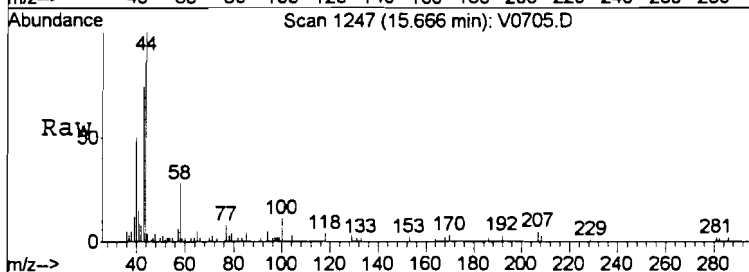
Abundance Ion 91.00 (90.70 to 91.70): V0705.D
Ion 92.00 (91.70 to 92.70): V0705.D





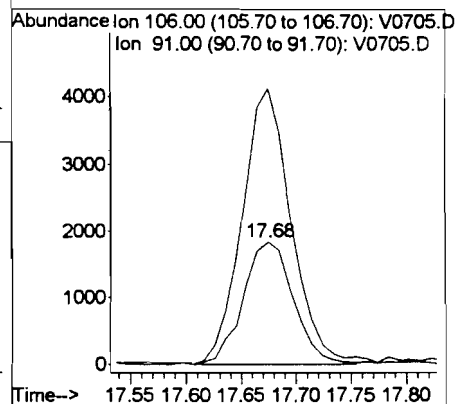
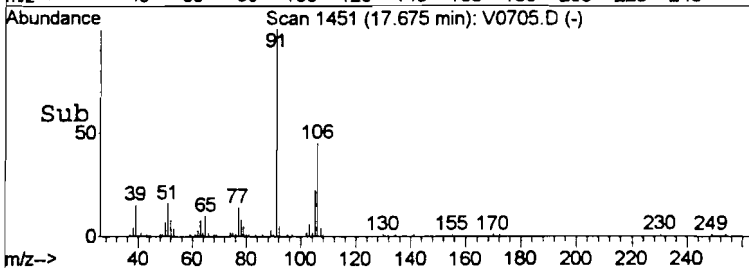
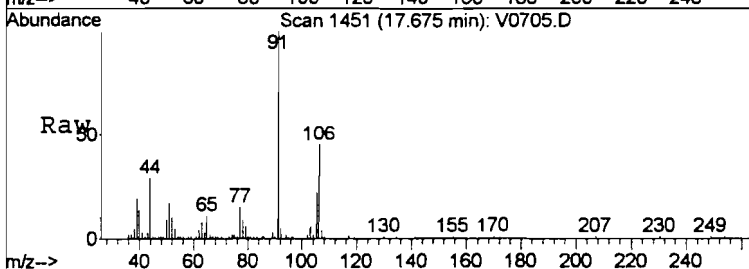
#60
2-Hexanone
Concen: 1.86 ppb
RT: 15.67 min Scan# 1247
Delta R.T. 0.05 min
Lab File: V0705.D
Acq: 19 Sep 2001 5:56 pm

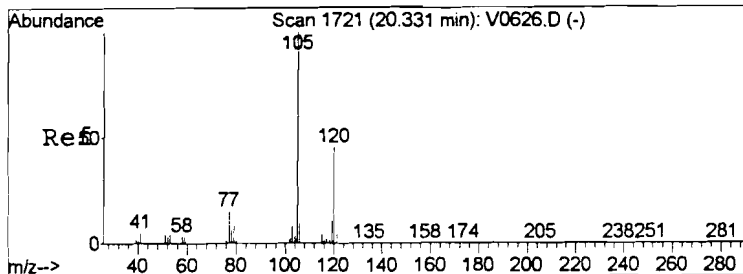
Tgt Ion: 43 Resp: 3424
Ion Ratio Lower Upper
43 100
58 38.3 35.2 52.8



#67
(m+p)Xylene
Concen: 2.36 ppb
RT: 17.68 min Scan# 1451
Delta R.T. 0.05 min
Lab File: V0705.D
Acq: 19 Sep 2001 5:56 pm

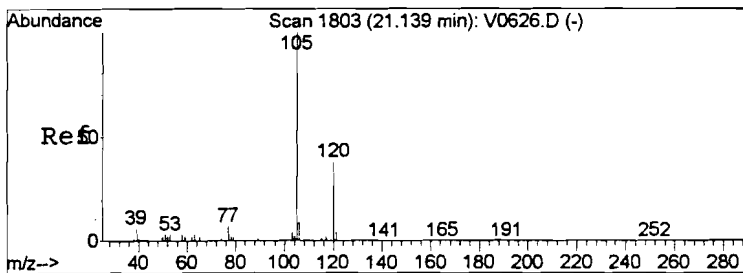
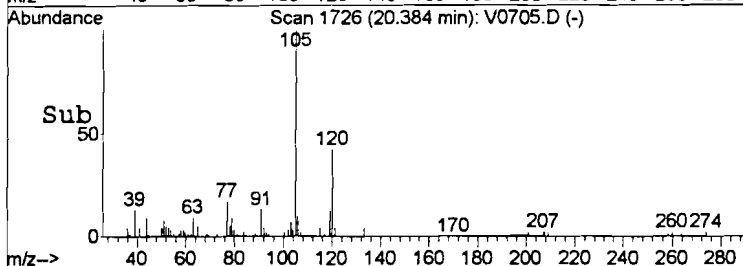
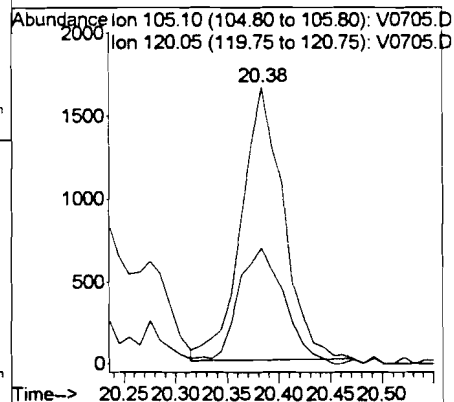
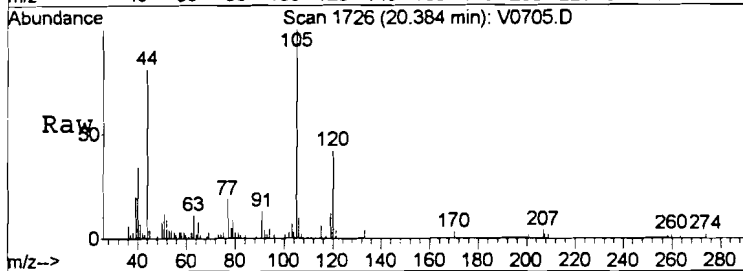
Tgt Ion: 106 Resp: 5847
Ion Ratio Lower Upper
106 100
91 223.9 170.3 255.5





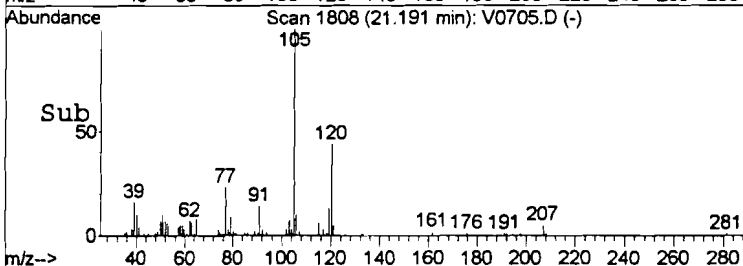
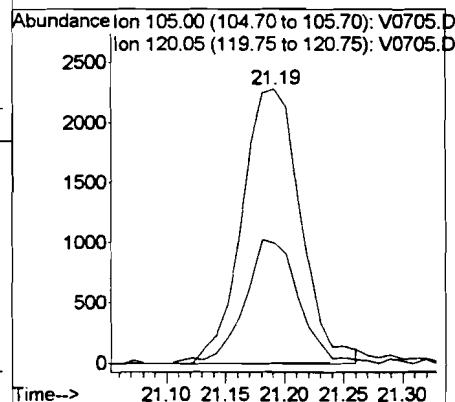
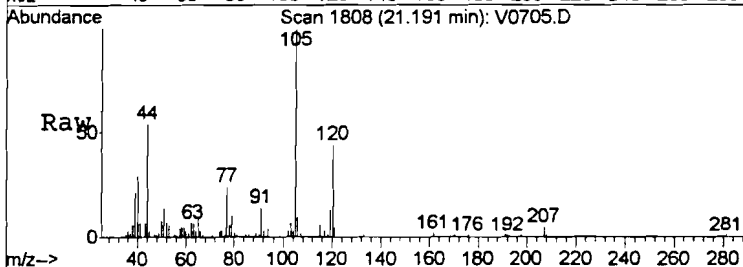
#79
 1,3,5-Trimethylbenzene
 Concen: 1.01 ppb
 RT: 20.38 min Scan# 1726
 Delta R.T. 0.05 min
 Lab File: V0705.D
 Acq: 19 Sep 2001 5:56 pm

Tgt Ion:105 Resp: 4695
 Ion Ratio Lower Upper
 105 100
 120 42.1 36.4 54.6



#83
 1,2,4-Trimethylbenzene
 Concen: 1.67 ppb
 RT: 21.19 min Scan# 1808
 Delta R.T. 0.05 min
 Lab File: V0705.D
 Acq: 19 Sep 2001 5:56 pm

Tgt Ion:105 Resp: 7835
 Ion Ratio Lower Upper
 105 100
 120 43.6 33.9 50.9



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-6

Date Sampled : 09/13/01 18:25 Order #: 493232 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	400 E	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	3.8 J	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	1.1 J	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	92	%
TOLUENE-D8	(87 - 108 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

137

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0706.D Vial: 14
 Acq On : 19 Sep 2001 6:36 pm Operator: herring
 Sample : 493232 1.0 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 20 9:06 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	130845	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.74	114	231072	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	197111	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.00	152	79855	50.00	ppb	0.04

System Monitoring Compounds						
35) surr4,Dibrflmethane	10.43	113	92885	51.04	ppb	0.03
Spiked Amount 50.000			Recovery	=	102.08%	
57) surr3,Toluene-d8	14.44	98	244702	48.02	ppb	0.03
Spiked Amount 50.000			Recovery	=	96.04%	
58) surr2,bfb	19.58	95	96896	46.16	ppb	0.04
Spiked Amount 50.000			Recovery	=	92.32%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.68	43	289665	397.74	ppb	100E
32) Tetrahydrofuran	10.15	42	2348	3.24	ppb	98NT
42) Trichloroethene	12.27	95	1931	1.14	ppb	91J
52) 4-Methyl-2-Pentanone	14.12	43	10229	3.83	ppb	95J

rt 1/2

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0706.D

Vial: 14

Acq On : 19 Sep 2001 6:36 pm

Operator: herring

Sample : 493232 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 20 9:06 2001

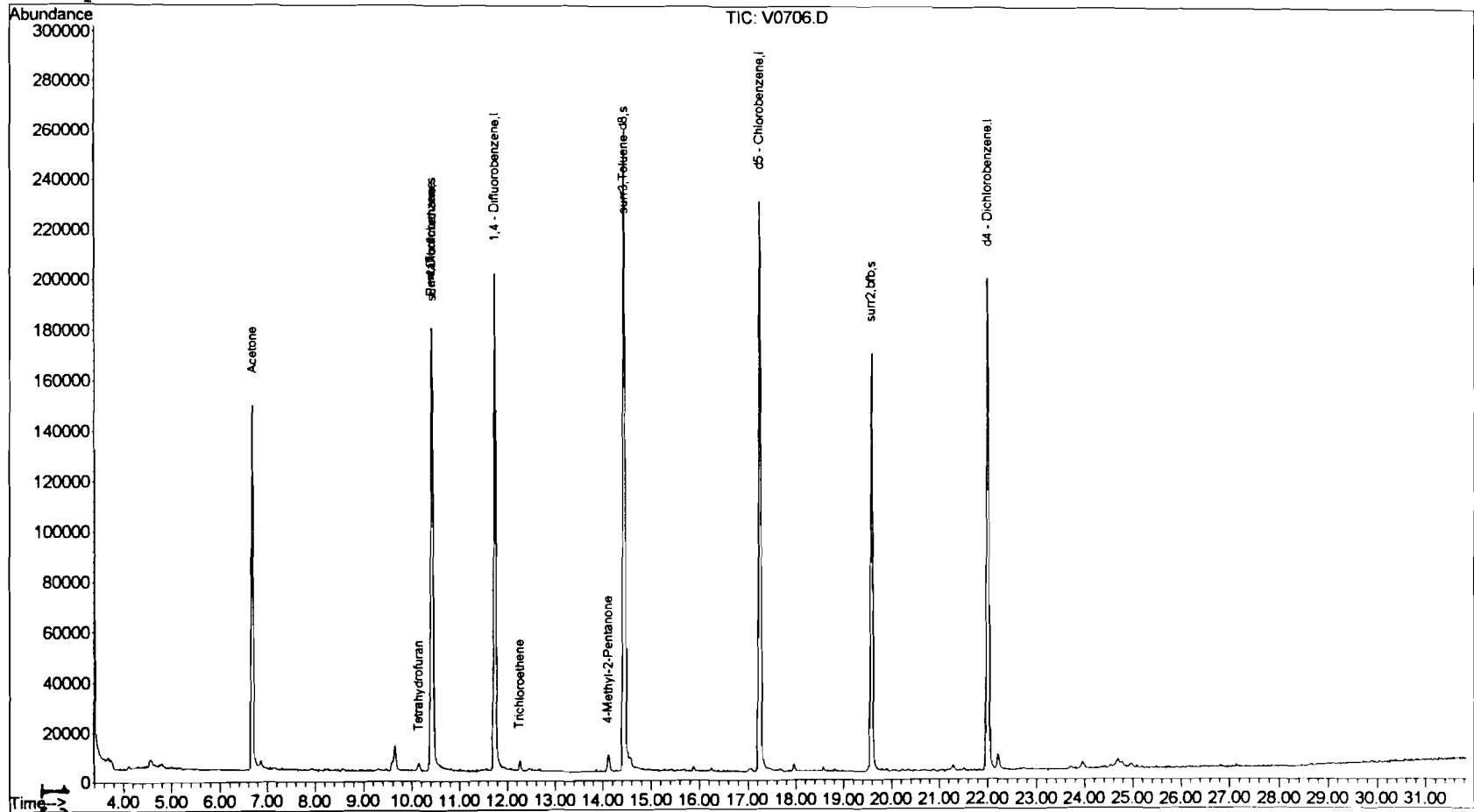
Quant Results File: EXP0914.RES

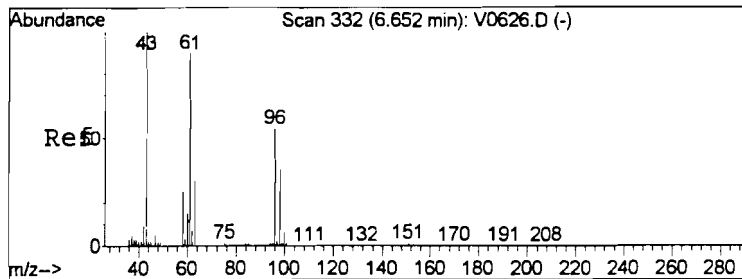
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

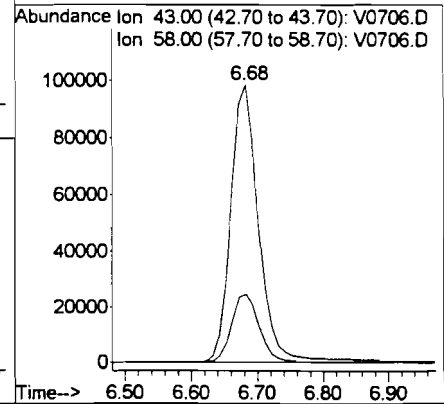
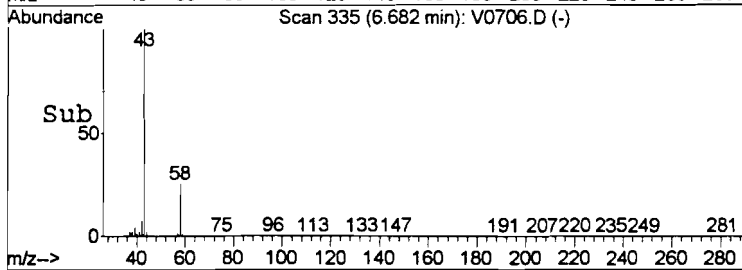
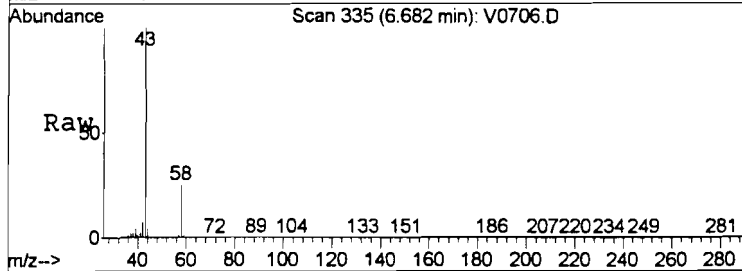
Response via : Initial Calibration

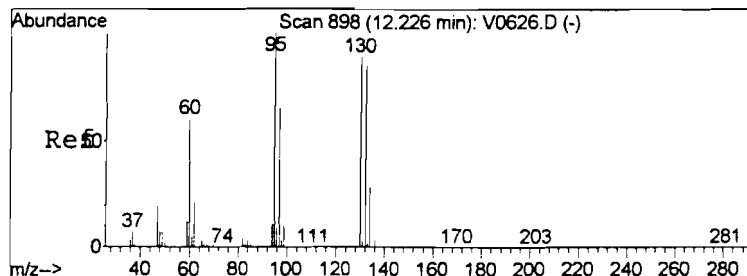




#12
 Acetone
 Concen: 397.74 ppb
 RT: 6.68 min Scan# 335
 Delta R.T. 0.03 min
 Lab File: V0706.D
 Acq: 19 Sep 2001 6:36 pm

Tgt Ion: 43 Resp: 289665
 Ion Ratio Lower Upper
 43 100
 58 24.7 19.7 29.5





#42

Trichloroethene

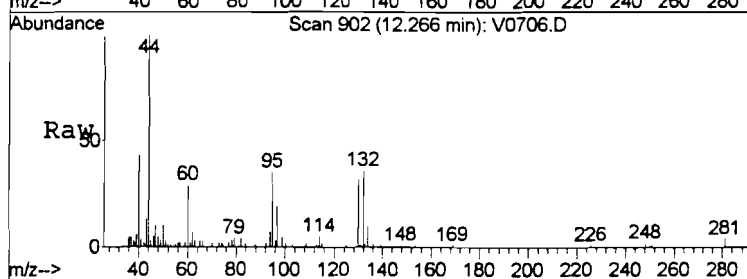
Concen: 1.14 ppb

RT: 12.27 min Scan# 902

Delta R.T. 0.03 min

Lab File: V0706.D

Acq: 19 Sep 2001 6:36 pm



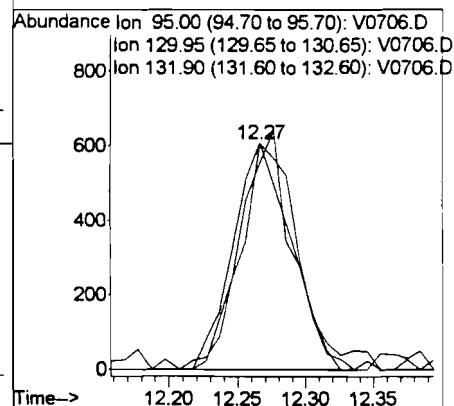
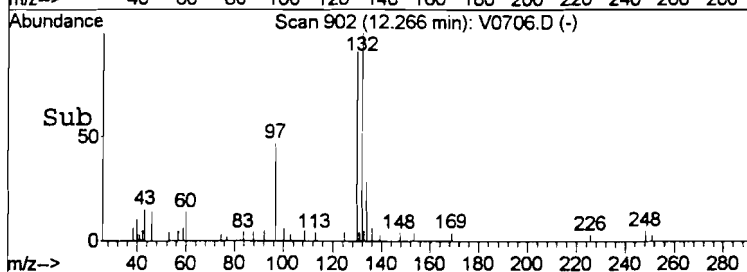
Tgt Ion: 95 Resp: 1931

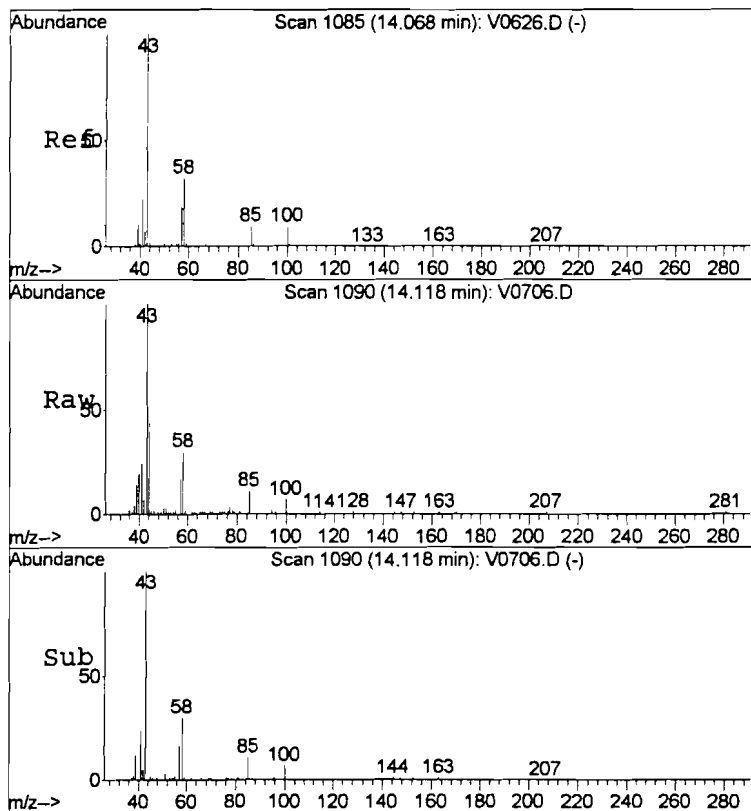
Ion Ratio Lower Upper

95 100

130 91.3 71.6 107.4

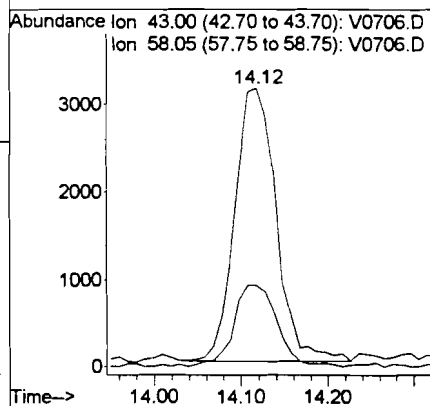
132 100.3 68.4 102.6





#52
 4-Methyl-2-Pentanone
 Concen: 3.83 ppb
 RT: 14.12 min Scan# 1090
 Delta R.T. 0.04 min
 Lab File: V0706.D
 Acq: 19 Sep 2001 6:36 pm

Tgt Ion: 43 Resp: 10229
 Ion Ratio Lower Upper
 43 100
 58 29.7 24.1 40.3



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-6

Date Sampled : 09/13/01 18:25 Order #: 493232 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/25/01		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	230	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
FREON 113	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	3.5 J	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	10 U	UG/L
VINYL CHLORIDE	1.0	2.0 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	106	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0814.D

Vial: 12

Acq On : 25 Sep 2001 7:56 pm

Operator: herring

Sample : 493232 2.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 20:24 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.41	168	151478	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	262628	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	215021	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	84636	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.44	113	106108	52.99	ppb	0.00
Spiked Amount	50.000		Recovery	=	105.98%	
58) surr3, Toluene-d8	14.46	98	279745	51.55	ppb	0.00
Spiked Amount	50.000		Recovery	=	103.10%	
59) surr2, bfb	19.59	95	105140	47.74	ppb	0.00
Spiked Amount	50.000		Recovery	=	95.48%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	134843	116.48	ppb	98
18) TBA	7.56	59	416	2.02	ppb	# 1
26) 2-Butanone	9.67	43	21028	15.20	ppb	# 66
27) Ethyl Acetate	9.67	43	21703	7.66	ppb	# 95 NT
33) Tetrahydrofuran	10.15	42	1964	2.13	ppb	97 NT
39) Iso-Butyl Alcohol	10.81	43	453	3.81	ppb	95
46) 1,4-Dioxane	12.86	88	43	2.74	ppb	94
53) 4-Methyl-2-Pentanone	14.13	43	5457	1.76	ppb	90 J

RS+ 9/25
Replicate
@ dilution

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

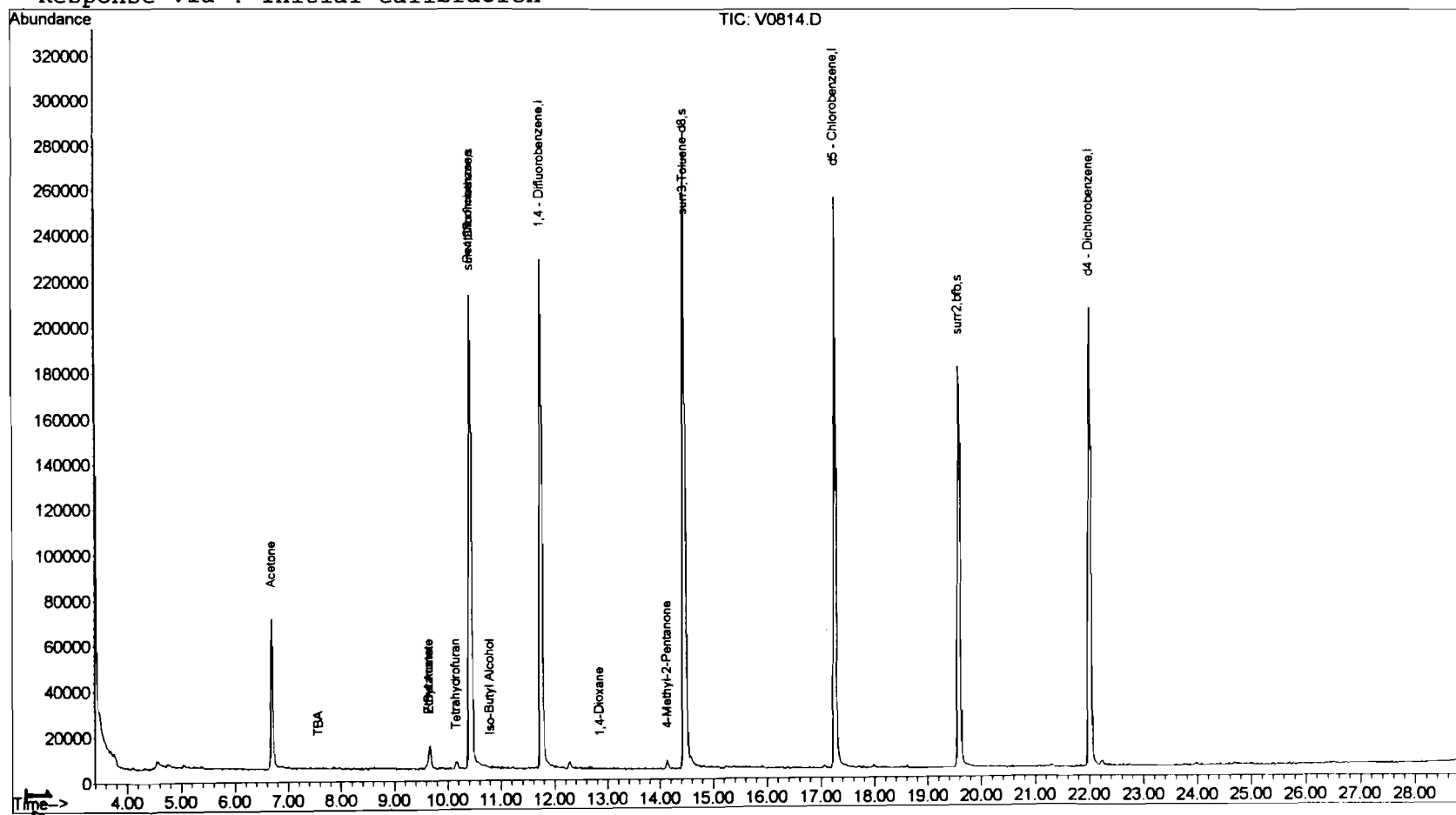
V0814.D EXP0924.M Tue Sep 25 20:25:38 2001

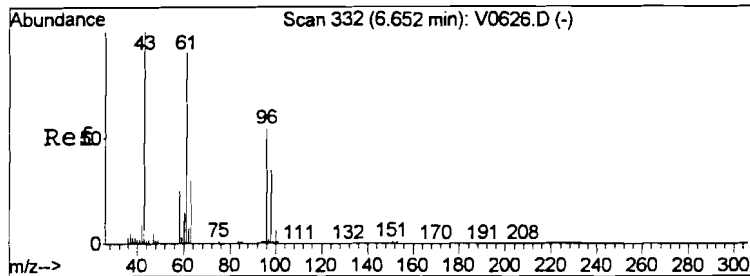
144
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0814.D Vial: 12
 Acq On : 25 Sep 2001 7:56 pm Operator: herring
 Sample : 493232 2.0 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 20:24 2001 Quant Results File: EXP0924.RES

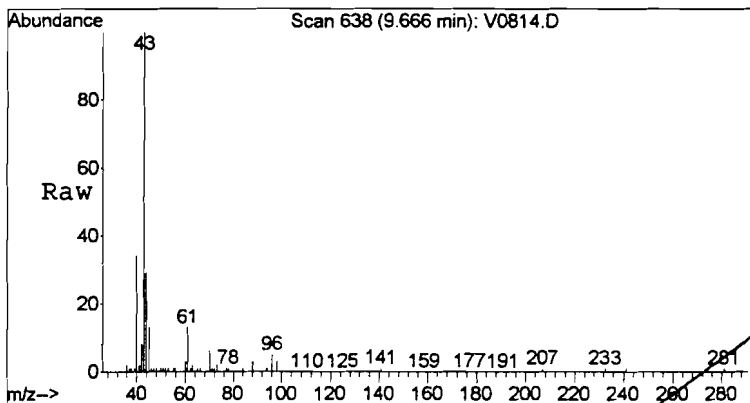
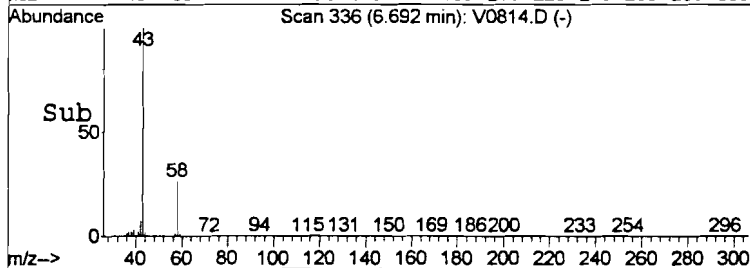
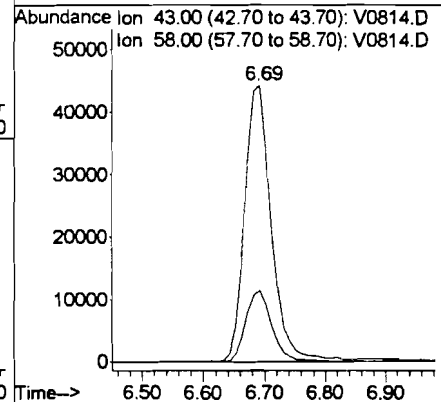
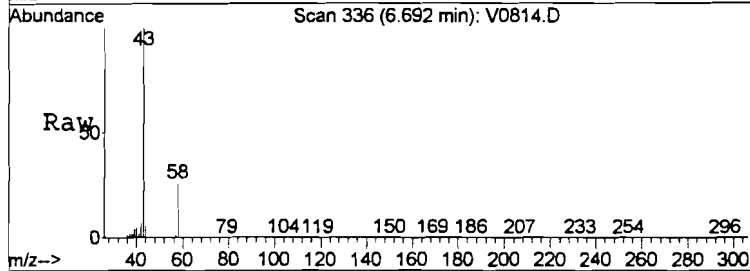
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:41:28 2001
 Response via : Initial Calibration





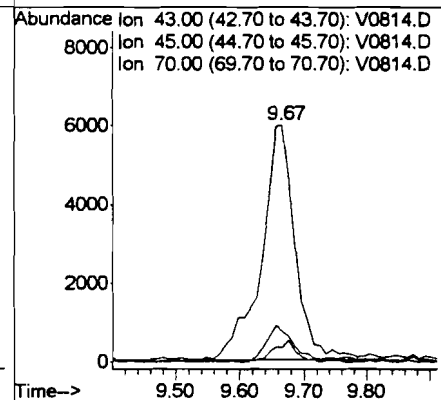
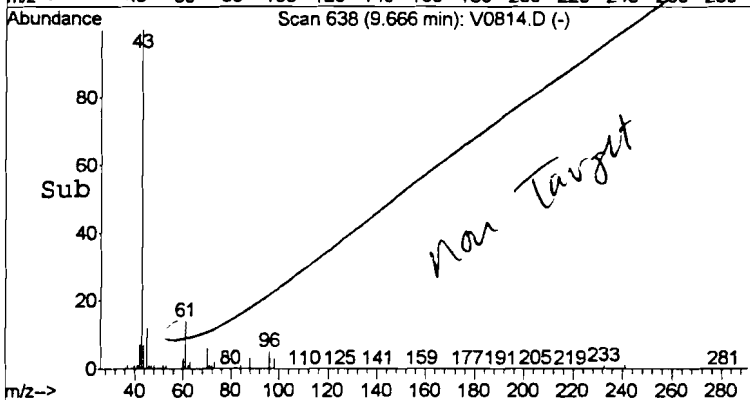
#12
Acetone
Concen: 116.48 ppb
RT: 6.69 min Scan# 336
Delta R.T. 0.00 min
Lab File: V0814.D
Acq: 25 Sep 2001 7:56 pm

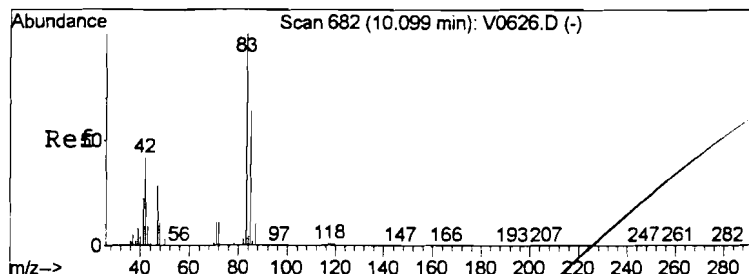
Tgt Ion: 43 Resp: 134843
Ion Ratio Lower Upper
43 100
58 26.0 19.8 29.8



#27
Ethyl Acetate
Concen: 7.66 ppb
RT: 9.67 min Scan# 638
Delta R.T. -0.01 min
Lab File: V0814.D
Acq: 25 Sep 2001 7:56 pm

Tgt Ion: 43 Resp: 21703
Ion Ratio Lower Upper
43 100
45 11.2 10.6 16.0
70 6.2 6.3 9.5#





#33

Tetrahydrofuran

Concen: 2.13 ppb

RT: 10.15 min Scan# 687

Delta R.T. -0.02 min

Lab File: V0814.D

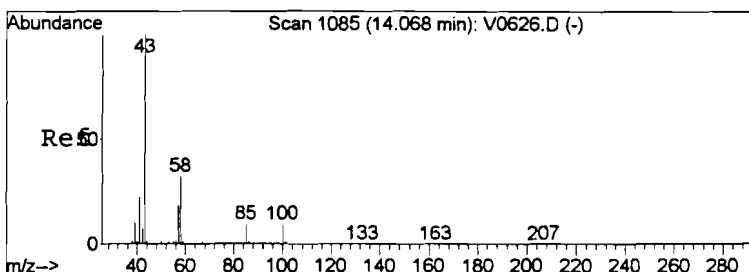
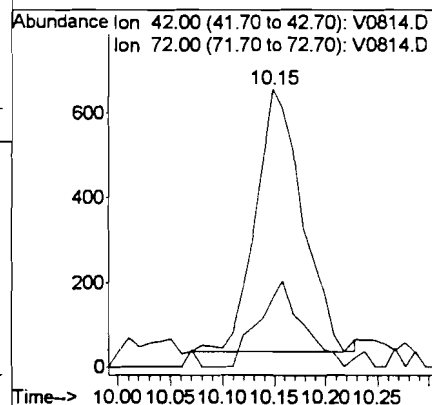
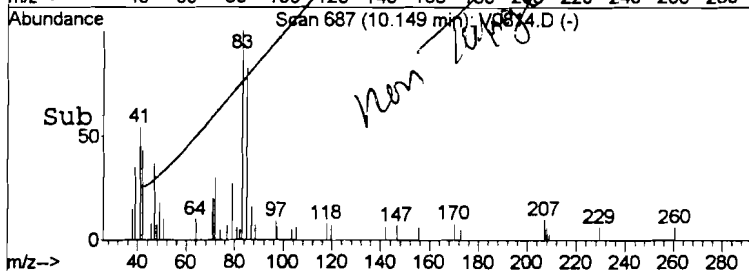
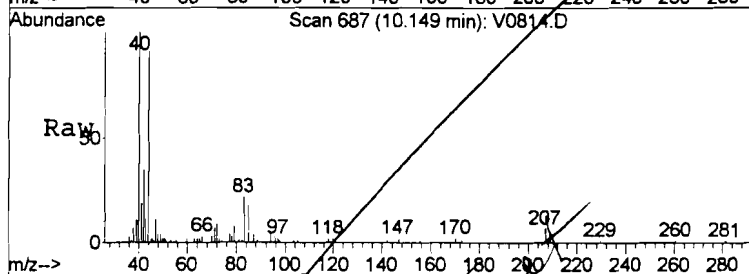
Acq: 25 Sep 2001 7:56 pm

Tgt Ion: 42 Resp: 1964

Ion Ratio Lower Upper

42 100

72 32.6 23.1 38.5



#53

4-Methyl-2-Pentanone

Concen: 1.76 ppb

RT: 14.13 min Scan# 1091

Delta R.T. -0.01 min

Lab File: V0814.D

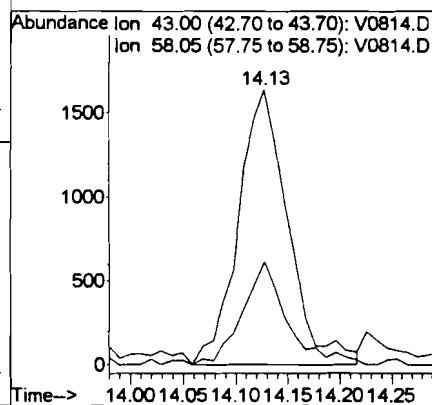
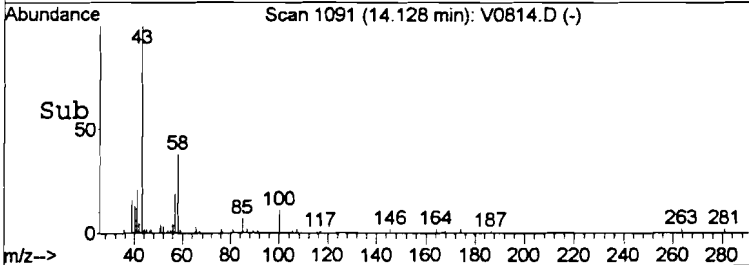
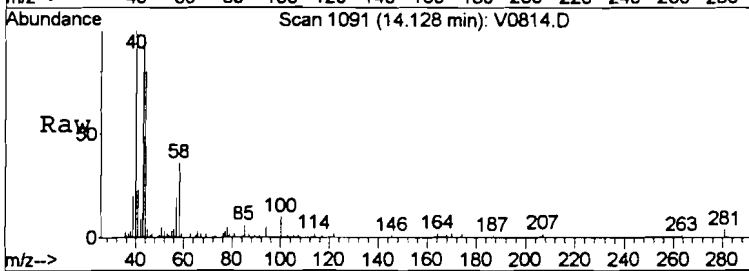
Acq: 25 Sep 2001 7:56 pm

Tgt Ion: 43 Resp: 5457

Ion Ratio Lower Upper

43 100

58 37.5 24.0 40.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-01

Date Sampled : 09/14/01 08:50 Order #: 493233 Sample Matrix: WATER
 Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	3.6 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	210 E	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	16	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	31	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	99	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0707.D

Vial: 15

Acq On : 19 Sep 2001 7:15 pm

Operator: herring

Sample : 493233 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 19:46 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	129213	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.74	114	224963	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	189240	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.00	152	78636	50.00	ppb	0.04

System Monitoring Compounds

35) surr4,Dibrflmethane	10.43	113	87774	49.55	ppb	0.03
Spiked Amount 50.000			Recovery	=	99.10%	
57) surr3,Toluene-d8	14.45	98	242452	49.56	ppb	0.04
Spiked Amount 50.000			Recovery	=	99.12%	
58) surr2,bfb	19.58	95	96924	48.09	ppb	0.04
Spiked Amount 50.000			Recovery	=	96.18%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.69	43	2591	3.60	ppb	91 J
18) TBA	7.56	59	239	1.47	ppb	# 1
21) trans-1,2-Dichloroethene	7.96	96	26212	16.52	ppb	97
27) cis-1,2-Dichloroethene	9.65	96	366443	208.06	ppb	92 E
38) Iso Butyl Alcohol	10.79	43	566	5.92	ppb	59
42) Trichloroethene	12.27	95	50698	30.75	ppb	97
45) 1,4-Dioxane	12.69	88	32	2.08	ppb	95

(#) = qualifier out of range (m) = manual integration
V0707.D EXP0914.M Wed Sep 19 19:47:30 2001

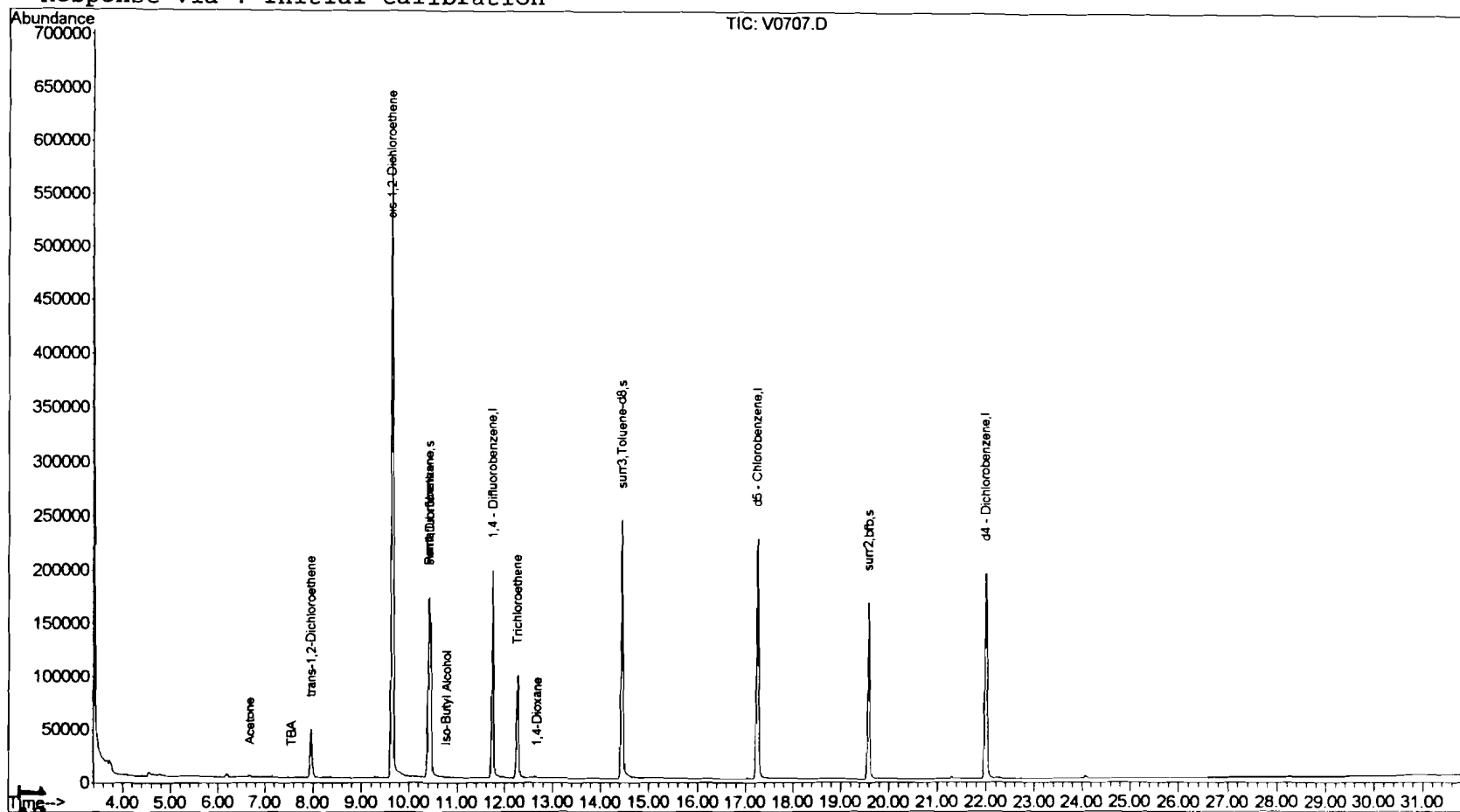
149
Page 1

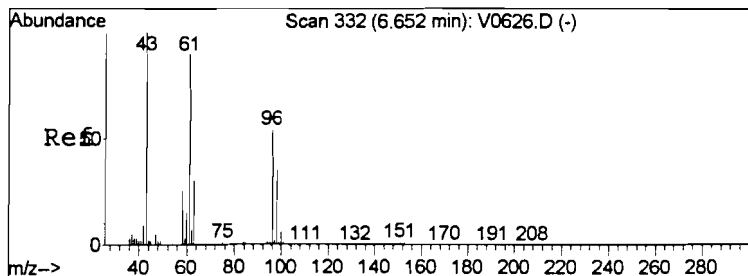
204 10/11

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0707.D Vial: 15
Acq On : 19 Sep 2001 7:15 pm Operator: herring
Sample : 493233 1.0 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 19 19:46 2001 Quant Results File: EXP0914.RES

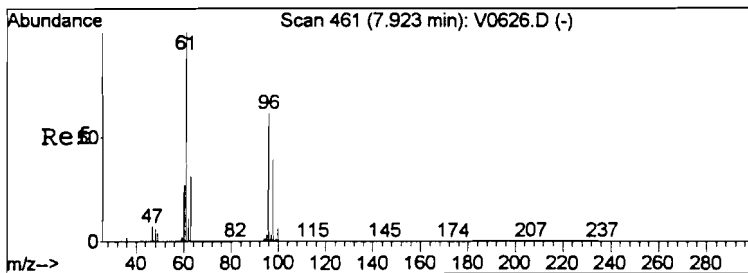
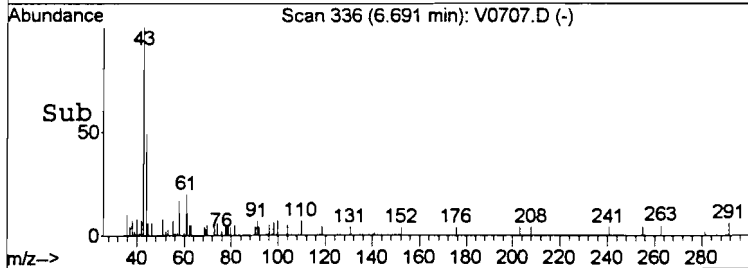
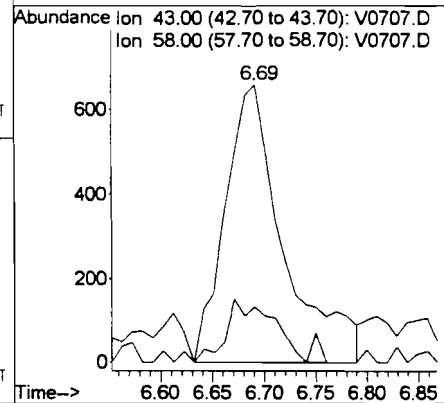
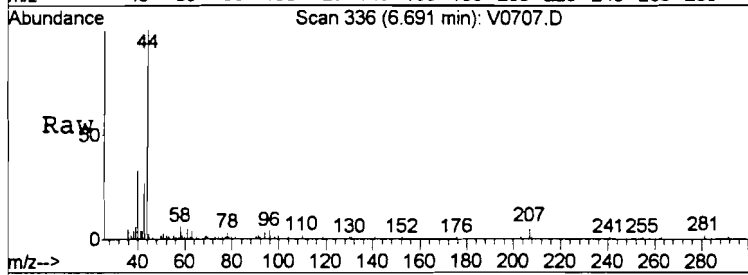
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration





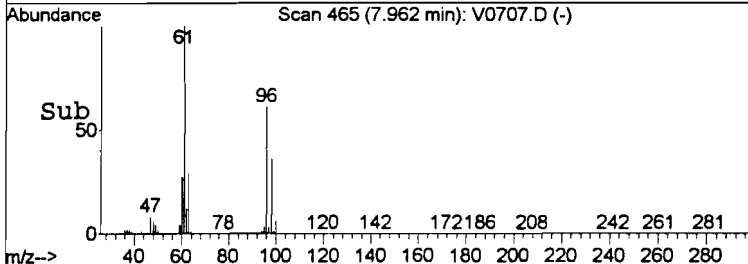
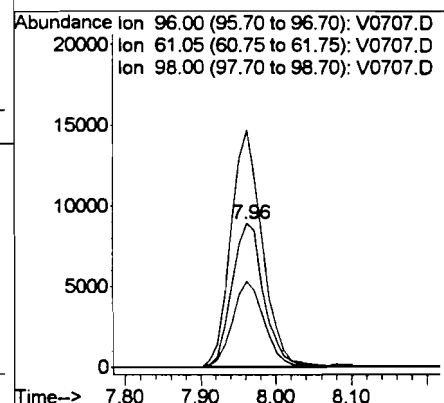
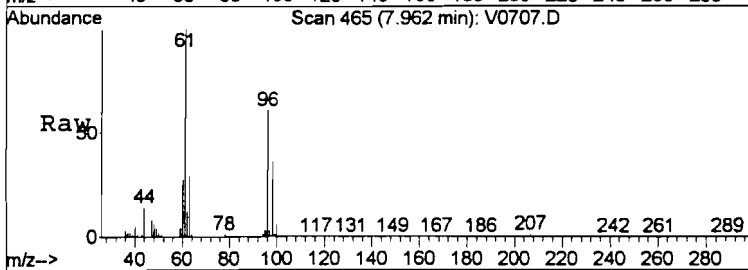
#12
Acetone
Concen: 3.60 ppb
RT: 6.69 min Scan# 336
Delta R.T. 0.04 min
Lab File: V0707.D
Acq: 19 Sep 2001 7:15 pm

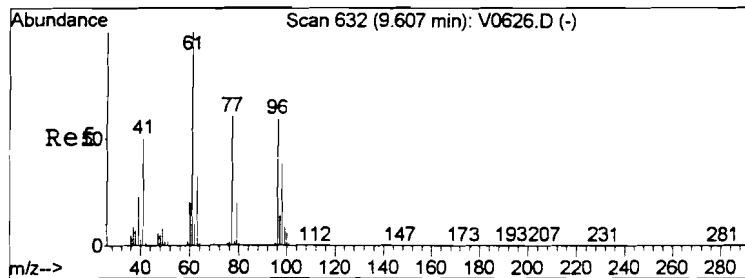
Tgt Ion: 43 Resp: 2591
Ion Ratio Lower Upper
43 100
58 20.1 19.7 29.5



#21
trans-1,2-Dichloroethene
Concen: 16.52 ppb
RT: 7.96 min Scan# 465
Delta R.T. 0.03 min
Lab File: V0707.D
Acq: 19 Sep 2001 7:15 pm

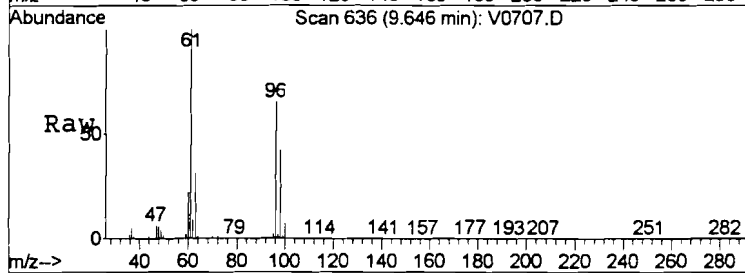
Tgt Ion: 96 Resp: 26212
Ion Ratio Lower Upper
96 100
61 164.9 130.2 195.4
98 59.6 51.1 76.7



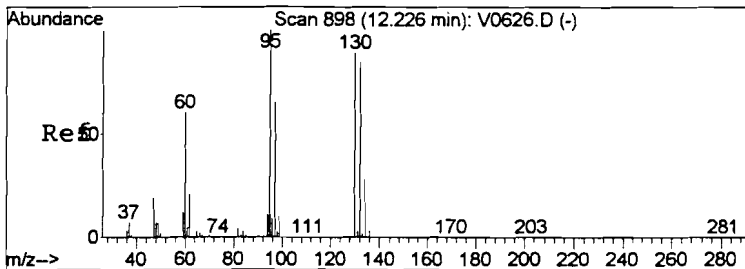
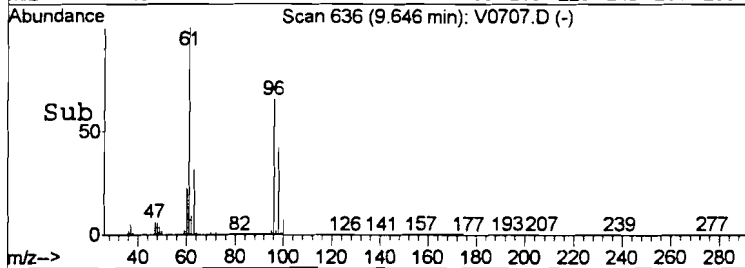
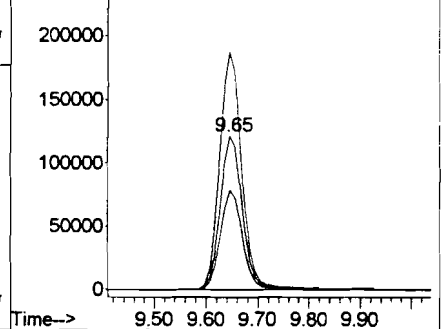


#27
 cis-1,2-Dichloroethene
 Concen: 208.06 ppb
 RT: 9.65 min Scan# 636
 Delta R.T. 0.03 min
 Lab File: V0707.D
 Acq: 19 Sep 2001 7:15 pm

Tgt Ion: 96 Resp: 366443
 Ion Ratio Lower Upper
 96 100
 61 154.5 136.0 204.0
 98 64.9 51.8 77.6

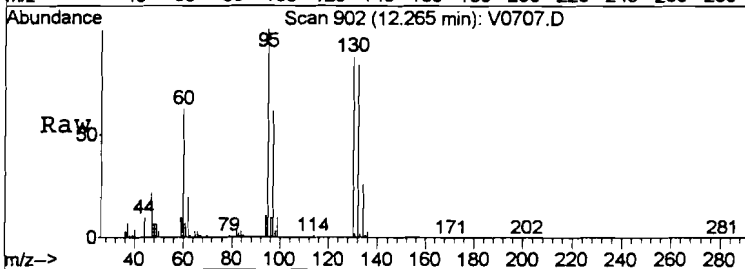


Abundance Ion 96.00 (95.70 to 96.70): V0707.D
 250000 Ion 61.05 (60.75 to 61.75): V0707.D
 200000 Ion 98.00 (97.70 to 98.70): V0707.D

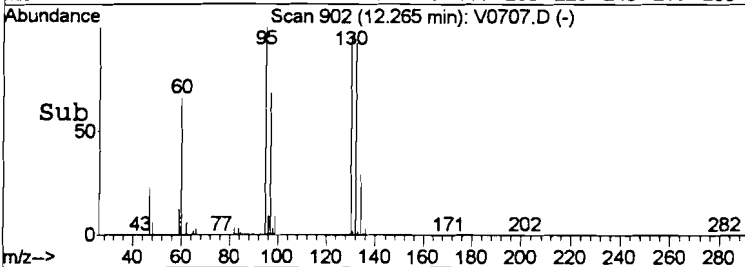
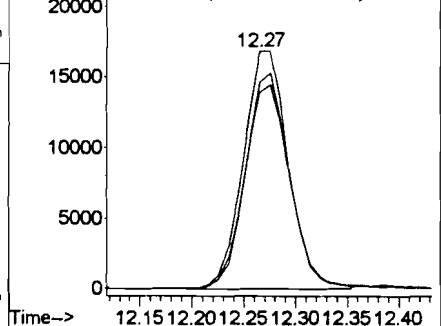


#42
 Trichloroethene
 Concen: 30.75 ppb
 RT: 12.27 min Scan# 902
 Delta R.T. 0.03 min
 Lab File: V0707.D
 Acq: 19 Sep 2001 7:15 pm

Tgt Ion: 95 Resp: 50698
 Ion Ratio Lower Upper
 95 100
 130 87.0 71.6 107.4
 132 82.7 68.4 102.6



Abundance Ion 95.00 (94.70 to 95.70): V0707.D
 20000 Ion 129.95 (129.65 to 130.65): V0707.D
 15000 Ion 131.90 (131.60 to 132.60): V0707.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-01

Date Sampled : 09/14/01 08:50 Order #: 493233 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/25/01		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	3.6 J	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	170	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	6.8 J	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
FREON 113	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	24	UG/L
VINYL CHLORIDE	1.0	2.0 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	106	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0815.D

Vial: 13

Acq On : 25 Sep 2001 8:31 pm

Operator: herring

Sample : 493233 2.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 21:00 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	147978	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	257171	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	209081	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.01	152	82661	50.00	ppb	-0.02

System Monitoring Compounds

36) surr4,Dibrflmethane	10.45	113	103976	53.02	ppb	0.00
Spiked Amount 50.000			Recovery	=	106.04%	
58) surr3,Toluene-d8	14.45	98	272363	51.61	ppb	-0.02
Spiked Amount 50.000			Recovery	=	103.22%	
59) surr2,bfb	19.60	95	102981	48.09	ppb	0.00
Spiked Amount 50.000			Recovery	=	96.18%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.68	43	2060	1.82	ppb	# 90
21) trans-1,2-Dichloroethene	7.96	96	6584	3.41	ppb	92
26) 2-Butanone	9.66	43	599855	443.74	ppb	# 65
27) Ethyl Acetate	9.66	43	613108	221.40	ppb	99
28) cis-1,2-Dichloroethene	9.65	96	186562	85.17	ppb	96
33) Tetrahydrofuran	10.15	42	2002	2.22	ppb	# 72
39) Iso Butyl Alcohol	10.95	43	255	2.19	ppb	89
43) Trichloroethene	12.28	95	23082	11.91	ppb	96
46) 1,4-Dioxane	13.20	88	48	3.12	ppb	97

RST 9/26

Replicate @ dilution

(#) = qualifier out of range (m) = manual integration
V0815.D EXP0924.M Tue Sep 25 21:01:02 2001

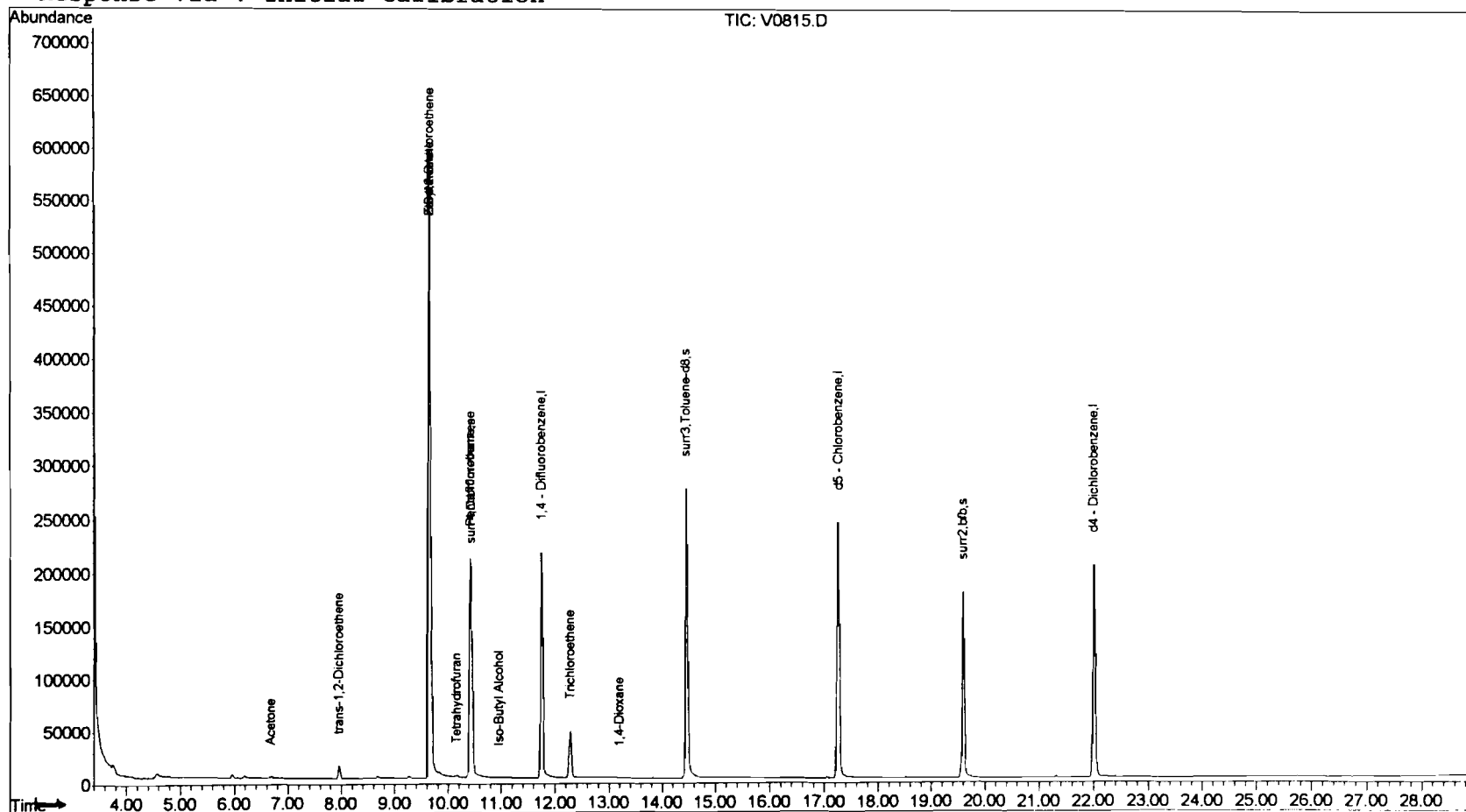
154

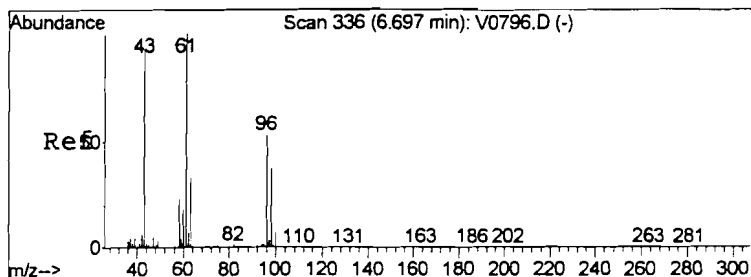
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0815.D Vial: 13
 Acq On : 25 Sep 2001 8:31 pm Operator: herring
 Sample : 493233 2.0 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 21:00 2001 Quant Results File: EXP0924.RES

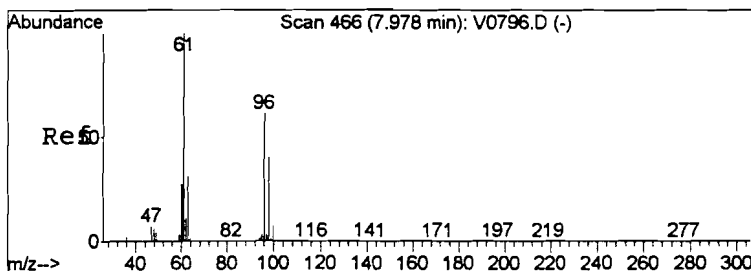
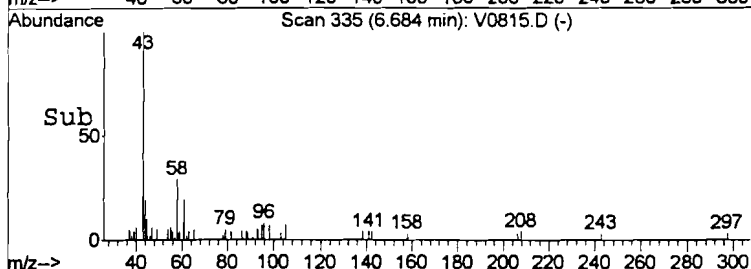
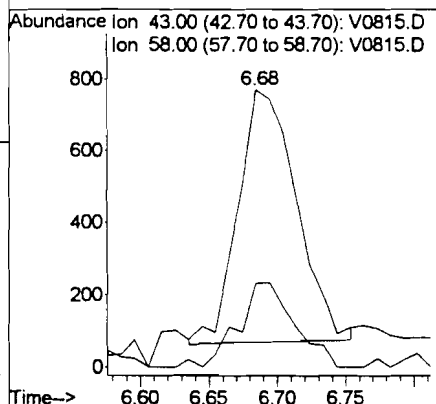
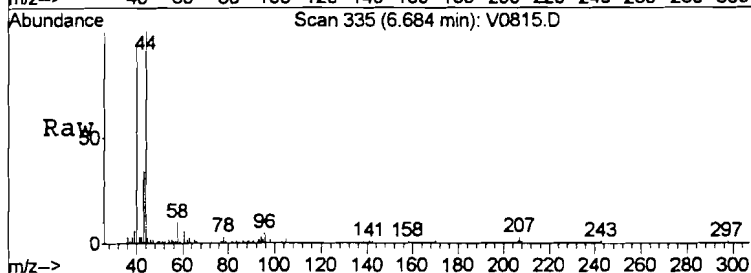
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:41:28 2001
 Response via : Initial Calibration





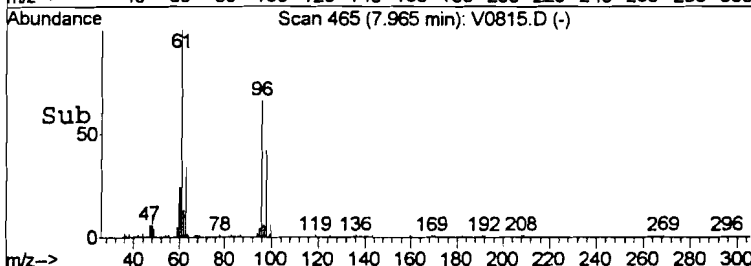
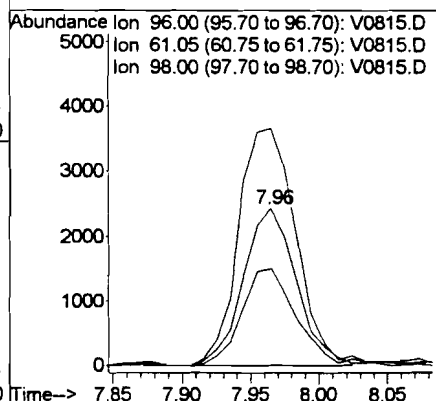
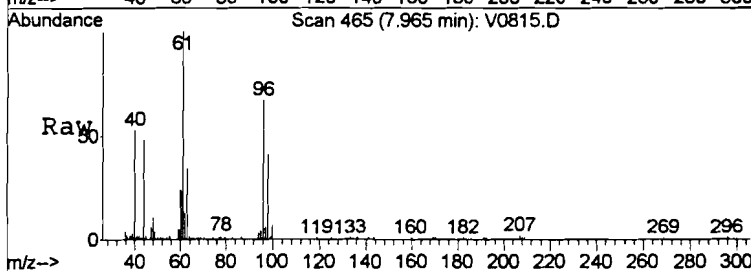
#12
Acetone
Concen: 1.82 ppb
RT: 6.68 min Scan# 335
Delta R.T. -0.01 min
Lab File: V0815.D
Acq: 25 Sep 2001 8:31 pm

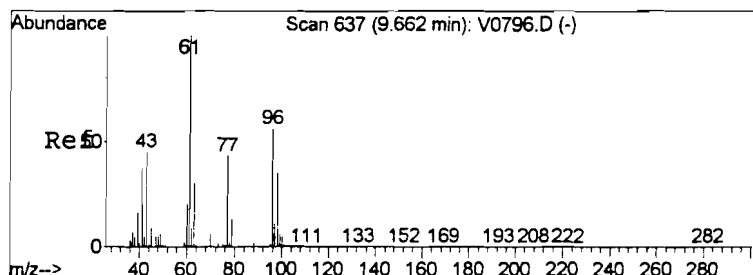
Tgt Ion: 43 Resp: 2060
Ion Ratio Lower Upper
43 100
58 30.0 19.8 29.8#



#21
trans-1,2-Dichloroethene
Concen: 3.41 ppb
RT: 7.96 min Scan# 465
Delta R.T. -0.02 min
Lab File: V0815.D
Acq: 25 Sep 2001 8:31 pm

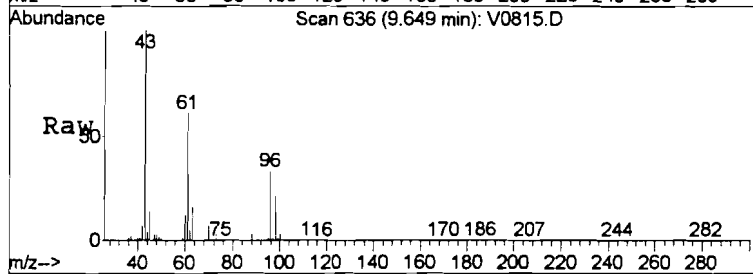
Tgt Ion: 96 Resp: 6584
Ion Ratio Lower Upper
96 100
61 150.3 130.2 195.4
98 62.1 51.9 77.9



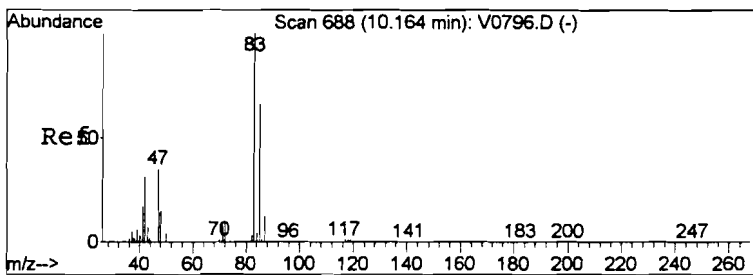
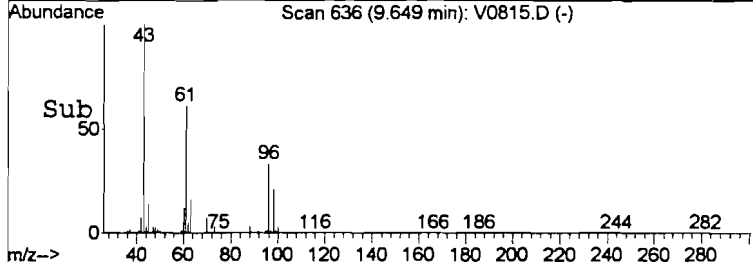
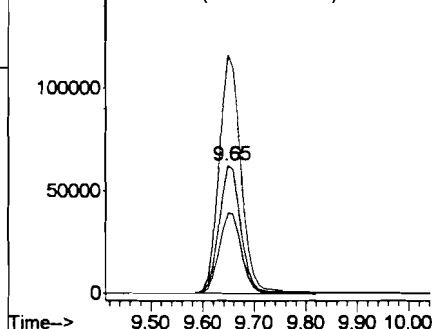


#28
 cis-1,2-Dichloroethene
 Concen: 85.17 ppb
 RT: 9.65 min Scan# 636
 Delta R.T. -0.02 min
 Lab File: V0815.D
 Acq: 25 Sep 2001 8:31 pm

Tgt Ion:	96	Resp:	186562
Ion	Ratio	Lower	Upper
96	100		
61	186.1	143.6	215.4
98	62.8	50.8	76.2

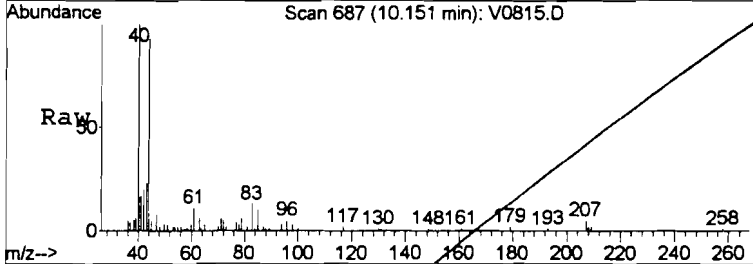


Abundance Ion 96.00 (95.70 to 96.70): V0815.D
 Ion 61.05 (60.75 to 61.75): V0815.D
 Ion 98.00 (97.70 to 98.70): V0815.D

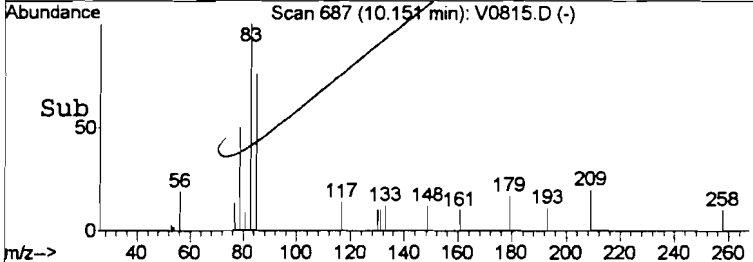
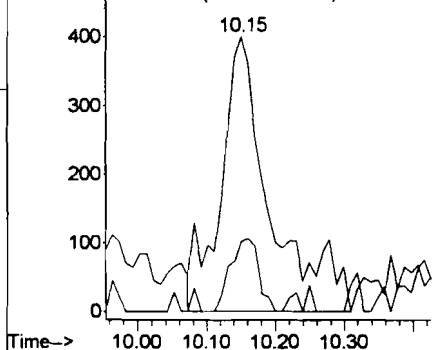


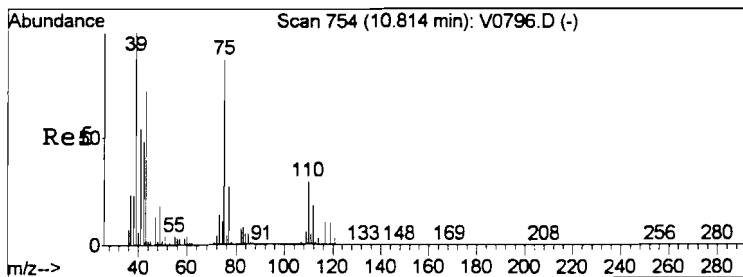
#33
 Tetrahydrofuran
 Concen: 2.22 ppb
 RT: 10.15 min Scan# 687
 Delta R.T. -0.02 min
 Lab File: V0815.D
 Acq: 25 Sep 2001 8:31 pm

Tgt Ion:	42	Resp:	2002
Ion	Ratio	Lower	Upper
42	100		
72	15.3	23.1	38.5#



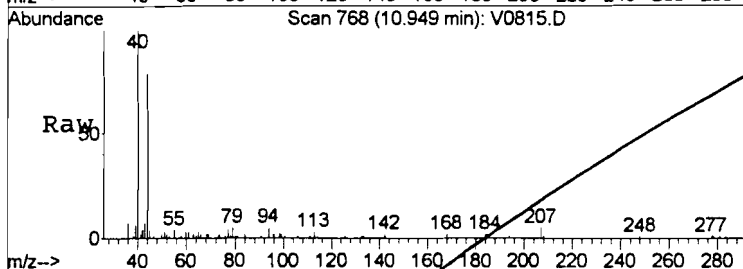
Abundance Ion 42.00 (41.70 to 42.70): V0815.D
 Ion 72.00 (71.70 to 72.70): V0815.D



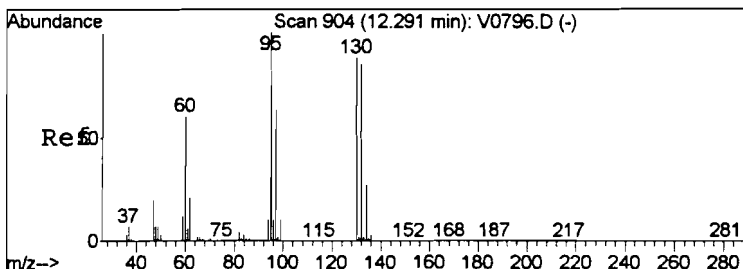
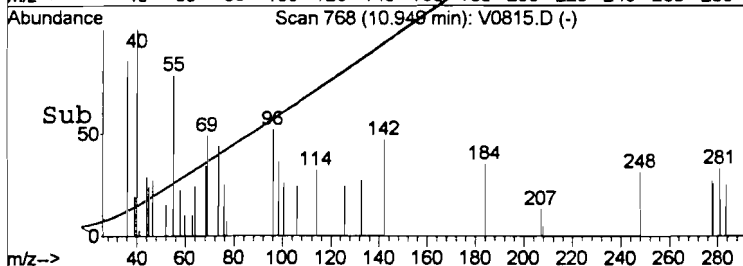
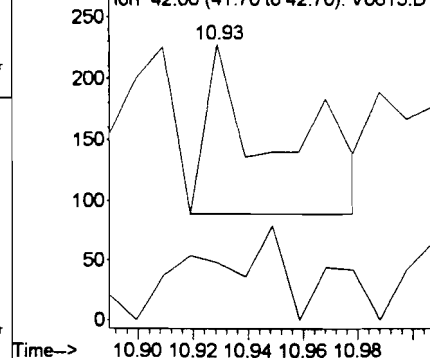


#39
 Iso-Butyl Alcohol
 Concen: 2.19 ppb
 RT: 10.95 min Scan# 768
 Delta R.T. 0.14 min
 Lab File: V0815.D
 Acq: 25 Sep 2001 8:31 pm

Tgt Ion: 43 Resp: 255
 Ion Ratio Lower Upper
 43 100
 42 56.4 32.8 98.3

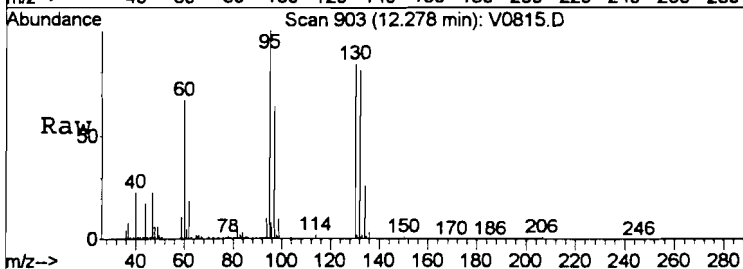


Abundance Ion 43.00 (42.70 to 43.70): V0815.D
 Ion 42.00 (41.70 to 42.70): V0815.D

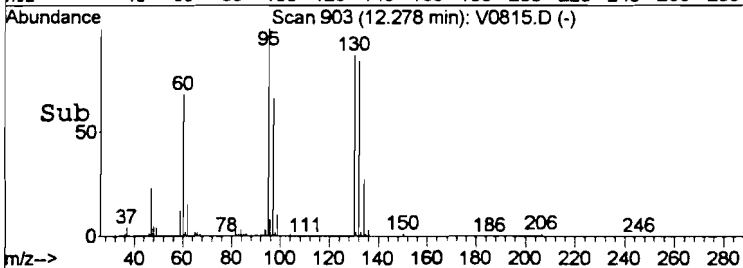
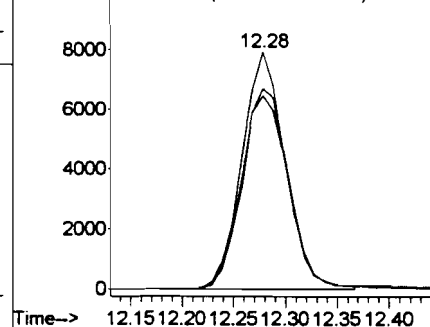


#43
 Trichloroethene
 Concen: 11.91 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.02 min
 Lab File: V0815.D
 Acq: 25 Sep 2001 8:31 pm

Tgt Ion: 95 Resp: 23082
 Ion Ratio Lower Upper
 95 100
 130 84.4 70.0 105.0
 132 81.3 68.2 102.4



Abundance Ion 95.00 (94.70 to 95.70): V0815.D
 Ion 129.95 (129.65 to 130.65): V0815.D
 Ion 131.90 (131.60 to 132.60): V0815.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-17

Date Sampled : 09/14/01 10:10 Order #: 493234 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/19/01		
ANALYTICAL DILUTION:	5.00		
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
FREON 113	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	740	UG/L
VINYL CHLORIDE	1.0	5.0 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	103	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0708.D

Vial: 16

Acq On : 19 Sep 2001 7:54 pm

Operator: herring

Sample : 493234 5.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 20:26 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	124701	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.74	114	222029	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	189108	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.01	152	75777	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.43	113	89742	51.33	ppb	0.03
Spiked Amount	50.000		Recovery	=	102.66%	
57) surr3,Toluene-d8	14.45	98	237270	48.53	ppb	0.04
Spiked Amount	50.000		Recovery	=	97.06%	
58) surr2,bfb	19.58	95	94946	47.14	ppb	0.04
Spiked Amount	50.000		Recovery	=	94.28%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
26) 2-Butanone	9.66	43	10391	9.06	ppb	# 63
32) Tetrahydrofuran	10.15	42	1971	2.86	ppb	99 NT
38) Iso-Butyl Alcohol	10.82	43	115	1.22	ppb	97
42) Trichloroethene	12.28	95	241231	148.23	ppb	100
45) 1,4-Dioxane	12.82	88	17	1.12	ppb	# 9

RTH 10/11

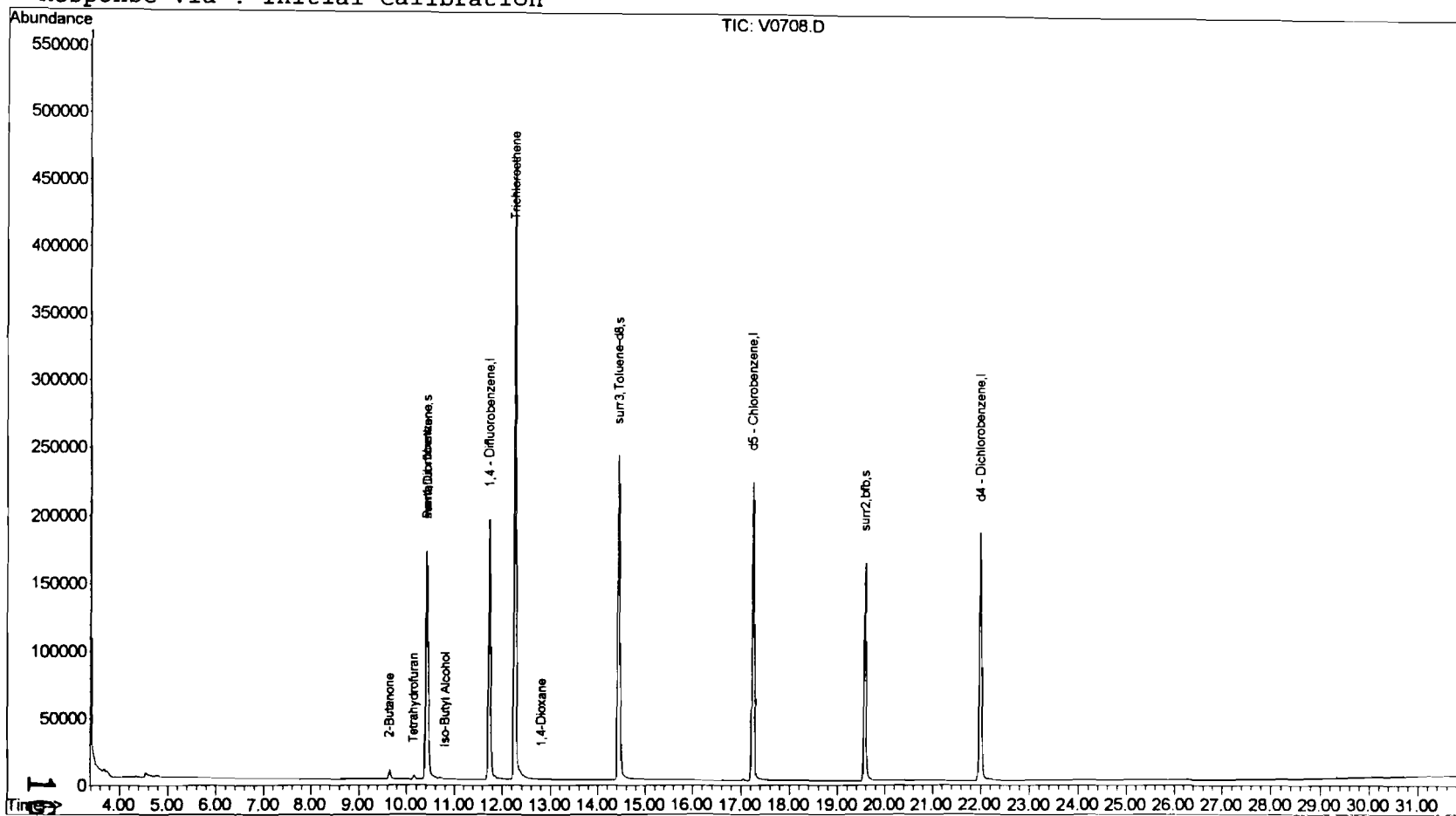
 (#) = qualifier out of range (m) = manual integration
 V0708.D EXP0914.M Wed Sep 19 20:26:50 2001

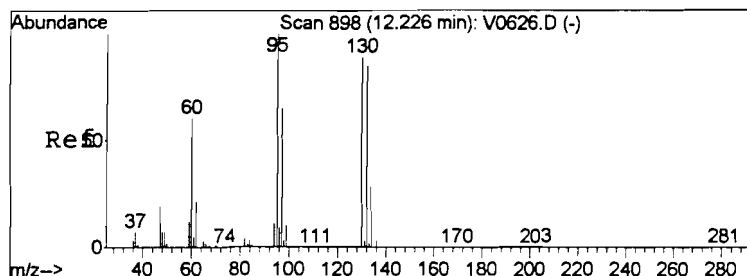
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0708.D Vial: 16
Acq On : 19 Sep 2001 7:54 pm Operator: herring
Sample : 493234 5.0 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 19 20:26 2001 Quant Results File: EXP0914.RES

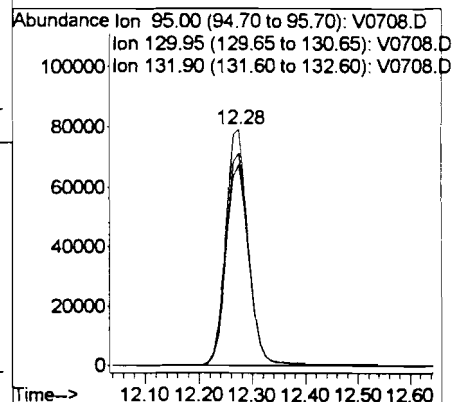
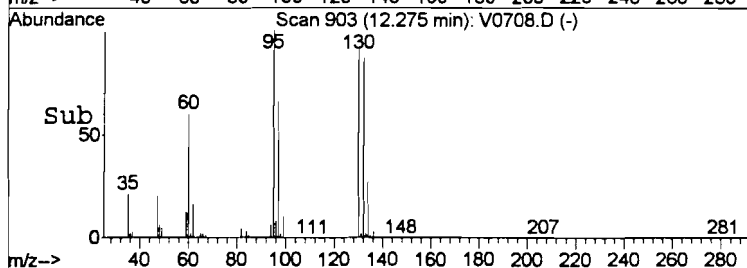
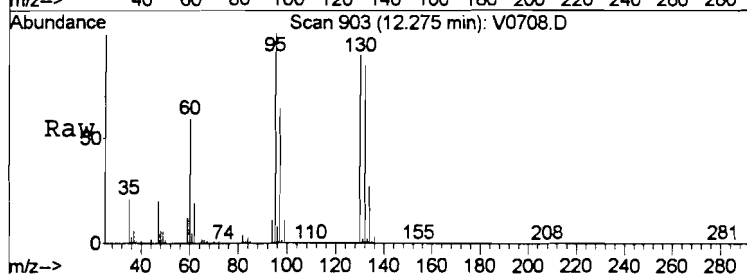
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration





#42
 Trichloroethene
 Concen: 148.23 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. 0.04 min
 Lab File: V0708.D
 Acq: 19 Sep 2001 7:54 pm

Tgt Ion: 95 Resp: 241231
 Ion Ratio Lower Upper
 95 100
 130 89.9 71.6 107.4
 132 85.3 68.4 102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-20

Date Sampled : 09/14/01 12:31 Order #: 493235 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/21/01		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	3.2 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	3.5 J	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0751.D

Vial: 10

Acq On : 21 Sep 2001 3:11 pm

Operator: herring

Sample : 493235 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 15:40 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	142010	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.75	114	248039	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	210231	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	85321	50.00	ppb	0.05

System Monitoring Compounds

35) surr4, Dibrflmethane	10.45	113	97678	50.01	ppb	0.05
Spiked Amount	50.000		Recovery	=	100.02%	
57) surr3, Toluene-d8	14.45	98	263812	48.54	ppb	0.05
Spiked Amount	50.000		Recovery	=	97.08%	
58) surr2, bfb	19.58	95	106057	47.37	ppb	0.05
Spiked Amount	50.000		Recovery	=	94.74%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	2548	3.22	ppb	91 J
38) Iso Butyl Alcohol	10.93	43	128	1.21	ppb	88
42) Trichloroethene	12.28	95	6395	3.52	ppb	96 J
45) 1,4 Dioxane	12.71	88	46	2.71	ppb	87

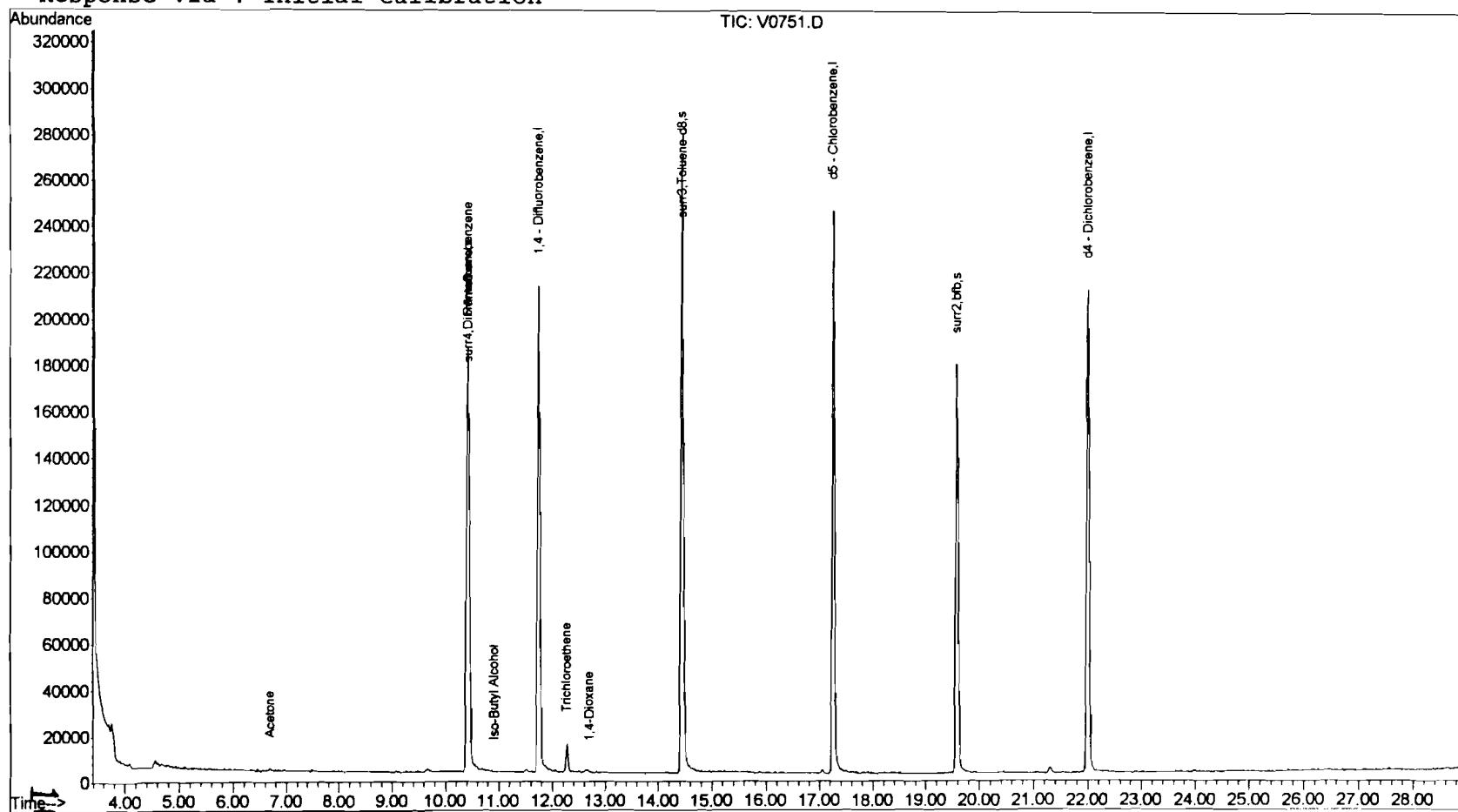
RJH 10/19

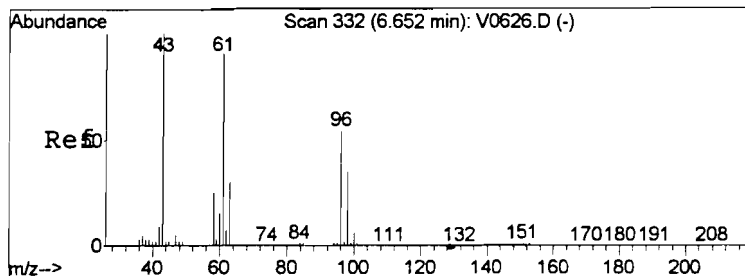
(#) = qualifier out of range (m) = manual integration
V0751.D EXP0914.M Fri Sep 21 15:40:43 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0751.D Vial: 10
Acq On : 21 Sep 2001 3:11 pm Operator: herring
Sample : 493235 1.0 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tcl Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 21 15:40 2001 Quant Results File: EXP0914.RES

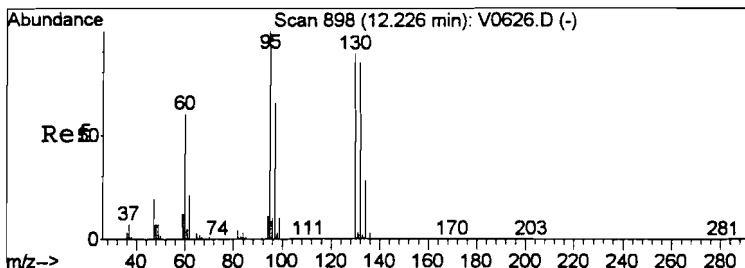
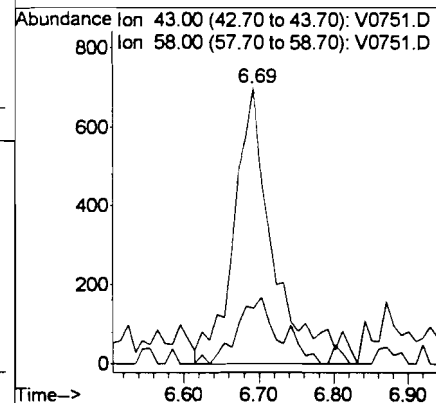
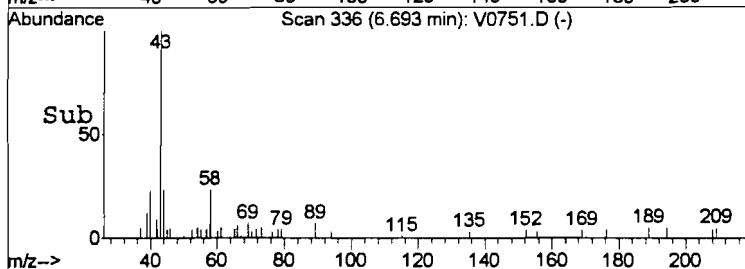
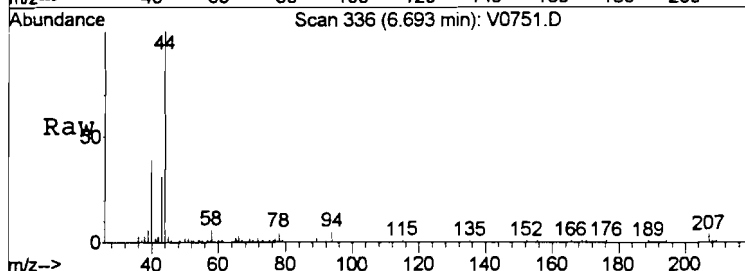
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260vov
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration





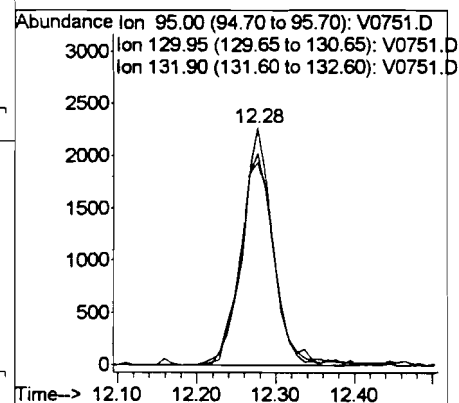
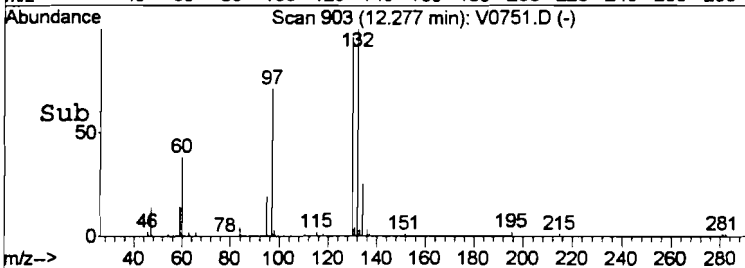
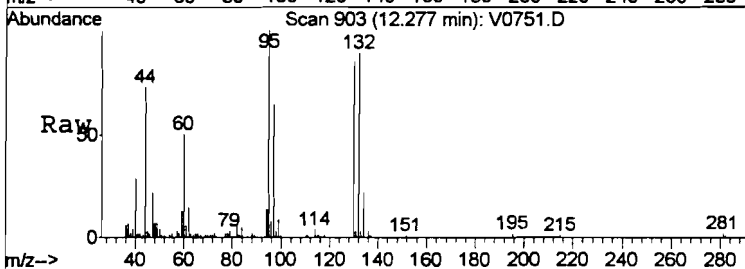
#12
Acetone
Concen: 3.22 ppb
RT: 6.69 min Scan# 336
Delta R.T. 0.05 min
Lab File: V0751.D
Acq: 21 Sep 2001 3:11 pm

Tgt Ion: 43 Resp: 2548
Ion Ratio Lower Upper
43 100
58 20.1 19.7 29.5



#42
Trichloroethene
Concen: 3.52 ppb
RT: 12.28 min Scan# 903
Delta R.T. 0.05 min
Lab File: V0751.D
Acq: 21 Sep 2001 3:11 pm

Tgt Ion: 95 Resp: 6395
Ion Ratio Lower Upper
95 100
130 85.3 71.6 107.4
132 89.3 68.4 102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-04

Date Sampled : 09/14/01 15:40 Order #: 493236 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	4.1 J	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	38	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	27	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	106	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0816.D

Vial: 14

Acq On : 25 Sep 2001 9:07 pm

Operator: herring

Sample : 493236 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 21:35 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	140683	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	246776	50.00	ppb	-0.02
52) d5 - Chlorobenzene	17.26	117	206233	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.01	152	78919	50.00	ppb	-0.02

System Monitoring Compounds

36) surr4,Dibrflmethane	10.44	113	99700	52.99	ppb	-0.02
Spiked Amount 50.000			Recovery	=	105.98%	
58) surr3,Toluene-d8	14.45	98	264465	50.81	ppb	-0.02
Spiked Amount 50.000			Recovery	=	101.62%	
59) surr2,bfb	19.59	95	98887	46.81	ppb	-0.02
Spiked Amount 50.000			Recovery	=	93.62%	

Target Compounds

						Qvalue
26) 2-Butanone	9.67	43	5223	4.06	ppb	96 J
27) Ethyl Acetate	9.67	43	5343	2.03	ppb	# 70
28) cis-1,2-Dichloroethene	9.65	96	78917	37.90	ppb	87
29) Iso-Butyl Alcohol	10.86	43	229	2.05	ppb	77
43) Trichloroethene	12.28	95	49658	26.71	ppb	96
46) 1,4-Dioxane	12.87	88	246	16.66	ppb	# 65

RJH 9/26

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

V0816.D EXP0924.M

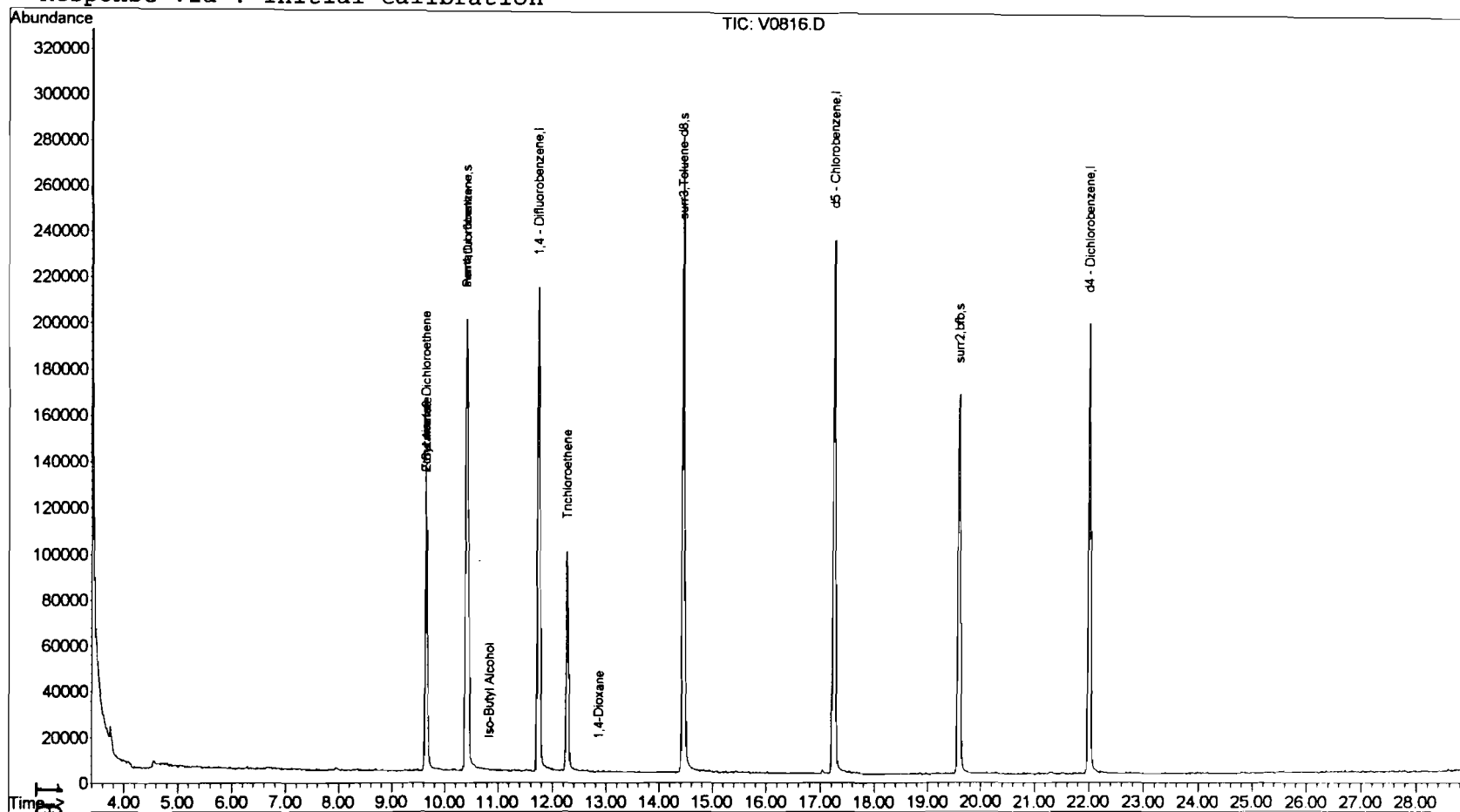
Tue Sep 25 21:36:26 2001

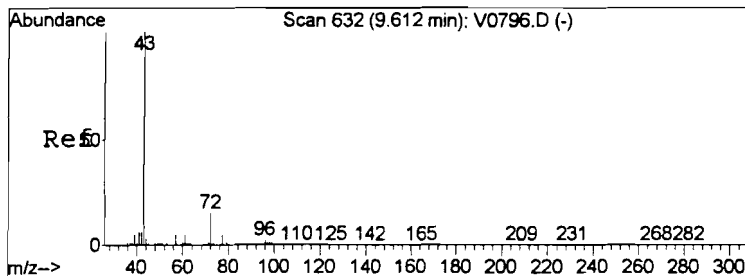
168
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0816.D Vial: 14
 Acq On : 25 Sep 2001 9:07 pm Operator: herring
 Sample : 493236 1.0 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 21:35 2001 Quant Results File: EXP0924.RES

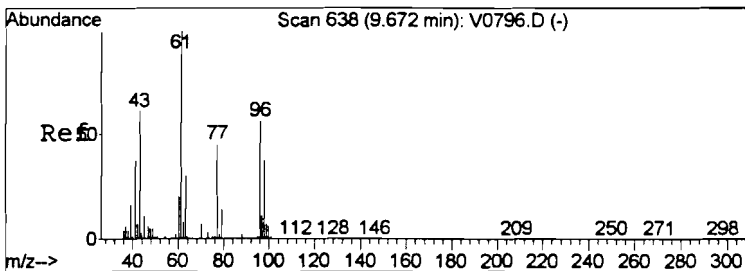
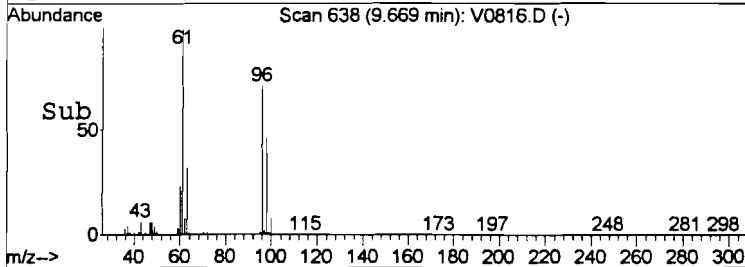
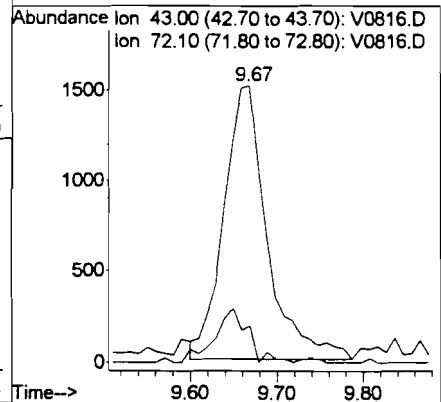
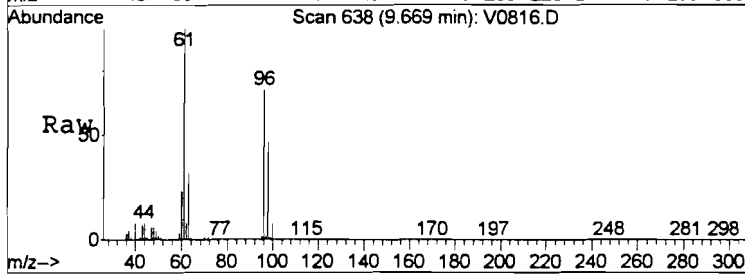
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:41:28 2001
 Response via : Initial Calibration





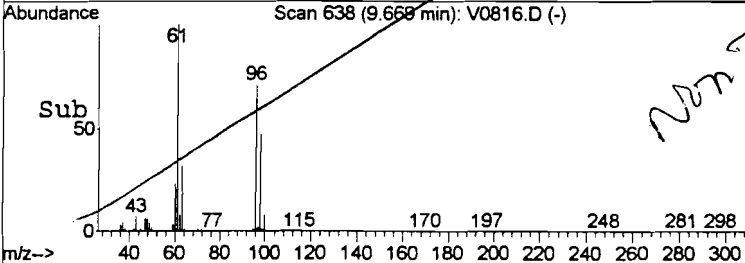
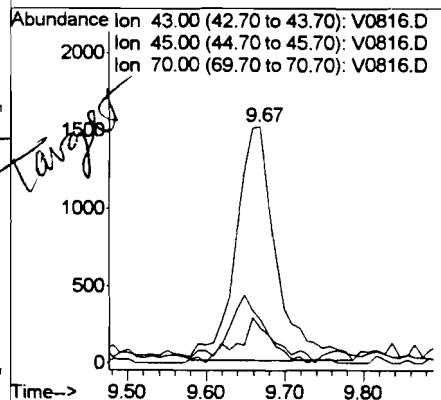
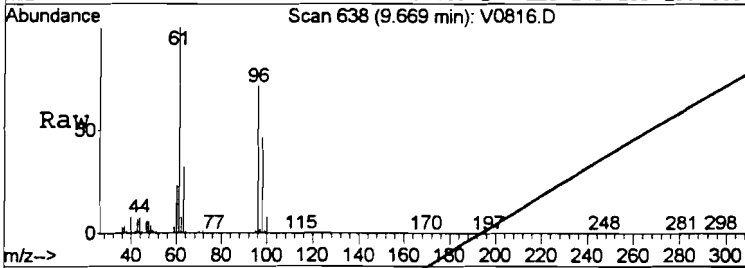
#26
2-Butanone
Concen: 4.06 ppb
RT: 9.67 min Scan# 638
Delta R.T. 0.05 min
Lab File: V0816.D
Acq: 25 Sep 2001 9:07 pm

Tgt Ion: 43 Resp: 5223
Ion Ratio Lower Upper
43 100
72 13.2 11.0 18.4

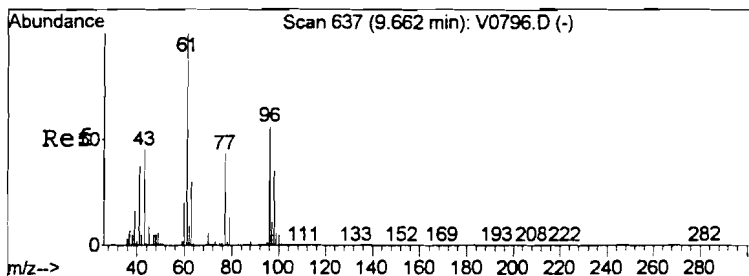


#27
Ethyl Acetate
Concen: 2.03 ppb
RT: 9.67 min Scan# 638
Delta R.T. -0.01 min
Lab File: V0816.D
Acq: 25 Sep 2001 9:07 pm

Tgt Ion: 43 Resp: 5343
Ion Ratio Lower Upper
43 100
45 20.1 10.6 16.0#
70 25.8 6.3 9.5#



Non Target



#28

cis-1,2-Dichloroethene

Concen: 37.90 ppb

RT: 9.65 min Scan# 636

Delta R.T. -0.02 min

Lab File: V0816.D

Acq: 25 Sep 2001 9:07 pm

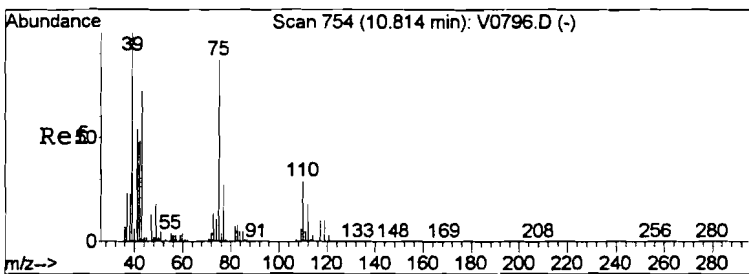
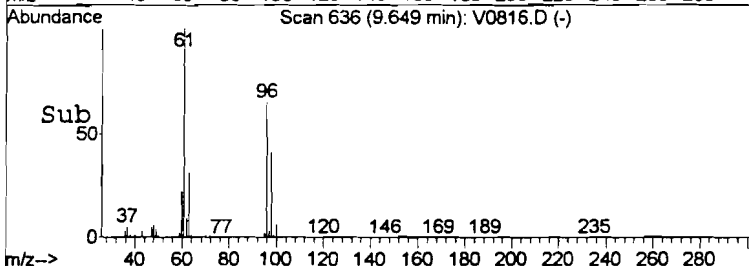
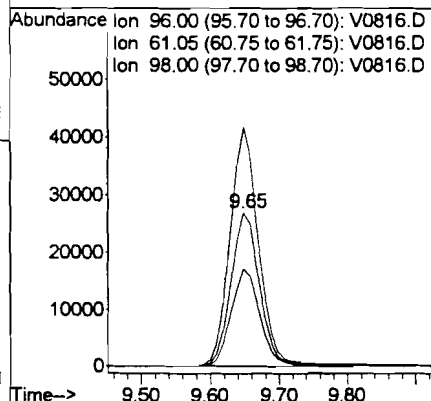
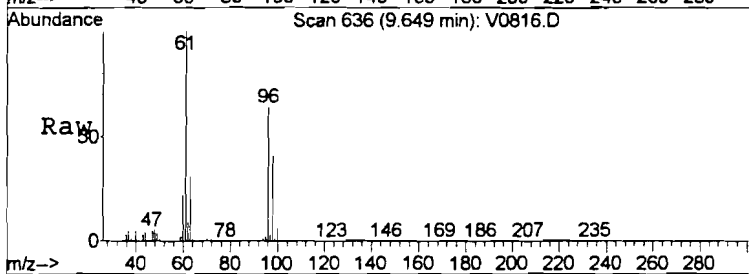
Tgt Ion: 96 Resp: 78917

Ion Ratio Lower Upper

96 100

61 155.1 143.6 215.4

98 63.7 50.8 76.2



#39

Iso-Butyl Alcohol

Concen: 2.05 ppb

RT: 10.86 min Scan# 759

Delta R.T. 0.05 min

Lab File: V0816.D

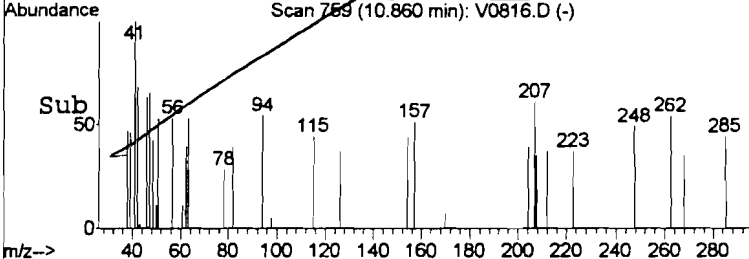
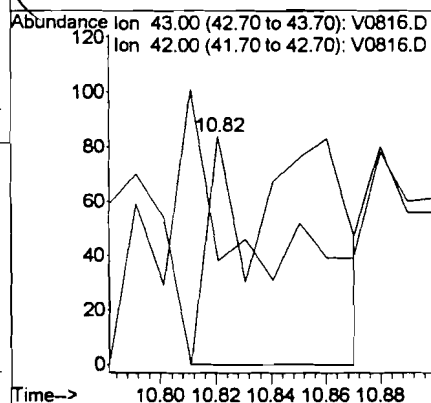
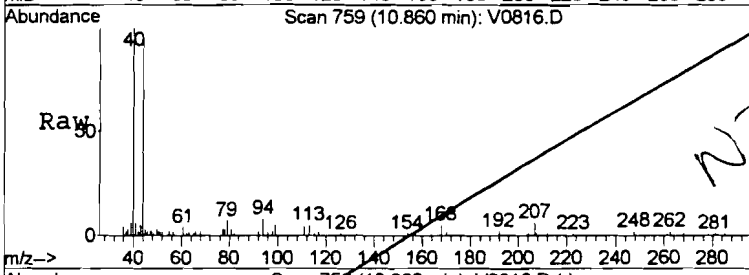
Acq: 25 Sep 2001 9:07 pm

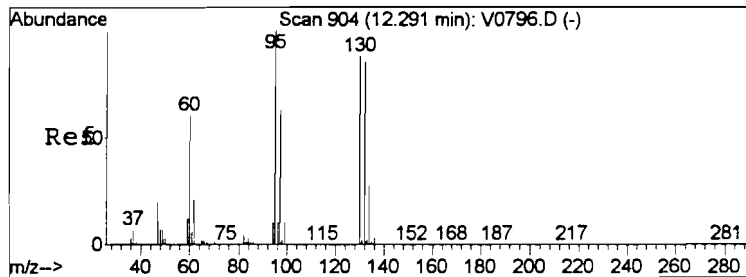
Tgt Ion: 43 Resp: 229

Ion Ratio Lower Upper

43 100

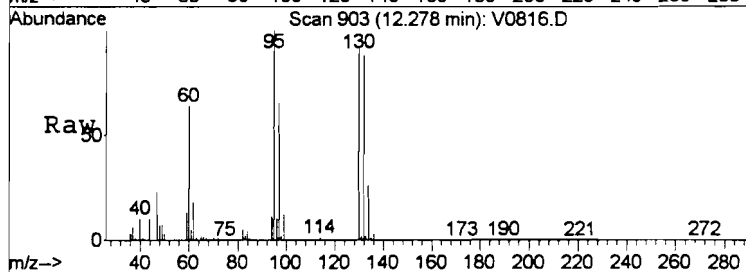
42 47.0 32.8 98.3



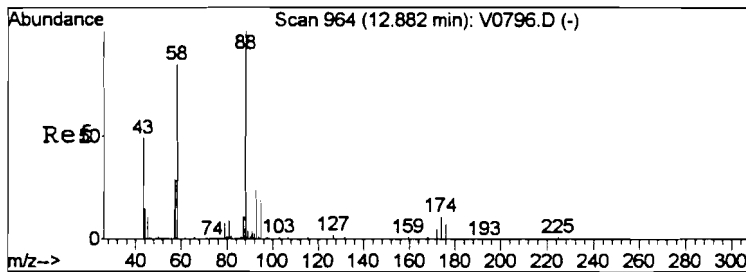
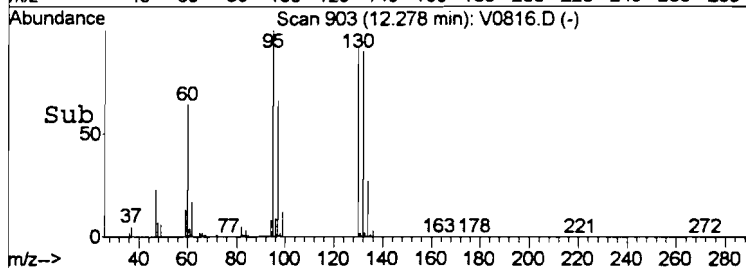
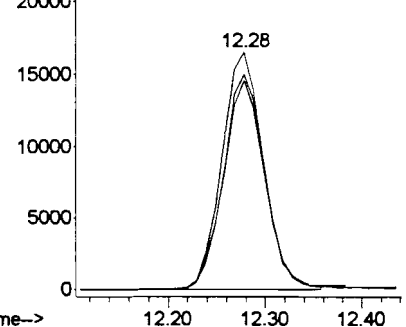


#43
 Trichloroethene
 Concen: 26.71 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.02 min
 Lab File: V0816.D
 Acq: 25 Sep 2001 9:07 pm

Tgt Ion: 95 Resp: 49658
 Ion Ratio Lower Upper
 95 100
 130 90.9 70.0 105.0
 132 88.4 68.2 102.4

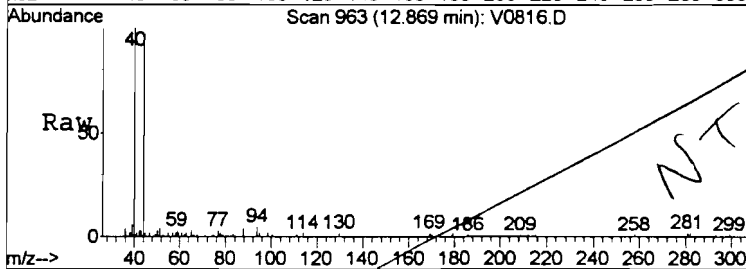


Abundance Ion 95.00 (94.70 to 95.70): V0816.D
 Ion 129.95 (129.65 to 130.65): V0816.D
 Ion 131.90 (131.60 to 132.60): V0816.D

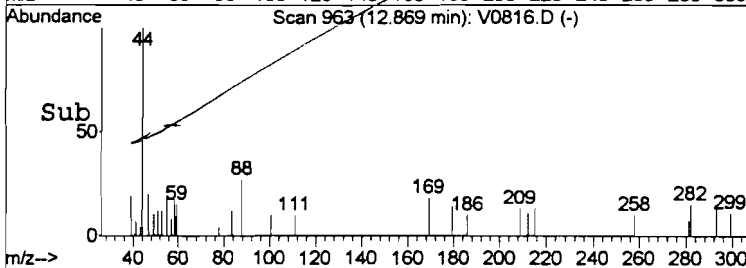
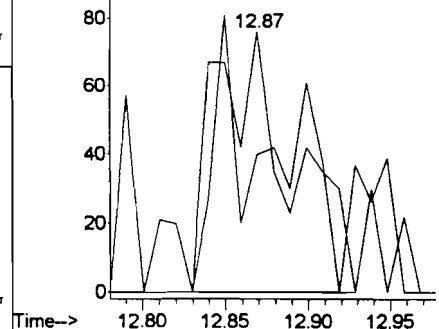


#46
 1,4-Dioxane
 Concen: 16.66 ppb
 RT: 12.87 min Scan# 963
 Delta R.T. -0.02 min
 Lab File: V0816.D
 Acq: 25 Sep 2001 9:07 pm

Tgt Ion: 88 Resp: 246
 Ion Ratio Lower Upper
 88 100
 58 52.6 63.7 106.3#



Abundance Ion 88.00 (87.70 to 88.70): V0816.D
 Ion 58.00 (57.70 to 58.70): V0816.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-03

Date Sampled : 09/14/01 19:11 Order #: 493237 Sample Matrix: WATER
 Date Received: 09/15/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 2.50			
ACETONE	20	50 U	UG/L
BENZENE	5.0	13 U	UG/L
BROMODICHLOROMETHANE	5.0	13 U	UG/L
BROMOFORM	5.0	13 U	UG/L
BROMOMETHANE	5.0	13 U	UG/L
2-BUTANONE (MEK)	10	25 U	UG/L
CARBON DISULFIDE	10	25 U	UG/L
CARBON TETRACHLORIDE	5.0	13 U	UG/L
CHLOROBENZENE	5.0	13 U	UG/L
CHLOROETHANE	5.0	13 U	UG/L
CHLOROFORM	5.0	13 U	UG/L
CHLOROMETHANE	5.0	13 U	UG/L
DIBROMOCHLOROMETHANE	5.0	13 U	UG/L
1,1-DICHLOROETHANE	5.0	13 U	UG/L
1,2-DICHLOROETHANE	5.0	13 U	UG/L
1,1-DICHLOROETHENE	5.0	13 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	7.8 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13 U	UG/L
1,2-DICHLOROPROPANE	5.0	13 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13 U	UG/L
ETHYLBENZENE	5.0	13 U	UG/L
FREON 113	5.0	13 U	UG/L
2-HEXANONE	10	25 U	UG/L
METHYLENE CHLORIDE	5.0	13 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25 U	UG/L
STYRENE	5.0	13 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13 U	UG/L
TETRACHLOROETHENE	5.0	13 U	UG/L
TOLUENE	5.0	13 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	13 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	13 U	UG/L
TRICHLOROETHENE	5.0	330	UG/L
VINYL CHLORIDE	1.0	2.5 U	UG/L
O-XYLENE	5.0	13 U	UG/L
M+P-XYLENE	5.0	13 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	105	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0817.D

Vial: 15

Acq On : 25 Sep 2001 9:42 pm

Operator: herring

Sample : 493237 2.5

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 22:11 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	136498	50.00	ppb	-0.01
35) 1,4 - Difluorobenzene	11.75	114	244935	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.26	117	198399	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.01	152	76484	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4,Dibrflmethane	10.44	113	98142	52.55	ppb	-0.01
Spiked Amount	50.000		Recovery	=	105.10%	
58) surr3,Toluene-d8	14.45	98	256022	51.13	ppb	-0.02
Spiked Amount	50.000		Recovery	=	102.26%	
59) surr2,bfb	19.59	95	95146	46.82	ppb	-0.01
Spiked Amount	50.000		Recovery	=	93.64%	

Target Compounds

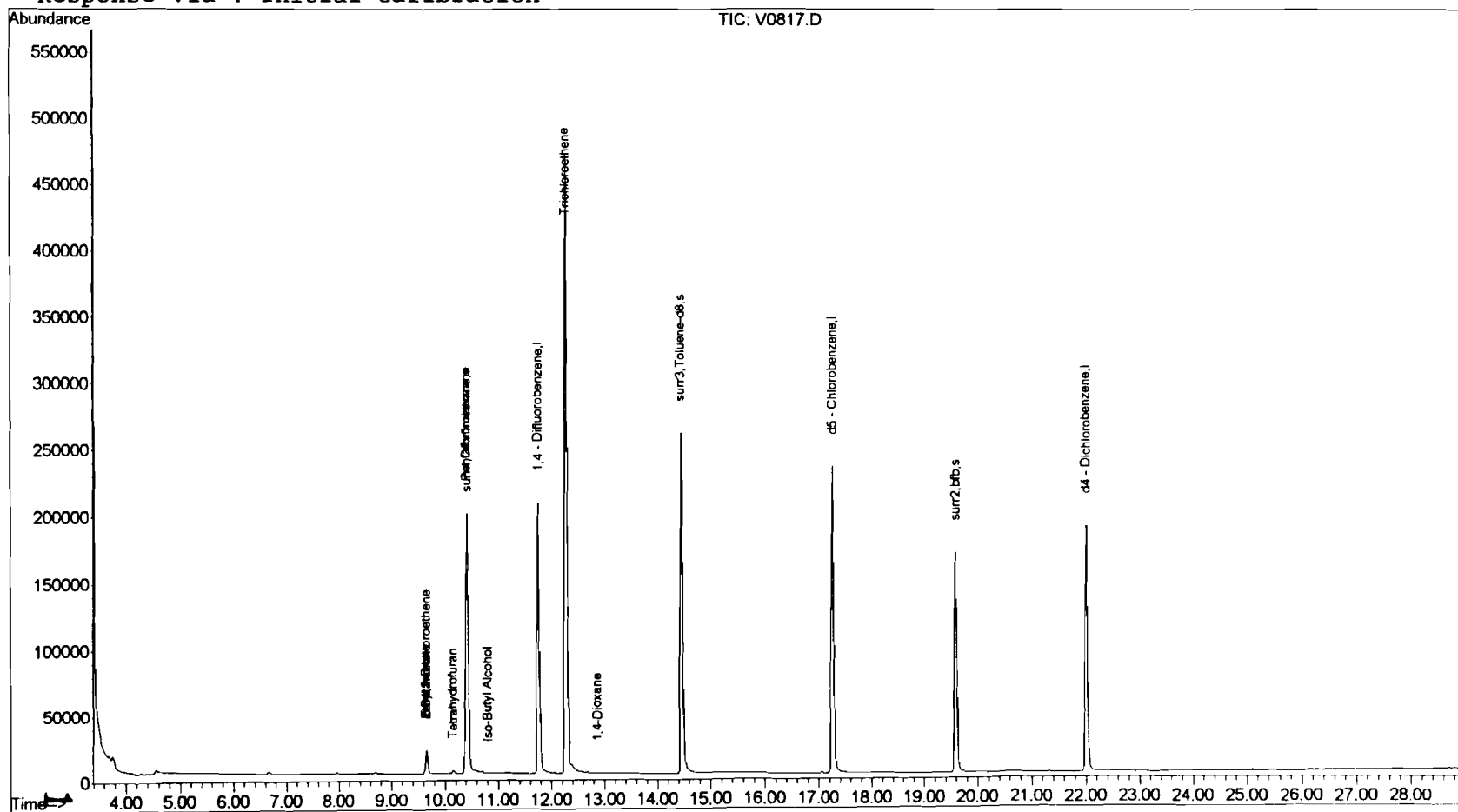
						Qvalue
26) 2-Butanone	9.66	43	15109	12.12	ppb	# 66
27) Ethyl Acetate	9.66	43	16863	6.60	ppb	97 NT
28) cis-1,2-Dichloroethene	9.66	96	6275	3.11	ppb	96 J
33) Tetrahydrofuran	10.16	42	1576	1.90	ppb	98 NT
39) Iso Butyl Alcohol	10.82	43	168	1.52	ppb	61
43) Trichloroethene	12.28	95	243563	132.00	ppb	99
46) 1,4-Dioxane	12.87	88	381	25.99	ppb	91

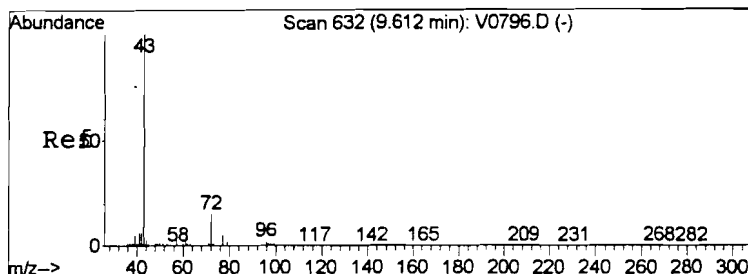
(#) = qualifier out of range (m) = manual integration
V0817.D EXP0924.M Tue Sep 25 22:11:45 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0817.D Vial: 15
 Acq On : 25 Sep 2001 9:42 pm Operator: herring
 Sample : 493237 2.5 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 22:11 2001 Quant Results File: EXP0924.RES

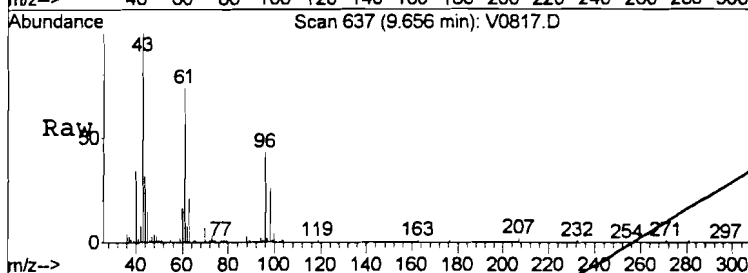
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:41:28 2001
 Response via : Initial Calibration



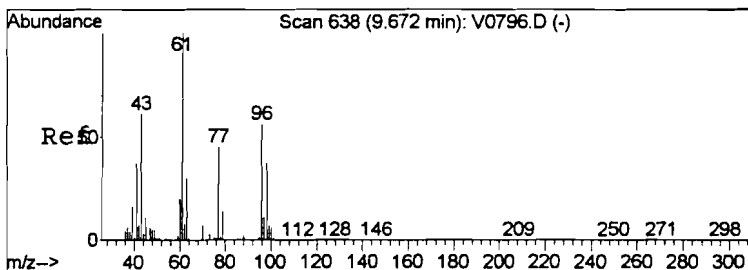
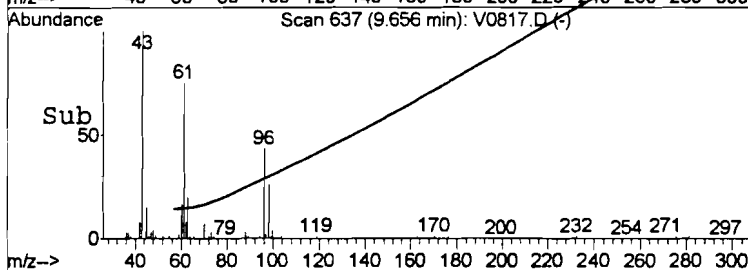
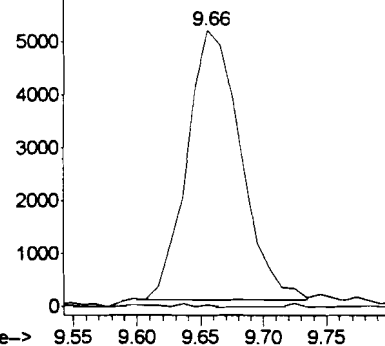


#26
2-Butanone
Concen: 12.12 ppb
RT: 9.66 min Scan# 637
Delta R.T. 0.04 min
Lab File: V0817.D
Acq: 25 Sep 2001 9:42 pm

Tgt Ion: 43 Resp: 15109
Ion Ratio Lower Upper
43 100
72 0.8 11.0 18.4#

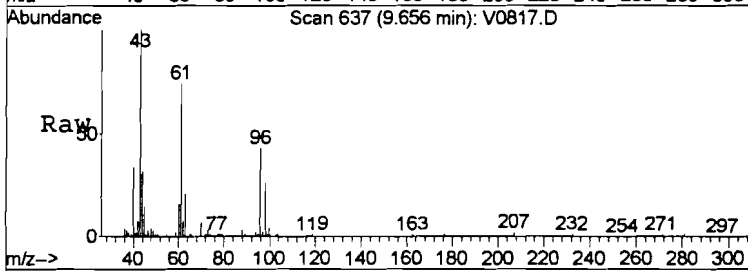


Abundance Ion 43.00 (42.70 to 43.70): V0817.D
6000 Ion 72.10 (71.80 to 72.80): V0817.D

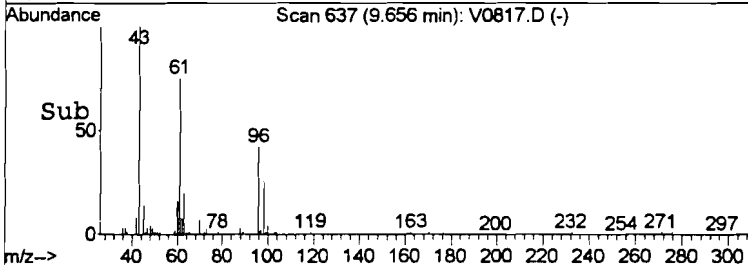
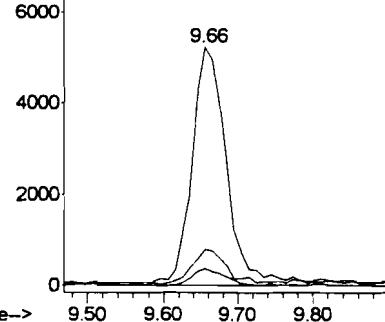


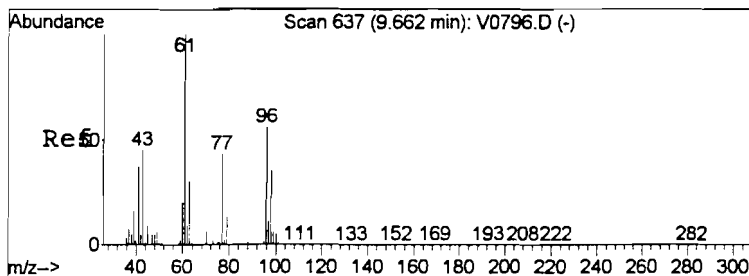
#27
Ethyl Acetate
Concen: 6.60 ppb
RT: 9.66 min Scan# 637
Delta R.T. -0.02 min
Lab File: V0817.D
Acq: 25 Sep 2001 9:42 pm

Tgt Ion: 43 Resp: 16863
Ion Ratio Lower Upper
43 100
45 14.1 10.6 16.0
70 6.5 6.3 9.5



Abundance Ion 43.00 (42.70 to 43.70): V0817.D
6000 Ion 45.00 (44.70 to 45.70): V0817.D
Ion 70.00 (69.70 to 70.70): V0817.D





#28

cis-1,2-Dichloroethene

Concen: 3.11 ppb

RT: 9.66 min Scan# 637

Delta R.T. -0.01 min

Lab File: V0817.D

Acq: 25 Sep 2001 9:42 pm

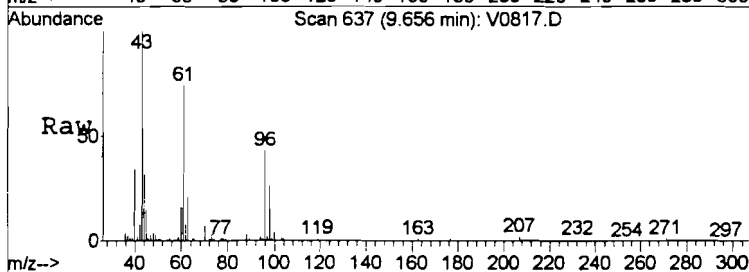
Tgt Ion: 96 Resp: 6275

Ion Ratio Lower Upper

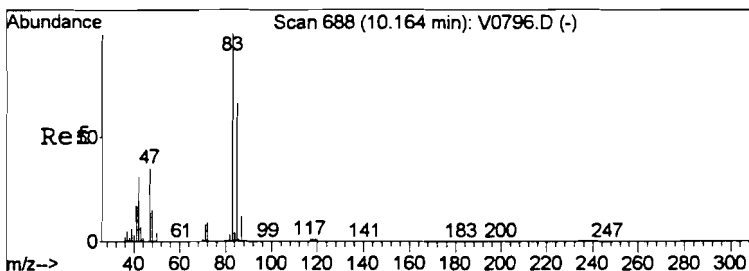
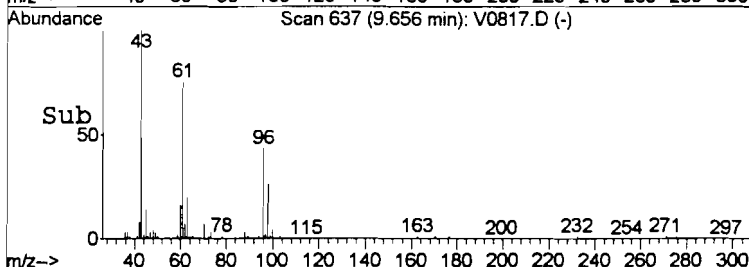
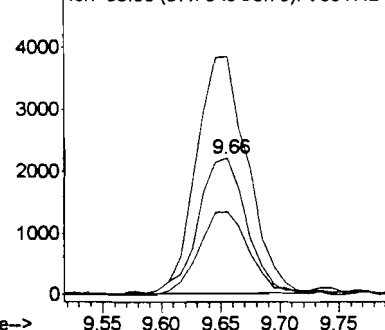
96 100

61 173.9 143.6 215.4

98 61.3 50.8 76.2



Abundance Ion 96.00 (95.70 to 96.70): V0817.D
Ion 61.05 (60.75 to 61.75): V0817.D
Ion 98.00 (97.70 to 98.70): V0817.D



#33

Tetrahydrofuran

Concen: 1.90 ppb

RT: 10.16 min Scan# 688

Delta R.T. -0.01 min

Lab File: V0817.D

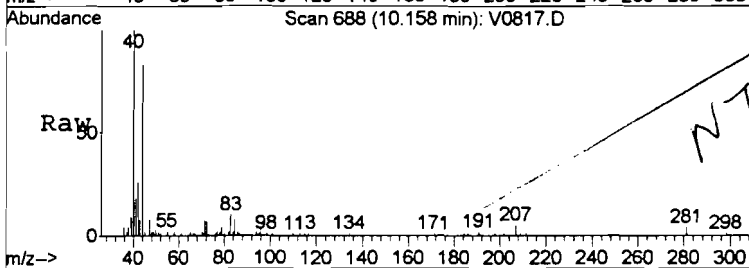
Acq: 25 Sep 2001 9:42 pm

Tgt Ion: 42 Resp: 1576

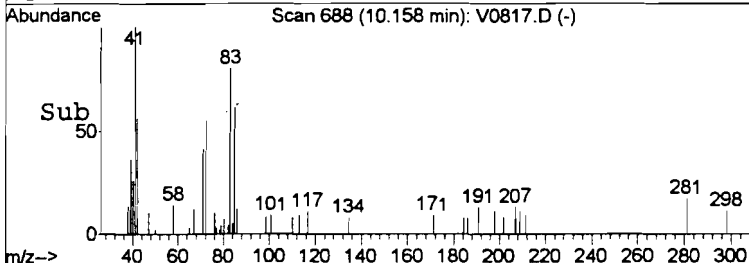
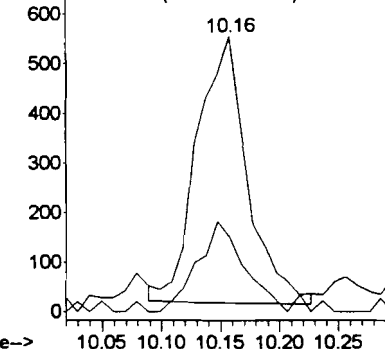
Ion Ratio Lower Upper

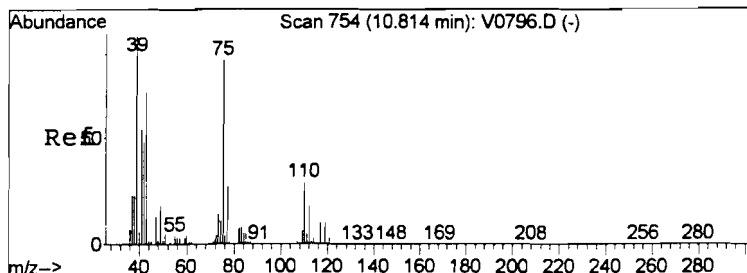
42 100

72 31.7 23.1 38.5



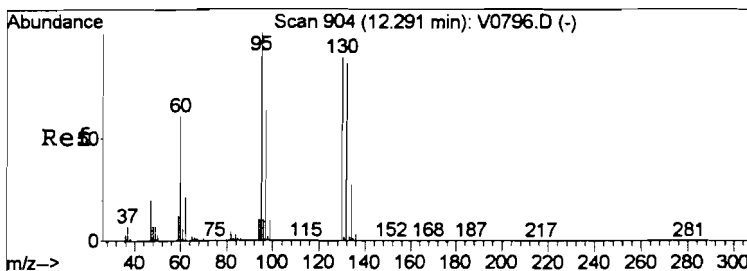
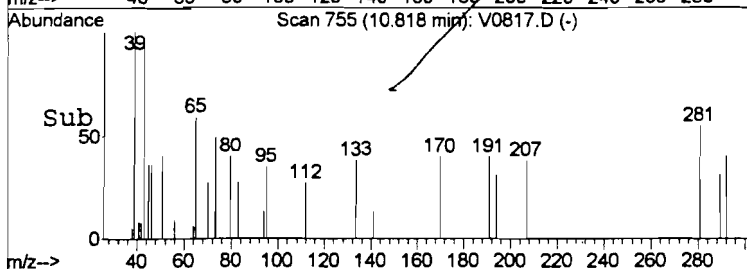
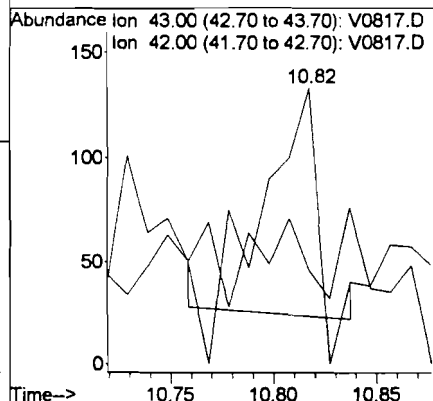
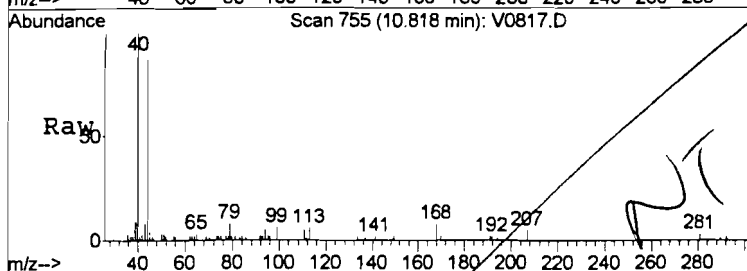
Abundance Ion 42.00 (41.70 to 42.70): V0817.D
Ion 72.00 (71.70 to 72.70): V0817.D





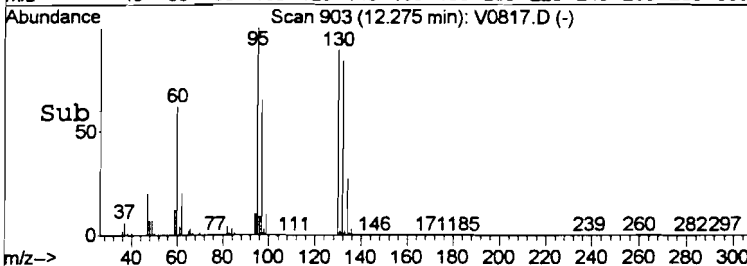
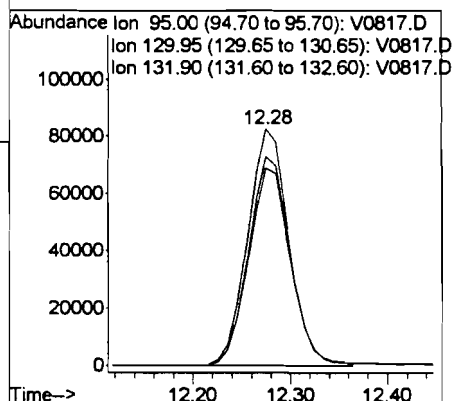
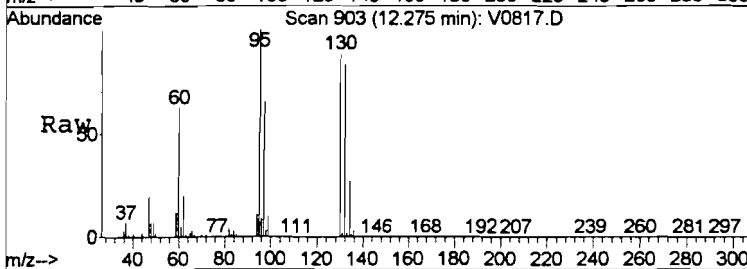
#39
 Iso-Butyl Alcohol
 Concen: 1.52 ppb
 RT: 10.82 min Scan# 755
 Delta R.T. 0.01 min
 Lab File: V0817.D
 Acq: 25 Sep 2001 9:42 pm

Tgt Ion: 43 Resp: 168
 Ion Ratio Lower Upper
 43 100
 42 34.6 32.8 98.3



#43
 Trichloroethene
 Concen: 132.00 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.02 min
 Lab File: V0817.D
 Acq: 25 Sep 2001 9:42 pm

Tgt Ion: 95 Resp: 243563
 Ion Ratio Lower Upper
 95 100
 130 88.3 70.0 105.0
 132 83.5 68.2 102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-07

Date Sampled : 09/15/01 08:45 Order #: 493238 Sample Matrix: WATER
Date Received: 09/15/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	3.4 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	1.5 J	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	11	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	18	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	2.2 J	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	74	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

179

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0756.D

Vial: 15

Acq On : 21 Sep 2001 6:11 pm

Operator: herring

Sample : 493238 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 18:40 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	133512	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	239872	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	201555	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	81363	50.00	ppb	0.06

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	94205	49.87	ppb	0.04
Spiked Amount 50.000			Recovery	=	99.74%	
57) surr3, Toluene-d8	14.45	98	250065	47.99	ppb	0.04
Spiked Amount 50.000			Recovery	=	95.98%	
58) surr2, bfb	19.59	95	100661	46.90	ppb	0.05
Spiked Amount 50.000			Recovery	=	93.80%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
10) FREON 113	6.62	85	1368	2.23	ppb	# 64 J
12) Acetone	6.70	43	2556	3.44	ppb	99 J
21) trans-1,2-Dichloroethene	7.97	96	29797	18.18	ppb	96
26) 2-Butanone	9.66	43	3387	2.76	ppb	# 70
27) cis-1,2-Dichloroethene	9.65	96	19381	10.65	ppb	96
31) Chloroform	10.16	83	4419	1.47	ppb	91 J
42) Trichloroethene	12.27	95	129602	73.71	ppb	98
45) 1,4-Dioxane	12.71	88	86	5.25	ppb	98

RTH 10/19

(#) = qualifier out of range (m) = manual integration
 V0756.D EXP0914.M Fri Sep 21 18:40:49 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0756.D

Vial: 15

Acq On : 21 Sep 2001 6:11 pm

Operator: herring

Sample : 493238 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 18:40 2001

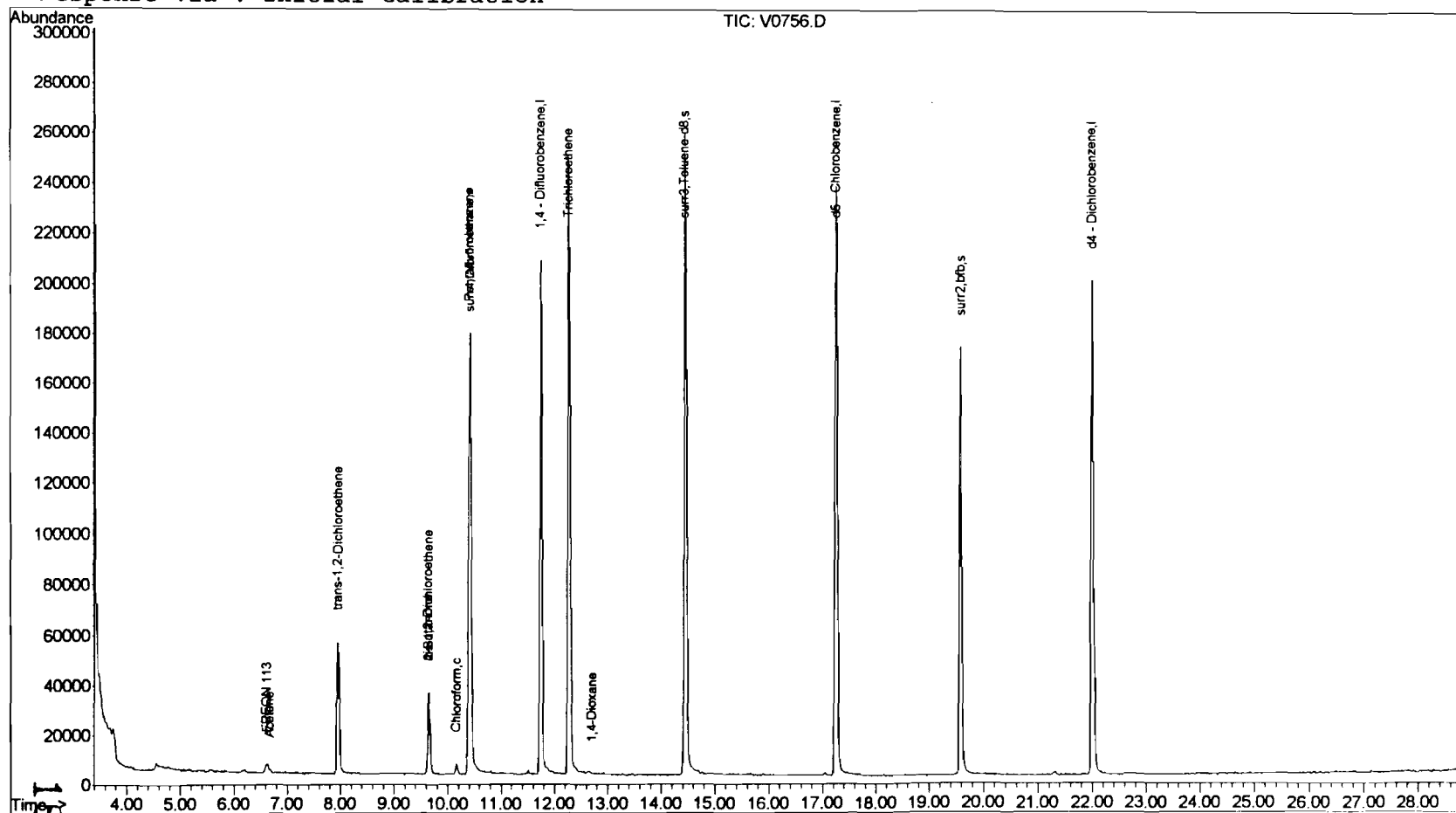
Quant Results File: EXP0914.RES

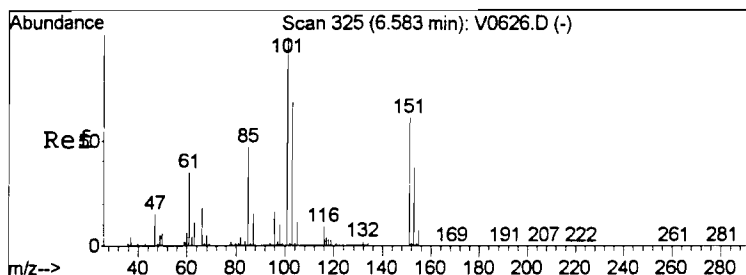
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

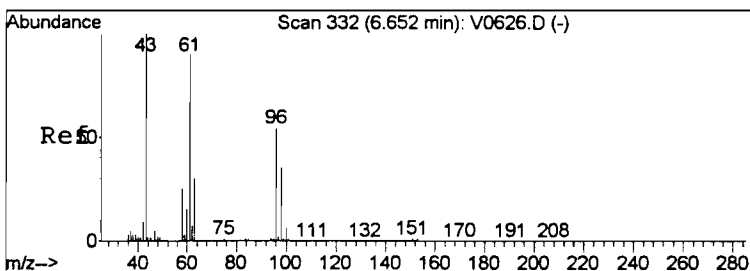
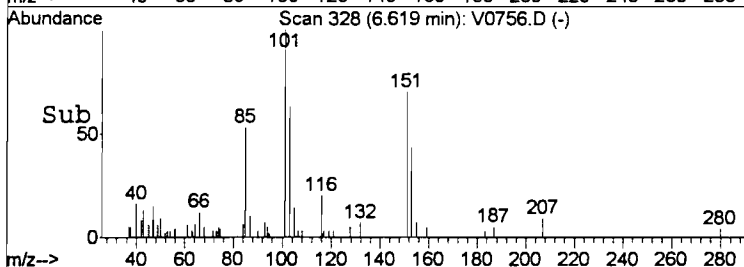
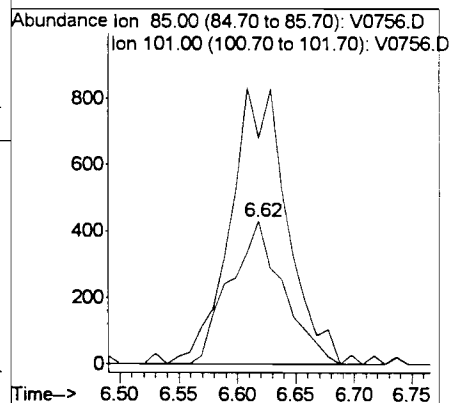
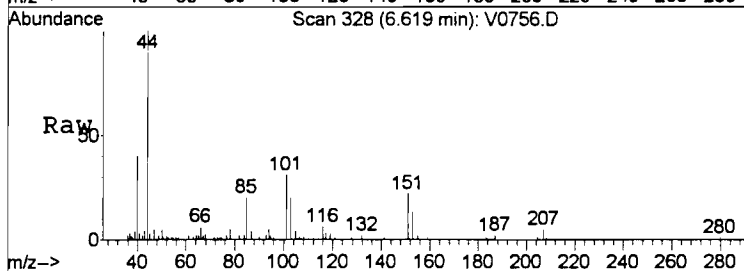
Response via : Initial Calibration





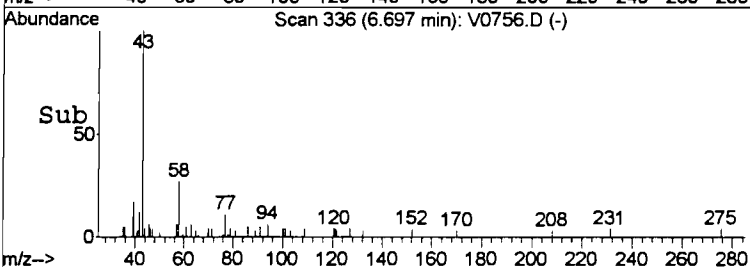
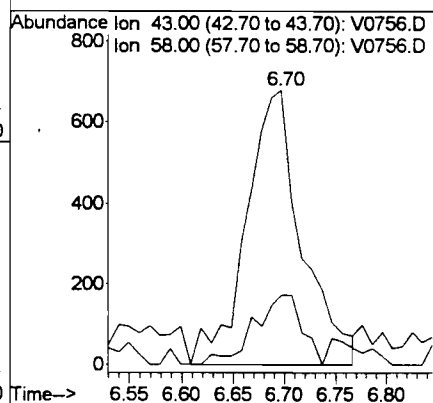
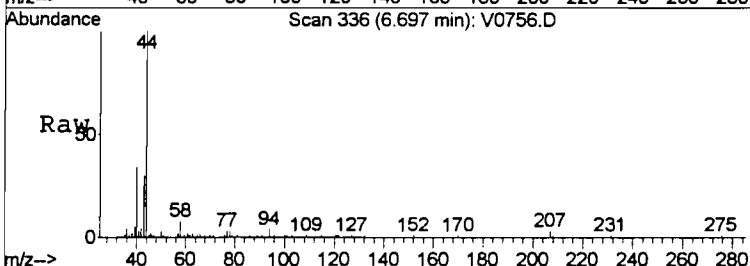
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FREON 113
Concen: 2.23 ppb
RT: 6.62 min Scan# 328
Delta R.T. 0.04 min
Lab File: V0756.D
Acq: 21 Sep 2001 6:11 pm

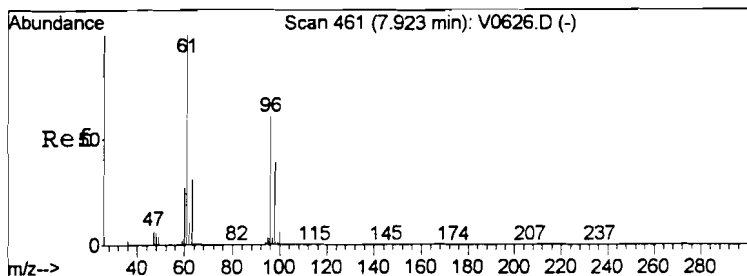
Tgt Ion: 85 Resp: 1368
Ion Ratio Lower Upper
85 100
101 158.3 161.5 269.3#



#12
Acetone
Concen: 3.44 ppb
RT: 6.70 min Scan# 336
Delta R.T. 0.05 min
Lab File: V0756.D
Acq: 21 Sep 2001 6:11 pm

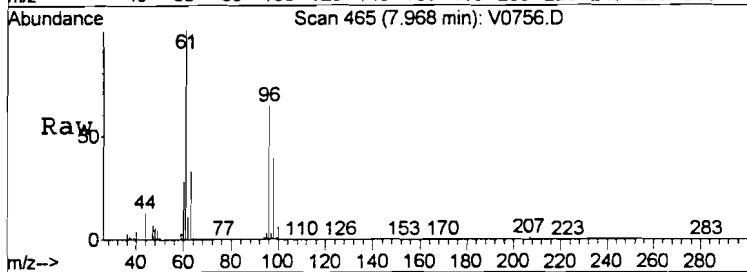
Tgt Ion: 43 Resp: 2556
Ion Ratio Lower Upper
43 100
58 25.3 19.7 29.5



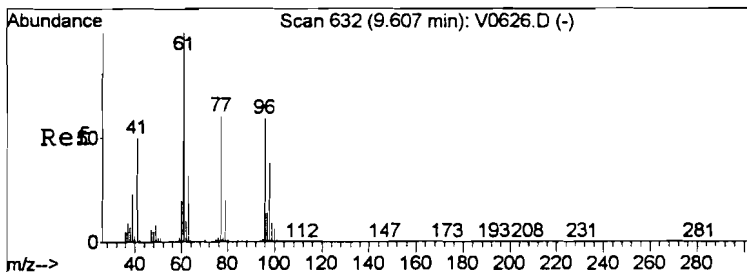
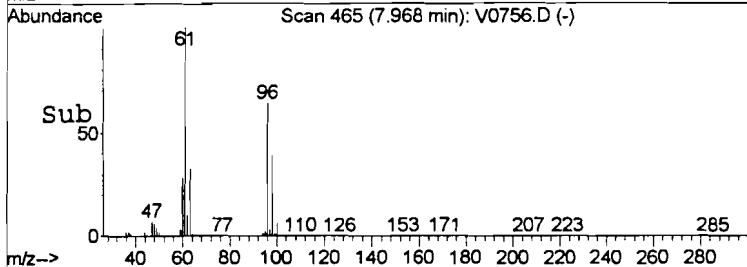
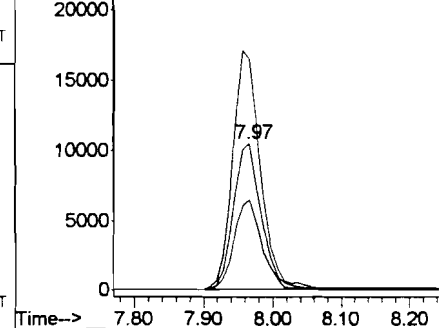


#21
trans-1,2-Dichloroethene
Concen: 18.18 ppb
RT: 7.97 min Scan# 465
Delta R.T. 0.04 min
Lab File: V0756.D
Acq: 21 Sep 2001 6:11 pm

Tgt Ion: 96 Resp: 29797
Ion Ratio Lower Upper
96 100
61 156.6 130.2 195.4
98 61.6 51.1 76.7

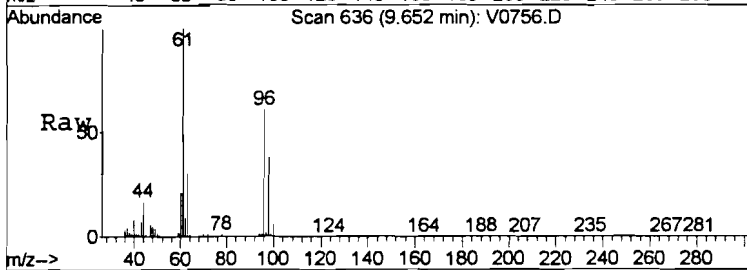


Abundance Ion 96.00 (95.70 to 96.70): V0756.D
Ion 61.05 (60.75 to 61.75): V0756.D
Ion 98.00 (97.70 to 98.70): V0756.D

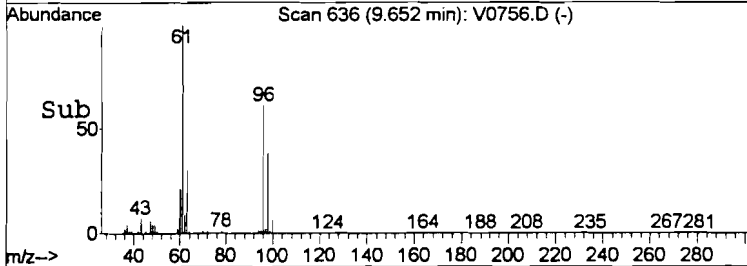
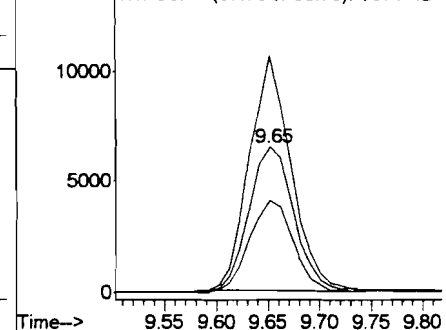


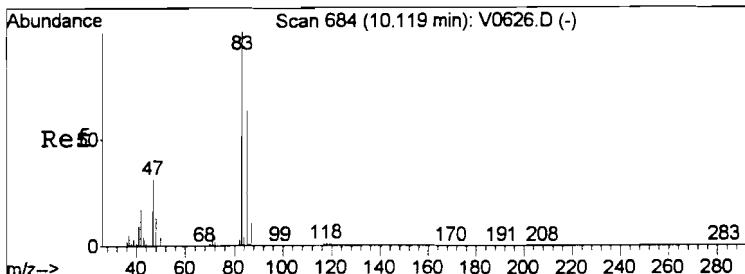
#27
cis-1,2-Dichloroethene
Concen: 10.65 ppb
RT: 9.65 min Scan# 636
Delta R.T. 0.04 min
Lab File: V0756.D
Acq: 21 Sep 2001 6:11 pm

Tgt Ion: 96 Resp: 19381
Ion Ratio Lower Upper
96 100
61 163.8 136.0 204.0
98 62.9 51.8 77.6



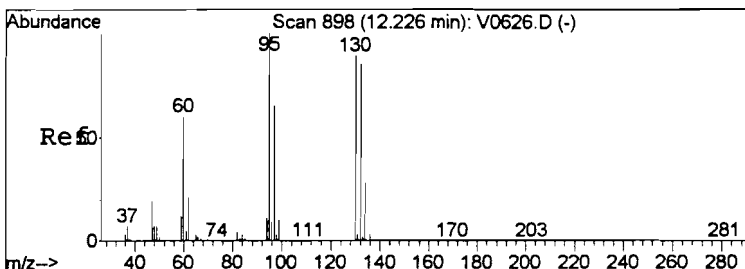
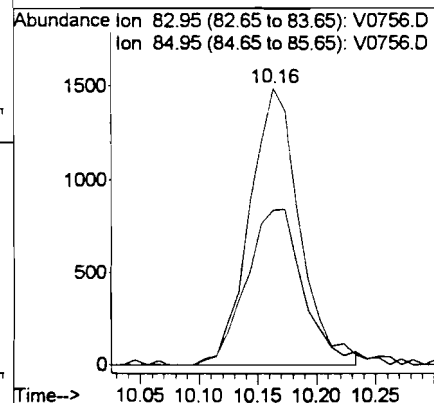
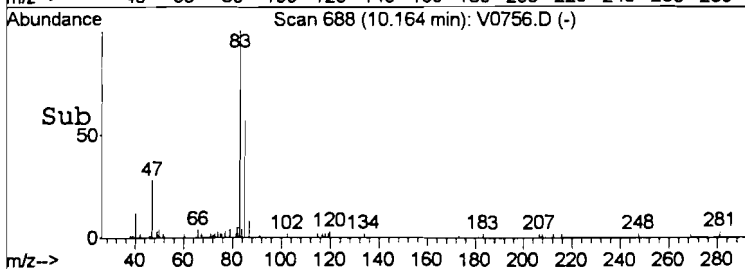
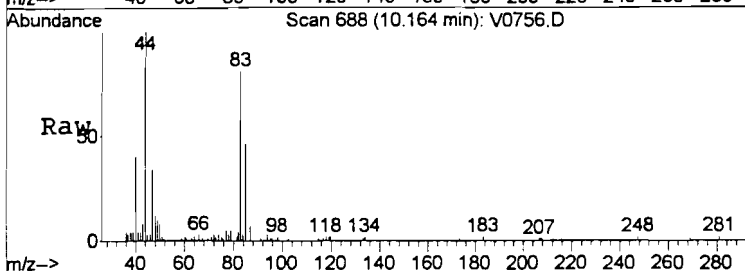
Abundance Ion 96.00 (95.70 to 96.70): V0756.D
Ion 61.05 (60.75 to 61.75): V0756.D
Ion 98.00 (97.70 to 98.70): V0756.D





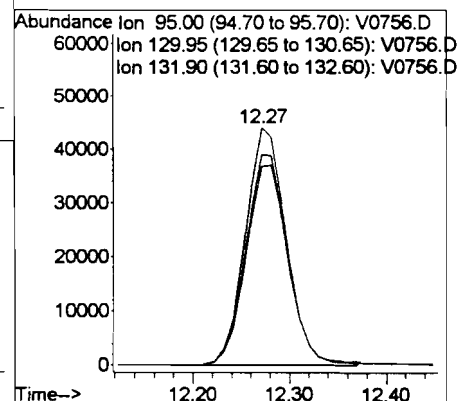
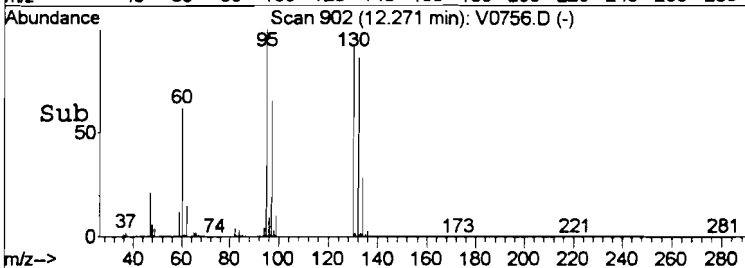
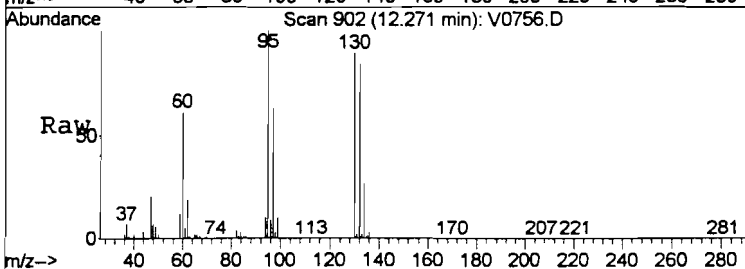
#31
Chloroform
Concen: 1.47 ppb
RT: 10.16 min Scan# 688
Delta R.T. 0.04 min
Lab File: V0756.D
Acq: 21 Sep 2001 6:11 pm

Tgt Ion: 83 Resp: 4419
Ion Ratio Lower Upper
83 100
85 56.1 50.5 75.7



#42
Trichloroethene
Concen: 73.71 ppb
RT: 12.27 min Scan# 902
Delta R.T. 0.04 min
Lab File: V0756.D
Acq: 21 Sep 2001 6:11 pm

Tgt Ion: 95 Resp: 129602
Ion Ratio Lower Upper
95 100
130 88.5 71.6 107.4
132 83.5 68.4 102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-09

Date Sampled : 09/15/01 11:03 Order #: 493239 Sample Matrix: WATER
Date Received: 09/15/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	23	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	3.5 J	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	7.3	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	180	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0757.D

Vial: 16

Acq On : 21 Sep 2001 6:47 pm

Operator: herring

Sample : 493239 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 19:16 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	133285	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.75	114	234546	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	197342	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	79417	50.00	ppb	0.06

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	93719	50.74	ppb	0.04
Spiked Amount	50.000		Recovery	=	101.48%	
57) surr3,Toluene-d8	14.46	98	247200	48.45	ppb	0.05
Spiked Amount	50.000		Recovery	=	96.90%	
58) surr2,bfb	19.59	95	97859	46.56	ppb	0.05
Spiked Amount	50.000		Recovery	=	93.12%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	5547	2.99	ppb	96 J
10) FREON 113	6.63	85	4484	7.31	ppb	94
18) TBA	7.55	59	193	1.15	ppb	# 1
21) trans-1,2-Dichloroethene	7.97	96	5789	3.54	ppb	95 J
26) 2-Butanone	9.66	43	14538	11.86	ppb	# 67
27) cis-1,2-Dichloroethene	9.65	96	41193	22.67	ppb	93
38) Iso-Butyl Alcohol	10.79	43	424	4.25	ppb	80
42) Trichloroethene	12.28	95	312410	181.72	ppb	99
45) 1,4-Dioxane	12.80	88	73	4.55	ppb	# 75

(#) = qualifier out of range (m) = manual integration
V0757.D EXP0914.M Fri Sep 21 19:16:49 2001

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Page 1

PSH 10/19

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0757.D

Vial: 16

Acq On : 21 Sep 2001 6:47 pm

Operator: herring

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Sample      : 493239 1.0
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Inst : GC/MS Ins

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Misc      : hla r-8550 8260b.tclcf

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Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 19:16 2001

Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

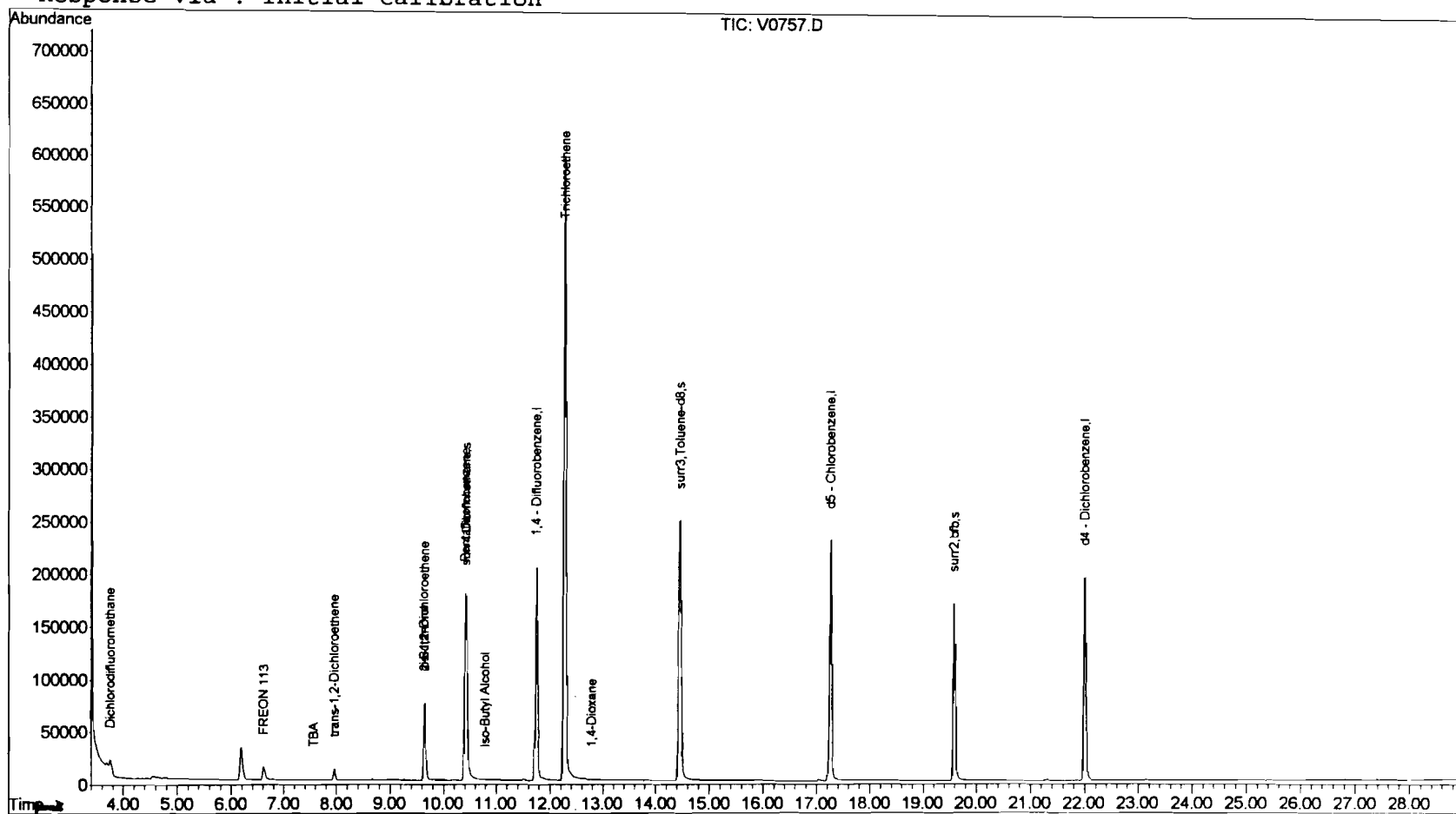
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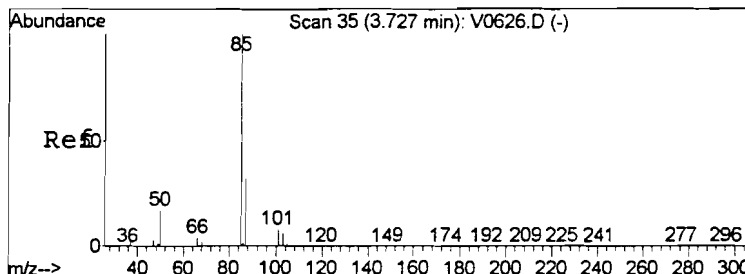
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Last Update      : Tue Sep 18 15:48:32 2001

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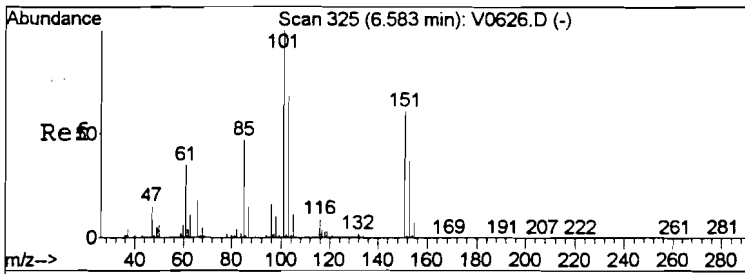
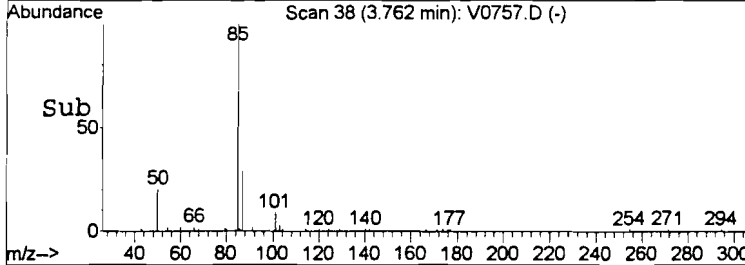
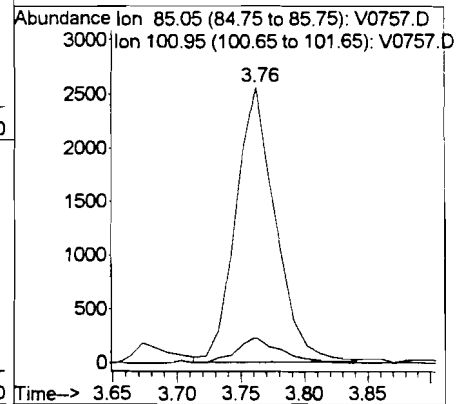
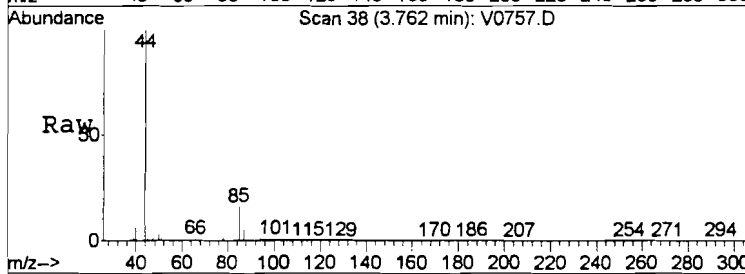
Response via : Initial Calibration





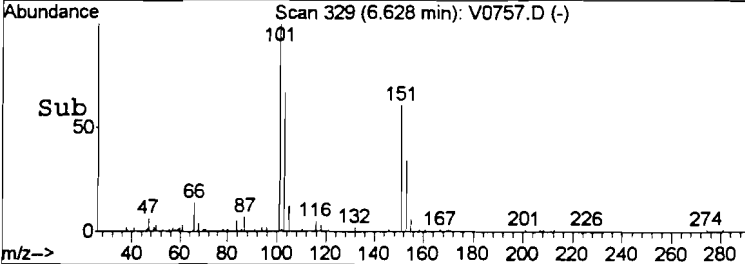
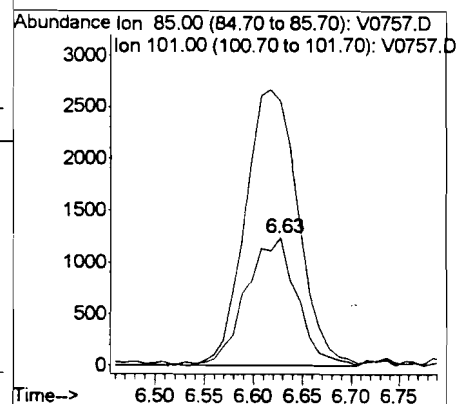
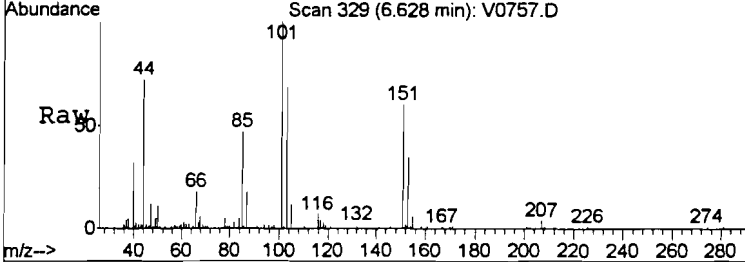
#2
 Dichlorodifluoromethane
 Concen: 2.99 ppb
 RT: 3.76 min Scan# 38
 Delta R.T. 0.03 min
 Lab File: V0757.D
 Acq: 21 Sep 2001 6:47 pm

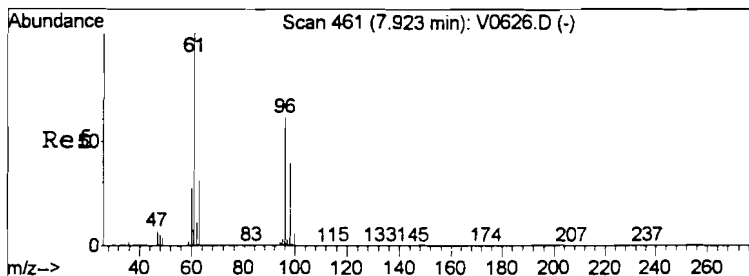
Tgt Ion: 85 Resp: 5547
 Ion Ratio Lower Upper
 85 100
 101 9.3 6.2 9.4



#10
 FREON 113
 Concen: 7.31 ppb
 RT: 6.63 min Scan# 329
 Delta R.T. 0.05 min
 Lab File: V0757.D
 Acq: 21 Sep 2001 6:47 pm

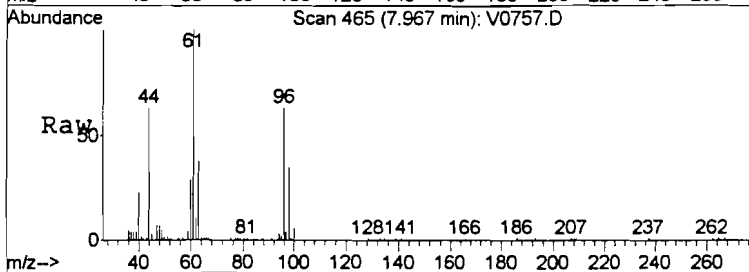
Tgt Ion: 85 Resp: 4484
 Ion Ratio Lower Upper
 85 100
 101 205.8 161.5 269.3



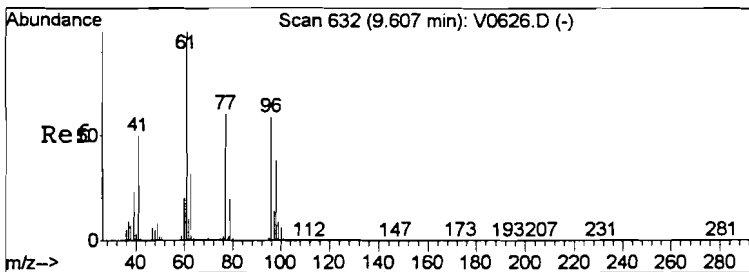
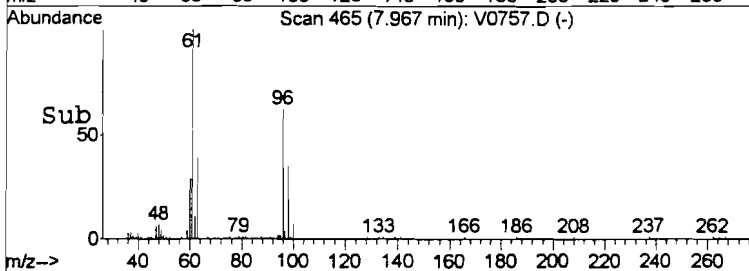
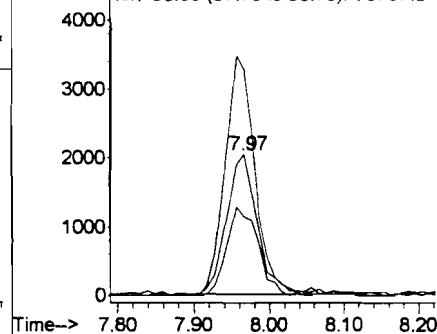


#21
trans-1,2-Dichloroethene
Concen: 3.54 ppb
RT: 7.97 min Scan# 465
Delta R.T. 0.04 min
Lab File: V0757.D
Acq: 21 Sep 2001 6:47 pm

Tgt Ion: 96 Resp: 5789
Ion Ratio Lower Upper
96 100
61 159.6 130.2 195.4
98 56.0 51.1 76.7

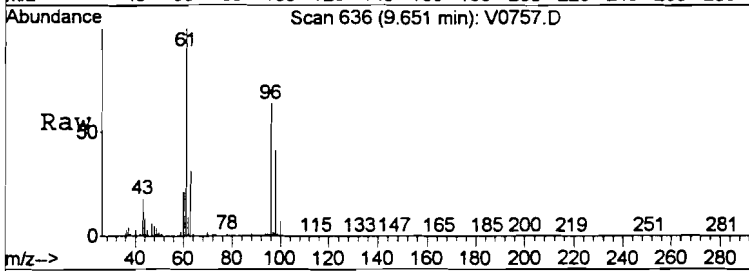


Abundance Ion 96.00 (95.70 to 96.70): V0757.D
Ion 61.05 (60.75 to 61.75): V0757.D
Ion 98.00 (97.70 to 98.70): V0757.D

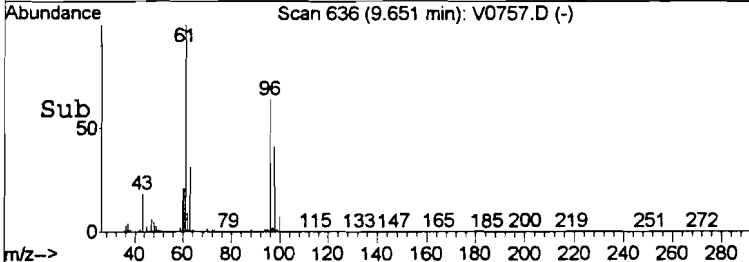
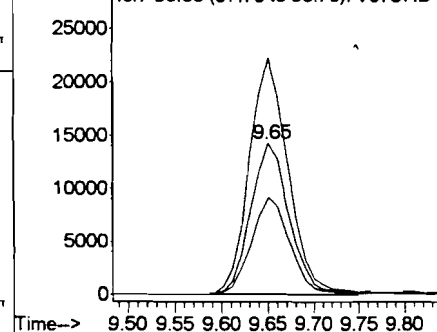


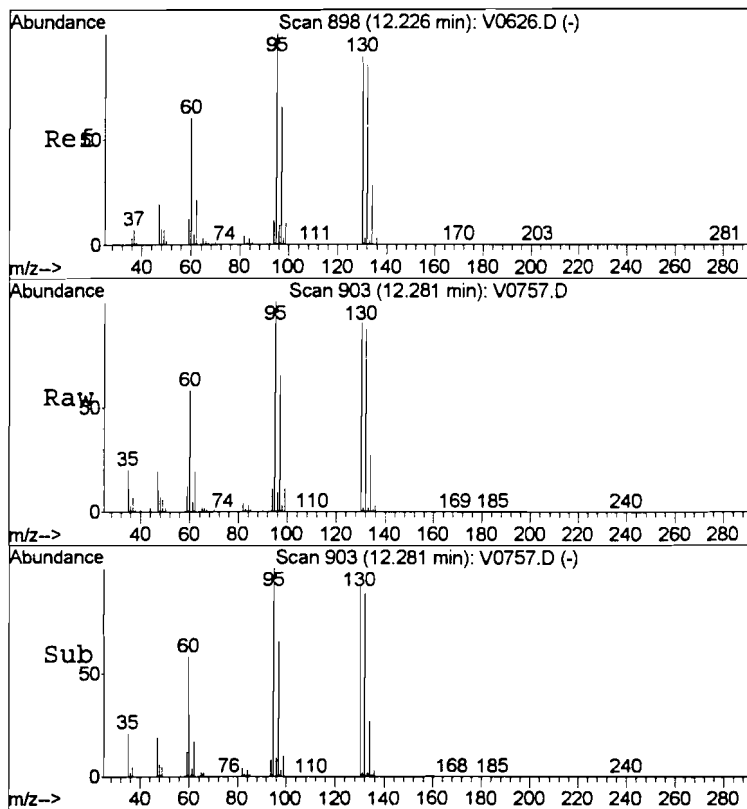
#27
cis-1,2-Dichloroethene
Concen: 22.67 ppb
RT: 9.65 min Scan# 636
Delta R.T. 0.04 min
Lab File: V0757.D
Acq: 21 Sep 2001 6:47 pm

Tgt Ion: 96 Resp: 41193
Ion Ratio Lower Upper
96 100
61 156.5 136.0 204.0
98 64.2 51.8 77.6



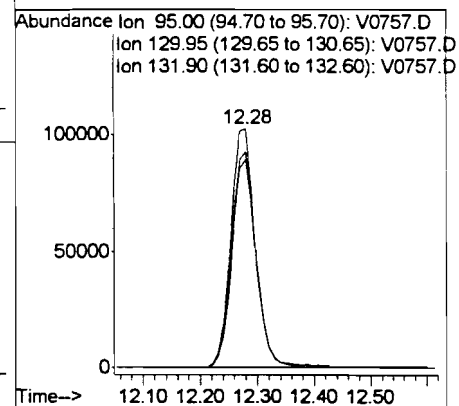
Abundance Ion 96.00 (95.70 to 96.70): V0757.D
Ion 61.05 (60.75 to 61.75): V0757.D
Ion 98.00 (97.70 to 98.70): V0757.D





#42
 Trichloroethene
 Concen: 181.72 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. 0.05 min
 Lab File: V0757.D
 Acq: 21 Sep 2001 6:47 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	90.4	71.6	107.4
132	87.0	68.4	102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-02

Date Sampled : 09/15/01 15:02 Order #: 493354 Sample Matrix: WATER
 Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 10.00			
ACETONE	20	200 U	UG/L
BENZENE	5.0	50 U	UG/L
BROMODICHLOROMETHANE	5.0	50 U	UG/L
BROMOFORM	5.0	50 U	UG/L
BROMOMETHANE	5.0	50 U	UG/L
2-BUTANONE (MEK)	10	100 U	UG/L
CARBON DISULFIDE	10	100 U	UG/L
CARBON TETRACHLORIDE	5.0	50 U	UG/L
CHLOROBENZENE	5.0	50 U	UG/L
CHLOROETHANE	5.0	50 U	UG/L
CHLOROFORM	5.0	50 U	UG/L
CHLOROMETHANE	5.0	50 U	UG/L
DIBROMOCHLOROMETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHANE	5.0	50 U	UG/L
1,2-DICHLOROETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHENE	5.0	31 J	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1500	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	63	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
ETHYLBENZENE	5.0	50 U	UG/L
FREON 113	5.0	50 U	UG/L
2-HEXANONE	10	100 U	UG/L
METHYLENE CHLORIDE	5.0	50 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100 U	UG/L
STYRENE	5.0	50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50 U	UG/L
TETRACHLOROETHENE	5.0	50 U	UG/L
TOLUENE	5.0	50 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	50 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	50 U	UG/L
TRICHLOROETHENE	5.0	8600 E	UG/L
VINYL CHLORIDE	1.0	10 U	UG/L
O-XYLENE	5.0	50 U	UG/L
M+P-XYLENE	5.0	50 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0758.D

Vial: 17

Acq On : 21 Sep 2001 7:23 pm

Operator: herring

Sample : 493354 10

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 19:52 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	129861	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	229382	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	192589	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.00	152	80429	50.00	ppb	0.05

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	92175	51.03	ppb	0.04
Spiked Amount	50.000		Recovery	=	102.06%	
57) surr3, Toluene-d8	14.45	98	246879	49.58	ppb	0.04
Spiked Amount	50.000		Recovery	=	99.16%	
58) surr2, bfb	19.58	95	95730	46.67	ppb	0.04
Spiked Amount	50.000		Recovery	=	93.34%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
11) 1,1-Dicethene	6.65	96	4176	3.13	ppb	90 J
21) trans-1,2-Dichloroethene	7.96	96	10073	6.32	ppb	94
46) 2-Butanone	9.67	43	7660	6.41	ppb	71
27) cis-1,2-Dichloroethene	9.66	96	259634	146.68	ppb	89
32) Tetrahydrofuran	10.15	42	2127	2.96	ppb	99 NT
38) Iso-Butyl Alcohol	10.66	43	183	1.88	ppb	65
42) Trichloroethene	12.27	95	1451651	863.42	ppb	94 E
45) 1,4-Dioxane	12.55	88	63	4.02	ppb	78

RPT 10/19

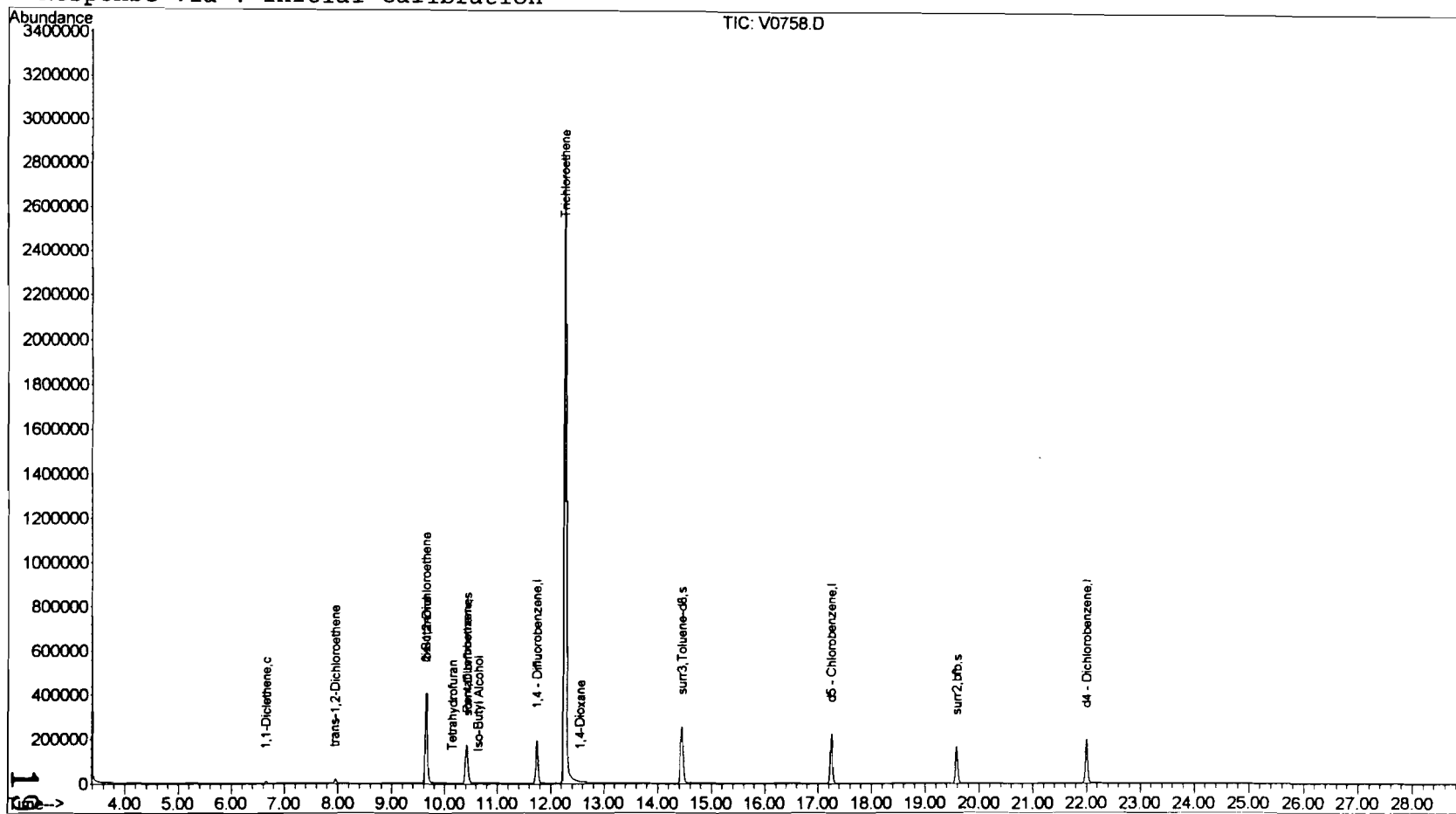
RPT 1/100

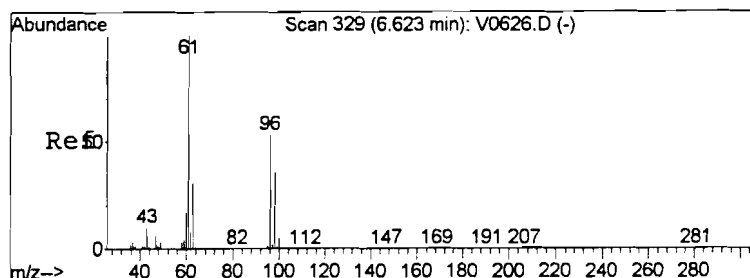
(#) = qualifier out of range (m) = manual integration
V0758.D EXP0914.M Fri Sep 21 19:52:49 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0758.D Vial: 17
 Acq On : 21 Sep 2001 7:23 pm Operator: herring
 Sample : 493354 10 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 21 19:52 2001 Quant Results File: EXP0914.RES

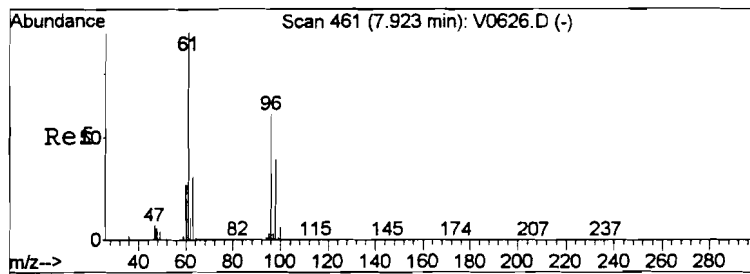
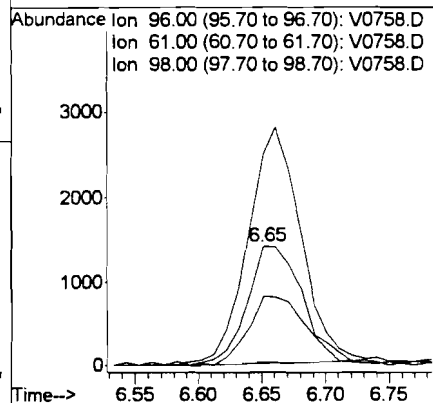
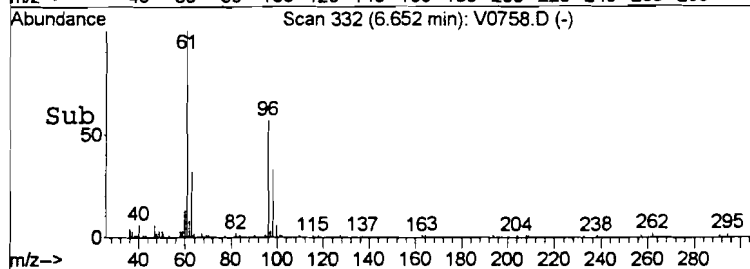
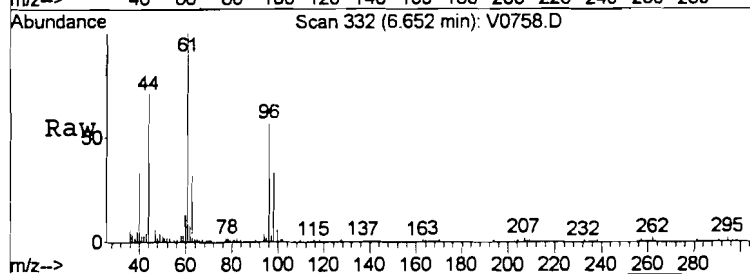
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration





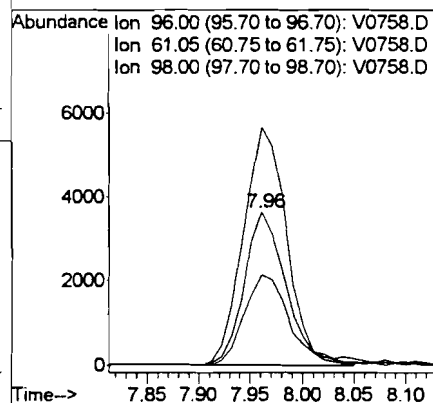
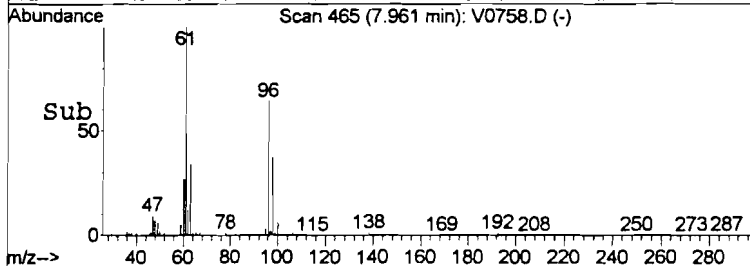
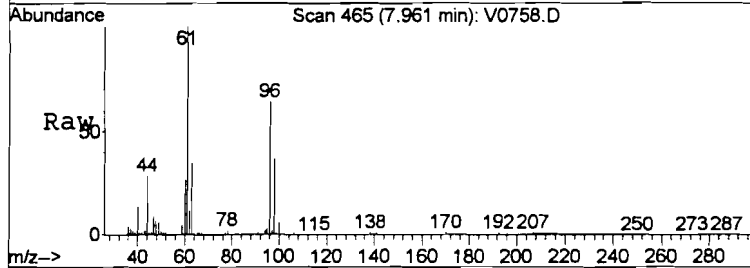
#11
1,1-Dichloroethene
Concen: 3.13 ppb
RT: 6.65 min Scan# 332
Delta R.T. 0.03 min
Lab File: V0758.D
Acq: 21 Sep 2001 7:23 pm

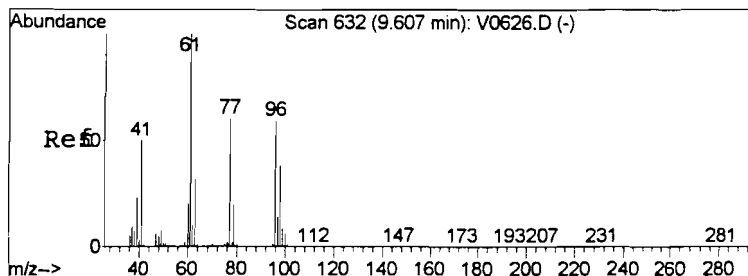
Tgt Ion: 96 Resp: 4176
Ion Ratio Lower Upper
96 100
61 175.6 151.9 227.9
98 58.4 53.6 80.4



#21
trans-1,2-Dichloroethene
Concen: 6.32 ppb
RT: 7.96 min Scan# 465
Delta R.T. 0.03 min
Lab File: V0758.D
Acq: 21 Sep 2001 7:23 pm

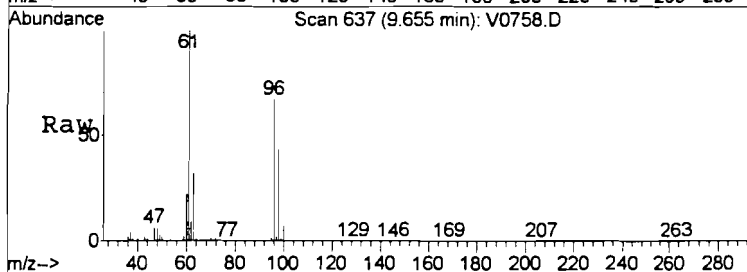
Tgt Ion: 96 Resp: 10073
Ion Ratio Lower Upper
96 100
61 155.8 130.2 195.4
98 58.4 51.1 76.7



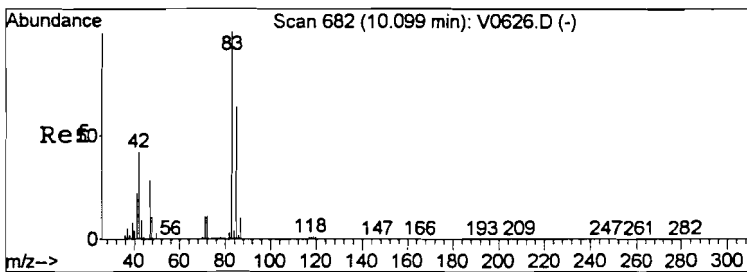
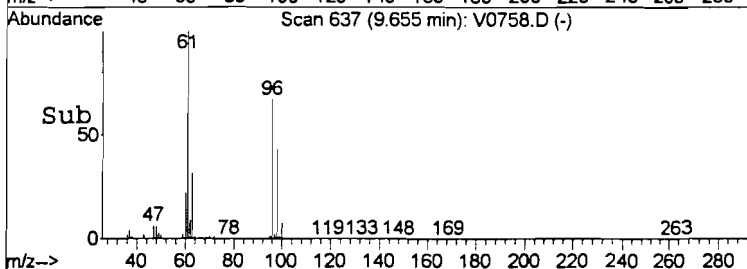
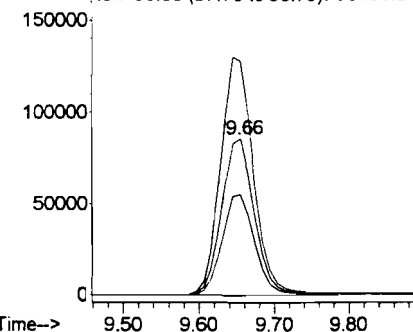


#27
 cis-1,2-Dichloroethene
 Concen: 146.68 ppb
 RT: 9.66 min Scan# 637
 Delta R.T. 0.04 min
 Lab File: V0758.D
 Acq: 21 Sep 2001 7:23 pm

Tgt Ion: 96 Resp: 259634
 Ion Ratio Lower Upper
 96 100
 61 149.0 136.0 204.0
 98 64.5 51.8 77.6

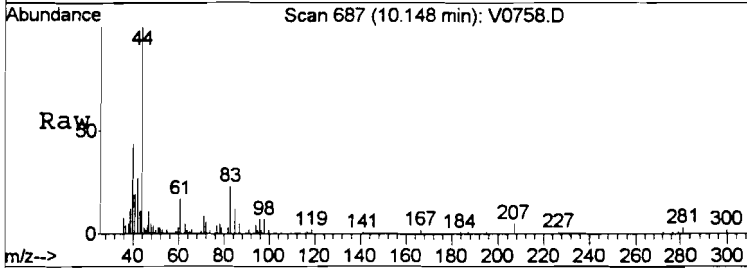


Abundance Ion 96.00 (95.70 to 96.70): V0758.D
 Ion 61.05 (60.75 to 61.75): V0758.D
 Ion 98.00 (97.70 to 98.70): V0758.D

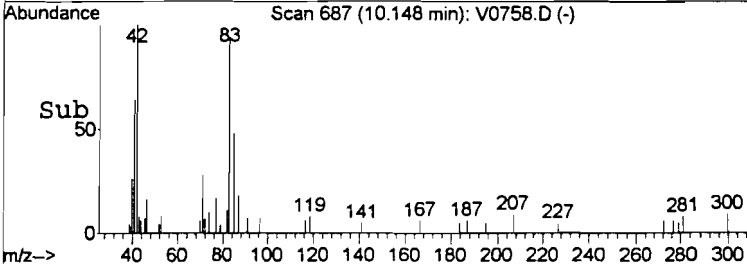
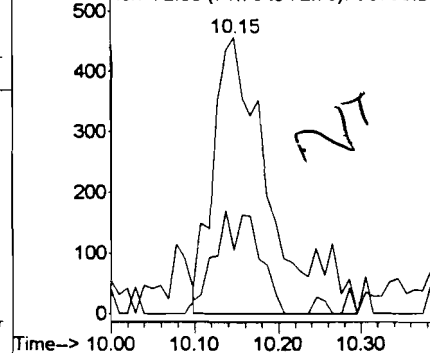


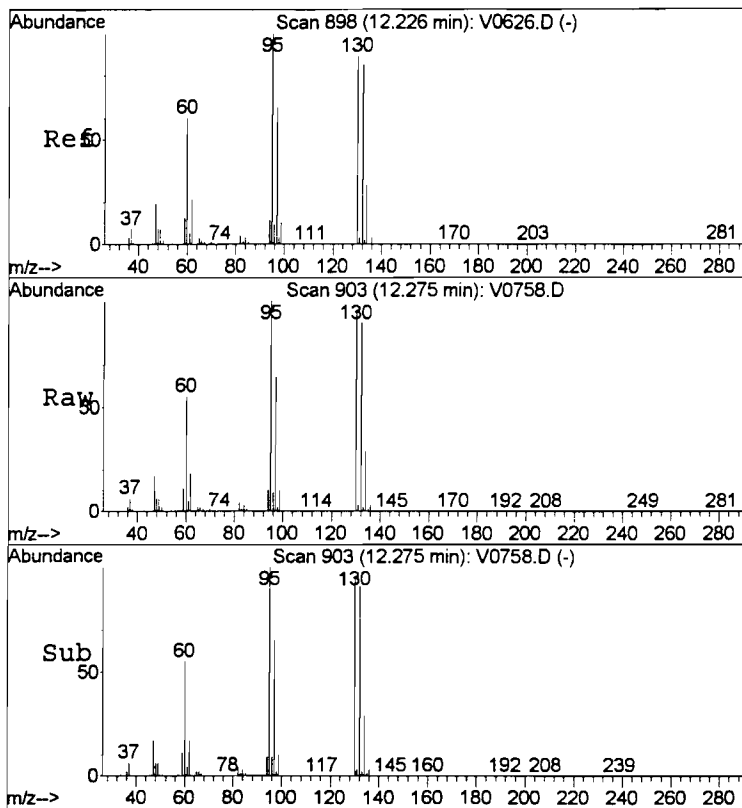
#32
 Tetrahydrofuran
 Concen: 2.96 ppb
 RT: 10.15 min Scan# 687
 Delta R.T. 0.04 min
 Lab File: V0758.D
 Acq: 21 Sep 2001 7:23 pm

Tgt Ion: 42 Resp: 2127
 Ion Ratio Lower Upper
 42 100
 72 29.1 22.3 37.1



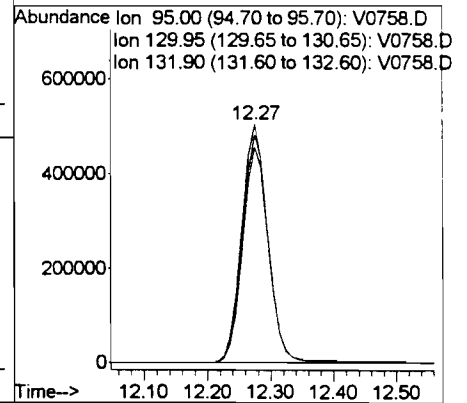
Abundance Ion 42.00 (41.70 to 42.70): V0758.D
 Ion 72.00 (71.70 to 72.70): V0758.D





#42
 Trichloroethene
 Concen: 863.42 ppb
 RT: 12.27 min Scan# 903
 Delta R.T. 0.04 min
 Lab File: V0758.D
 Acq: 21 Sep 2001 7:23 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	95.5	71.6	107.4
132	90.4	68.4	102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-02

Date Sampled : 09/15/01 15:02 Order #: 493354 Sample Matrix: WATER

Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/25/01		
ANALYTICAL DILUTION:	100.00		
ACETONE	20	2000 U	UG/L
BENZENE	5.0	500 U	UG/L
BROMODICHLOROMETHANE	5.0	500 U	UG/L
BROMOFORM	5.0	500 U	UG/L
BROMOMETHANE	5.0	500 U	UG/L
2-BUTANONE (MEK)	10	1000 U	UG/L
CARBON DISULFIDE	10	1000 U	UG/L
CARBON TETRACHLORIDE	5.0	500 U	UG/L
CHLOROBENZENE	5.0	500 U	UG/L
CHLOROETHANE	5.0	500 U	UG/L
CHLOROFORM	5.0	500 U	UG/L
CHLOROMETHANE	5.0	500 U	UG/L
DIBROMOCHLOROMETHANE	5.0	500 U	UG/L
1,1-DICHLOROETHANE	5.0	500 U	UG/L
1,2-DICHLOROETHANE	5.0	500 U	UG/L
1,1-DICHLOROETHENE	5.0	500 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1300	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	500 U	UG/L
1,2-DICHLOROPROPANE	5.0	500 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	500 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	500 U	UG/L
ETHYLBENZENE	5.0	500 U	UG/L
FREON 113	5.0	500 U	UG/L
2-HEXANONE	10	1000 U	UG/L
METHYLENE CHLORIDE	5.0	500 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	1000 U	UG/L
STYRENE	5.0	500 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	500 U	UG/L
TETRACHLOROETHENE	5.0	500 U	UG/L
TOLUENE	5.0	500 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	500 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	500 U	UG/L
TRICHLOROETHENE	5.0	7000	UG/L
VINYL CHLORIDE	1.0	100 U	UG/L
O-XYLENE	5.0	500 U	UG/L
M+P-XYLENE	5.0	500 U	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	107	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0818.D
Acq On : 25 Sep 2001 10:17 pm
Sample : 493354 100
Misc : hla r-8550 8260b.tcl
MS Integration Params: RTEINT.P
Quant Time: Sep 25 22:46 2001

Vial: 16
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 25 16:41:28 2001
Response via : Initial Calibration
DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	134406	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	241252	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	197220	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	77677	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.43	113	98848	53.74	ppb	-0.02
Spiked Amount 50.000			Recovery	=	107.48%	
58) surr3,Toluene-d8	14.45	98	255550	51.34	ppb	-0.02
Spiked Amount 50.000			Recovery	=	102.68%	
59) surr2,bfb	19.59	95	94399	46.73	ppb	0.00
Spiked Amount 50.000			Recovery	=	93.46%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
28) cis-1,2-Dichloroethene	9.65	96	25678	12.91	ppb	89
33) Tetrahydrofuran	10.15	42	1439	1.76	ppb	96 NT
39) Iso-Butyl Alcohol	10.76	43	273	2.50	ppb	74
43) Trichloroethene	12.28	95	128292	70.59	ppb	98
46) 1,4-Dioxane	12.70	88	57	3.95	ppb	# 7

RJH 9/26
AS REPLICATE
@ dil.

(#) = qualifier out of range (m) = manual integration
V0818.D EXP0924.M Tue Sep 25 22:47:04 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0818.D

Vial: 16

Acq On : 25 Sep 2001 10:17 pm

Operator: herring

Sample : 493354 100

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 22:46 2001

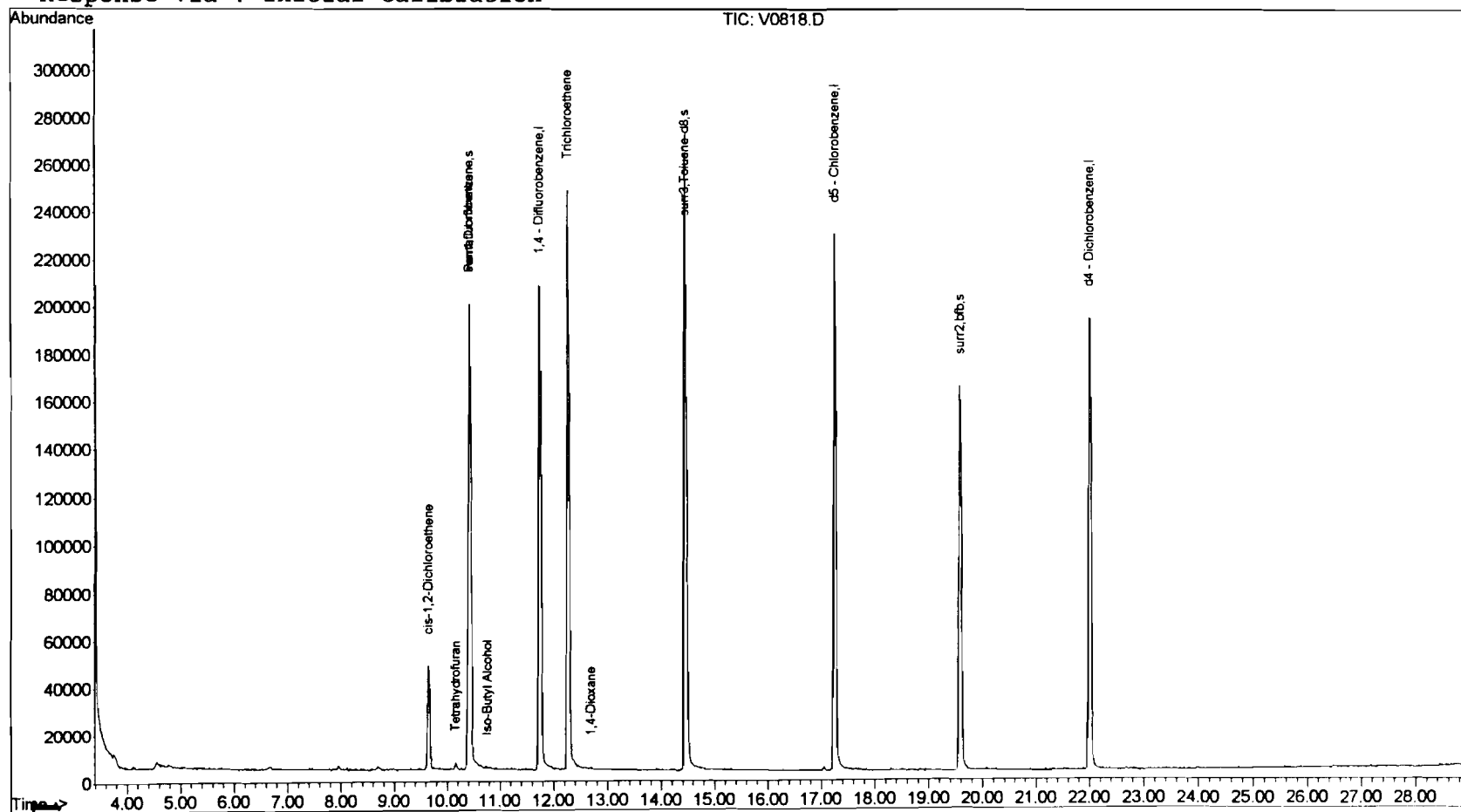
Quant Results File: EXP0924.RES

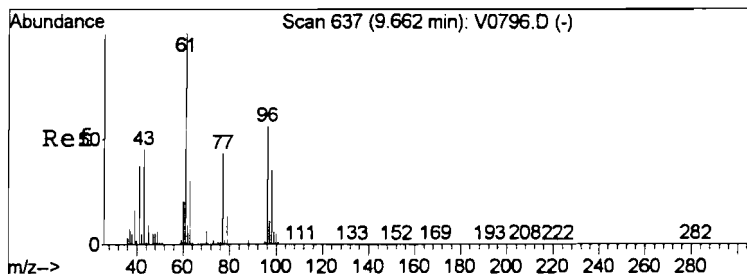
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

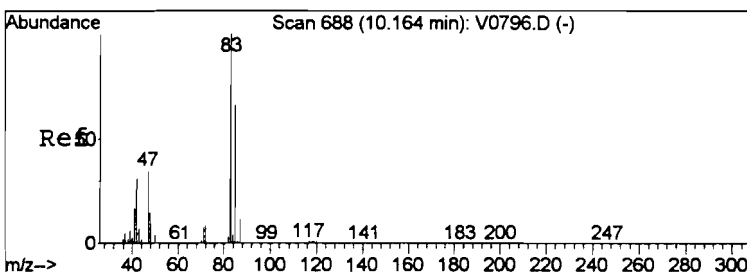
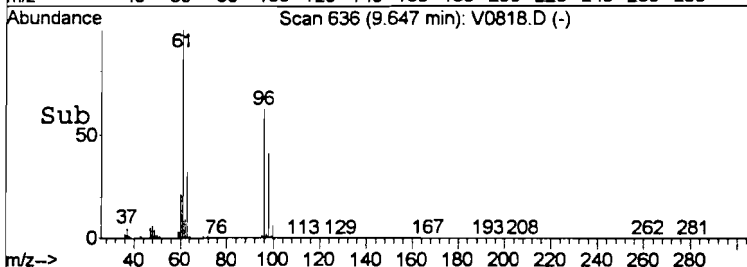
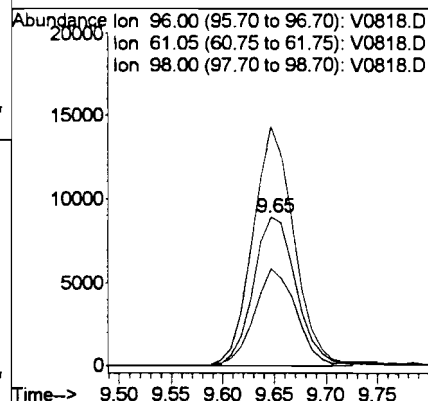
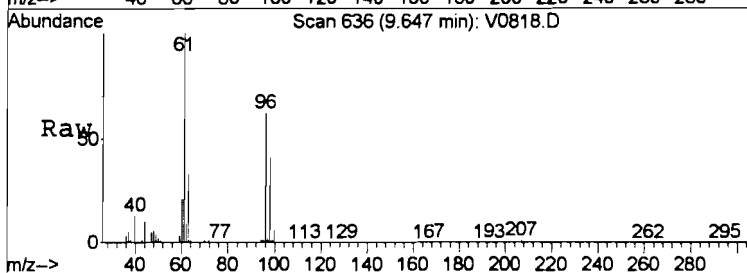
Response via : Initial Calibration





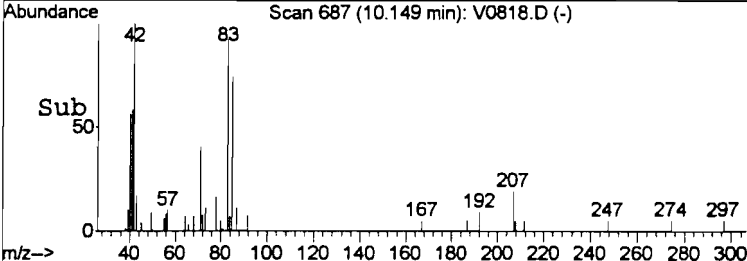
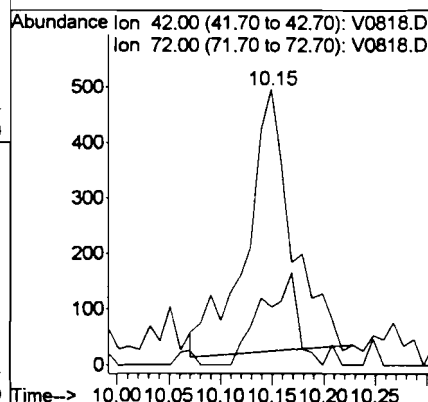
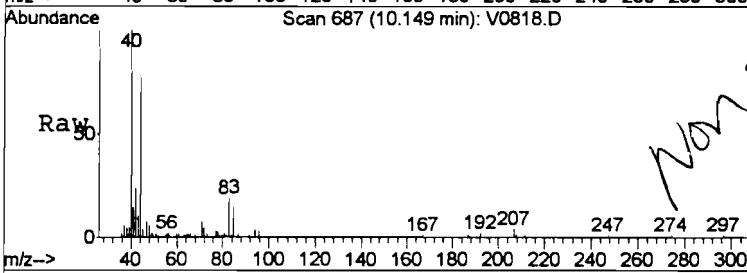
#28
 cis-1,2-Dichloroethene
 Concen: 12.91 ppb
 RT: 9.65 min Scan# 636
 Delta R.T. -0.02 min
 Lab File: V0818.D
 Acq: 25 Sep 2001 10:17 pm

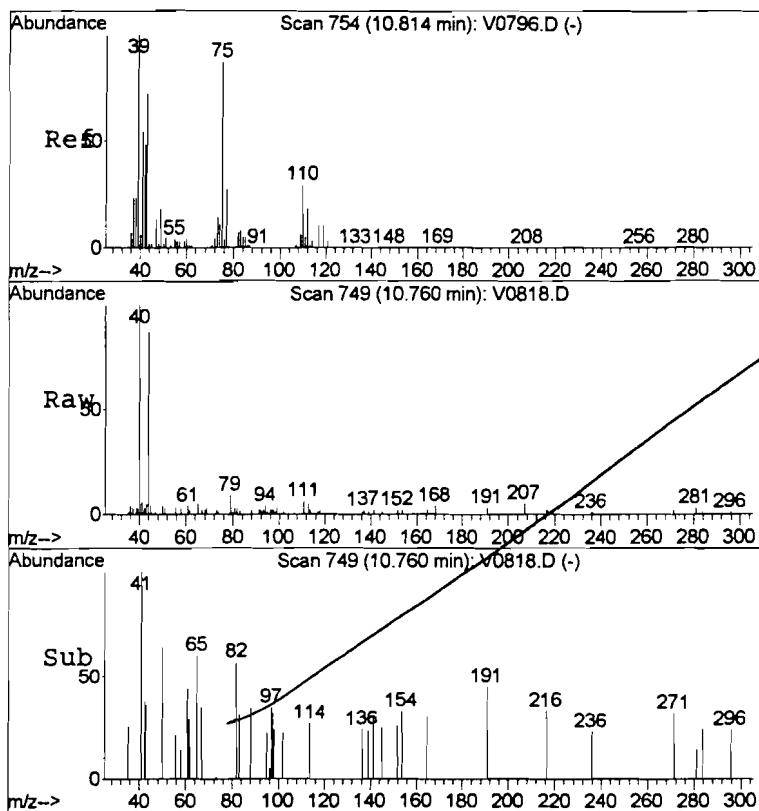
Tgt Ion: 96 Resp: 25678
 Ion Ratio Lower Upper
 96 100
 61 160.6 143.6 215.4
 98 66.1 50.8 76.2



#33
 Tetrahydrofuran
 Concen: 1.76 ppb
 RT: 10.15 min Scan# 687
 Delta R.T. -0.02 min
 Lab File: V0818.D
 Acq: 25 Sep 2001 10:17 pm

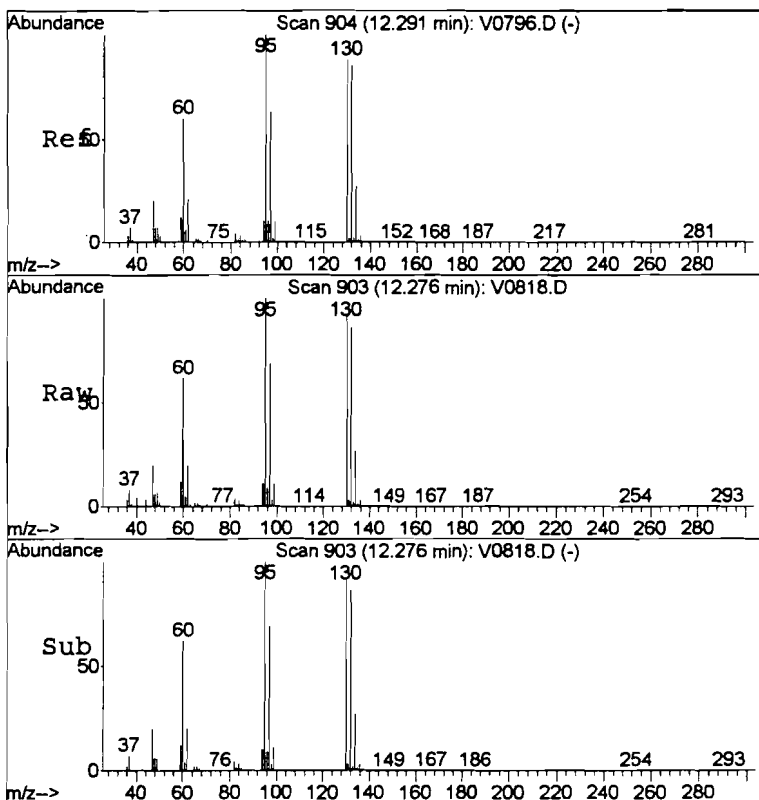
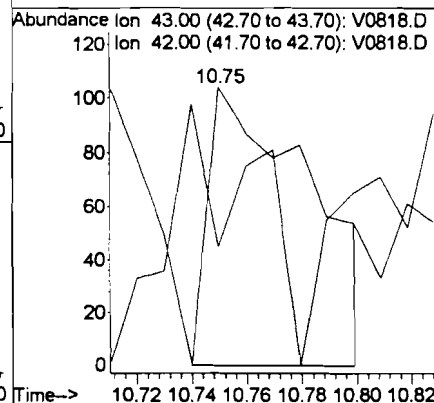
Tgt Ion: 42 Resp: 1439
 Ion Ratio Lower Upper
 42 100
 72 28.7 23.1 38.5





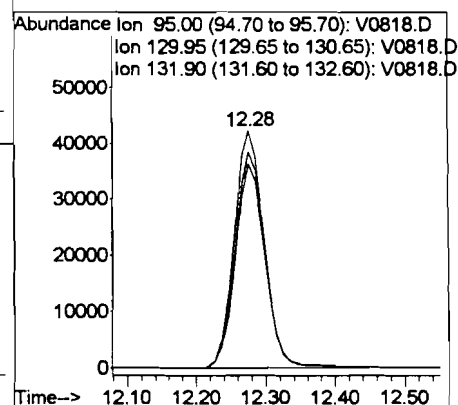
#39
 Iso-Butyl Alcohol
 Concen: 2.50 ppb
 RT: 10.76 min Scan# 749
 Delta R.T. -0.05 min
 Lab File: V0818.D
 Acq: 25 Sep 2001 10:17 pm

Tgt Ion: 43 Resp: 273
 Ion Ratio Lower Upper
 43 100
 42 86.2 32.8 98.3



#43
 Trichloroethene
 Concen: 70.59 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.02 min
 Lab File: V0818.D
 Acq: 25 Sep 2001 10:17 pm

Tgt Ion: 95 Resp: 128292
 Ion Ratio Lower Upper
 95 100
 130 90.8 70.0 105.0
 132 85.9 68.2 102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : QATB02

Date Sampled : 09/15/01 00:00 Order #: 493355 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
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DATE ANALYZED : 09/21/01
ANALYTICAL DILUTION: 1.00

ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	1.2 J	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0759.D

Vial: 18

Acq On : 21 Sep 2001 7:59 pm

Operator: herring

Sample : 493355 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 20:28 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.42	168	126601	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.75	114	223262	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.26	117	190836	50.00	ppb	0.06
73) d4 - Dichlorobenzene	22.01	152	76317	50.00	ppb	0.06

System Monitoring Compounds

35) surr4, Dibrflmethane	10.45	113	87793	49.93	ppb	0.05
Spiked Amount 50.000			Recovery	=	99.86%	
57) surr3, Toluene-d8	14.45	98	238196	48.28	ppb	0.05
Spiked Amount 50.000			Recovery	=	96.56%	
58) surr2, bfb	19.59	95	96004	47.24	ppb	0.05
Spiked Amount 50.000			Recovery	=	94.48%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	1064	1.51	ppb	# 75
26) 2-Butanone	9.66	43	11062	9.50	ppb	# 63
32) Tetrahydrofuran	10.15	42	3195	4.56	ppb	97NT
38) Iso Butyl Alcohol	10.89	43	589	6.20	ppb	64
42) Trichloroethene	12.29	95	1910	1.17	ppb	# 84
45) 1,4-Dioxane	12.82	88	62	4.06	ppb	# 72

RJH 10/22

(#) = qualifier out of range (m) = manual integration
V0759.D EXP0914.M Fri Sep 21 20:28:45 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0759.D

Vial: 18

Acq On : 21 Sep 2001 7:59 pm

Operator: herring

Sample : 493355 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 20:28 2001

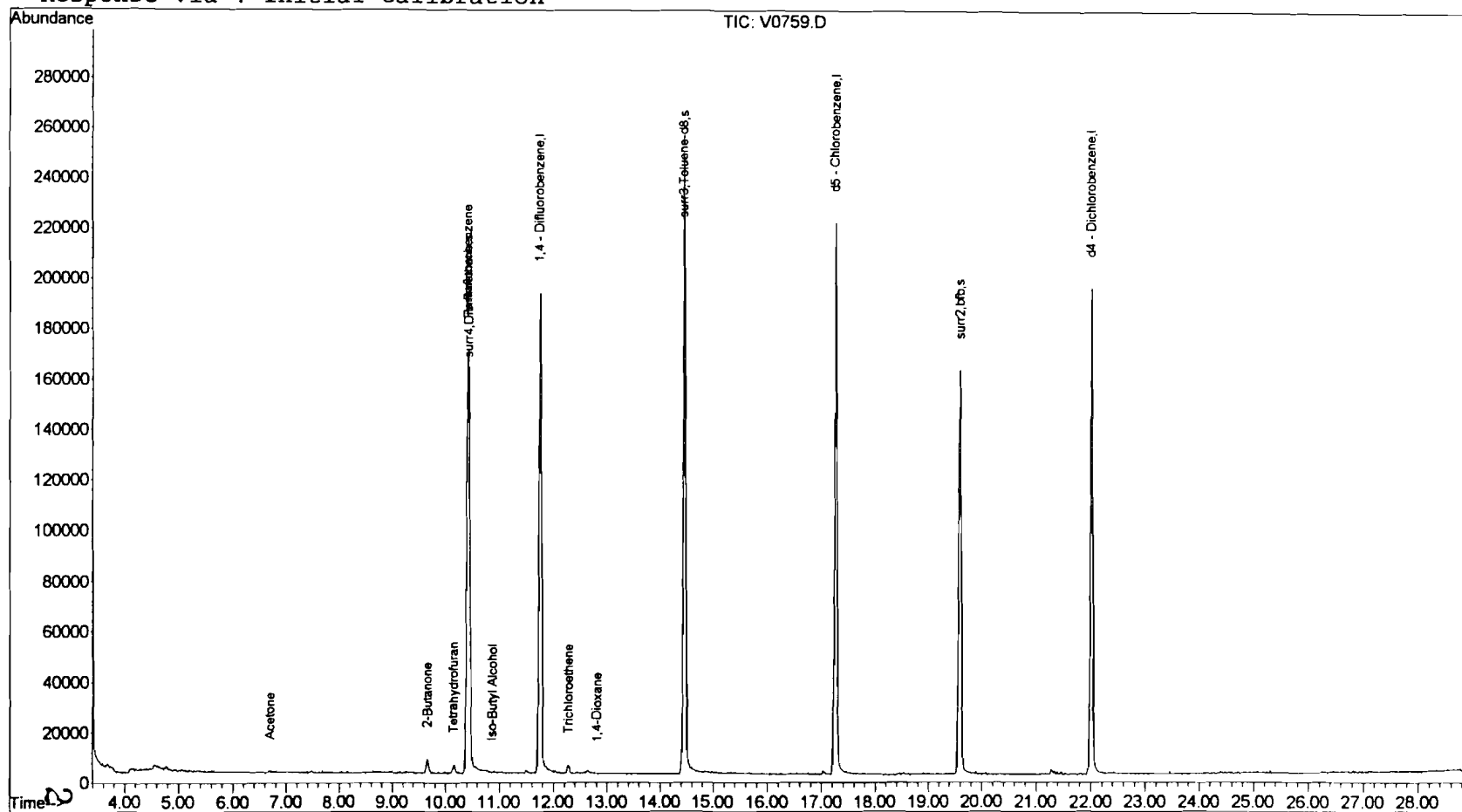
Quant Results File: EXP0914.RES

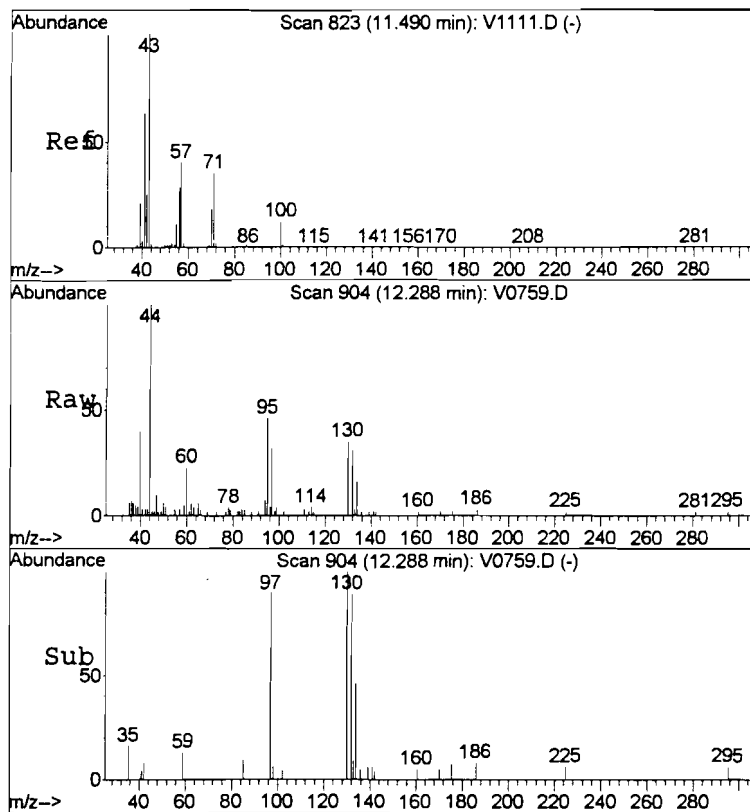
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

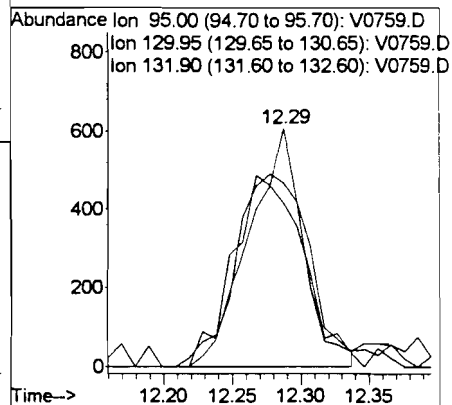
Response via : Initial Calibration





#42
 Trichloroethene
 Concen: 1.17 ppb
 RT: 12.29 min Scan# 904
 Delta R.T. 0.06 min
 Lab File: V0759.D
 Acq: 21 Sep 2001 7:59 pm

Tgt Ion:	95	Resp:	1910
Ion Ratio	Lower	Upper	
95	100		
130	76.8	71.6	107.4
132	68.2	68.4	102.6#



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : QAFB02

Date Sampled : 09/15/01 15:39 Order #: 493356 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	4.2 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	3.6 J	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	8.8	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1.2 J	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0760.D

Vial: 19

Acq On : 21 Sep 2001 8:35 pm

Operator: herring

Sample : 493356 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 21:04 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	124758	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	223524	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.26	117	187672	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	74674	50.00	ppb	0.05

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	88190	50.10	ppb	0.04
Spiked Amount	50.000		Recovery	=	100.20%	
57) surr3, Toluene-d8	14.45	98	233448	48.11	ppb	0.04
Spiked Amount	50.000		Recovery	=	96.22%	
58) surr2, bfb	19.59	95	94451	47.26	ppb	0.05
Spiked Amount	50.000		Recovery	=	94.52%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	2935	4.23	ppb	91 J
15) Acetonitrile	7.17	41	587	2.00	ppb	# 1
18) TBA	7.56	59	447	2.85	ppb	# 1
31) Chloroform	10.16	83	24660	8.78	ppb	100
38) Iso-Butyl Alcohol	10.71	43	187	1.97	ppb	71
45) 1,4 Dioxane	12.82	88	44	2.88	ppb	# 9
47) Bromodichloromethane	13.14	83	8035	3.57	ppb	# 96 J
62) Dibromochloromethane	16.12	129	1802	1.20	ppb	93 J

(#) = qualifier out of range (m) = manual integration
V0760.D EXP0914.M Fri Sep 21 21:04:49 2001

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Page 1

R2H 10/22

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0760.D

Vial: 19

Acq On : 21 Sep 2001 8:35 pm

Operator: herring

Sample : 493356 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 21:04 2001

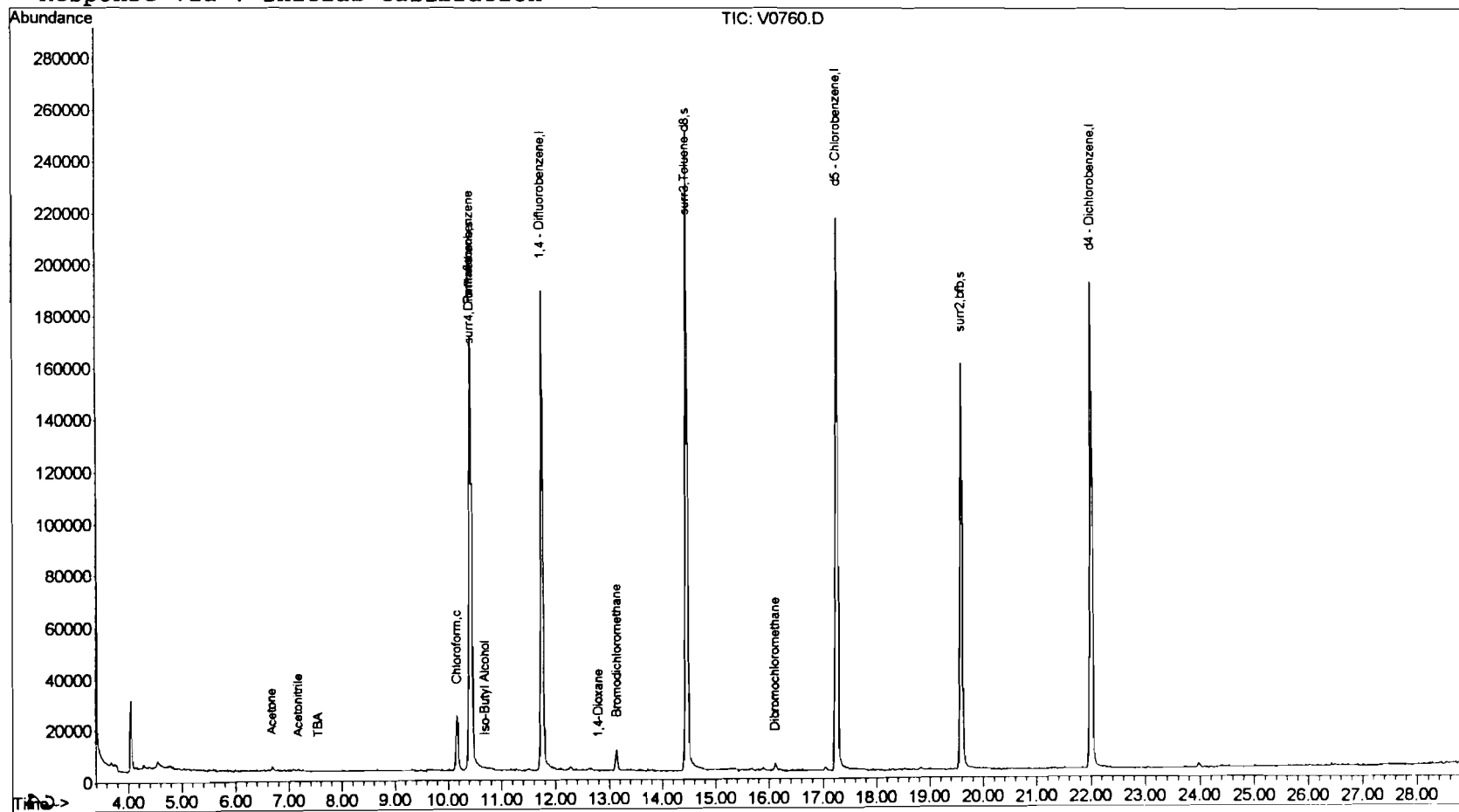
Quant Results File: EXP0914.RES

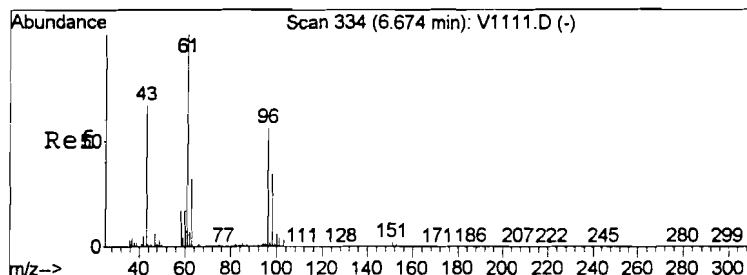
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

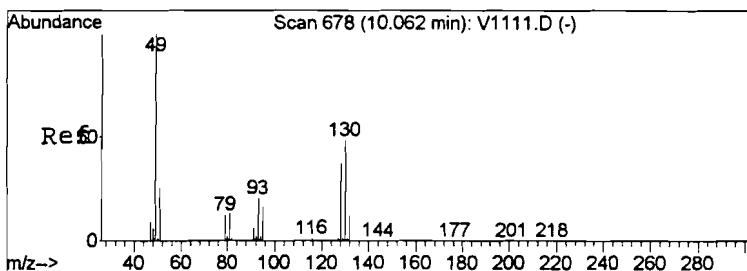
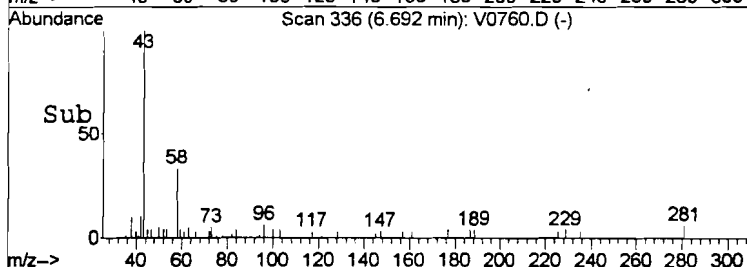
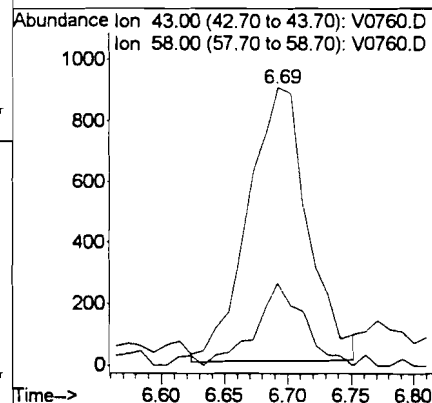
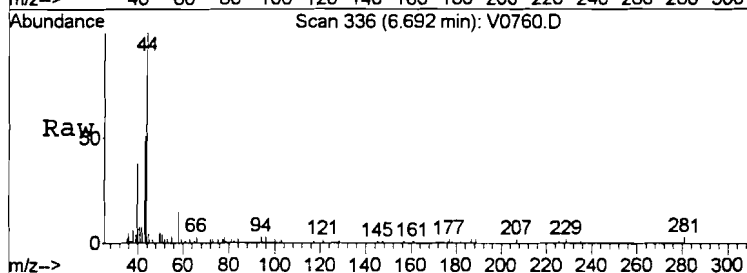
Response via : Initial Calibration





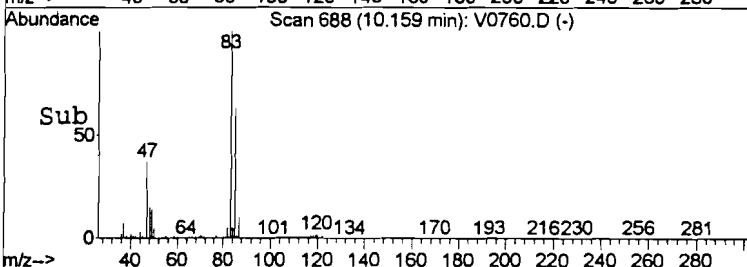
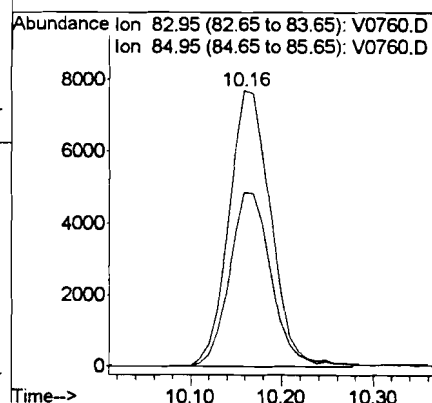
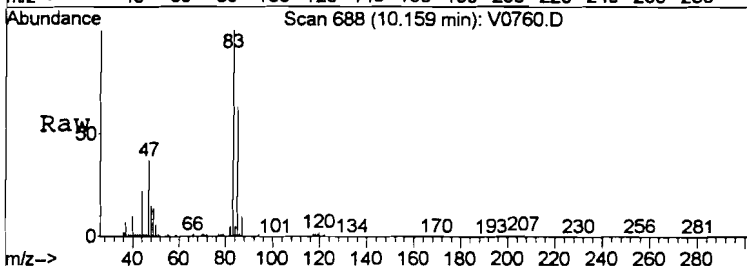
#12
Acetone
Concen: 4.23 ppb
RT: 6.69 min Scan# 336
Delta R.T. 0.04 min
Lab File: V0760.D
Acq: 21 Sep 2001 8:35 pm

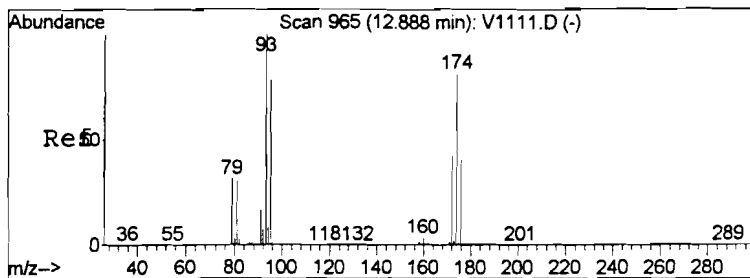
Tgt Ion: 43 Resp: 2935
Ion Ratio Lower Upper
43 100
58 29.2 19.7 29.5



#31
Chloroform
Concen: 8.78 ppb
RT: 10.16 min Scan# 688
Delta R.T. 0.03 min
Lab File: V0760.D
Acq: 21 Sep 2001 8:35 pm

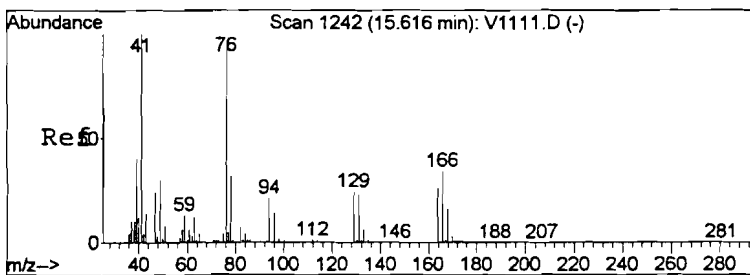
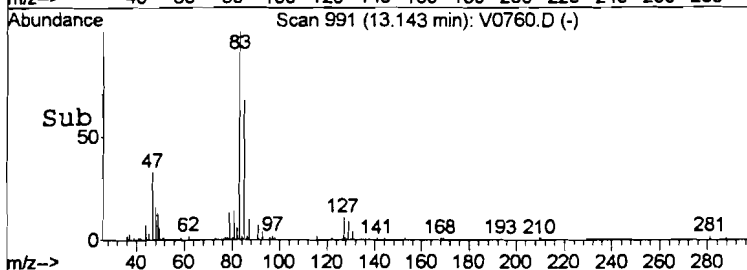
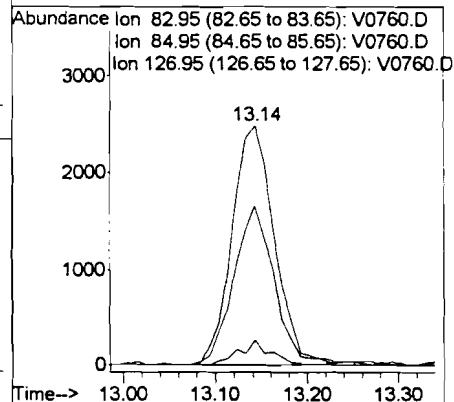
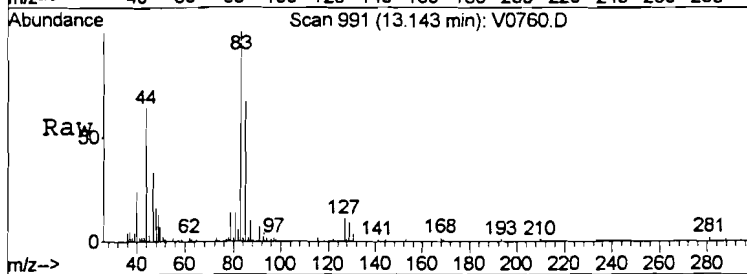
Tgt Ion: 83 Resp: 24660
Ion Ratio Lower Upper
83 100
85 63.1 50.5 75.7





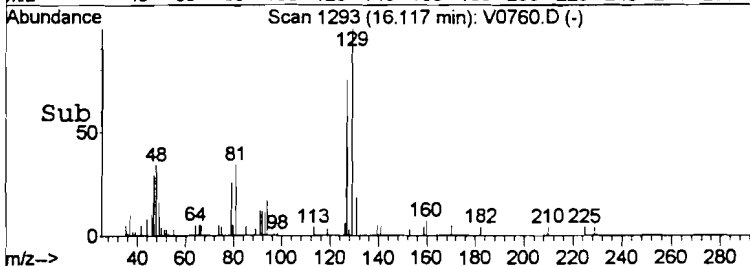
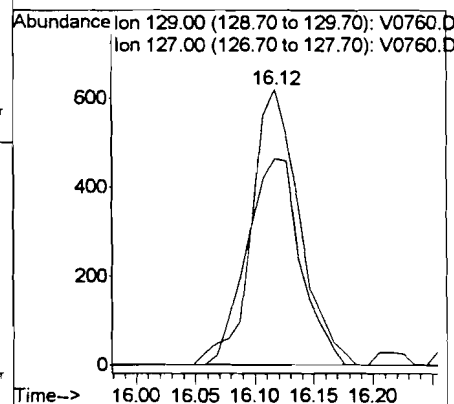
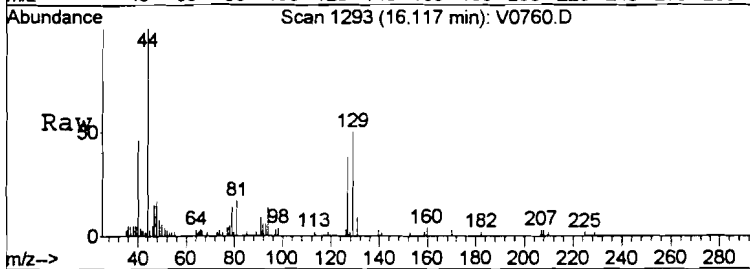
#47
Bromodichloromethane
Concen: 3.57 ppb
RT: 13.14 min Scan# 991
Delta R.T. 0.05 min
Lab File: V0760.D
Acq: 21 Sep 2001 8:35 pm

Tgt Ion: 83 Resp: 8035
Ion Ratio Lower Upper
83 100
85 66.6 50.9 76.3
127 10.6 5.8 8.8#



#62
Dibromochloromethane
Concen: 1.20 ppb
RT: 16.12 min Scan# 1293
Delta R.T. 0.05 min
Lab File: V0760.D
Acq: 21 Sep 2001 8:35 pm

Tgt Ion: 129 Resp: 1802
Ion Ratio Lower Upper
129 100
127 75.0 64.8 97.2



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : QARB02

Date Sampled : 09/15/01 15:46 Order #: 493357

Sample Matrix: WATER

Date Received: 09/17/01 Submission #: R2108550

Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/21/01		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	4.0 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	3.3 J	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	8.3	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1.0 J	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

211

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0761.D

Vial: 20

Acq On : 21 Sep 2001 9:11 pm

Operator: herring

Sample : 493357 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 21:40 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	122398	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.75	114	217428	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	185022	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	76130	50.00	ppb	0.06

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	86106	50.29	ppb	0.04
Spiked Amount	50.000		Recovery	=	100.58%	
57) surr3, Toluene-d8	14.46	98	231404	48.38	ppb	0.05
Spiked Amount	50.000		Recovery	=	96.76%	
58) surr2, bfb	19.59	95	93170	47.28	ppb	0.05
Spiked Amount	50.000		Recovery	=	94.56%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.70	43	2751	4.04	ppb	95 J
18) TBA	7.58	59	415	2.70	ppb	# 55
31) Chloroform	10.16	83	22926	8.32	ppb	98
38) Iso-Butyl Alcohol	10.77	43	253	2.74	ppb	62
47) Bromodichloromethane	13.14	83	7274	3.32	ppb	# 94 J
62) Dibromochloromethane	16.11	129	1555	1.05	ppb	92 J

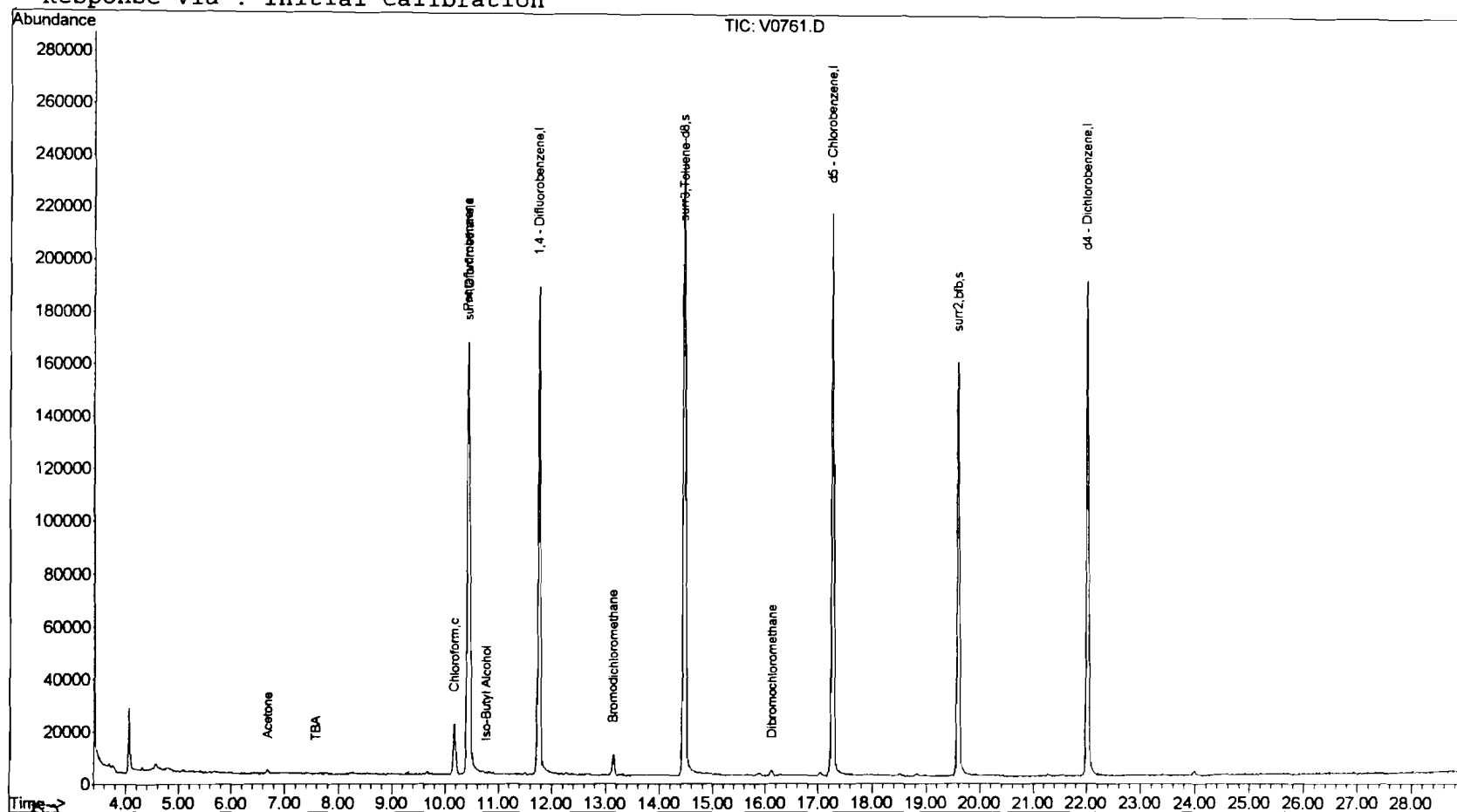
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V0761.D EXP0914.M Fri Sep 21 21:40:47 2001

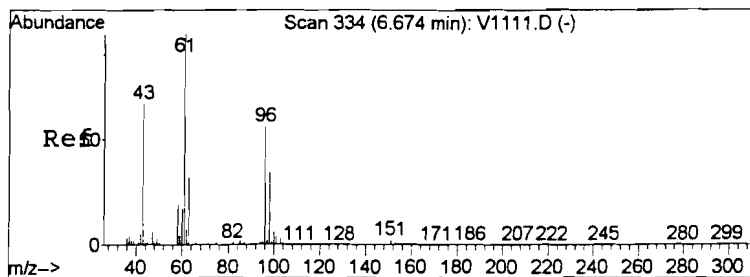
2014 10/22

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0761.D Vial: 20
 Acq On : 21 Sep 2001 9:11 pm Operator: herring
 Sample : 493357 1.0 Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 21 21:40 2001 Quant Results File: EXP0914.RES

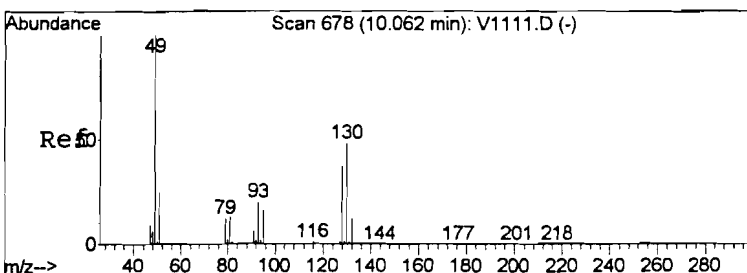
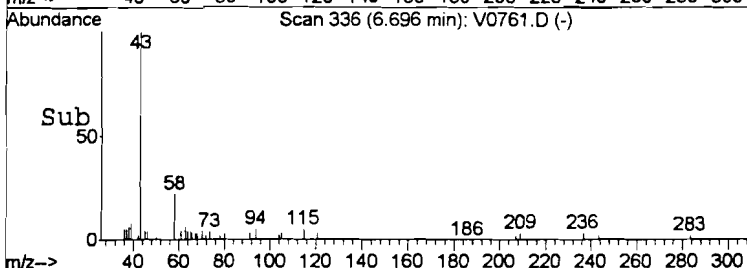
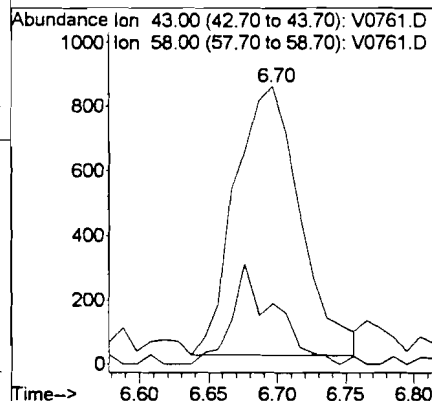
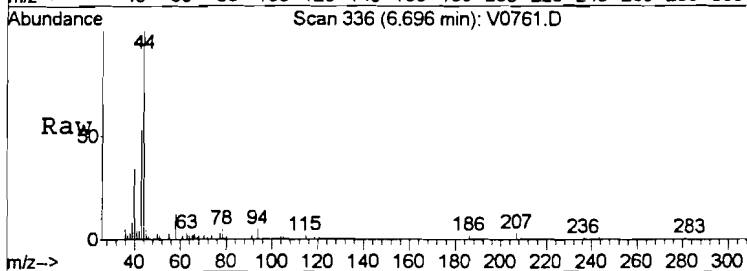
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration





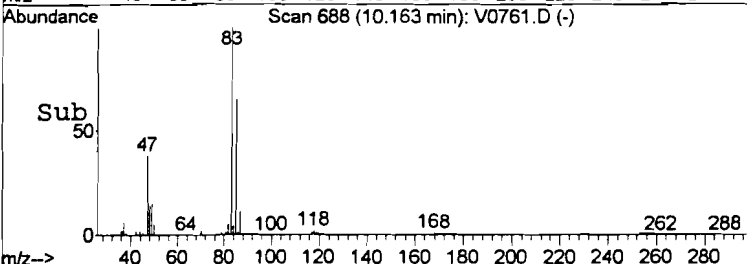
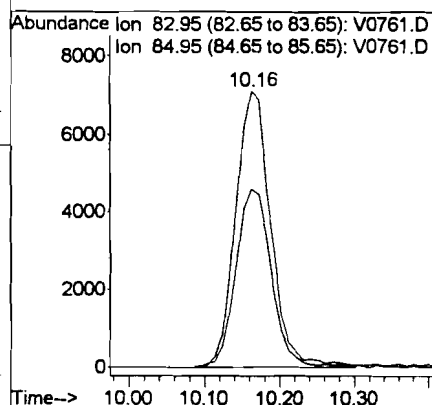
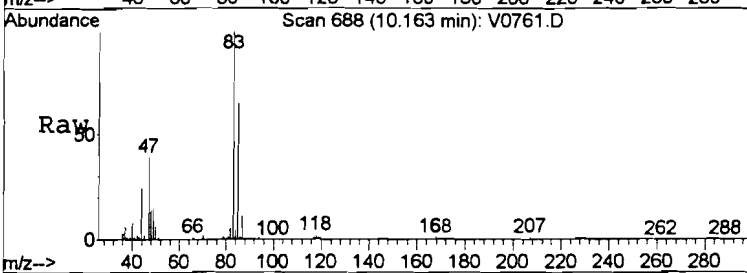
#12
Acetone
Concen: 4.04 ppb
RT: 6.70 min Scan# 336
Delta R.T. 0.05 min
Lab File: V0761.D
Acq: 21 Sep 2001 9:11 pm

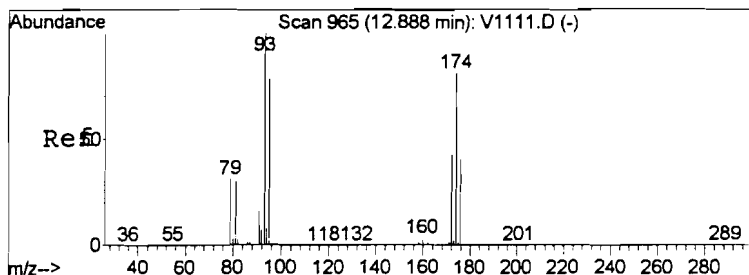
Tgt Ion: 43 Resp: 2751
Ion Ratio Lower Upper
43 100
58 22.0 19.7 29.5



#31
Chloroform
Concen: 8.32 ppb
RT: 10.16 min Scan# 688
Delta R.T. 0.04 min
Lab File: V0761.D
Acq: 21 Sep 2001 9:11 pm

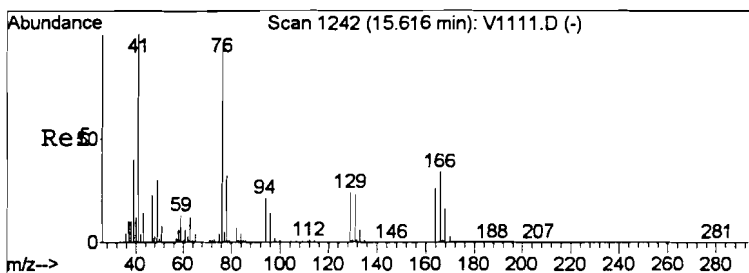
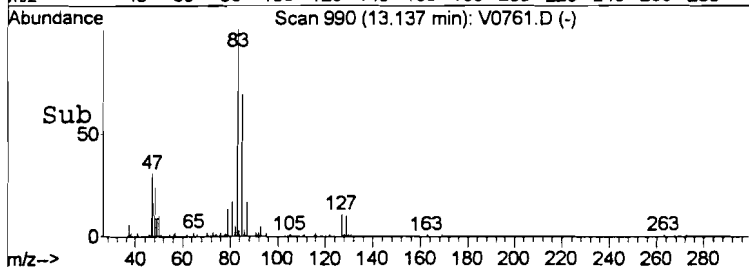
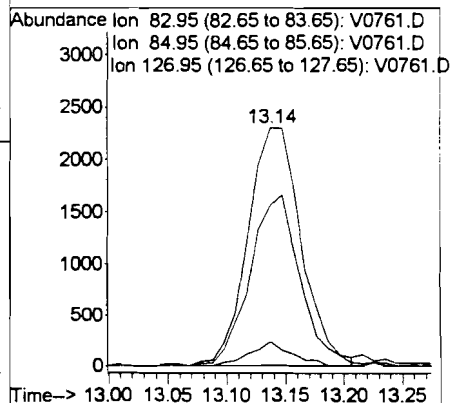
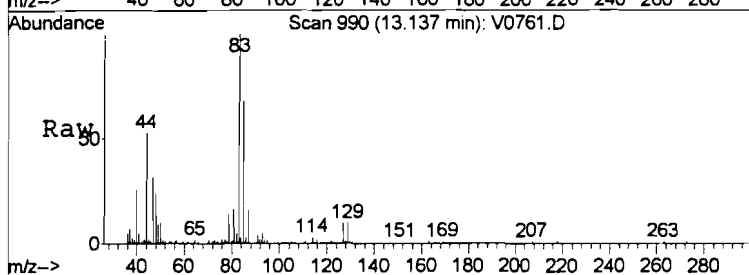
Tgt Ion: 83 Resp: 22926
Ion Ratio Lower Upper
83 100
85 64.6 50.5 75.7





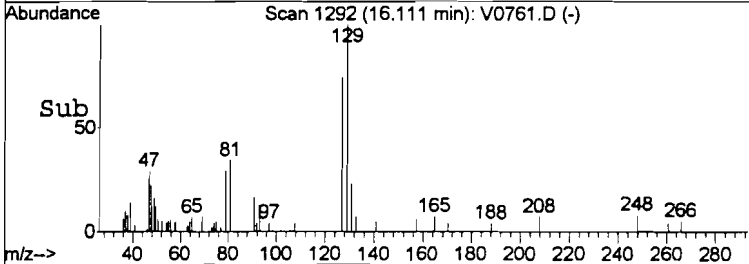
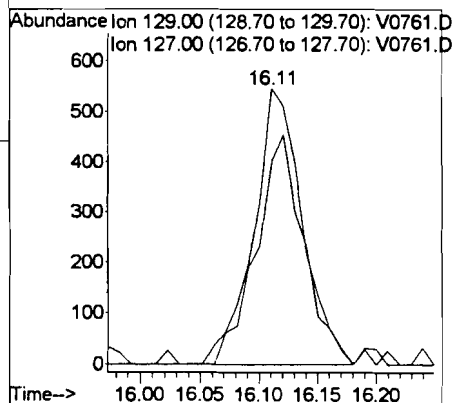
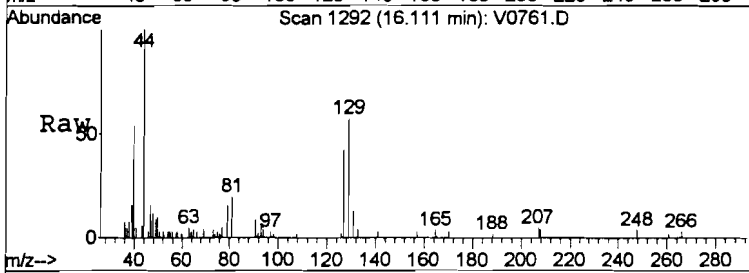
#47
 Bromodichloromethane
 Concen: 3.32 ppb
 RT: 13.14 min Scan# 990
 Delta R.T. 0.05 min
 Lab File: V0761.D
 Acq: 21 Sep 2001 9:11 pm

Tgt Ion	Ratio	Lower	Upper
83	100		
85	67.8	50.9	76.3
127	10.4	5.8	8.8#



#62
 Dibromochloromethane
 Concen: 1.05 ppb
 RT: 16.11 min Scan# 1292
 Delta R.T. 0.05 min
 Lab File: V0761.D
 Acq: 21 Sep 2001 9:11 pm

Tgt Ion	Ratio	Lower	Upper
129	100		
127	73.8	64.8	97.2



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-16

Date Sampled : 09/15/01 17:00 Order #: 493360 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/21/01		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	8.4 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	95	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0762.D

Vial: 21

Acq On : 21 Sep 2001 9:47 pm

Operator: herring

Sample : 493360 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 22:16 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	121161	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	216981	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	184117	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	74893	50.00	ppb	0.06

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	85543	50.06	ppb	0.04
Spiked Amount 50.000			Recovery	=	100.12%	
57) surr3,Toluene-d8	14.45	98	226318	47.54	ppb	0.04
Spiked Amount 50.000			Recovery	=	95.08%	
58) surr2,bfb	19.59	95	92200	47.02	ppb	0.05
Spiked Amount 50.000			Recovery	=	94.04%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	5630	8.35	ppb	97
18) TBA	7.57	59	203	1.33	ppb	# 1
26) 2-Butanone	9.65	43	4073	3.65	ppb	# 63
38) Iso Butyl Alcohol	10.77	43	1070	11.60	ppb	68
45) 1,4-Dioxane	12.67	88	40	2.70	ppb	91
72) Cyclohexanone	19.48	55	311	1.43	ppb	# 44

RSH 10/22

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0762.D

Vial: 21

Acq On : 21 Sep 2001 9:47 pm

Operator: herring

Sample : 493360 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 22:16 2001

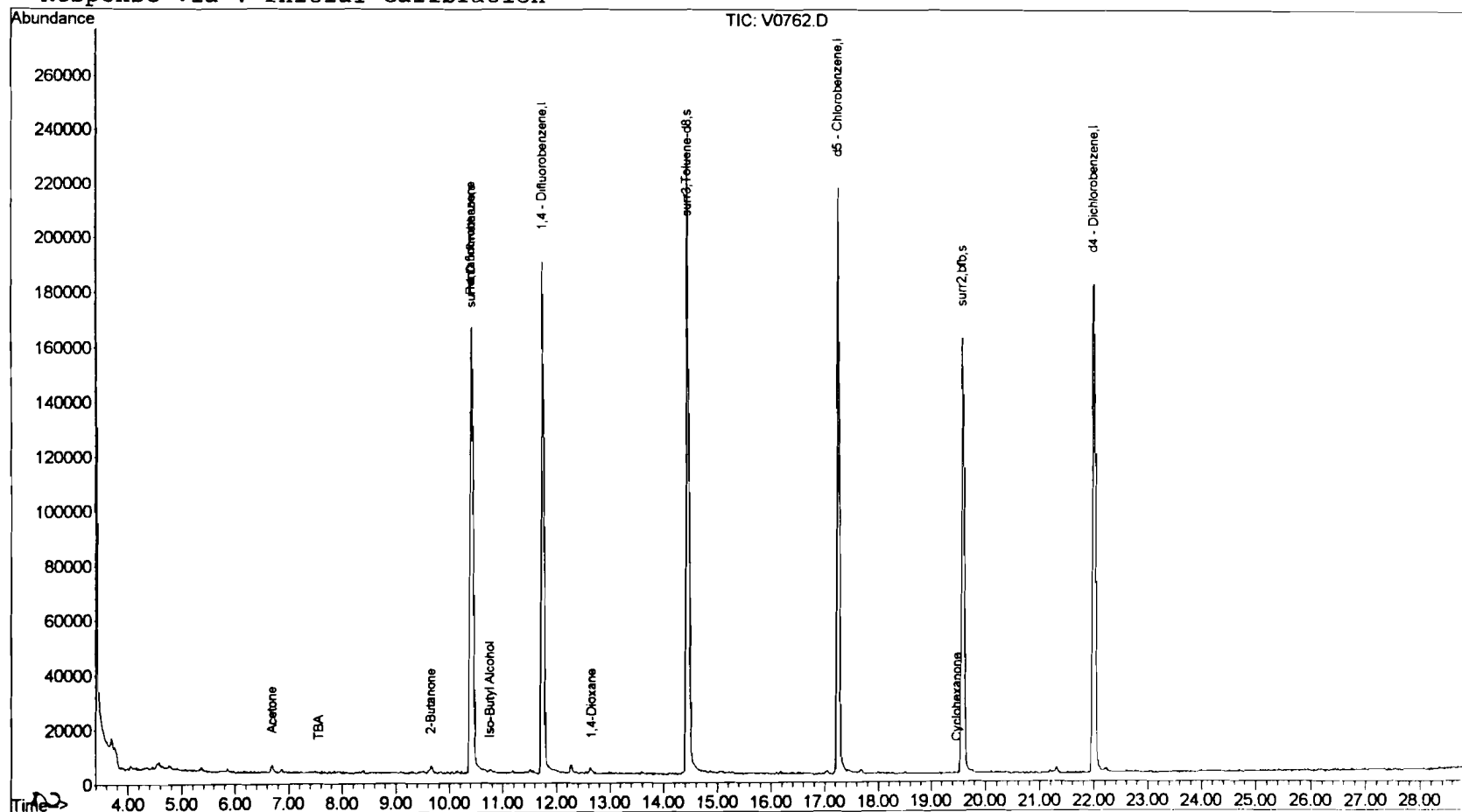
Quant Results File: EXP0914.RES

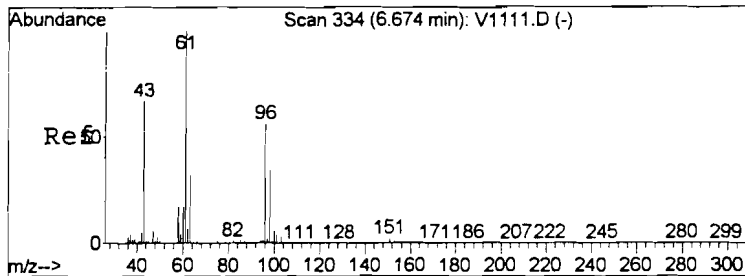
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Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

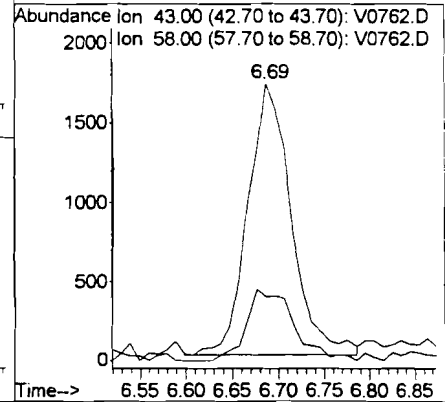
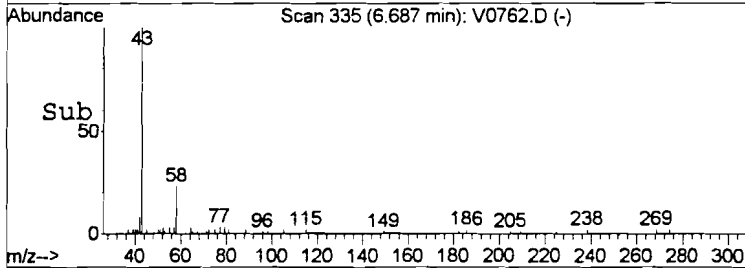
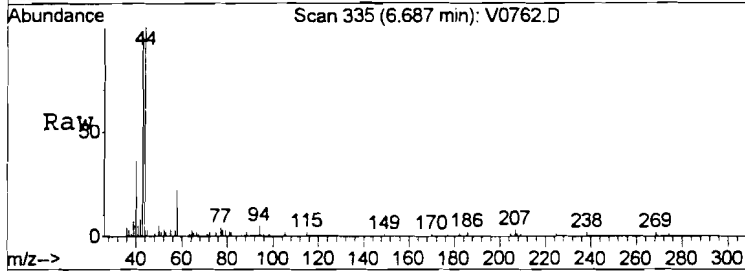
Response via : Initial Calibration





#12
 Acetone
 Concen: 8.35 ppb
 RT: 6.69 min Scan# 335
 Delta R.T. 0.04 min
 Lab File: V0762.D
 Acq: 21 Sep 2001 9:47 pm

Tgt Ion: 43 Resp: 5630
 Ion Ratio Lower Upper
 43 100
 58 23.0 19.7 29.5



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-12

Date Sampled : 09/15/01 18:27 Order #: 493364 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/21/01		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	37	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	2.1 J	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	27	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	104	%

220

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0763.D

Vial: 22

Acq On : 21 Sep 2001 10:23 pm

Operator: herring

Sample : 493364 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 22:52 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	120470	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	209180	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.26	117	181448	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	74208	50.00	ppb	0.05

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	85438	51.87	ppb	0.04
Spiked Amount	50.000		Recovery	=	103.74%	
57) surr3, Toluene-d8	14.45	98	227189	48.43	ppb	0.04
Spiked Amount	50.000		Recovery	=	96.86%	
58) surr2, bfb	19.59	95	92630	47.94	ppb	0.05
Spiked Amount	50.000		Recovery	=	95.88%	

Target Compounds

						Qvalue
12) Acetone	6.70	43	1368	2.04	ppb	# 84
18) TBA	7.56	59	199	1.31	ppb	# 1
21) trans-1,2-Dichloroethene	7.97	96	3142	2.12	ppb	# 82 J
26) 2-Butanone	9.67	43	10900	9.84	ppb	# 63
27) cis-1,2-Dichloroethene	9.66	96	60274	36.71	ppb	91
32) Tetrahydrofuran	10.15	42	4855	7.29	ppb	98 NT
38) Iso Butyl Alcohol	10.93	43	155	1.74	ppb	99
42) Trichloroethene	12.28	95	41435	27.02	ppb	96
45) 1,4-Dioxane	12.56	88	68	4.76	ppb	96

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

V0763.D EXP0914.M

Fri Sep 21 22:52:39 2001

RTH 10/22

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0763.D

Vial: 22

Acq On : 21 Sep 2001 10:23 pm

Operator: herring

Sample : 493364 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclrf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 22:52 2001

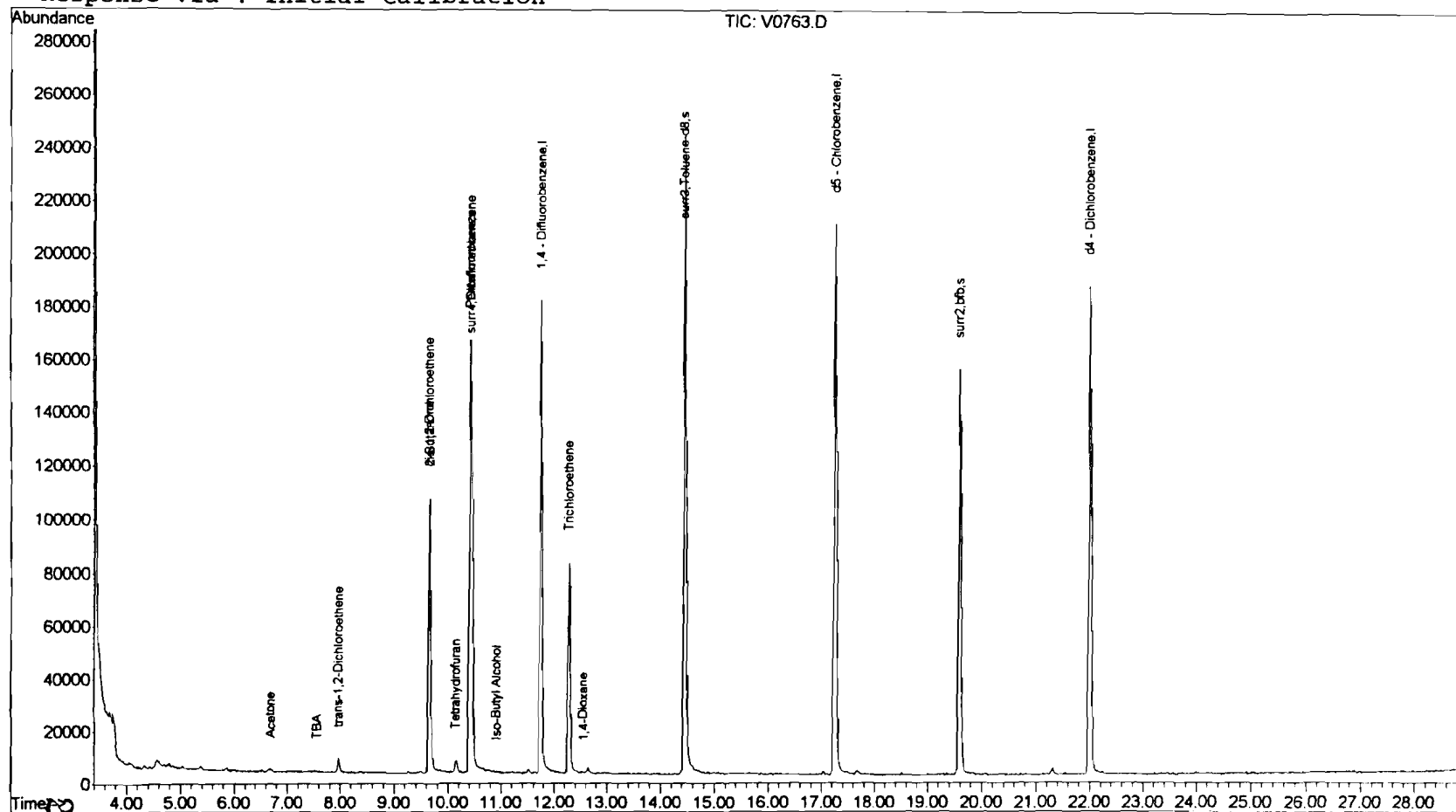
Quant Results File: EXP0914.RES

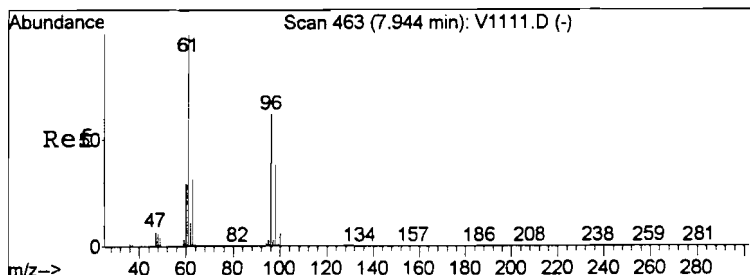
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

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Last Update      : Tue Sep 18 15:48:32 2001
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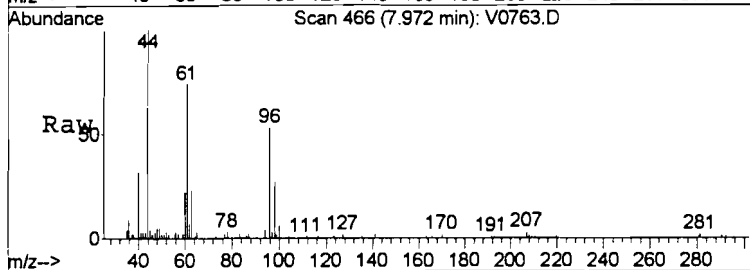
Response via : Initial Calibration



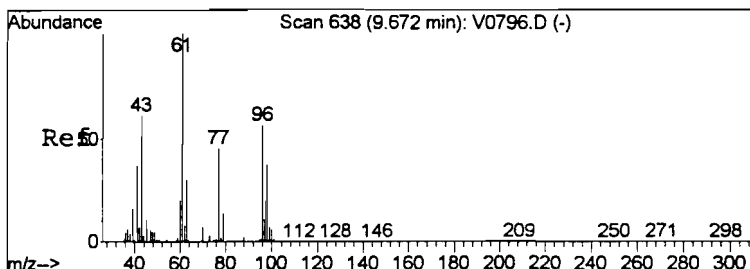
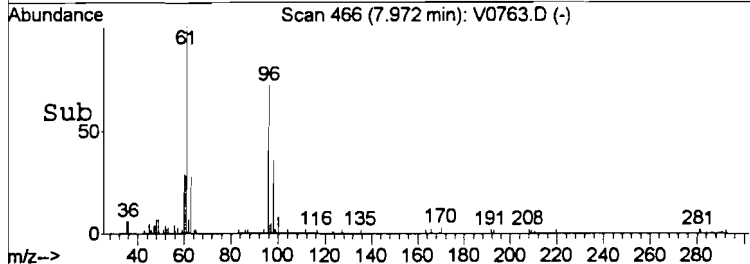
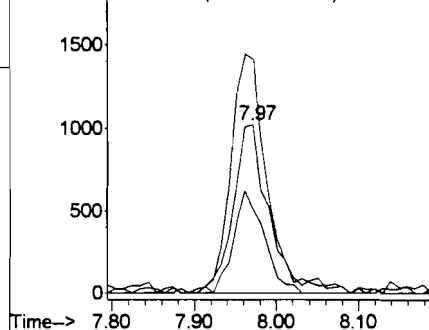


#21
trans-1,2-Dichloroethene
Concen: 2.12 ppb
RT: 7.97 min Scan# 466
Delta R.T. 0.04 min
Lab File: V0763.D
Acq: 21 Sep 2001 10:23 pm

Tgt Ion:	96	Resp:	3142
Ion Ratio	Lower	Upper	
96	100		
61	138.4	130.2	195.4
98	49.9	51.1	76.7#

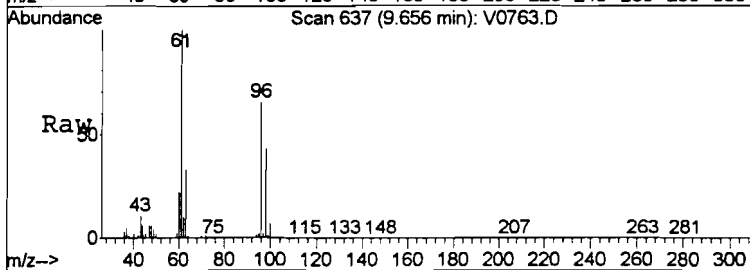


Abundance Ion 96.00 (95.70 to 96.70): V0763.D
Ion 61.05 (60.75 to 61.75): V0763.D
Ion 98.00 (97.70 to 98.70): V0763.D

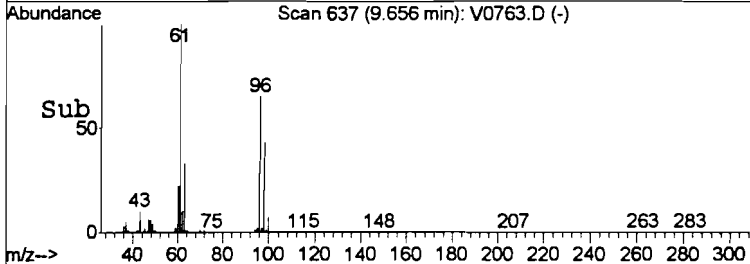
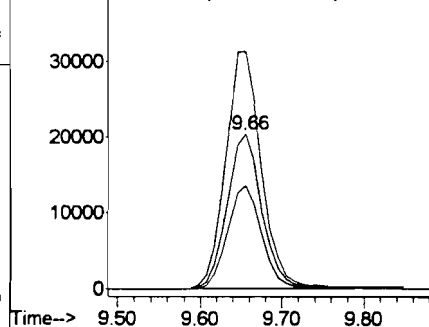


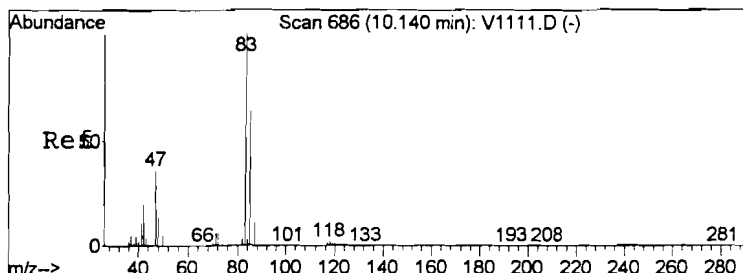
#27
cis-1,2-Dichloroethene
Concen: 36.71 ppb
RT: 9.66 min Scan# 637
Delta R.T. 0.04 min
Lab File: V0763.D
Acq: 21 Sep 2001 10:23 pm

Tgt Ion:	96	Resp:	60274
Ion Ratio	Lower	Upper	
96	100		
61	153.5	136.0	204.0
98	66.2	51.8	77.6



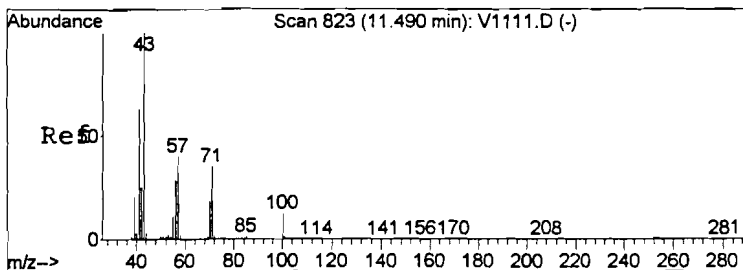
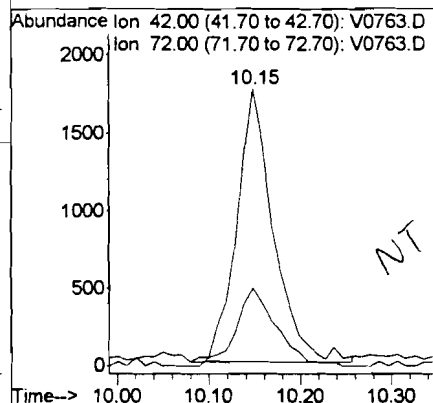
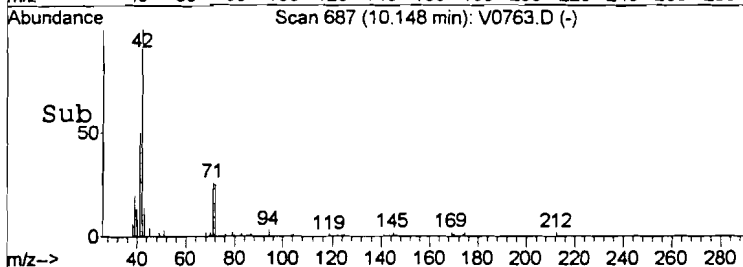
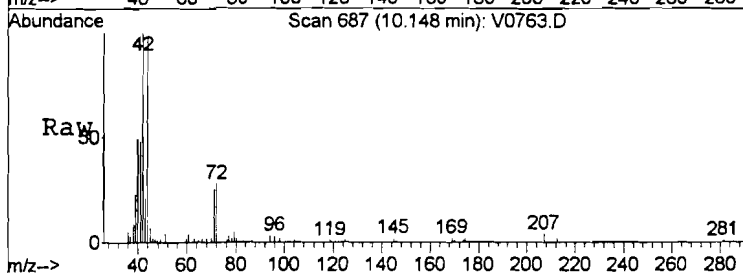
Abundance Ion 96.00 (95.70 to 96.70): V0763.D
Ion 61.05 (60.75 to 61.75): V0763.D
Ion 98.00 (97.70 to 98.70): V0763.D





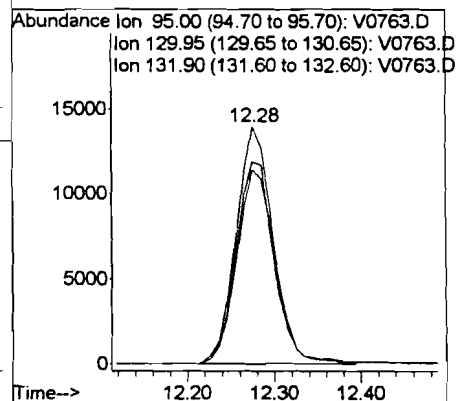
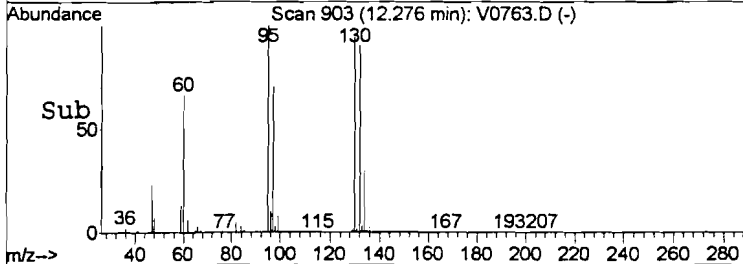
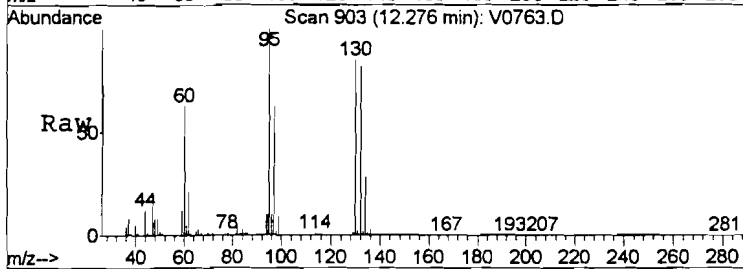
#32
Tetrahydrofuran
Concen: 7.29 ppb
RT: 10.15 min Scan# 687
Delta R.T. 0.04 min
Lab File: V0763.D
Acq: 21 Sep 2001 10:23 pm

Tgt Ion: 42 Resp: 4855
Ion Ratio Lower Upper
42 100
72 31.0 22.3 37.1



#42
Trichloroethene
Concen: 27.02 ppb
RT: 12.28 min Scan# 903
Delta R.T. 0.04 min
Lab File: V0763.D
Acq: 21 Sep 2001 10:23 pm

Tgt Ion: 95 Resp: 41435
Ion Ratio Lower Upper
95 100
130 85.1 71.6 107.4
132 81.7 68.4 102.6



224

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-13

Date Sampled : 09/16/01 10:55 Order #: 493365

Sample Matrix: WATER

Date Received: 09/17/01 Submission #: R2108550

Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 20.00			
ACETONE	20	400 U	UG/L
BENZENE	5.0	100 U	UG/L
BROMODICHLOROMETHANE	5.0	100 U	UG/L
BROMOFORM	5.0	100 U	UG/L
BROMOMETHANE	5.0	100 U	UG/L
2-BUTANONE (MEK)	10	200 U	UG/L
CARBON DISULFIDE	10	200 U	UG/L
CARBON TETRACHLORIDE	5.0	100 U	UG/L
CHLOROBENZENE	5.0	100 U	UG/L
CHLOROETHANE	5.0	100 U	UG/L
CHLOROFORM	5.0	100 U	UG/L
CHLOROMETHANE	5.0	100 U	UG/L
DIBROMOCHLOROMETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHANE	5.0	100 U	UG/L
1,2-DICHLOROETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHENE	5.0	100 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	160	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	100 U	UG/L
1,2-DICHLOROPROPANE	5.0	100 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	100 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	100 U	UG/L
ETHYLBENZENE	5.0	100 U	UG/L
FREON 113	5.0	100 U	UG/L
2-HEXANONE	10	200 U	UG/L
METHYLENE CHLORIDE	5.0	100 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	200 U	UG/L
STYRENE	5.0	100 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	100 U	UG/L
TETRACHLOROETHENE	5.0	100 U	UG/L
TOLUENE	5.0	100 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	100 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	100 U	UG/L
TRICHLOROETHENE	5.0	2600	UG/L
VINYL CHLORIDE	1.0	20 U	UG/L
O-XYLENE	5.0	100 U	UG/L
M+P-XYLENE	5.0	100 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	103	%

225

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0764.D

Vial: 23

Acq On : 21 Sep 2001 10:59 pm

Operator: herring

Sample : 493365 20

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 23:27 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	117782	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.76	114	208009	50.00	ppb	0.06
51) d5 - Chlorobenzene	17.26	117	177719	50.00	ppb	0.06
73) d4 - Dichlorobenzene	22.01	152	71915	50.00	ppb	0.06

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	84637	51.67	ppb	0.04
Spiked Amount	50.000		Recovery	=	103.34%	
57) surr3, Toluene-d8	14.46	98	223676	48.68	ppb	0.05
Spiked Amount	50.000		Recovery	=	97.36%	
58) surr2, bfb	19.59	95	89518	47.30	ppb	0.05
Spiked Amount	50.000		Recovery	=	94.60%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	1208	1.84	ppb	95 <
26) 2-Butanone	9.66	43	33407	29.91	ppb	# 63
27) cis-1,2-Dichloroethene	9.66	96	12772	7.96	ppb	97
32) Tetrahydrofuran	10.15	42	1439	2.21	ppb	# 85 NT
38) Iso Butyl Alcohol	10.76	43	465	5.26	ppb	73
42) Trichloroethene	12.28	95	197145	129.31	ppb	96
45) 1,4-Dioxane	12.80	88	49	3.45	ppb	# 60

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

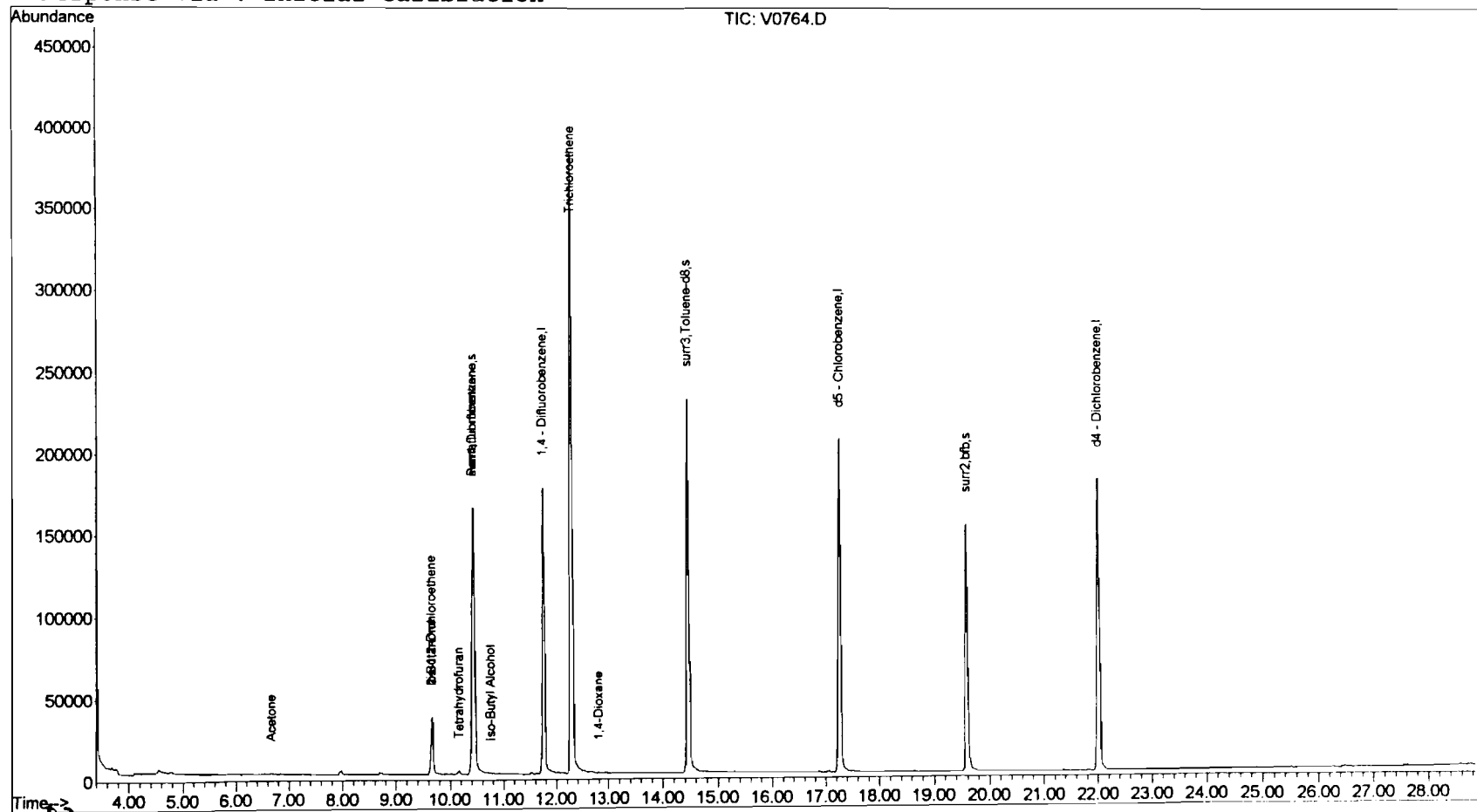
V0764.D EXP0914.M Fri Sep 21 23:28:34 2001

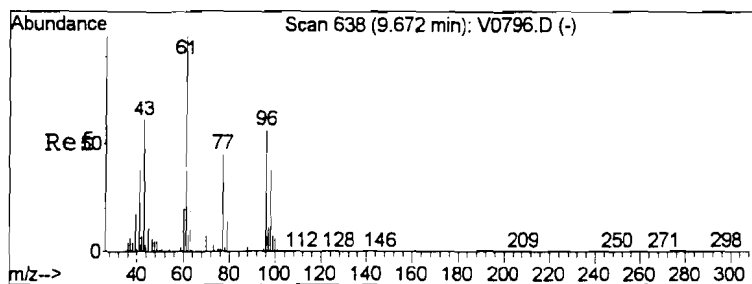
226
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0764.D Vial: 23
Acq On : 21 Sep 2001 10:59 pm Operator: herring
Sample : 493365 20 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 21 23:27 2001 Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration





#27

cis-1,2-Dichloroethene

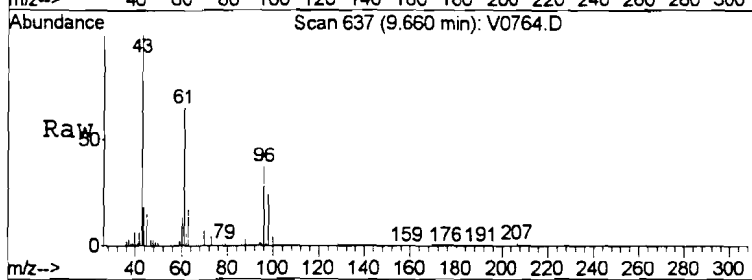
Concen: 7.96 ppb

RT: 9.66 min Scan# 637

Delta R.T. 0.05 min

Lab File: V0764.D

Acq: 21 Sep 2001 10:59 pm



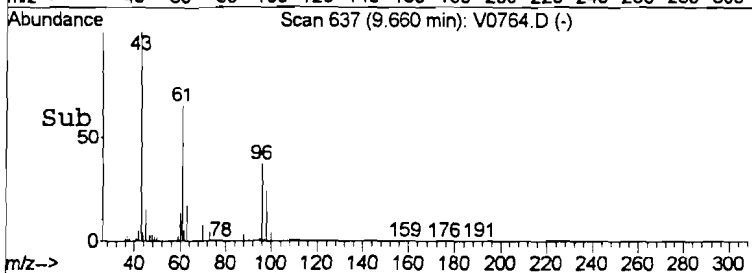
Tgt Ion: 96 Resp: 12772

Ion Ratio Lower Upper

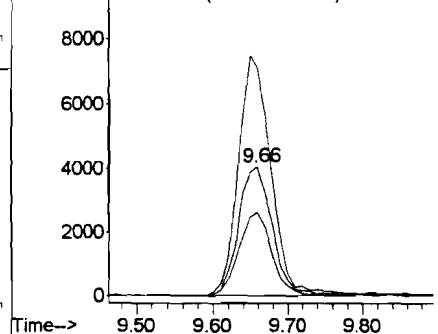
96 100

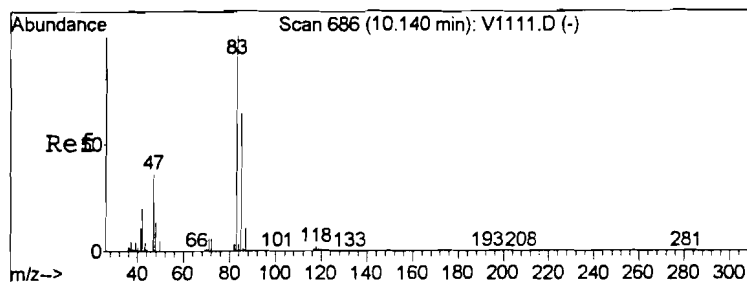
61 174.5 136.0 204.0

98 65.1 51.8 77.6



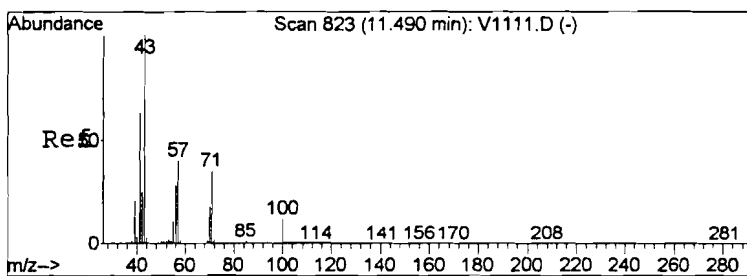
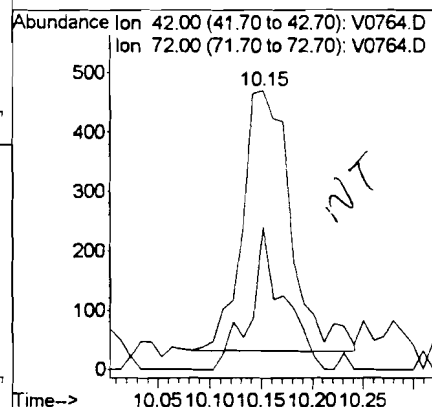
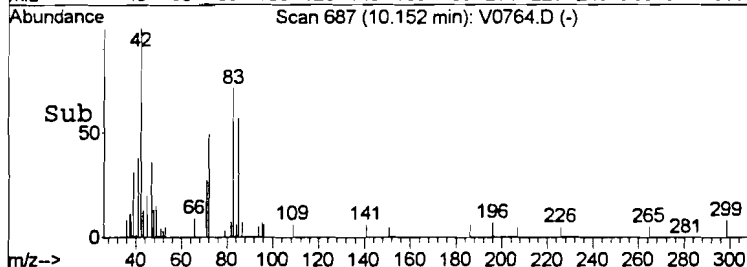
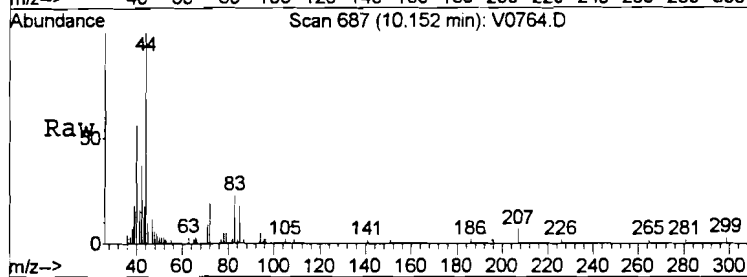
Abundance Ion 96.00 (95.70 to 96.70): V0764.D
 10000
 Ion 61.05 (60.75 to 61.75): V0764.D
 Ion 98.00 (97.70 to 98.70): V0764.D





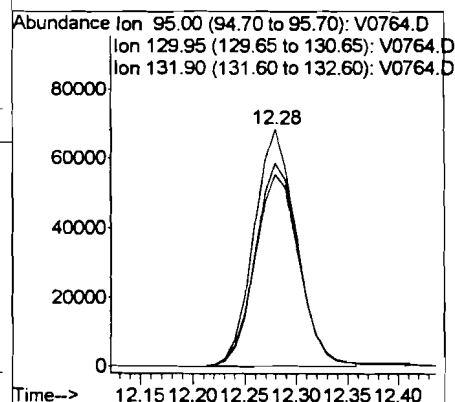
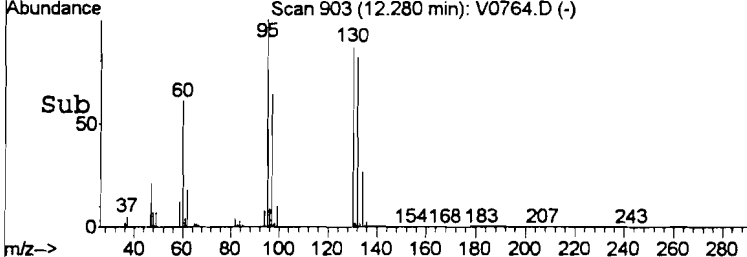
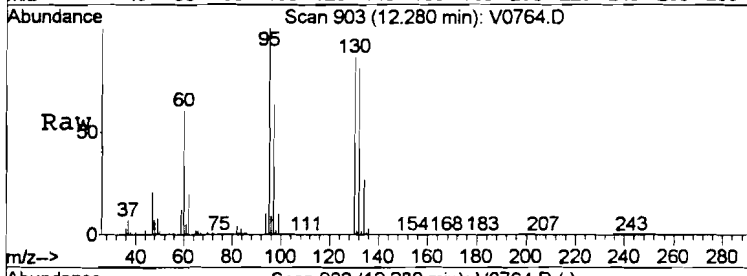
#32
Tetrahydrofuran
Concen: 2.21 ppb
RT: 10.15 min Scan# 687
Delta R.T. 0.05 min
Lab File: V0764.D
Acq: 21 Sep 2001 10:59 pm

Tgt Ion: 42 Resp: 1439
Ion Ratio Lower Upper
42 100
72 37.5 22.3 37.1#



#42
Trichloroethene
Concen: 129.31 ppb
RT: 12.28 min Scan# 903
Delta R.T. 0.05 min
Lab File: V0764.D
Acq: 21 Sep 2001 10:59 pm

Tgt Ion: 95 Resp: 197145
Ion Ratio Lower Upper
95 100
130 85.8 71.6 107.4
132 81.2 68.4 102.6



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-15

Date Sampled : 09/16/01 12:22 Order #: 493366 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 40.00			
ACETONE	20	800 U	UG/L
BENZENE	5.0	200 U	UG/L
BROMODICHLOROMETHANE	5.0	200 U	UG/L
BROMOFORM	5.0	200 U	UG/L
BROMOMETHANE	5.0	200 U	UG/L
2-BUTANONE (MEK)	10	400 U	UG/L
CARBON DISULFIDE	10	400 U	UG/L
CARBON TETRACHLORIDE	5.0	200 U	UG/L
CHLOROBENZENE	5.0	200 U	UG/L
CHLOROETHANE	5.0	200 U	UG/L
CHLOROFORM	5.0	200 U	UG/L
CHLOROMETHANE	5.0	200 U	UG/L
DIBROMOCHLOROMETHANE	5.0	200 U	UG/L
1,1-DICHLOROETHANE	5.0	200 U	UG/L
1,2-DICHLOROETHANE	5.0	200 U	UG/L
1,1-DICHLOROETHENE	5.0	200 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	110 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	200 U	UG/L
1,2-DICHLOROPROPANE	5.0	200 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	200 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	200 U	UG/L
ETHYLBENZENE	5.0	200 U	UG/L
FREON 113	5.0	200 U	UG/L
2-HEXANONE	10	400 U	UG/L
METHYLENE CHLORIDE	5.0	200 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	400 U	UG/L
STYRENE	5.0	200 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	200 U	UG/L
TETRACHLOROETHENE	5.0	200 U	UG/L
TOLUENE	5.0	200 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	200 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	200 U	UG/L
TRICHLOROETHENE	5.0	4800	UG/L
VINYL CHLORIDE	1.0	40 U	UG/L
O-XYLENE	5.0	200 U	UG/L
M+P-XYLENE	5.0	200 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0822.D

Vial: 20

Acq On : 26 Sep 2001 12:40 am

Operator: herring

Sample : 493366 40

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 1:08 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	146358	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	257877	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	207117	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	80251	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.44	113	100539	51.13	ppb	0.00
Spiked Amount	50.000		Recovery	=	102.26%	
58) surr3, Toluene-d8	14.45	98	265378	50.76	ppb	-0.02
Spiked Amount	50.000		Recovery	=	101.52%	
59) surr2, bfb	19.59	95	102336	48.24	ppb	0.00
Spiked Amount	50.000		Recovery	=	96.48%	

Target Compounds

						Qvalue
18) TBA	7.55	59	1285	6.45	ppb	93
28) cis-1,2-Dichloroethene	9.66	96	5964	2.75	ppb	# 76 J
33) Tetrahydrofuran	10.14	42	2267	2.54	ppb	91 NT
19) Iso-Butyl Alcohol	10.81	43	857	7.35	ppb	97
43) Trichloroethene	12.28	95	232565	119.72	ppb	99
46) 1,4-Dioxane	12.88	88	659	42.70	ppb	83
73) Cyclohexanone	19.47	55	1095	3.48	ppb	# 46

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

V0822.D EXP0924.M

Wed Sep 26 01:09:24 2001

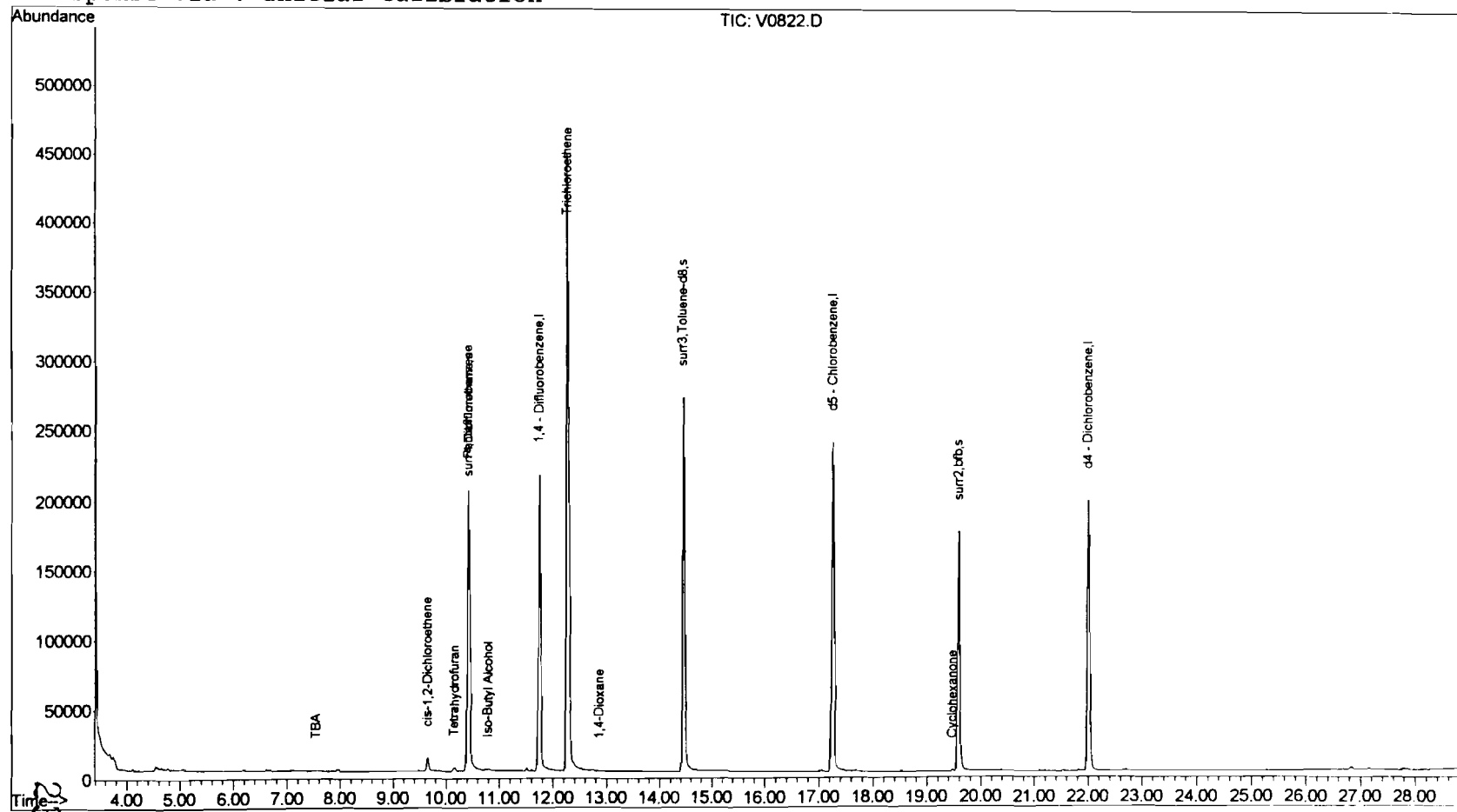
231

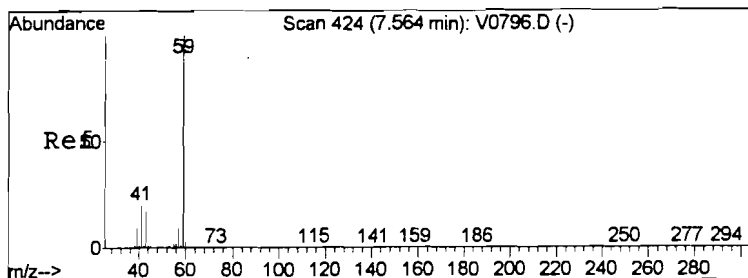
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0822.D Vial: 20
Acq On : 26 Sep 2001 12:40 am Operator: herring
Sample : 493366 40 Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 26 1:08 2001 Quant Results File: EXP0924.RES

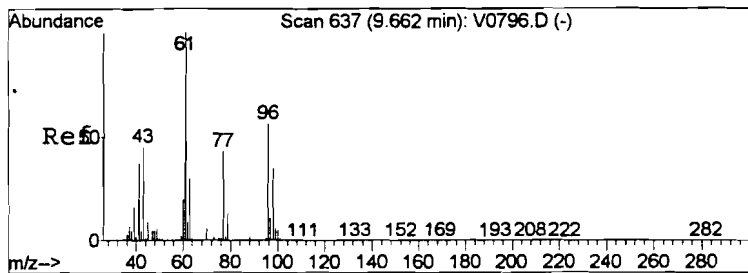
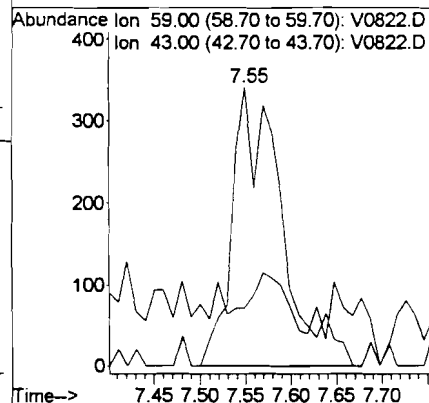
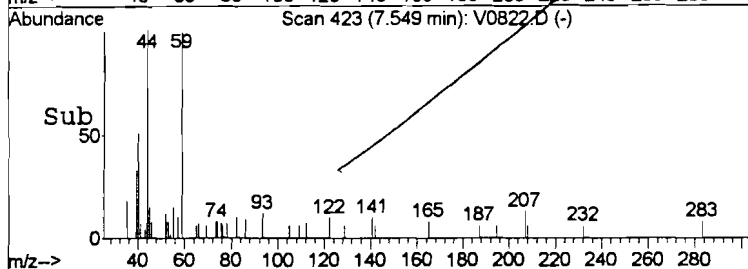
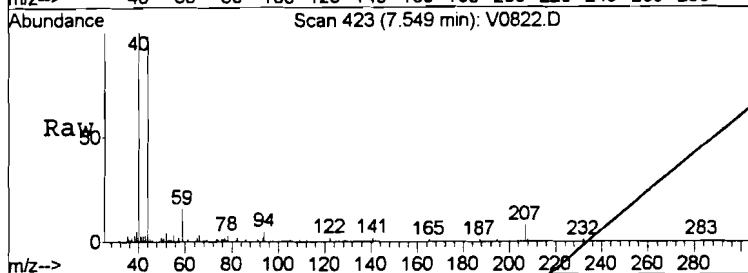
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 25 16:41:28 2001
Response via : Initial Calibration





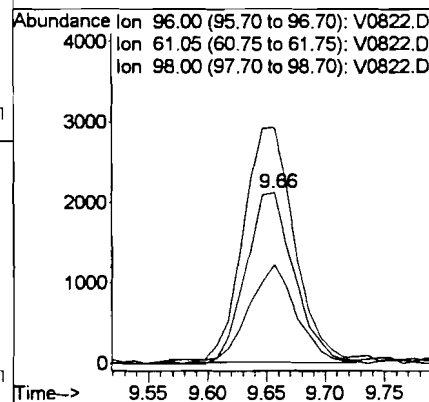
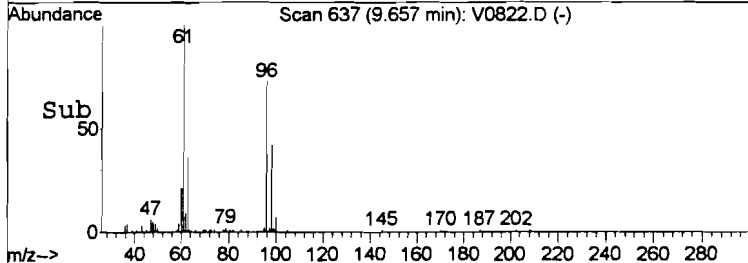
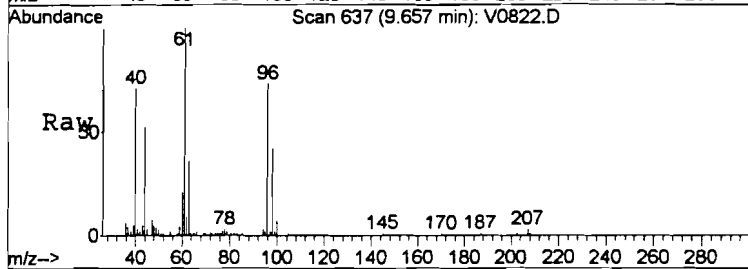
#18
TBA
Concen: 6.45 ppb
RT: 7.55 min Scan# 423
Delta R.T. -0.03 min
Lab File: V0822.D
Acq: 26 Sep 2001 12:40 am

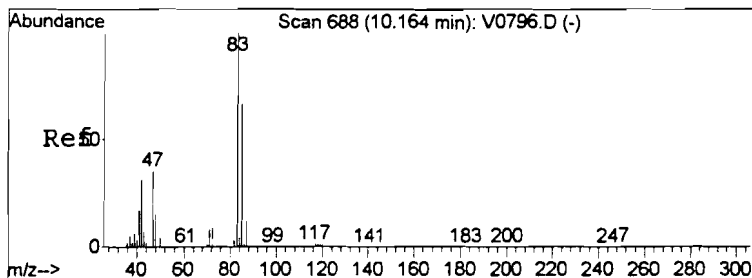
Tgt Ion: 59 Resp: 1285
Ion Ratio Lower Upper
59 100
43 21.1 14.2 21.4



#28
cis-1,2-Dichloroethene
Concen: 2.75 ppb
RT: 9.66 min Scan# 637
Delta R.T. -0.01 min
Lab File: V0822.D
Acq: 26 Sep 2001 12:40 am

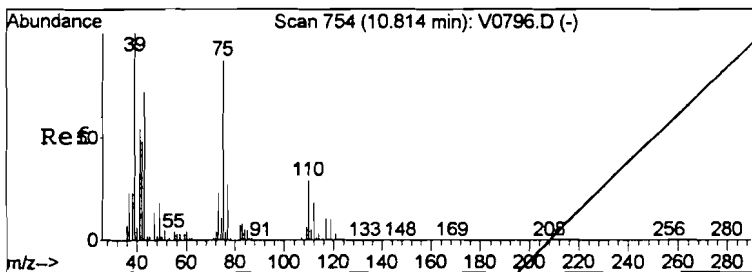
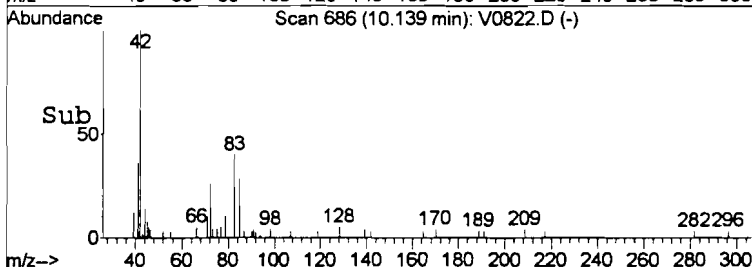
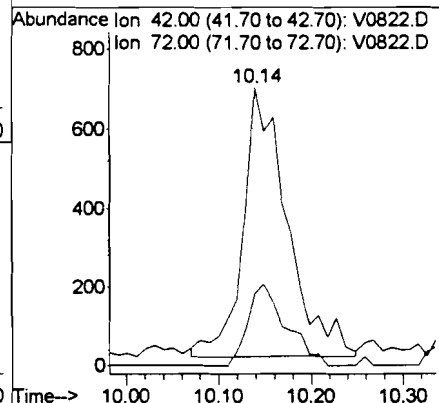
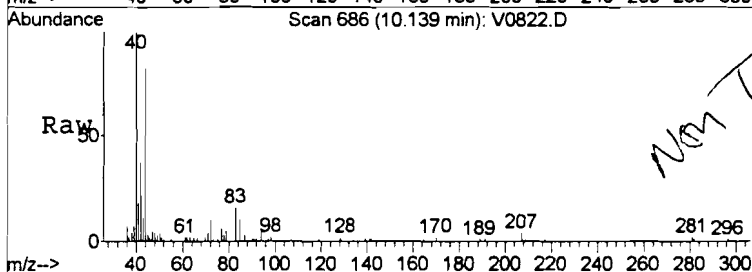
Tgt Ion: 96 Resp: 5964
Ion Ratio Lower Upper
96 100
61 137.8 143.6 215.4#
98 57.6 50.8 76.2





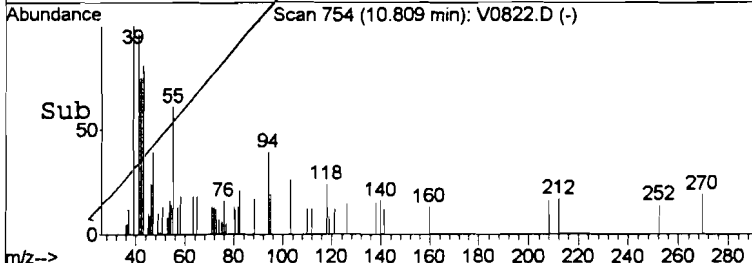
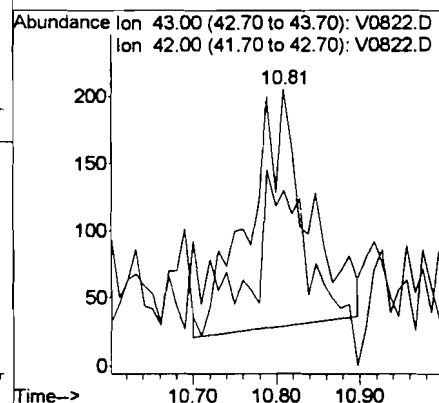
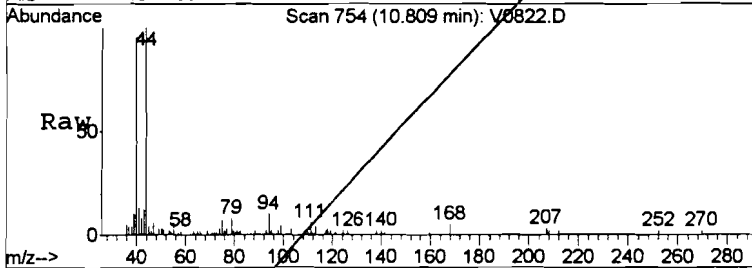
#33
Tetrahydrofuran
Concen: 2.54 ppb
RT: 10.14 min Scan# 686
Delta R.T. -0.03 min
Lab File: V0822.D
Acq: 26 Sep 2001 12:40 am

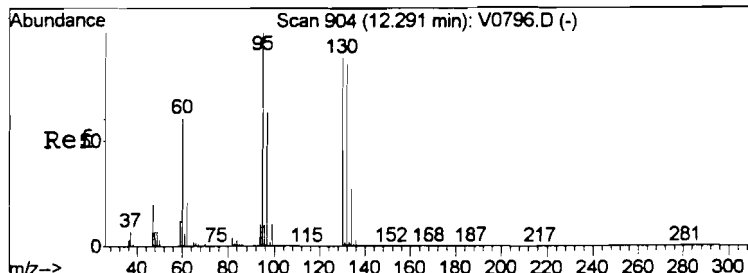
Tgt Ion: 42 Resp: 2267
Ion Ratio Lower Upper
42 100
26.1 23.1 38.5



#39
Iso-Butyl Alcohol
Concen: 7.35 ppb
RT: 10.81 min Scan# 754
Delta R.T. 0.00 min
Lab File: V0822.D
Acq: 26 Sep 2001 12:40 am

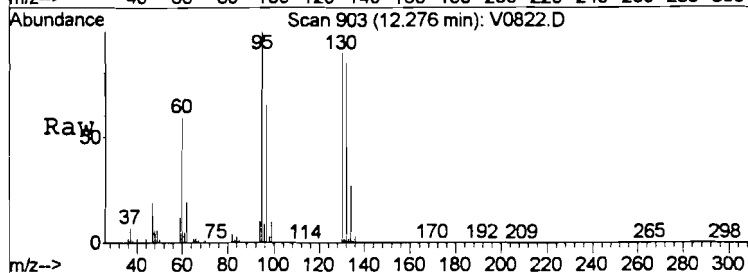
Tgt Ion: 43 Resp: 857
Ion Ratio Lower Upper
43 100
42 63.1 32.8 98.3



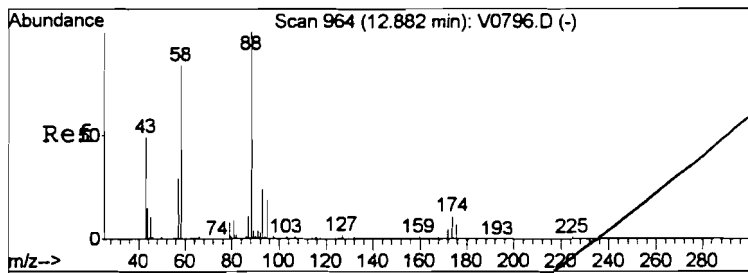
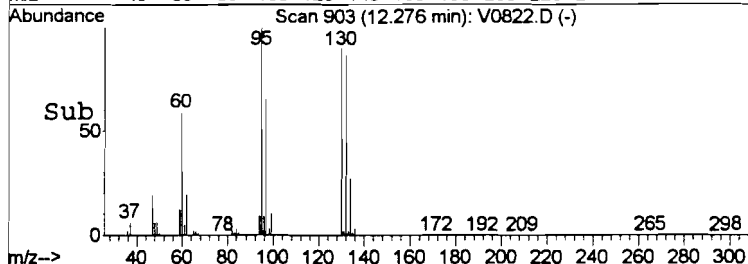
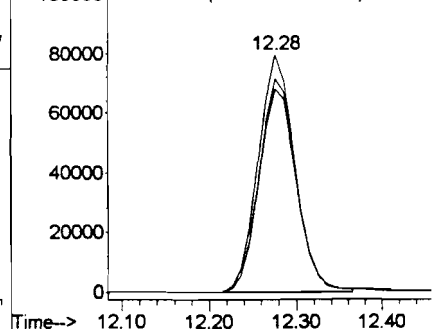


#43
Trichloroethene
Concen: 119.72 ppb
RT: 12.28 min Scan# 903
Delta R.T. -0.02 min
Lab File: V0822.D
Acq: 26 Sep 2001 12:40 am

Tgt Ion: 95 Resp: 232565
Ion Ratio Lower Upper
95 100
130 89.6 70.0 105.0
132 85.4 68.2 102.4

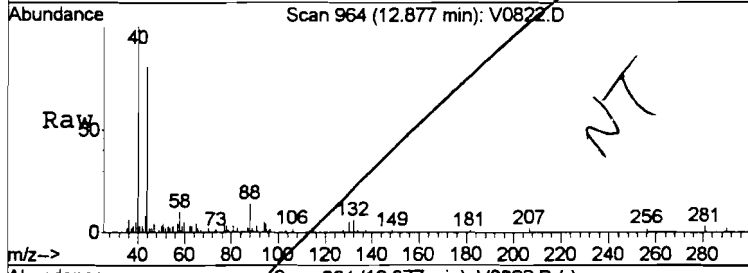


Abundance Ion 95.00 (94.70 to 95.70): V0822.D
Ion 129.95 (129.65 to 130.65): V0822.D
Ion 131.90 (131.60 to 132.60): V0822.D

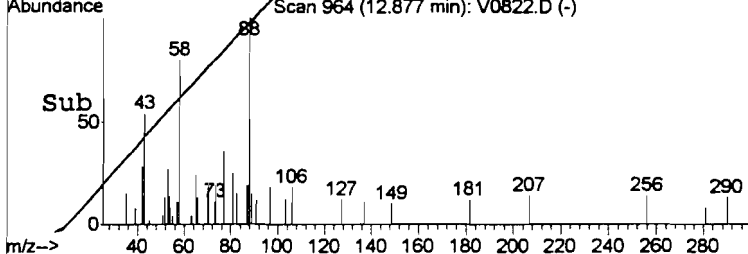
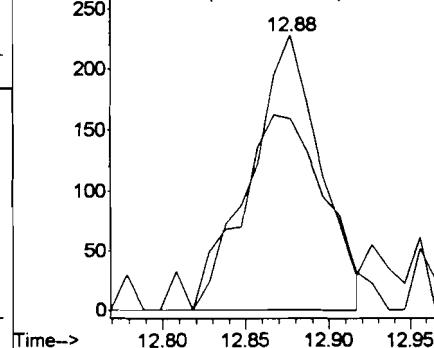


#46
1,4-Dioxane
Concen: 42.70 ppb
RT: 12.88 min Scan# 964
Delta R.T. -0.01 min
Lab File: V0822.D
Acq: 26 Sep 2001 12:40 am

Tgt Ion: 88 Resp: 659
Ion Ratio Lower Upper
88 100
58 69.7 63.7 106.3



Abundance Ion 88.00 (87.70 to 88.70): V0822.D
Ion 58.00 (57.70 to 58.70): V0822.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-09

Date Sampled : 09/16/01 14:17 Order #: 493367 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	3.2 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	9.6	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	150	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	106	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0823.D

Vial: 21

Acq On : 26 Sep 2001 1:16 am

Operator: herring

Sample : 493367 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 1:44 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	141529	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	246627	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.25	117	203638	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.01	152	79413	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4, Dibrflmethane	10.44	113	99797	53.07	ppb	-0.01
Spiked Amount	50.000		Recovery	=	106.14%	
58) surr3, Toluene-d8	14.46	98	261381	50.85	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.70%	
59) surr2, bfb	19.59	95	98983	47.45	ppb	-0.01
Spiked Amount	50.000		Recovery	=	94.90%	

Target Compounds

						Qvalue
12) Acetone	6.69	43	3465	3.20	ppb	96
13) Iodomethane	6.99	127	1200	7.35	ppb	64
18) TBA	7.53	59	211	1.09	ppb	# 1
27) Ethyl Acetate	9.66	43	4137	1.56	ppb	# 89
28) cis-1,2-Dichloroethene	9.65	96	20204	9.64	ppb	87
39) Iso-Butyl Alcohol	10.79	43	502	4.50	ppb	98
43) Trichloroethene	12.28	95	282371	151.99	ppb	99
46) 1,4-Dioxane	12.85	88	36	2.44	ppb	# 7

(#) = qualifier out of range (m) = manual integration
V0823.D EXP0924.M Wed Sep 26 01:45:14 2001

R3 + 9/26

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0823.D

Vial: 21

Acq On : 26 Sep 2001 1:16 am

Operator: herring

Sample : 493367 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 1:44 2001

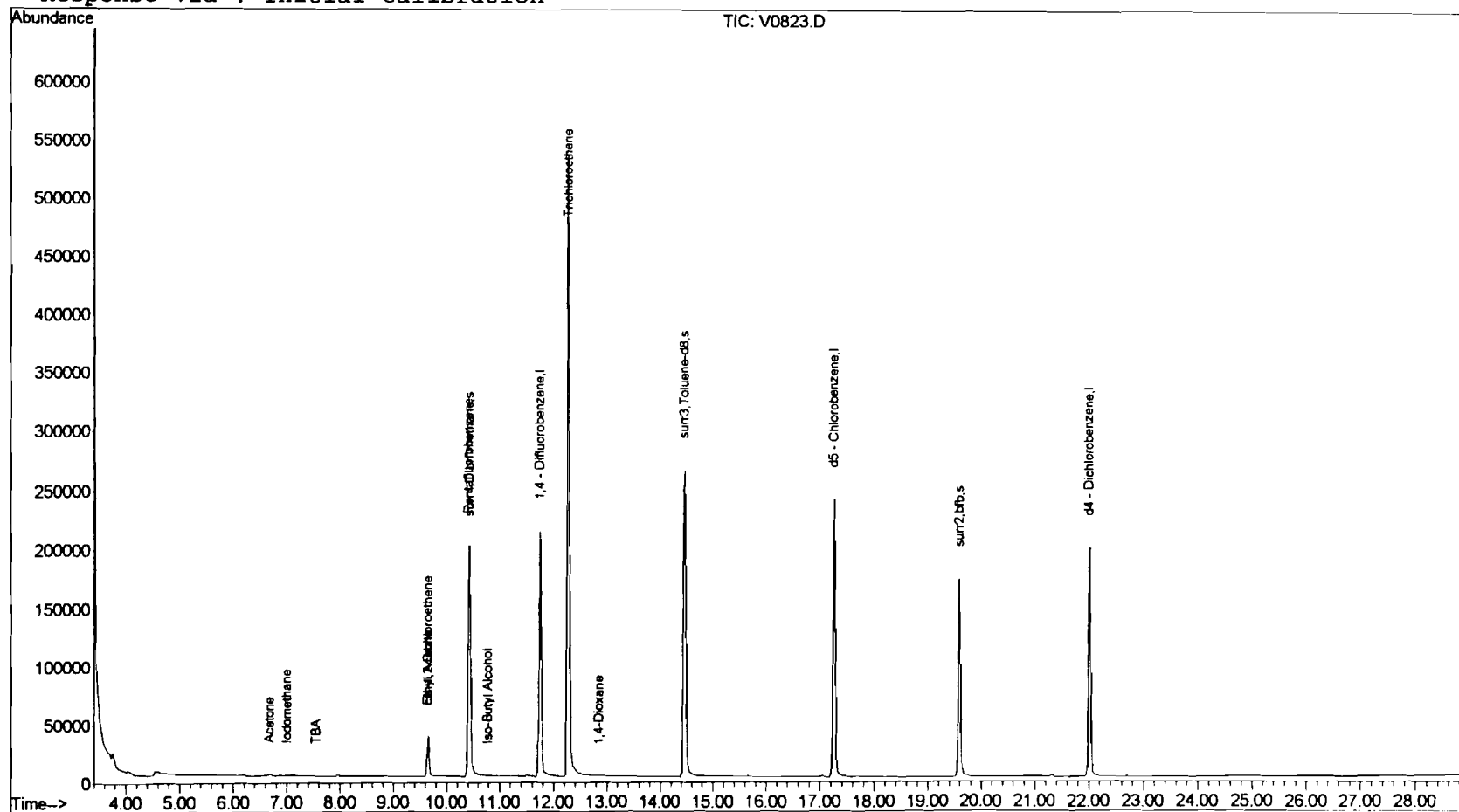
Quant Results File: EXP0924.RES

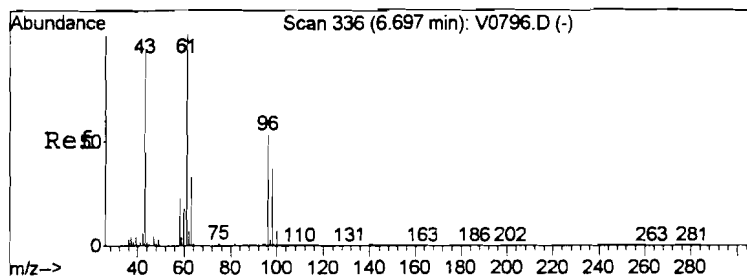
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

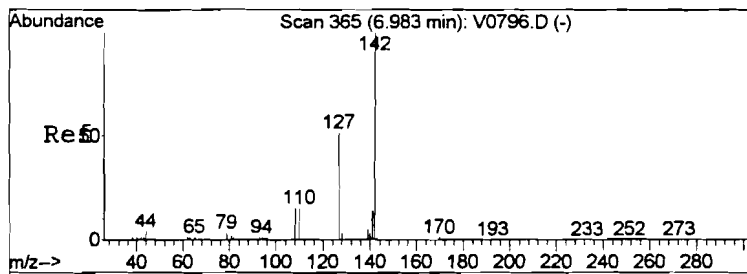
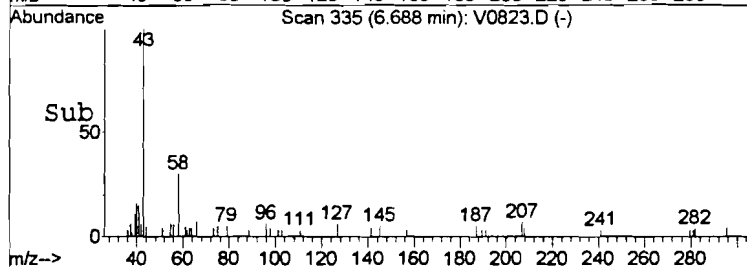
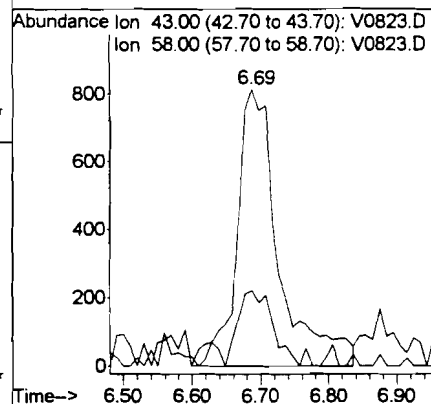
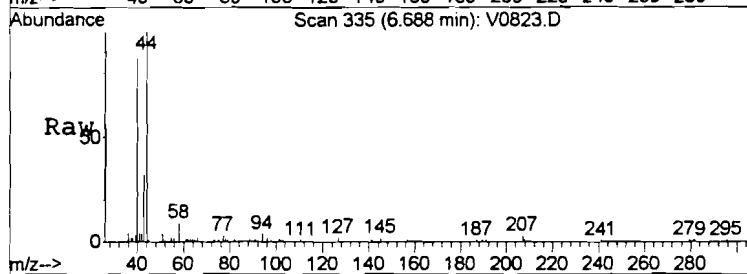
Response via : Initial Calibration





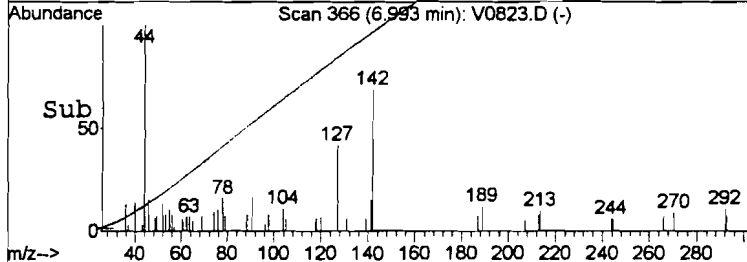
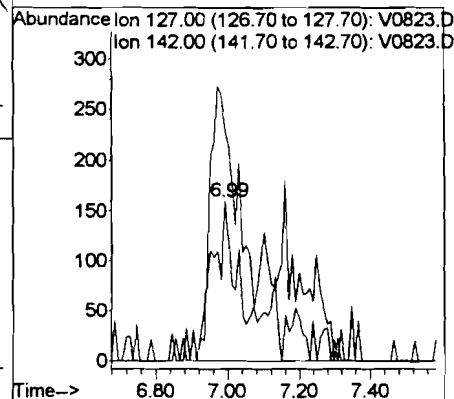
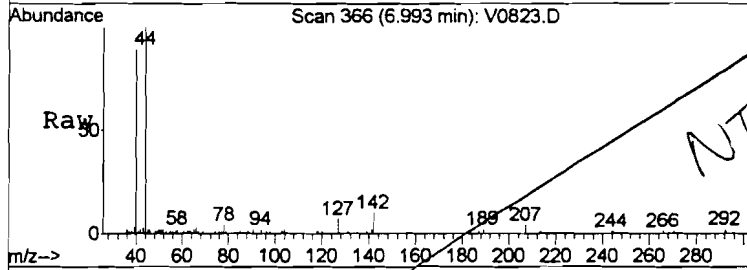
#12
Acetone
Concen: 3.20 ppb
RT: 6.69 min Scan# 335
Delta R.T. -0.00 min
Lab File: V0823.D
Acq: 26 Sep 2001 1:16 am

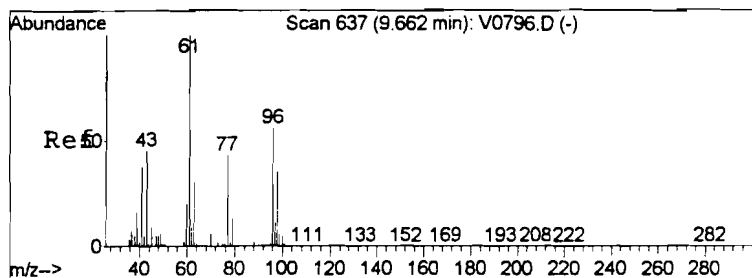
Tgt Ion: 43 Resp: 3465
Ion Ratio Lower Upper
43 100
58 26.8 19.8 29.8



#13
Iodomethane
Concen: 7.35 ppb
RT: 6.99 min Scan# 366
Delta R.T. 0.01 min
Lab File: V0823.D
Acq: 26 Sep 2001 1:16 am

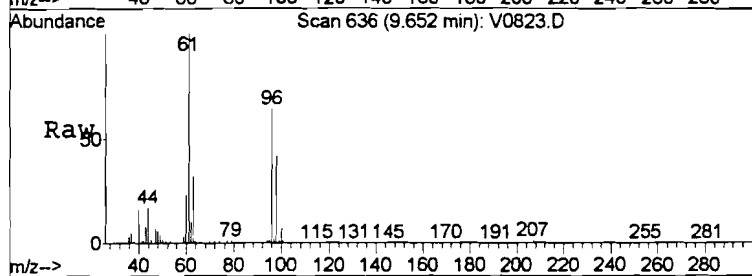
Tgt Ion: 127 Resp: 1200
Ion Ratio Lower Upper
127 100
142 143.1 0.0 395.4





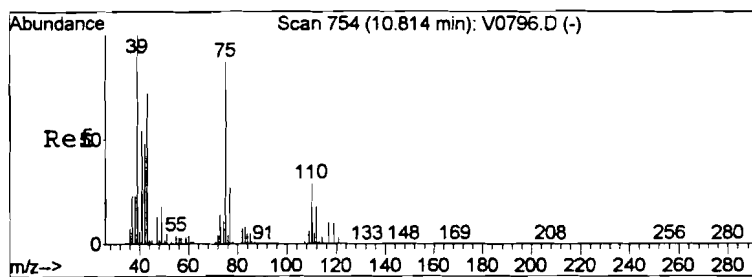
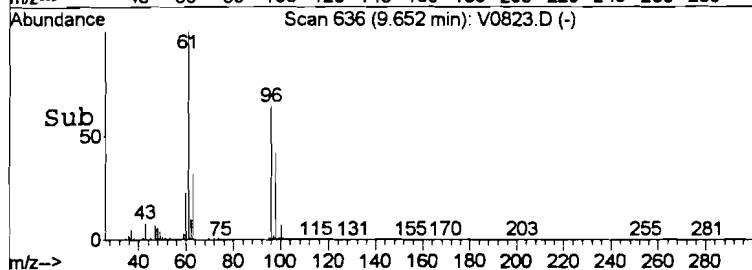
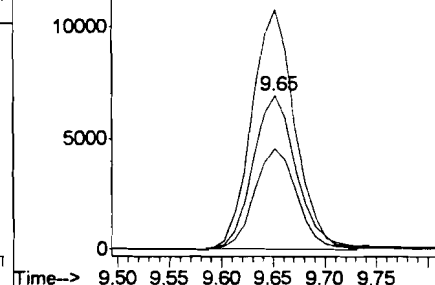
#28
 cis-1,2-Dichloroethene
 Concen: 9.64 ppb
 RT: 9.65 min Scan# 636
 Delta R.T. -0.01 min
 Lab File: V0823.D
 Acq: 26 Sep 2001 1:16 am

Tgt Ion: 96 Resp: 20204
 Ion Ratio Lower Upper
 96 100
 61 155.5 143.6 215.4
 98 66.1 50.8 76.2



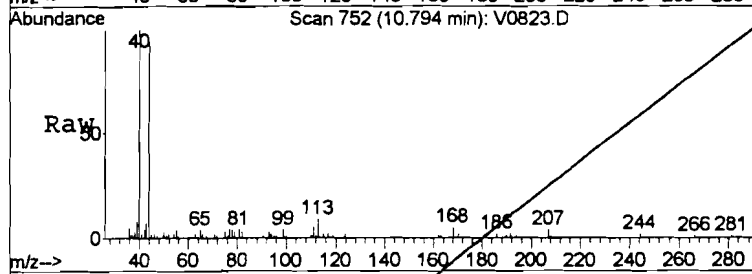
Abundance

Ion 96.00 (95.70 to 96.70): V0823.D
 Ion 61.05 (60.75 to 61.75): V0823.D
 Ion 98.00 (97.70 to 98.70): V0823.D



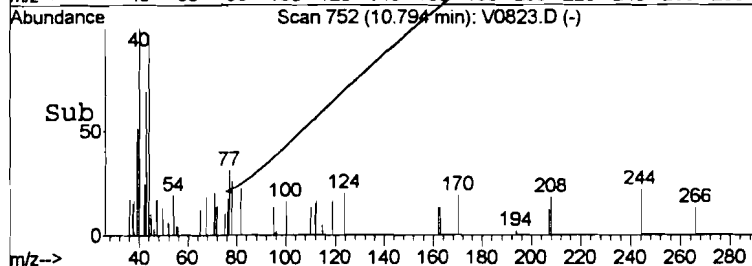
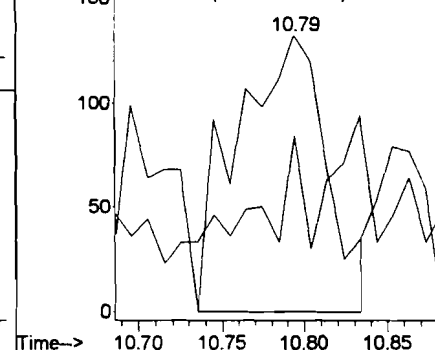
#39
 Iso-Butyl Alcohol
 Concen: 4.50 ppb
 RT: 10.79 min Scan# 752
 Delta R.T. -0.01 min
 Lab File: V0823.D
 Acq: 26 Sep 2001 1:16 am

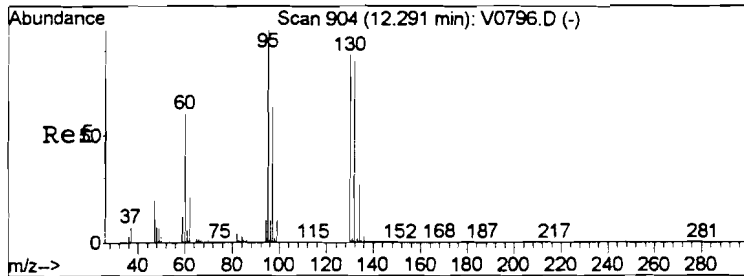
Tgt Ion: 43 Resp: 502
 Ion Ratio Lower Upper
 43 100
 42 63.6 32.8 98.3



Abundance

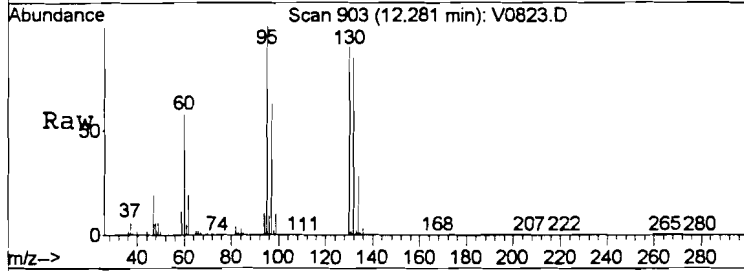
Ion 43.00 (42.70 to 43.70): V0823.D
 Ion 42.00 (41.70 to 42.70): V0823.D



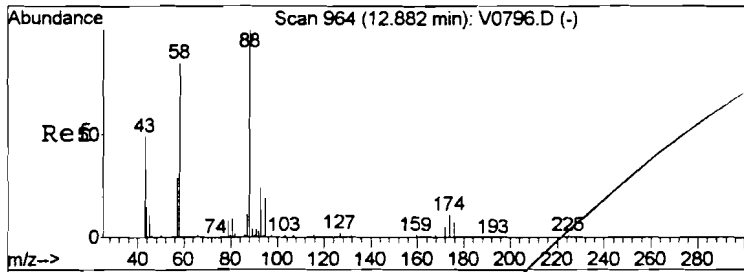
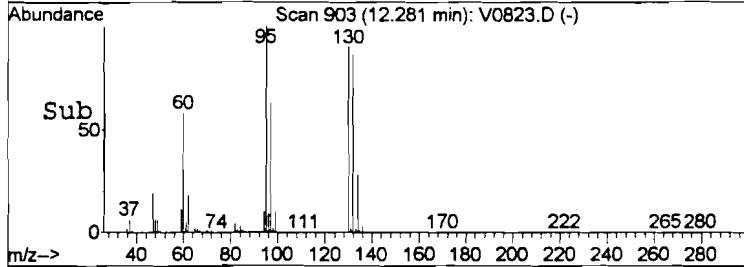
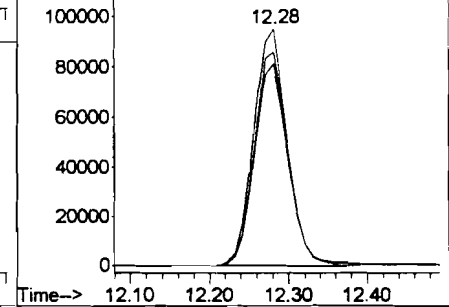


#43
 Trichloroethene
 Concen: 151.99 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.01 min
 Lab File: V0823.D
 Acq: 26 Sep 2001 1:16 am

Tgt Ion: 95 Resp: 282371
 Ion Ratio Lower Upper
 95 100
 130 90.2 70.0 105.0
 132 85.3 68.2 102.4

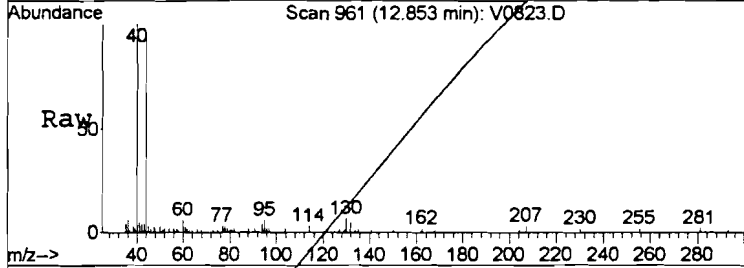


Abundance Ion 95.00 (94.70 to 95.70): V0823.D
 Ion 129.95 (129.65 to 130.65): V0823.D
 Ion 131.90 (131.60 to 132.60): V0823.D

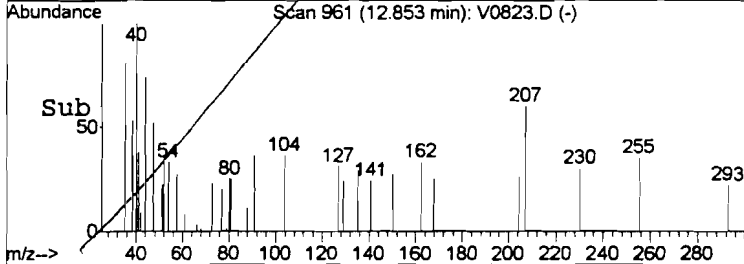
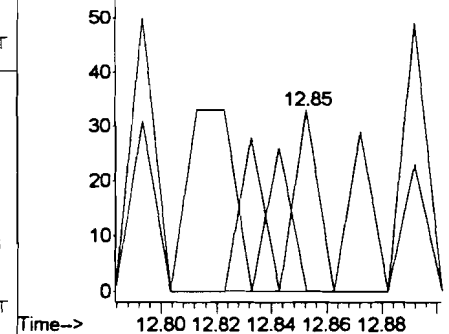


#46
 1,4-Dioxane
 Concen: 2.44 ppb
 RT: 12.85 min Scan# 961
 Delta R.T. -0.03 min
 Lab File: V0823.D
 Acq: 26 Sep 2001 1:16 am

Tgt Ion: 88 Resp: 36
 Ion Ratio Lower Upper
 88 100
 58 0.0 63.7 106.3#



Abundance Ion 88.00 (87.70 to 88.70): V0823.D
 Ion 58.00 (57.70 to 58.70): V0823.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-10

Date Sampled : 09/17/01 14:17 Order #: 493368 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/26/01		
ANALYTICAL DILUTION:	50.00		
ACETONE	20	1000 U	UG/L
BENZENE	5.0	250 U	UG/L
BROMODICHLOROMETHANE	5.0	250 U	UG/L
BROMOFORM	5.0	250 U	UG/L
BROMOMETHANE	5.0	250 U	UG/L
2-BUTANONE (MEK)	10	500 U	UG/L
CARBON DISULFIDE	10	500 U	UG/L
CARBON TETRACHLORIDE	5.0	250 U	UG/L
CHLOROBENZENE	5.0	250 U	UG/L
CHLOROETHANE	5.0	250 U	UG/L
CHLOROFORM	5.0	250 U	UG/L
CHLOROMETHANE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHANE	5.0	250 U	UG/L
1,2-DICHLOROETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHENE	5.0	250 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1700	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	160 J	UG/L
1,2-DICHLOROPROPANE	5.0	250 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
ETHYLBENZENE	5.0	250 U	UG/L
FREON 113	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
METHYLENE CHLORIDE	5.0	250 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	500 U	UG/L
STYRENE	5.0	250 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	250 U	UG/L
TETRACHLOROETHENE	5.0	250 U	UG/L
TOLUENE	5.0	250 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	250 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	250 U	UG/L
TRICHLOROETHENE	5.0	8700	UG/L
VINYL CHLORIDE	1.0	50 U	UG/L
O-XYLENE	5.0	250 U	UG/L
M+P-XYLENE	5.0	250 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	97	%
TOLUENE-D8	(87 - 108 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	88	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0832.D

Vial: 8

Acq On : 26 Sep 2001 1:29 pm

Operator: herring

Sample : 493368 50

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 27 9:08 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	130681	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	228877	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	193665	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	77857	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.45	113	76376	43.76	ppb	0.00
Spiked Amount	50.000		Recovery	=	87.52%	
58) surr3,Toluene-d8	14.46	98	247878	50.71	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.42%	
59) surr2,bfb	19.60	95	95979	48.38	ppb	0.00
Spiked Amount	50.000		Recovery	=	96.76%	

Target Compounds

						Qvalue
21) trans-1,2-Dichloroethene	7.98	96	5401	3.17	ppb	# 78 J
28) cis-1,2-Dichloroethene	9.66	96	64269	33.23	ppb	85
33) Tetrahydrofuran	10.17	42	2092	2.63	ppb	89 NT
43) Trichloroethene	12.28	95	301602	174.93	ppb	98

234 10/4

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

V0832.D EXP0924.M

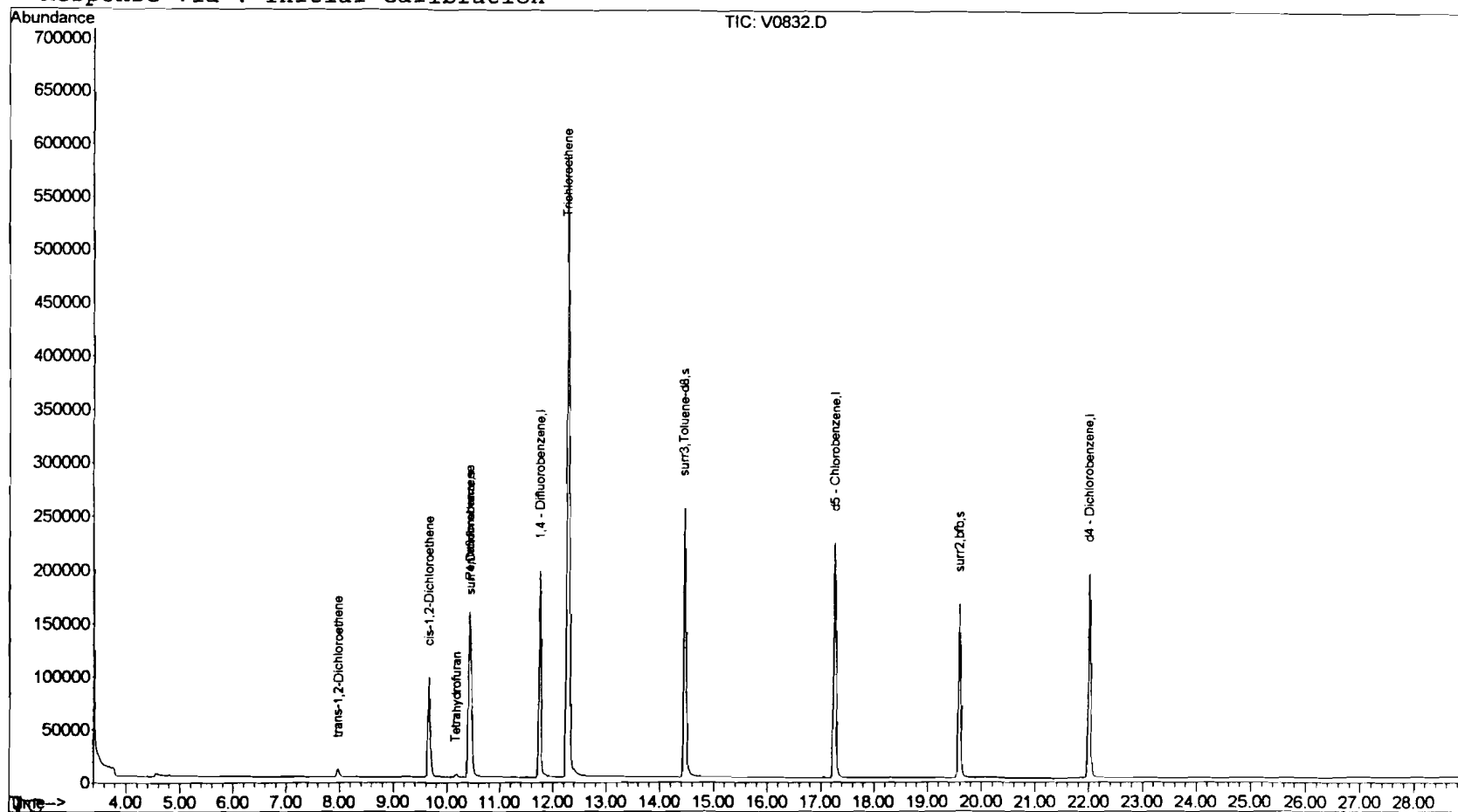
Thu Sep 27 09:09:05 2001

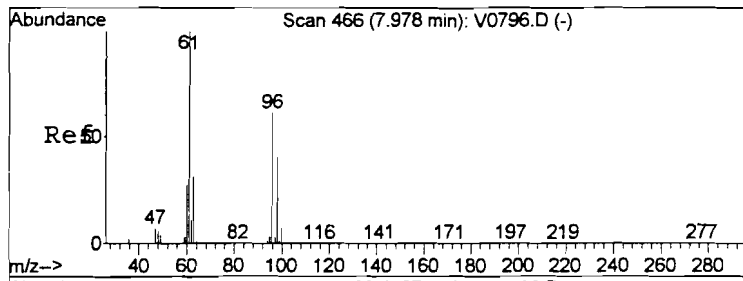
243
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0832.D Vial: 8
 Acq On : 26 Sep 2001 1:29 pm Operator: herring
 Sample : 493368 50 Inst : GC/MS Ins
 Misc : hla r-8550 8206b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 27 9:08 2001 Quant Results File: EXP0924.RES

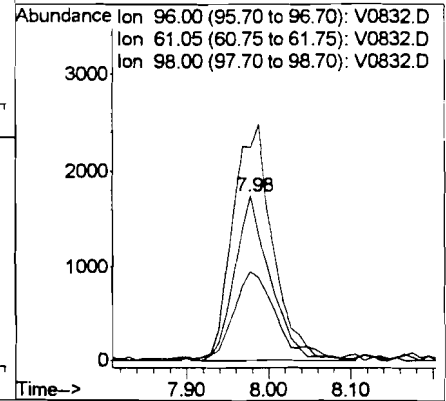
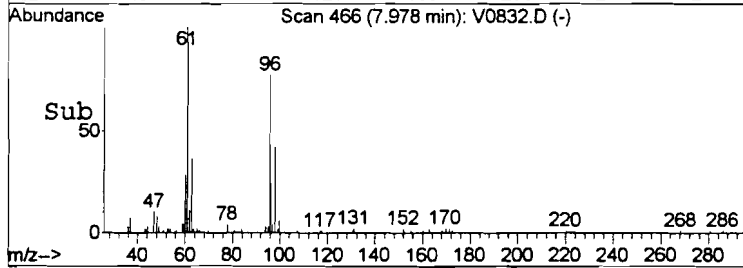
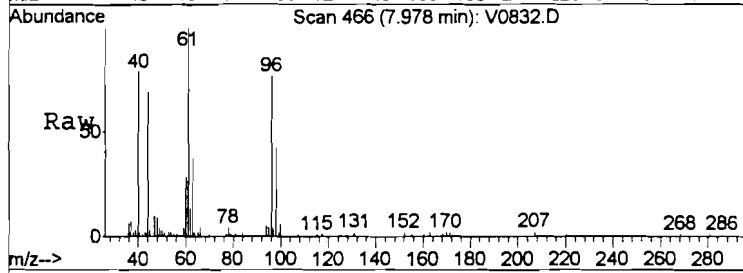
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Wed Sep 26 09:16:34 2001
 Response via : Initial Calibration

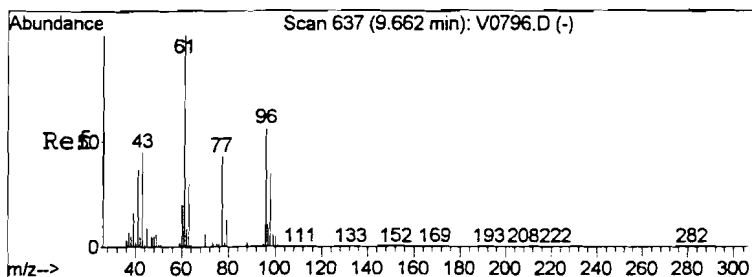




#21
 trans-1,2-Dichloroethene
 Concen: 3.17 ppb
 RT: 7.98 min Scan# 466
 Delta R.T. -0.00 min
 Lab File: V0832.D
 Acq: 26 Sep 2001 1:29 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	129.1	130.2	195.4#
98	54.6	51.9	77.9





#28

cis-1,2-Dichloroethene

Concen: 33.23 ppb

RT: 9.66 min Scan# 637

Delta R.T. -0.00 min

Lab File: V0832.D

Acq: 26 Sep 2001 1:29 pm

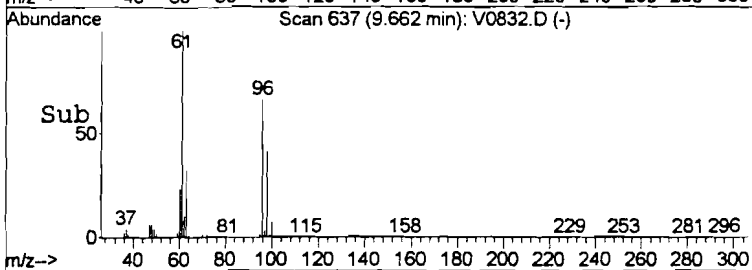
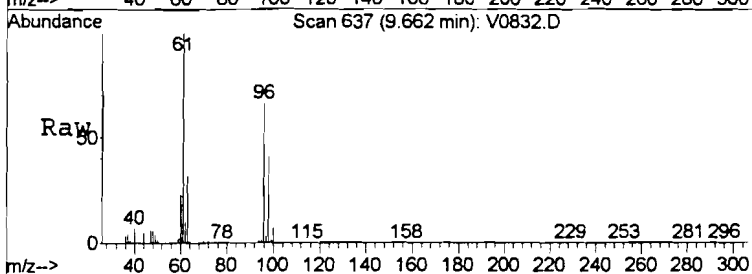
Tgt Ion: 96 Resp: 64269

Ion Ratio Lower Upper

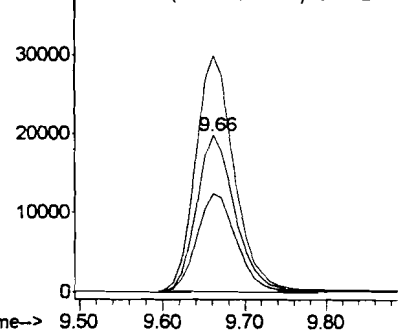
96 100

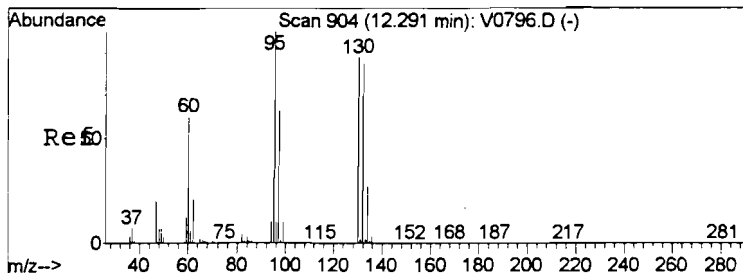
61 151.3 143.6 215.4

98 62.7 50.8 76.2



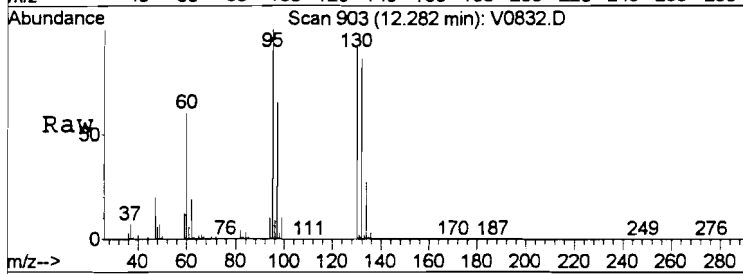
Abundance Ion 96.00 (95.70 to 96.70): V0832.D
Ion 61.05 (60.75 to 61.75): V0832.D
Ion 98.00 (97.70 to 98.70): V0832.D



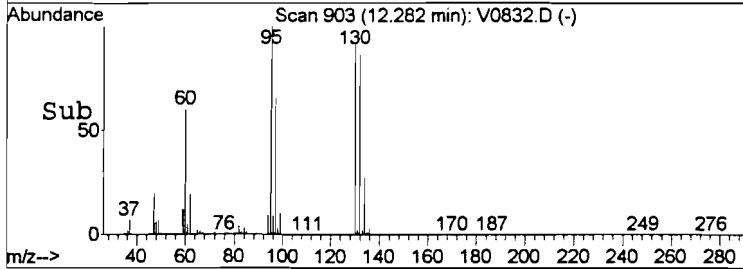
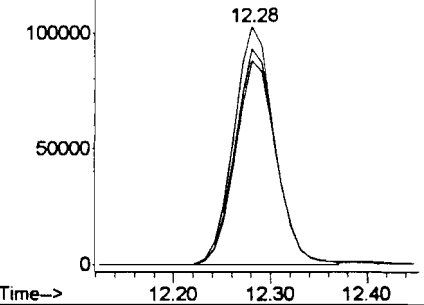


#43
 Trichloroethene
 Concen: 174.93 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.01 min
 Lab File: V0832.D
 Acq: 26 Sep 2001 1:29 pm

Tgt Ion: 95 Resp: 301602
 Ion Ratio Lower Upper
 95 100
 130 90.6 70.0 105.0
 132 85.6 68.2 102.4



Abundance Ion 95.00 (94.70 to 95.70): V0832.D
 Ion 129.95 (129.65 to 130.65): V0832.D
 Ion 131.90 (131.60 to 132.60): V0832.D



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-07

Date Sampled : 09/17/01 13:48 Order #: 493949 Sample Matrix: WATER
Date Received: 09/18/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/25/01		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	3.0 J	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1.8 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	9.8	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	17	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-DB	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	107	%

248

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0819.D

Vial: 17

Acq On : 25 Sep 2001 10:53 pm

Operator: herring

Sample : 493949 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 23:21 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	134117	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	235871	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	196373	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.01	152	76923	50.00	ppb	-0.02

System Monitoring Compounds

36) surr4,Dibrflmethane	10.43	113	96506	53.66	ppb	-0.02
Spiked Amount	50.000		Recovery	=	107.32%	
58) surr3,Toluene-d8	14.45	98	253381	51.12	ppb	-0.02
Spiked Amount	50.000		Recovery	=	102.24%	
59) surr2,bfb	19.59	95	95607	47.53	ppb	0.00
Spiked Amount	50.000		Recovery	=	95.06%	

Target Compounds

						Qvalue
10) FREON 113	6.61	85	6218	9.85	ppb	81
12) Acetone	6.69	43	3129	3.05	ppb	90
18) TBA	7.57	59	1062	5.82	ppb	# 27
28) cis-1,2-Dichloroethene	9.65	96	3585	1.81	ppb	# 77
43) Trichloroethene	12.28	95	29970	16.87	ppb	96
46) 1,4-Dioxane	12.84	88	69	4.89	ppb	# 7

RJT 9/26

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0819.D

Vial: 17

Acq On : 25 Sep 2001 10:53 pm

Operator: herring

Sample : 493949 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 23:21 2001

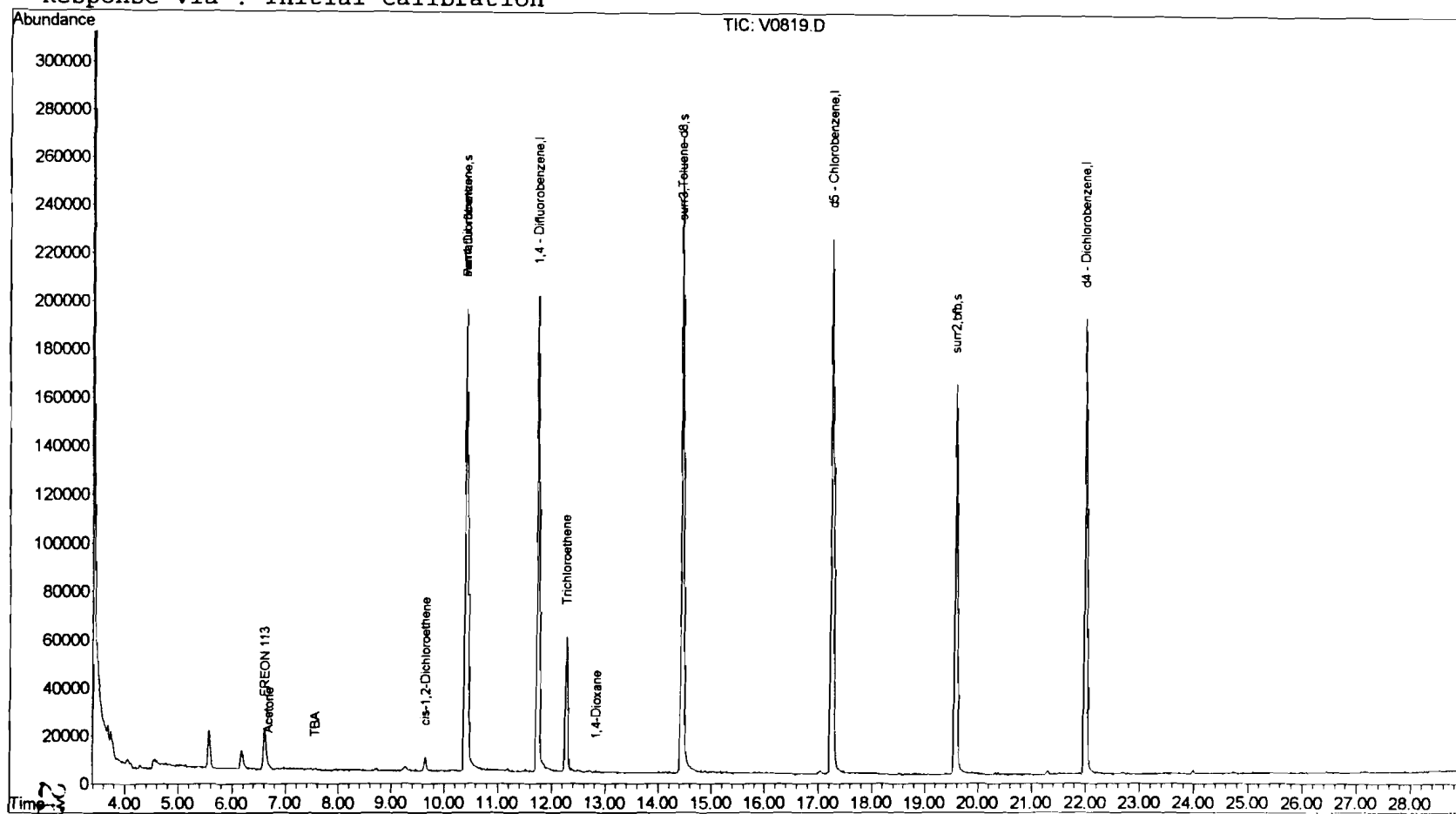
Quant Results File: EXP0924.RES

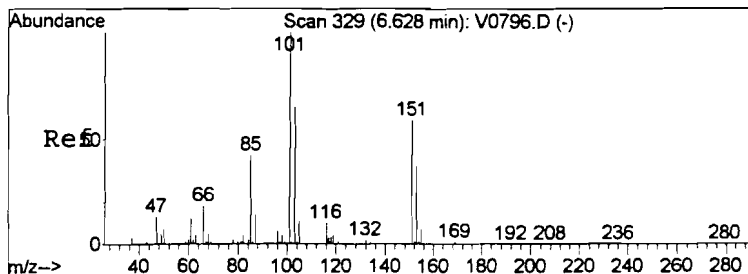
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

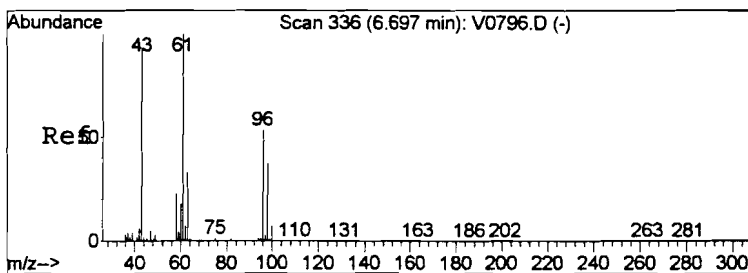
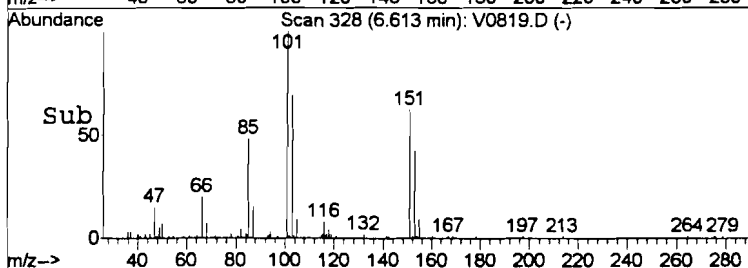
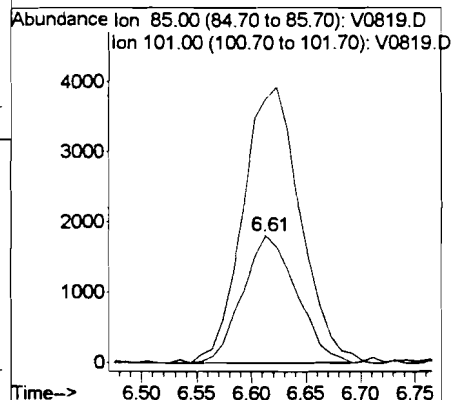
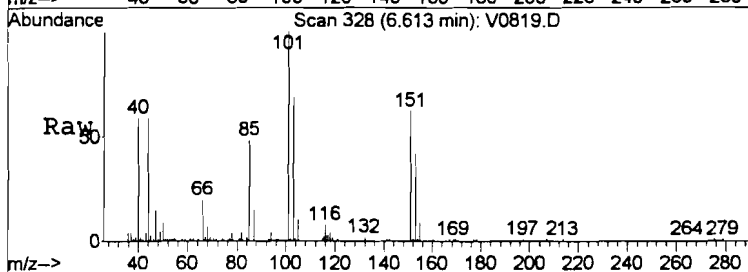
Response via : Initial Calibration





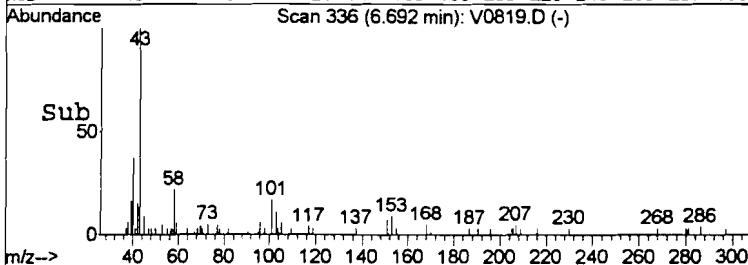
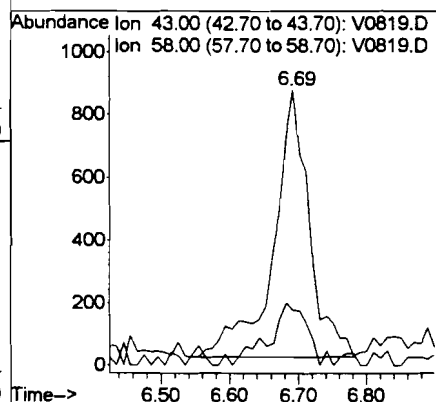
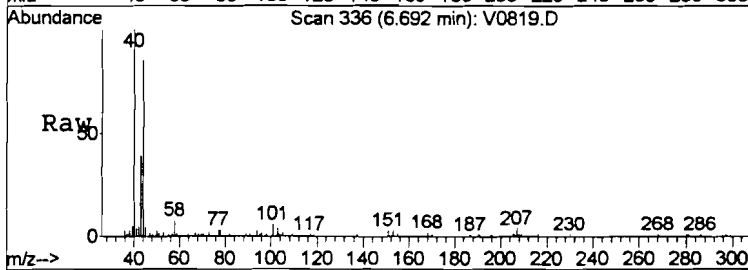
#10
 FREON 113
 Concen: 9.85 ppb
 RT: 6.61 min Scan# 328
 Delta R.T. -0.03 min
 Lab File: V0819.D
 Acq: 25 Sep 2001 10:53 pm

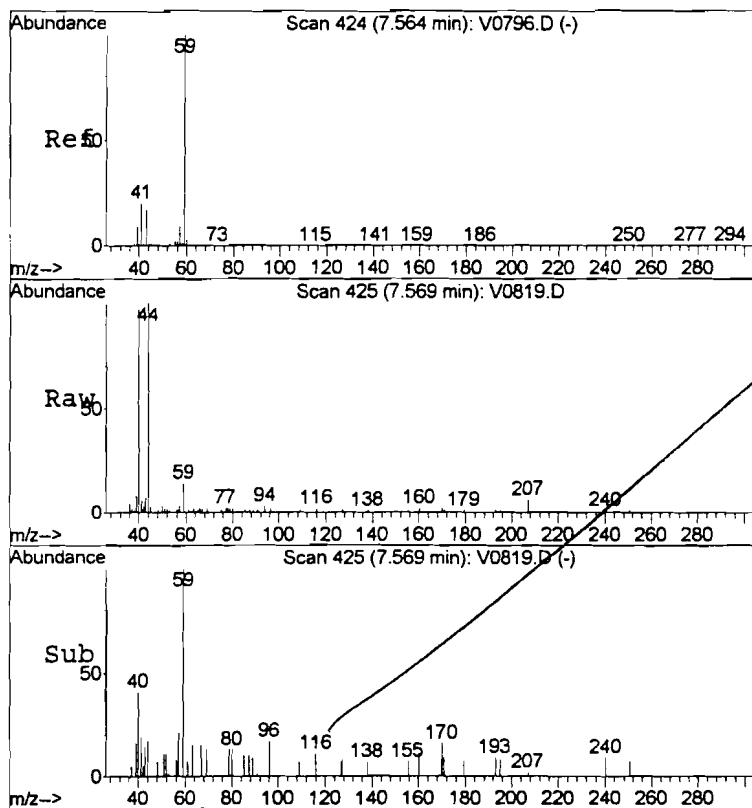
Tgt Ion: 85 Resp: 6218
 Ion Ratio Lower Upper
 85 100
 101 207.6 179.4 299.0



#12
 Acetone
 Concen: 3.05 ppb
 RT: 6.69 min Scan# 336
 Delta R.T. 0.00 min
 Lab File: V0819.D
 Acq: 25 Sep 2001 10:53 pm

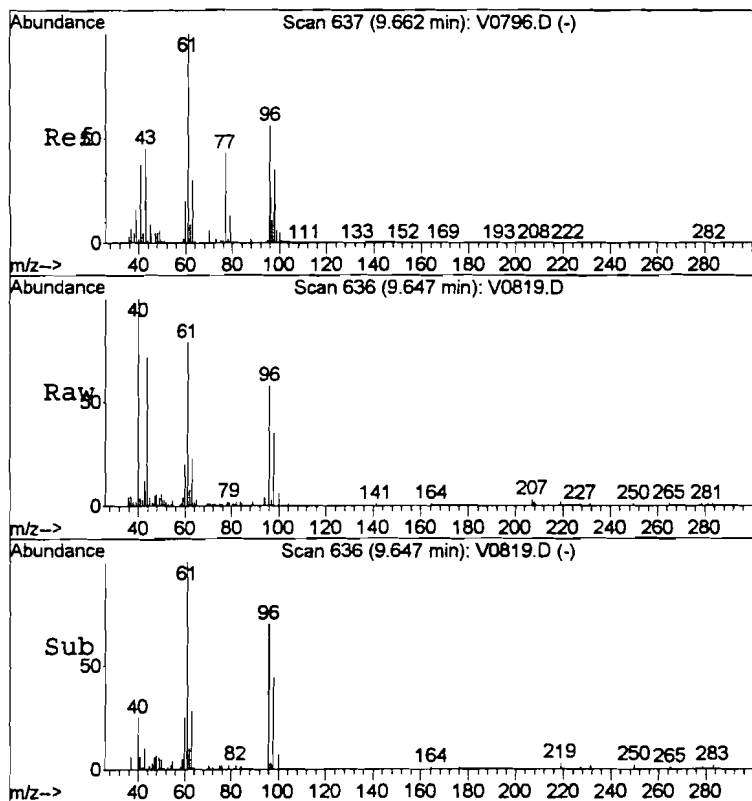
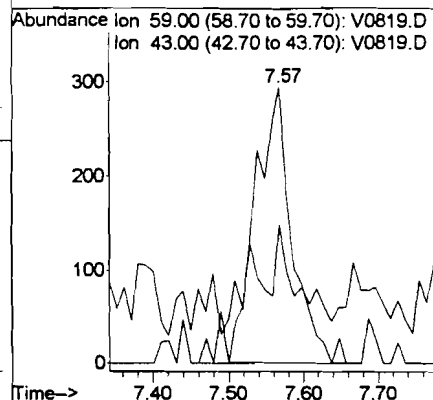
Tgt Ion: 43 Resp: 3129
 Ion Ratio Lower Upper
 43 100
 58 19.9 19.8 29.8





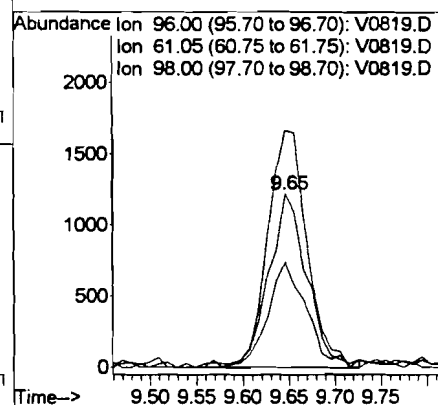
#18
TBA
Concen: 5.82 ppb
RT: 7.57 min Scan# 425
Delta R.T. -0.01 min
Lab File: V0819.D
Acq: 25 Sep 2001 10:53 pm

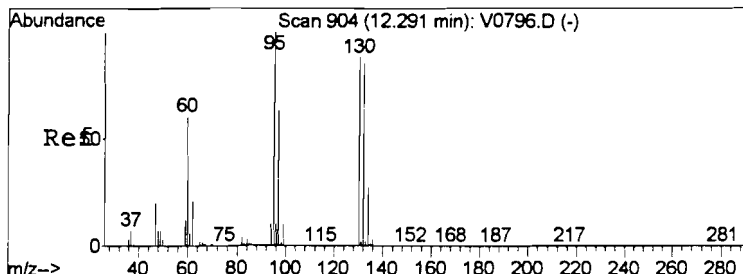
Tgt Ion: 59 Resp: 1062
Ion Ratio Lower Upper
59 100
43 50.2 14.2 21.4#



#28
cis-1,2-Dichloroethene
Concen: 1.81 ppb
RT: 9.65 min Scan# 636
Delta R.T. -0.02 min
Lab File: V0819.D
Acq: 25 Sep 2001 10:53 pm

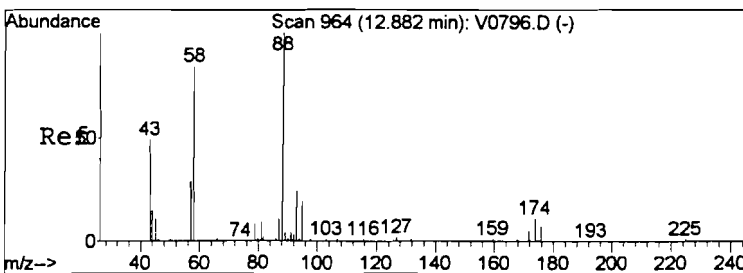
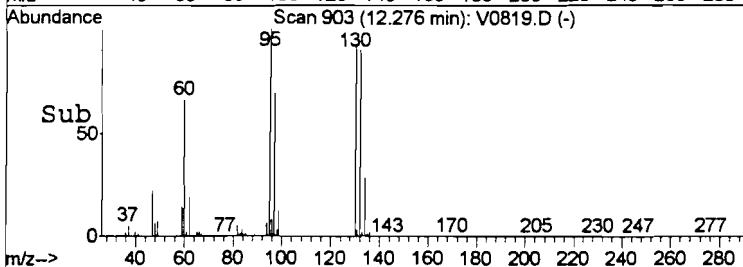
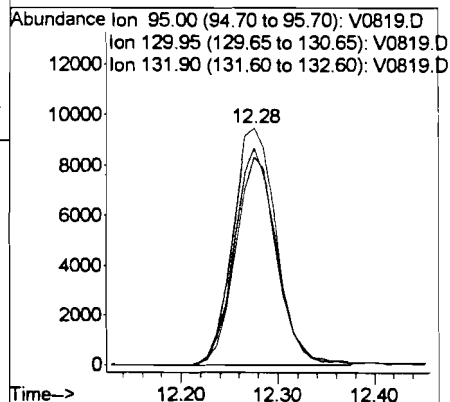
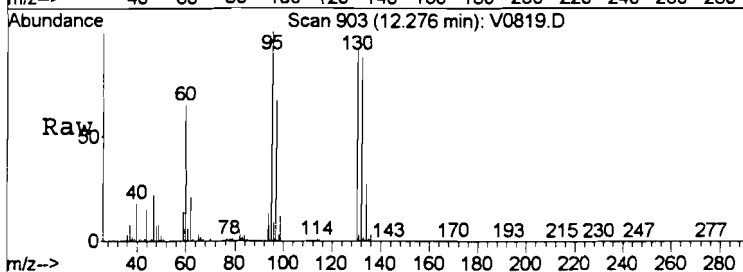
Tgt Ion: 96 Resp: 3585
Ion Ratio Lower Upper
96 100
61 136.5 143.6 215.4#
98 60.5 50.8 76.2





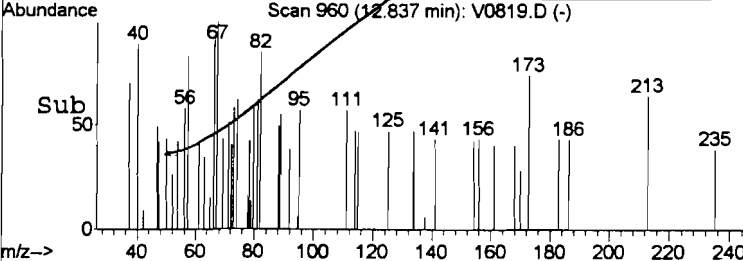
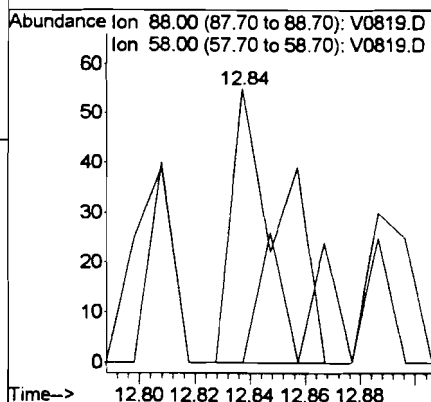
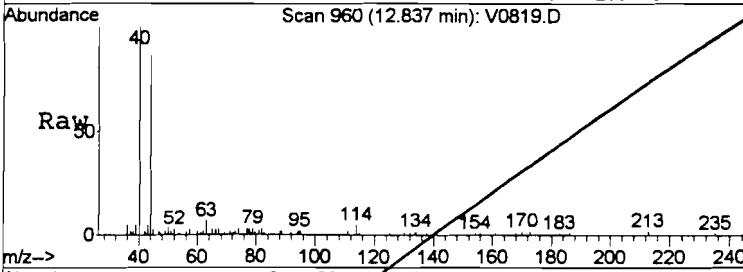
#43
 Trichloroethene
 Concen: 16.87 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.02 min
 Lab File: V0819.D
 Acq: 25 Sep 2001 10:53 pm

Tgt Ion: 95 Resp: 29970
 Ion Ratio Lower Upper
 95 100
 130 91.6 70.0 105.0
 132 87.9 68.2 102.4



#46
 1,4-Dioxane
 Concen: 4.89 ppb
 RT: 12.84 min Scan# 960
 Delta R.T. -0.05 min
 Lab File: V0819.D
 Acq: 25 Sep 2001 10:53 pm

Tgt Ion: 88 Resp: 69
 Ion Ratio Lower Upper
 88 100
 58 0.0 63.7 106.3#



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-5

Date Sampled : 09/17/01 15:55 Order #: 493950 Sample Matrix: WATER
Date Received: 09/18/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	9.1	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	6.5	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	64	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	106	%

254

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0833.D Vial: 9
Acq On : 26 Sep 2001 2:05 pm Operator: herring
Sample : 493950 1.0 Inst : GC/MS Ins
Misc : hla r-8550 8206b.tclf Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 27 9:09 2001 Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Wed Sep 26 09:16:34 2001
Response via : Initial Calibration
DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	139331	50.00	ppb	-0.01
35) 1,4 - Difluorobenzene	11.75	114	248322	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.26	117	203551	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.02	152	79545	50.00	ppb	-0.01
System Monitoring Compounds						
36) surr4,Dibrflmethane	10.44	113	100169	52.90	ppb	-0.01
Spiked Amount 50.000			Recovery	=	105.80%	
58) surr3,Toluene-d8	14.46	98	262339	51.06	ppb	-0.01
Spiked Amount 50.000			Recovery	=	102.12%	
59) surr2,bfb	19.59	95	99678	47.81	ppb	-0.01
Spiked Amount 50.000			Recovery	=	95.62%	
Target Compounds						
12) Acetone	6.69	43	1441	1.35	ppb	Qvalue 98 <
21) trans-1,2-Dichloroethene	7.96	96	11734	6.46	ppb	97
28) cis-1,2-Dichloroethene	9.66	96	18838	9.13	ppb	83
33) Tetrahydrofuran	10.15	42	33295	39.22	ppb	99 NT
43) Trichloroethene	12.29	95	119167	63.70	ppb	99

RSH 10/4

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0833.D

Vial: 9

Acq On : 26 Sep 2001 2:05 pm

Operator: herring

Sample : 493950 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 27 9:09 2001

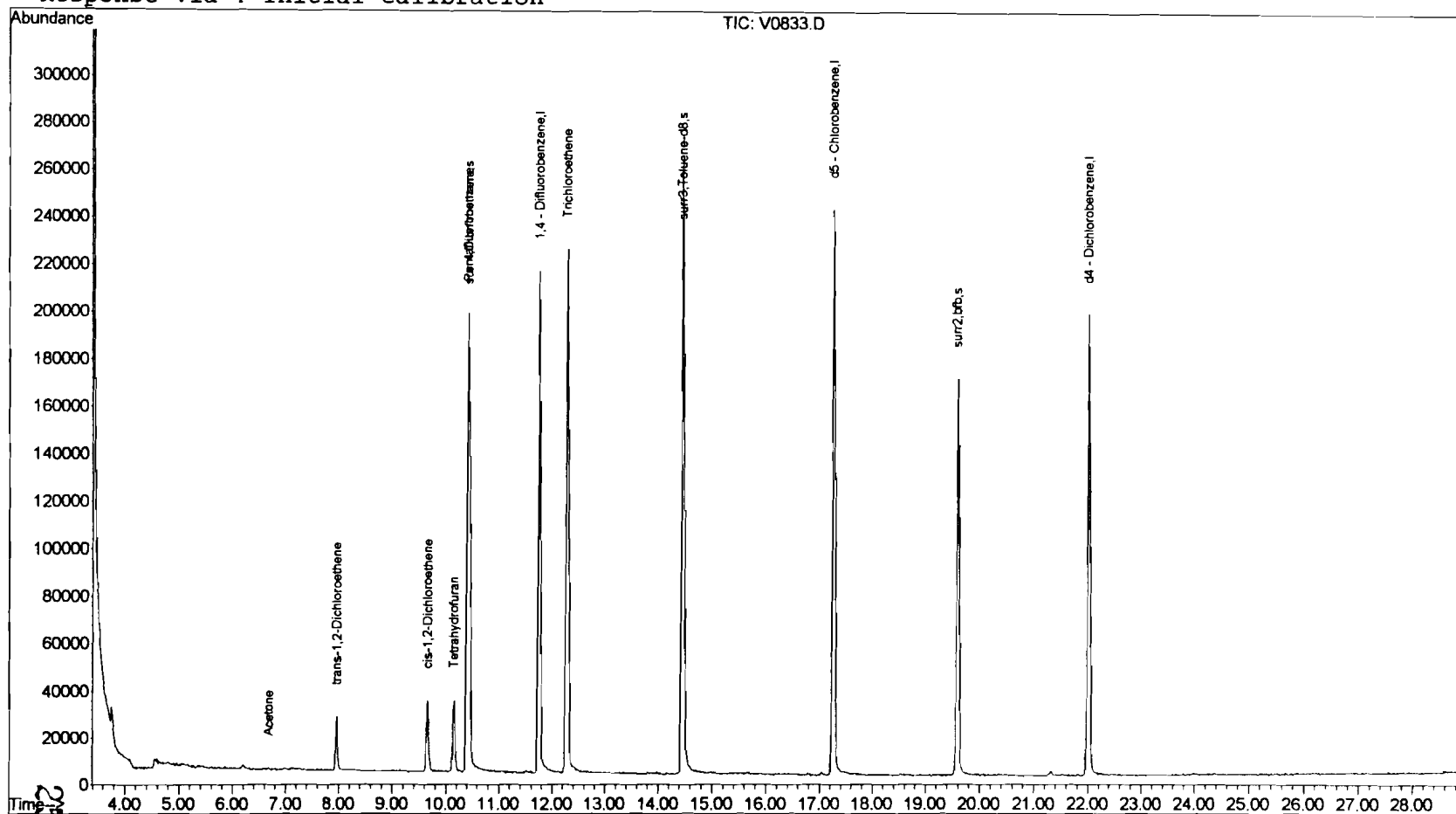
Quant Results File: EXP0924.RES

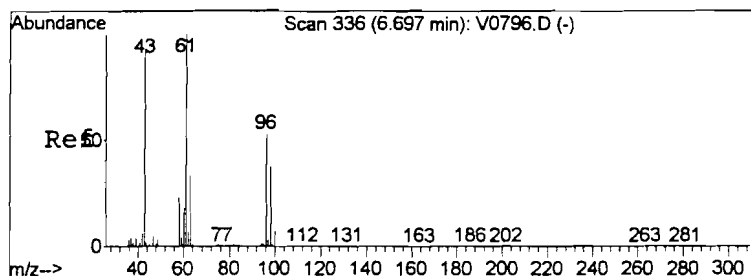
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

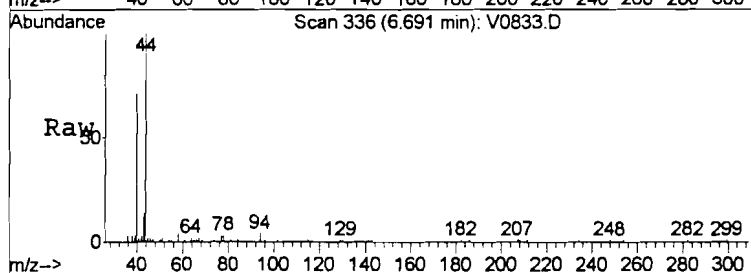
Response via : Initial Calibration



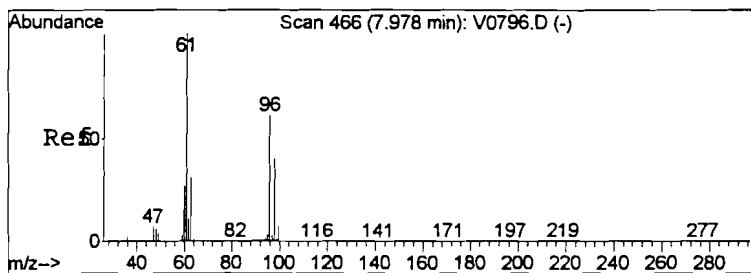
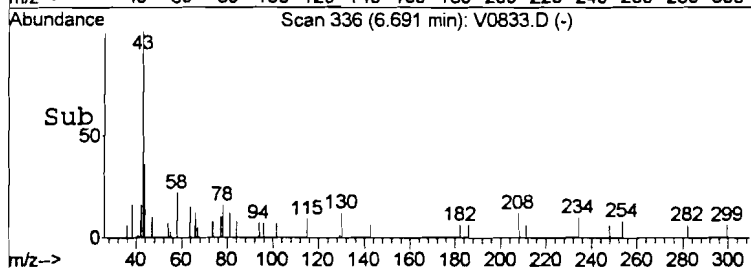
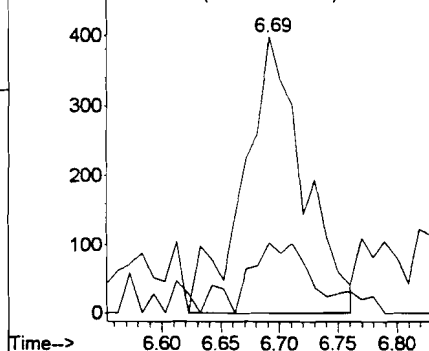


#12
Acetone
Concen: 1.35 ppb
RT: 6.69 min Scan# 336
Delta R.T. -0.00 min
Lab File: V0833.D
Acq: 26 Sep 2001 2:05 pm

Tgt Ion: 43 Resp: 1441
Ion Ratio Lower Upper
43 100
58 25.9 19.8 29.8

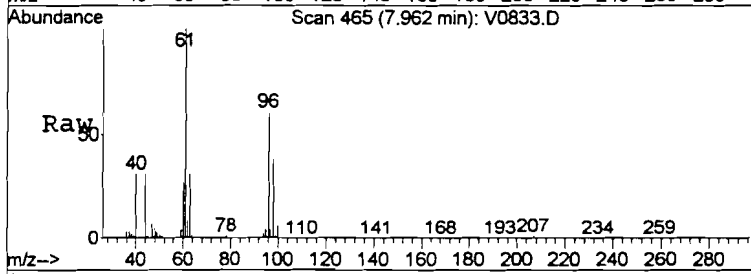


Abundance Ion 43.00 (42.70 to 43.70): V0833.D
Ion 58.00 (57.70 to 58.70): V0833.D

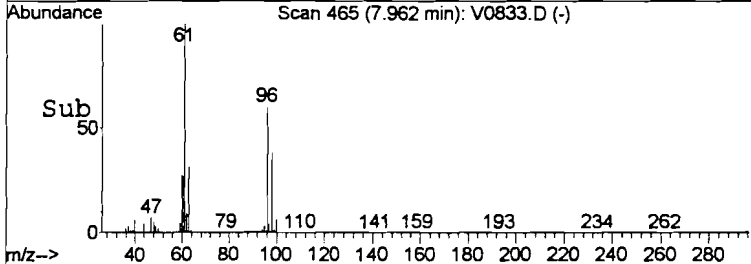
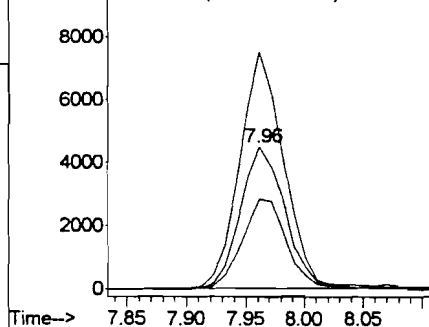


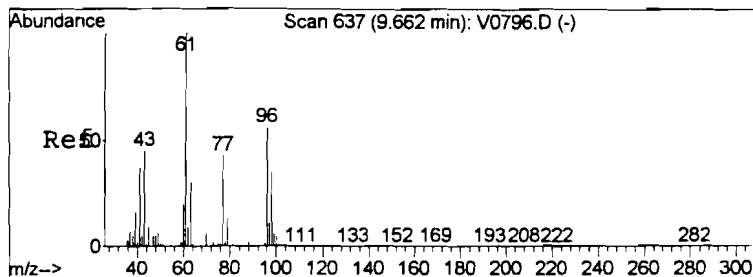
#21
trans-1,2-Dichloroethene
Concen: 6.46 ppb
RT: 7.96 min Scan# 465
Delta R.T. -0.02 min
Lab File: V0833.D
Acq: 26 Sep 2001 2:05 pm

Tgt Ion: 96 Resp: 11734
Ion Ratio Lower Upper
96 100
61 167.6 130.2 195.4
98 63.1 51.9 77.9



Abundance Ion 96.00 (95.70 to 96.70): V0833.D
Ion 61.05 (60.75 to 61.75): V0833.D
Ion 98.00 (97.70 to 98.70): V0833.D





#28

cis-1,2-Dichloroethene

Concen: 9.13 ppb

RT: 9.66 min Scan# 637

Delta R.T. -0.01 min

Lab File: V0833.D

Acq: 26 Sep 2001 2:05 pm

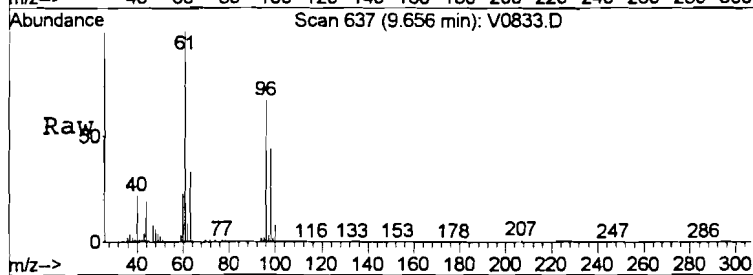
Tgt Ion: 96 Resp: 18838

Ion Ratio Lower Upper

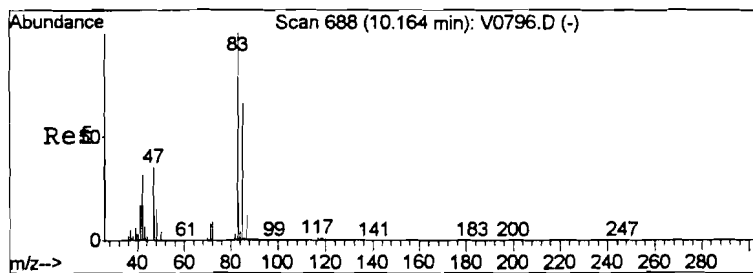
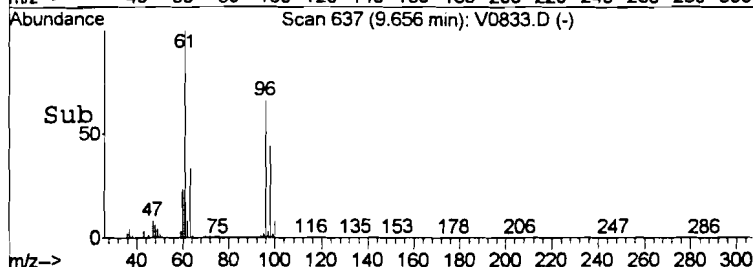
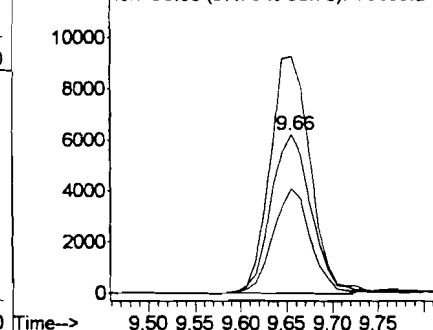
96 100

61 148.9 143.6 215.4

98 66.0 50.8 76.2



Abundance Ion 96.00 (95.70 to 96.70): V0833.D
Ion 61.05 (60.75 to 61.75): V0833.D
Ion 98.00 (97.70 to 98.70): V0833.D



#33

Tetrahydrofuran

Concen: 39.22 ppb

RT: 10.15 min Scan# 687

Delta R.T. -0.02 min

Lab File: V0833.D

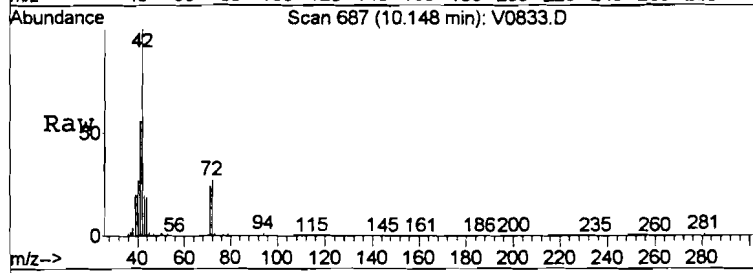
Acq: 26 Sep 2001 2:05 pm

Tgt Ion: 42 Resp: 33295

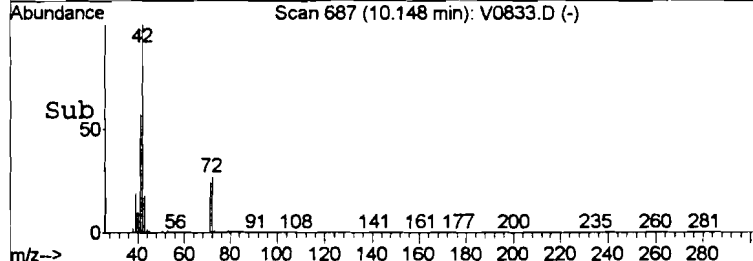
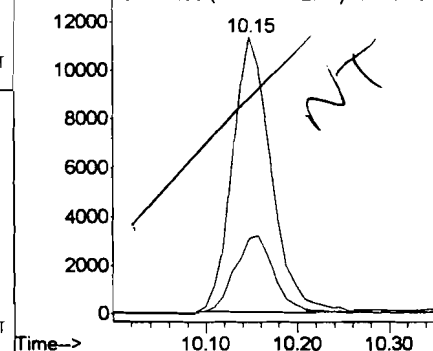
Ion Ratio Lower Upper

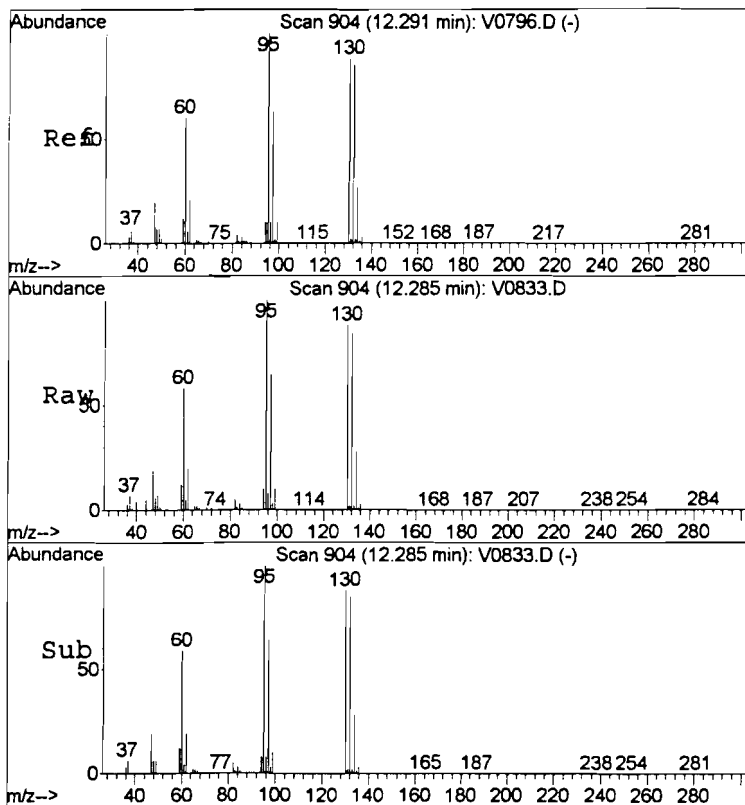
42 100

72 30.3 23.1 38.5



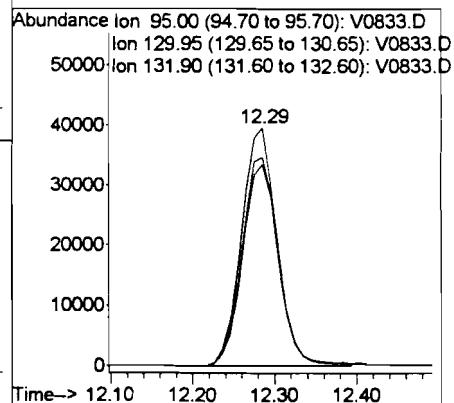
Abundance Ion 42.00 (41.70 to 42.70): V0833.D
Ion 72.00 (71.70 to 72.70): V0833.D





#43
 Trichloroethene
 Concen: 63.70 ppb
 RT: 12.29 min Scan# 904
 Delta R.T. -0.01 min
 Lab File: V0833.D
 Acq: 26 Sep 2001 2:05 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	87.6	70.0	105.0
132	84.4	68.2	102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-5 (DUP)

Date Sampled : 09/17/01 15:55 Order #: 493951 Sample Matrix: WATER
Date Received: 09/18/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	11	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	7.3	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	62	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	105	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0834.D

Vial: 10

Acq On : 26 Sep 2001 2:41 pm

Operator: herring

Sample : 493951 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 27 9:11 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.42	168	138255	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	246893	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	201261	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	77268	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.45	113	98409	52.27	ppb	0.00
Spiked Amount	50.000		Recovery	=	104.54%	
58) surr3, Toluene-d8	14.46	98	251750	49.56	ppb	-0.01
Spiked Amount	50.000		Recovery	=	99.12%	
59) surr2, bfb	19.60	95	97869	47.47	ppb	0.00
Spiked Amount	50.000		Recovery	=	94.94%	

Target Compounds

						Qvalue
21) trans-1,2-Dichloroethene	7.97	96	13189	7.32	ppb	92
28) cis-1,2-Dichloroethene	9.65	96	23088	11.28	ppb	84
33) Tetrahydrofuran	10.15	42	38719	45.97	ppb	95 NT
43) Trichloroethene	12.28	95	115345	62.02	ppb	99

RSH 10/4

(#) = qualifier out of range (m) = manual integration
V0834.D EXP0924.M Thu Sep 27 09:12:30 2001

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Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0834.D

Vial: 10

Acq On : 26 Sep 2001 2:41 pm

Operator: herring

Sample : 493951 1.0

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 27 9:11 2001

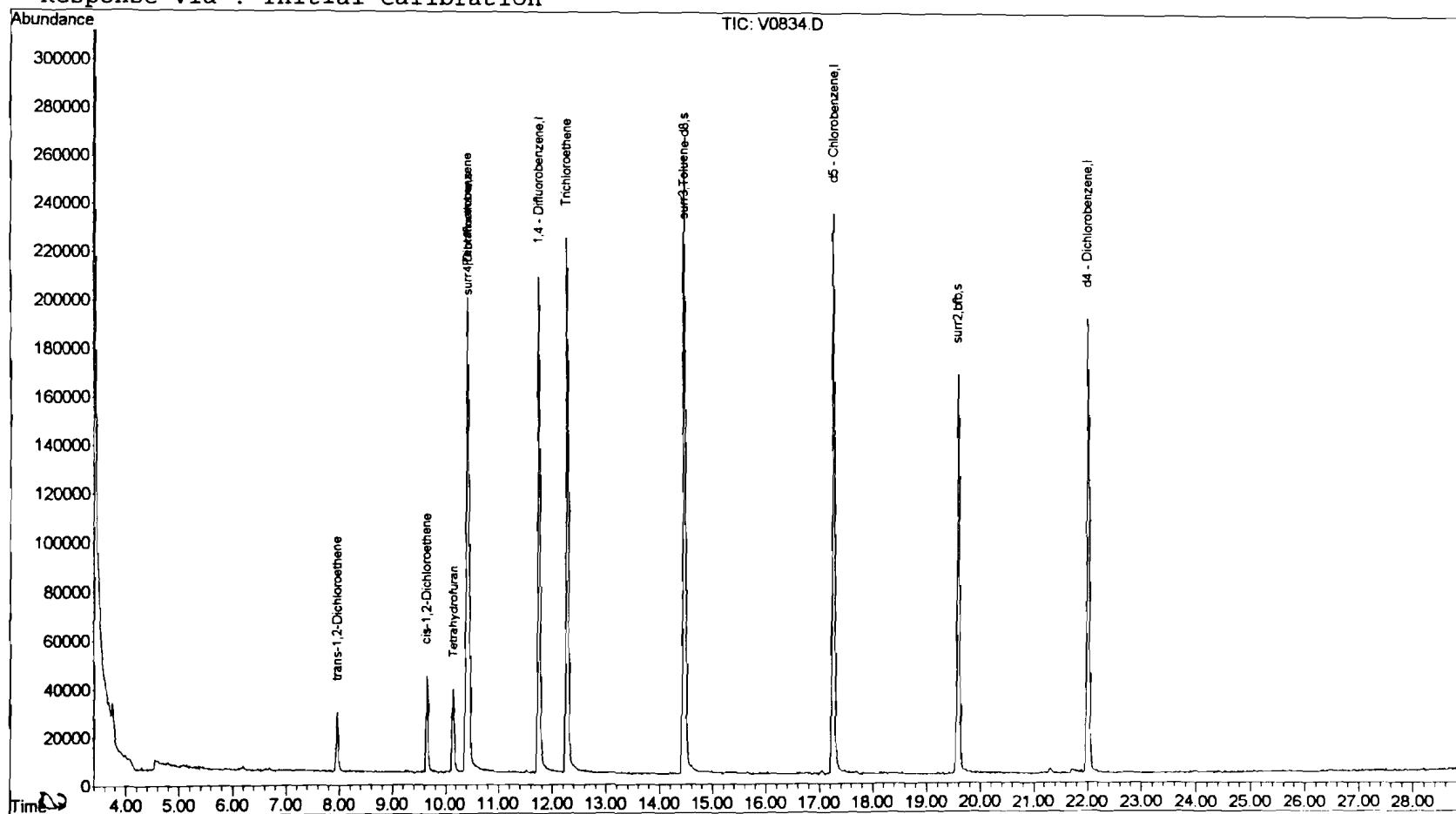
Quant Results File: EXP0924.RES

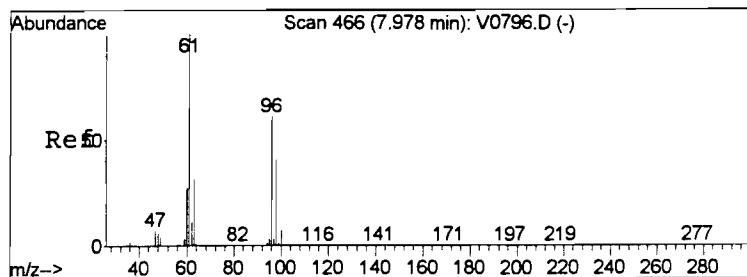
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

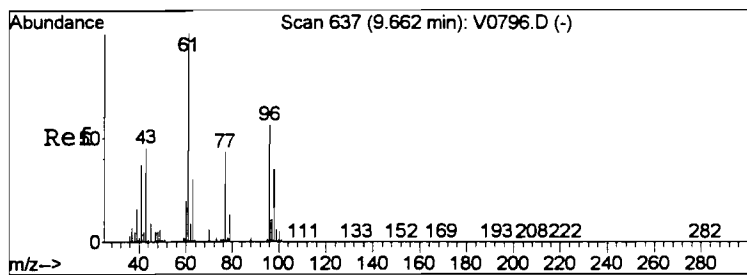
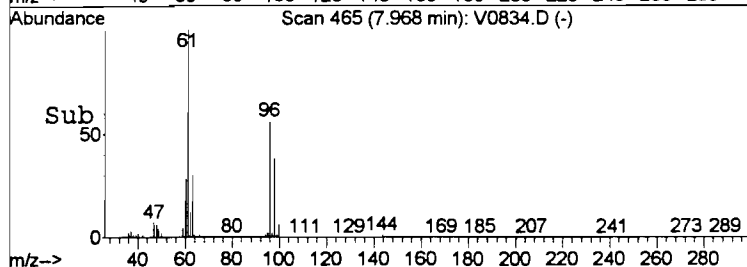
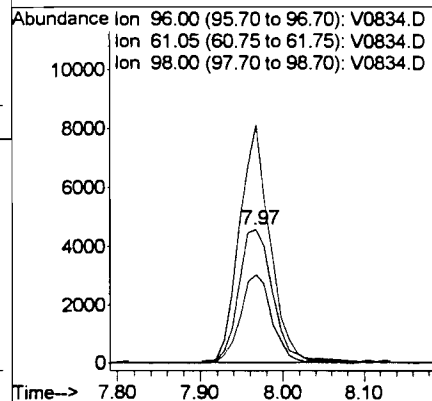
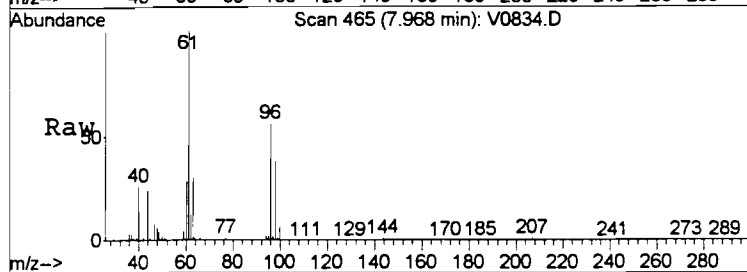
Response via : Initial Calibration





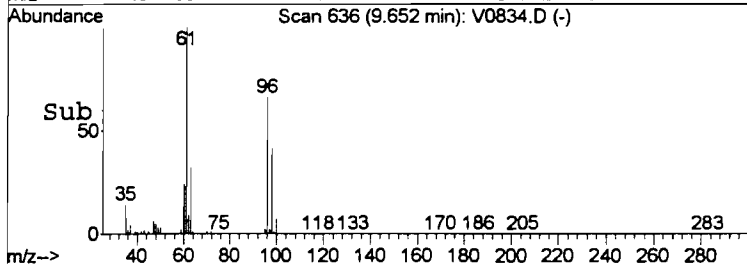
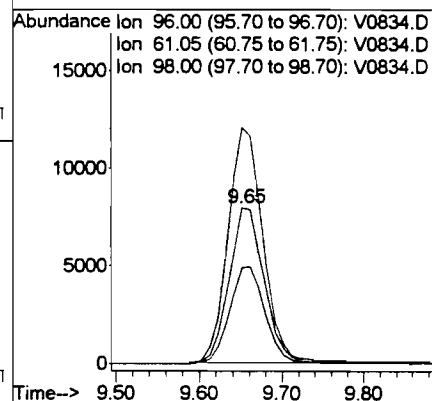
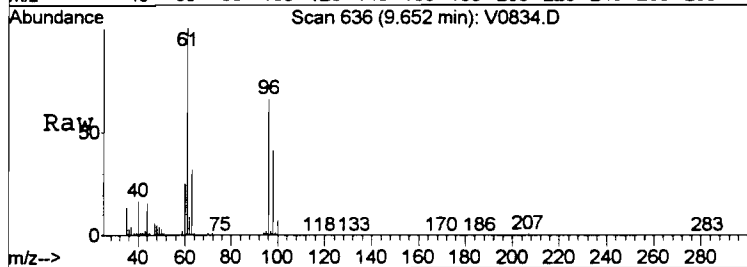
#21
trans-1,2-Dichloroethene
Concen: 7.32 ppb
RT: 7.97 min Scan# 465
Delta R.T. -0.01 min
Lab File: V0834.D
Acq: 26 Sep 2001 2:41 pm

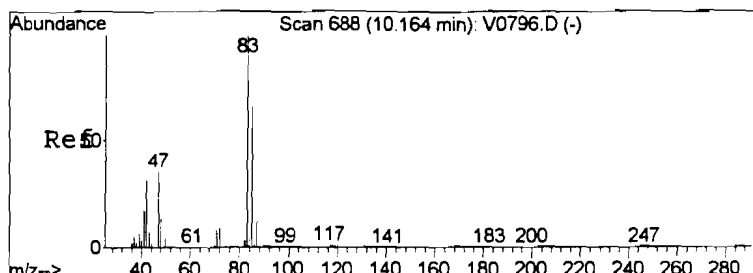
Tgt Ion	96	Resp	13189
Ion Ratio	Lower	Upper	
96	100		
61	177.1	130.2	195.4
98	66.5	51.9	77.9



#28
cis-1,2-Dichloroethene
Concen: 11.28 ppb
RT: 9.65 min Scan# 636
Delta R.T. -0.01 min
Lab File: V0834.D
Acq: 26 Sep 2001 2:41 pm

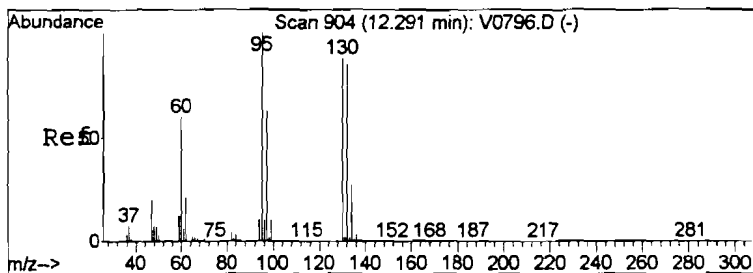
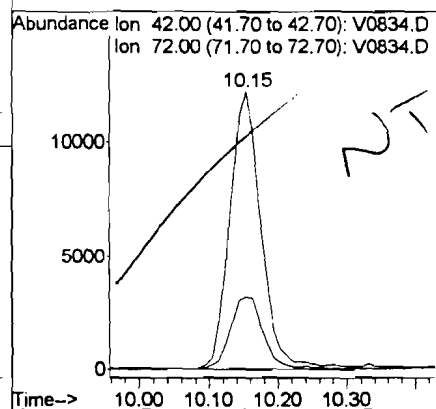
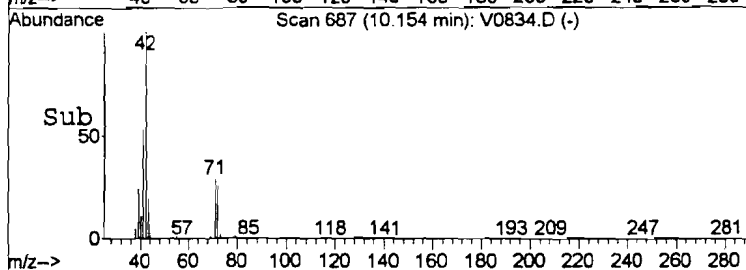
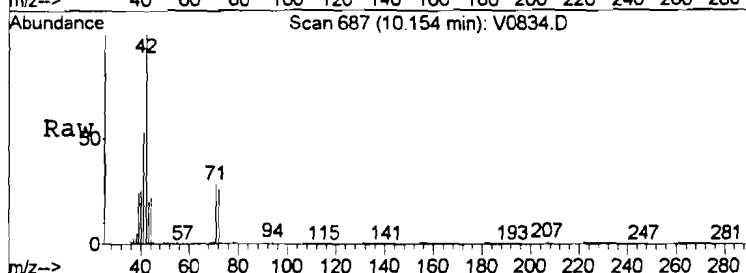
Tgt Ion	96	Resp	23088
Ion Ratio	Lower	Upper	
96	100		
61	151.0	143.6	215.4
98	61.4	50.8	76.2





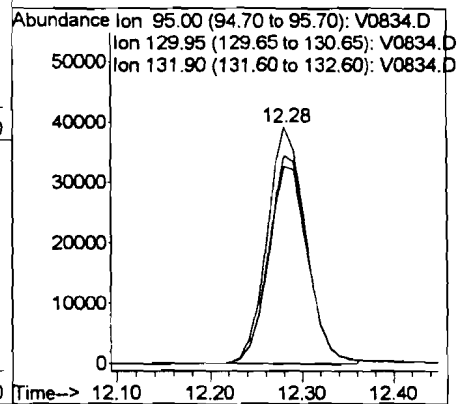
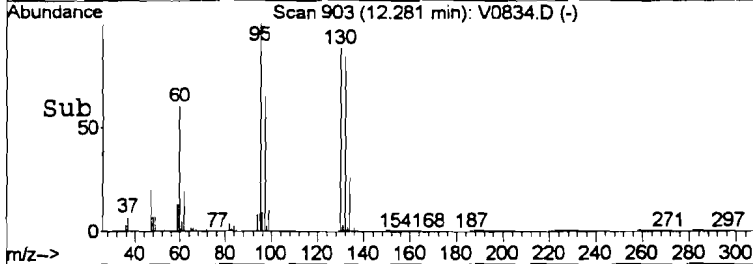
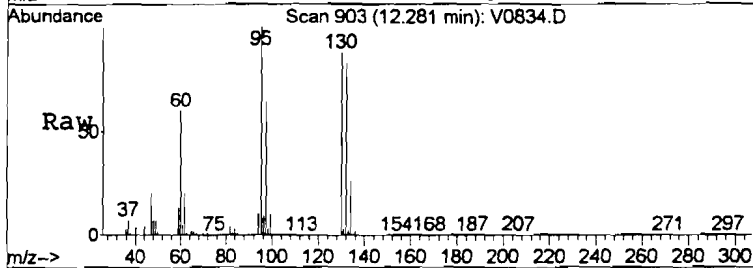
#33
 Tetrahydrofuran
 Concen: 45.97 ppb
 RT: 10.15 min Scan# 687
 Delta R.T. -0.01 min
 Lab File: V0834.D
 Acq: 26 Sep 2001 2:41 pm

Tgt Ion: 42 Resp: 38719
 Ion Ratio Lower Upper
 42 100
 72 27.8 23.1 38.5



#43
 Trichloroethene
 Concen: 62.02 ppb
 RT: 12.28 min Scan# 903
 Delta R.T. -0.01 min
 Lab File: V0834.D
 Acq: 26 Sep 2001 2:41 pm

Tgt Ion: 95 Resp: 115345
 Ion Ratio Lower Upper
 95 100
 130 87.8 70.0 105.0
 132 83.4 68.2 102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-04

Date Sampled : 09/17/01 18:32 Order #: 493952
Date Received: 09/18/01 Submission #: R2108550Sample Matrix: WATER
Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 50.00			
ACETONE	20	1000 U	UG/L
BENZENE	5.0	250 U	UG/L
BROMODICHLOROMETHANE	5.0	250 U	UG/L
BROMOFORM	5.0	250 U	UG/L
BROMOMETHANE	5.0	250 U	UG/L
2-BUTANONE (MEK)	10	500 U	UG/L
CARBON DISULFIDE	10	500 U	UG/L
CARBON TETRACHLORIDE	5.0	250 U	UG/L
CHLOROBENZENE	5.0	250 U	UG/L
CHLOROETHANE	5.0	250 U	UG/L
CHLOROFORM	5.0	250 U	UG/L
CHLOROMETHANE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHANE	5.0	250 U	UG/L
1,2-DICHLOROETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHENE	5.0	250 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	420	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	100 J	UG/L
1,2-DICHLOROPROPANE	5.0	250 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
ETHYLBENZENE	5.0	250 U	UG/L
FREON 113	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
METHYLENE CHLORIDE	5.0	250 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	500 U	UG/L
STYRENE	5.0	250 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	250 U	UG/L
TETRACHLOROETHENE	5.0	250 U	UG/L
TOLUENE	5.0	250 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	250 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	250 U	UG/L
TRICHLOROETHENE	5.0	5000	UG/L
VINYL CHLORIDE	1.0	50 U	UG/L
O-XYLENE	5.0	250 U	UG/L
M+P-XYLENE	5.0	250 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	106	%

265

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0835.D

Vial: 11

Acq On : 26 Sep 2001 3:17 pm

Operator: herring

Sample : 493952 50

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 4 15:02 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	134056	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	236145	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.26	117	192738	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.02	152	76860	50.00	ppb	-0.01
System Monitoring Compounds						
36) surr4, Dibrflmethane	10.44	113	95682	53.14	ppb	-0.01
Spiked Amount	50.000		Recovery	=	106.28%	
58) surr3, Toluene-d8	14.46	98	243443	50.04	ppb	-0.01
Spiked Amount	50.000		Recovery	=	100.08%	
59) surr2, bfb	19.59	95	94079	47.65	ppb	-0.01
Spiked Amount	50.000		Recovery	=	95.30%	
Target Compounds						
21) trans-1,2-Dichloroethene	7.96	96	3642	2.08	ppb	Qvalue 88 J
28) cis-1,2-Dichloroethene	9.66	96	16677	8.40	ppb	91
33) Tetrahydrofuran	10.15	42	1884	2.31	ppb	99 NT
43) Trichloroethene	12.29	95	179101	100.68	ppb	98

R.H. 10/4

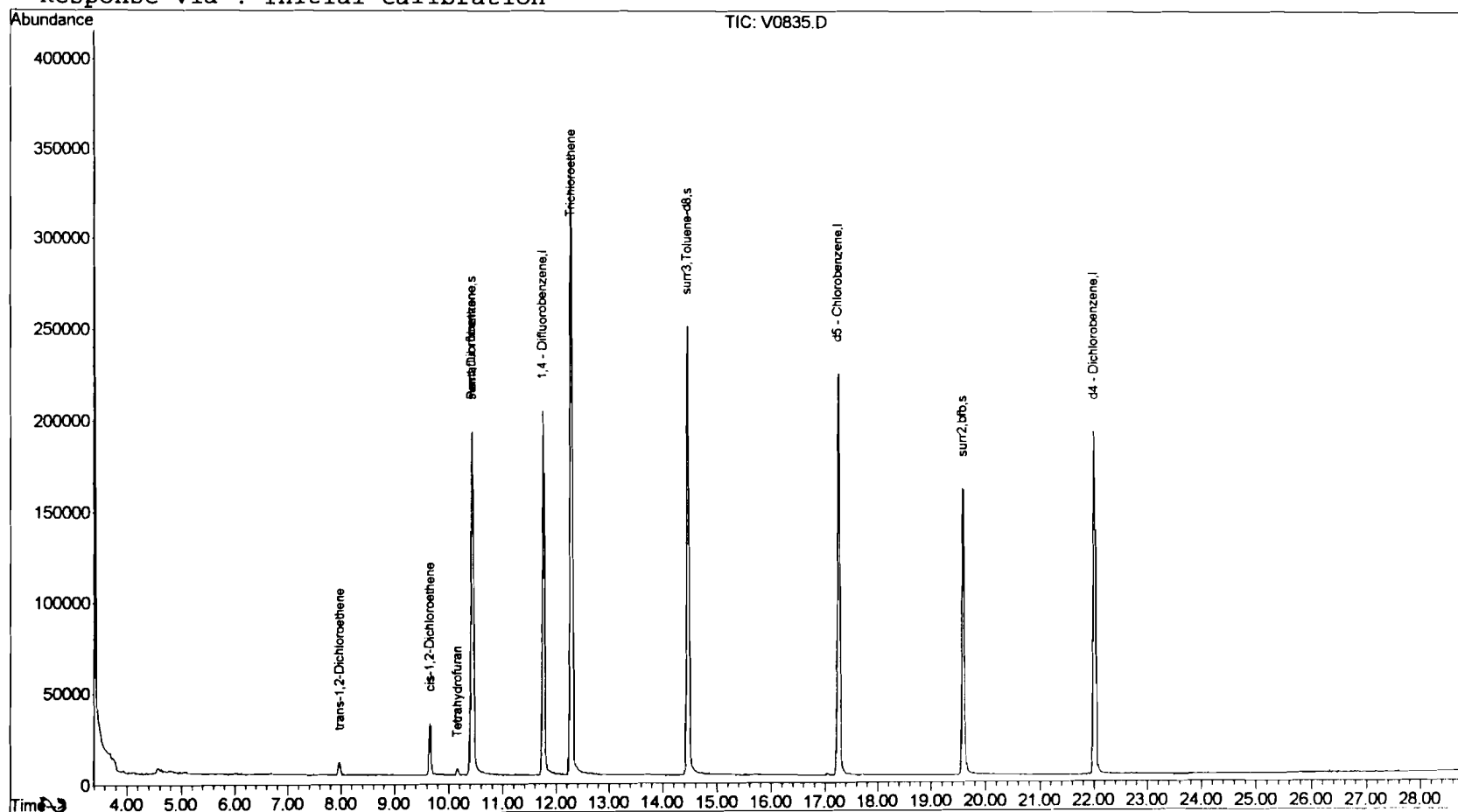
(#) = qualifier out of range (m) = manual integration
V0835.D EXP0924.M Thu Oct 04 15:03:28 2001

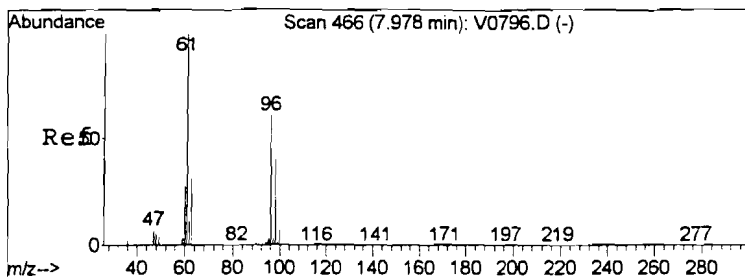
266
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0835.D Vial: 11
 Acq On : 26 Sep 2001 3:17 pm Operator: herring
 Sample : 493952 50 Inst : GC/MS Ins
 Misc : hla r-8550 8206b.tclf Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 4 15:02 2001 Quant Results File: EXP0924.RES

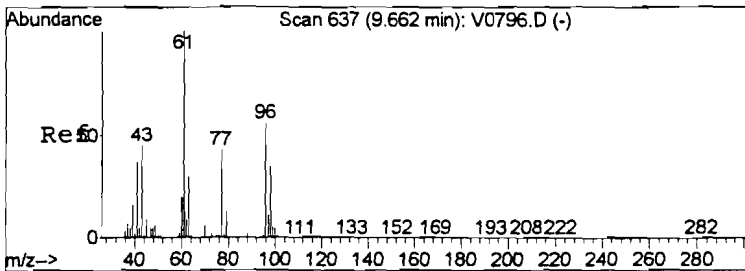
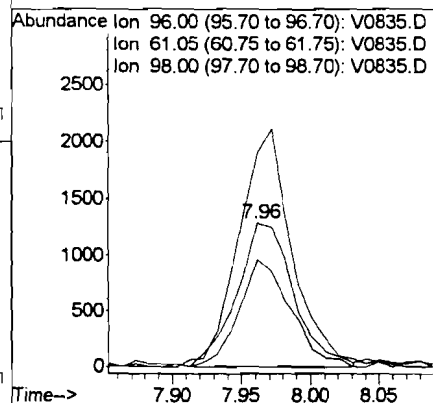
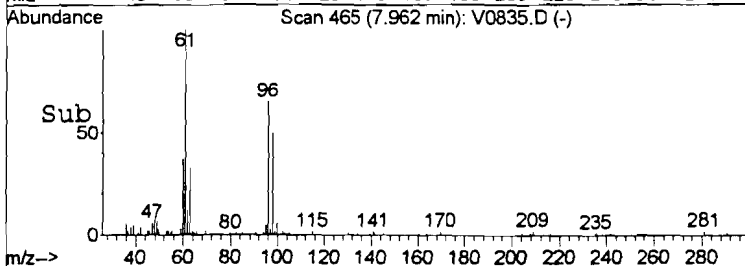
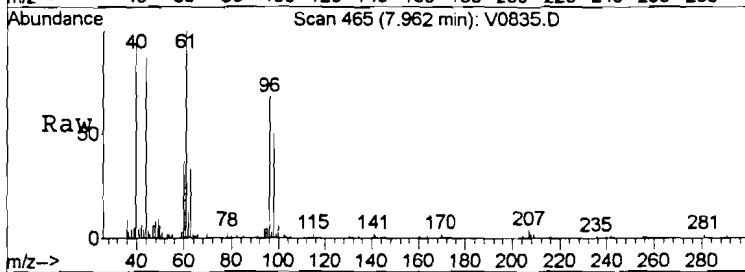
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Thu Oct 04 13:05:20 2001
 Response via : Initial Calibration





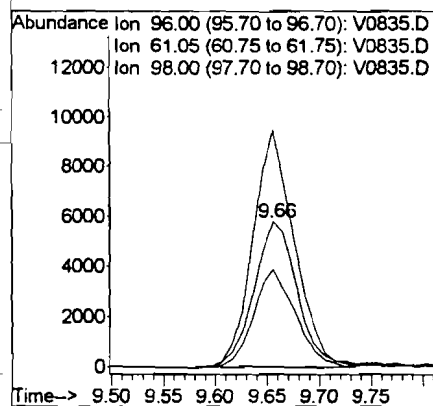
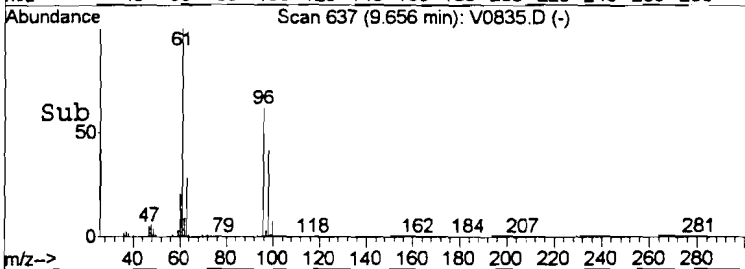
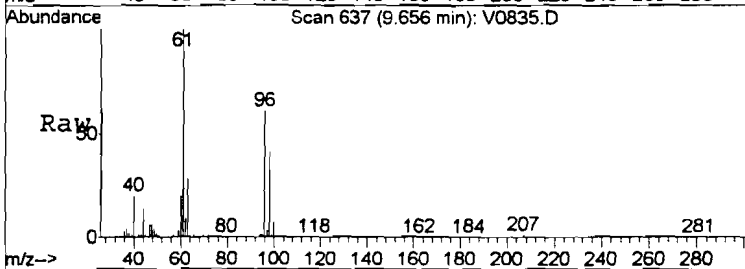
#21
trans-1,2-Dichloroethene
Concen: 2.08 ppb
RT: 7.96 min Scan# 465
Delta R.T. -0.02 min
Lab File: V0835.D
Acq: 26 Sep 2001 3:17 pm

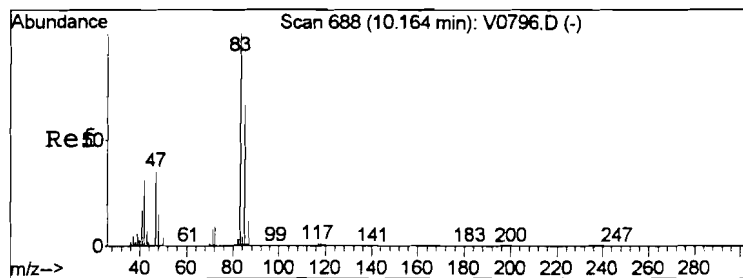
Tgt Ion: 96 Resp: 3642
Ion Ratio Lower Upper
96 100
61 147.4 130.2 195.4
98 74.3 51.9 77.9



#28
cis-1,2-Dichloroethene
Concen: 8.40 ppb
RT: 9.66 min Scan# 637
Delta R.T. -0.01 min
Lab File: V0835.D
Acq: 26 Sep 2001 3:17 pm

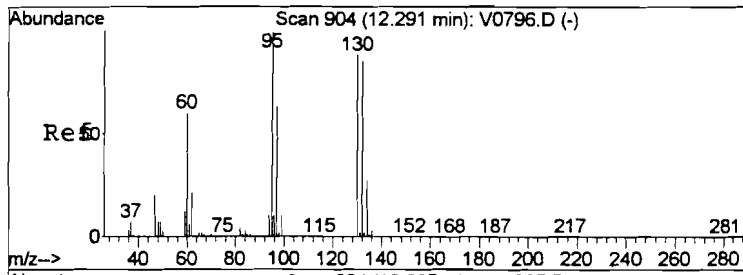
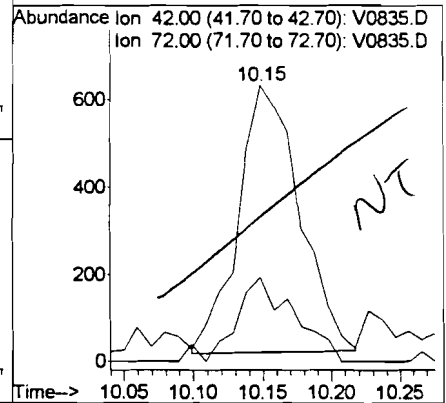
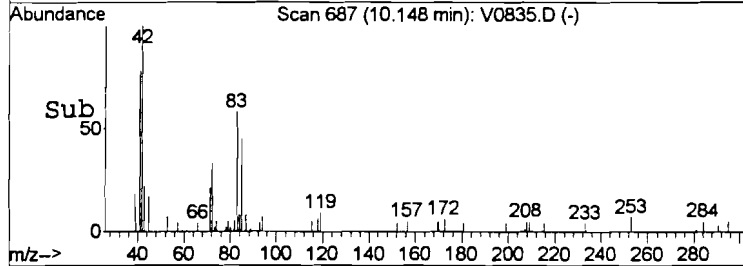
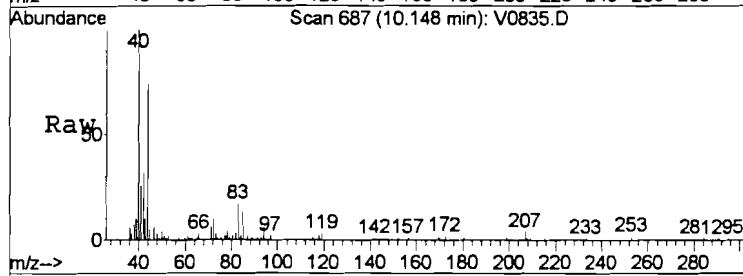
Tgt Ion: 96 Resp: 16677
Ion Ratio Lower Upper
96 100
61 164.4 143.6 215.4
98 66.8 50.8 76.2





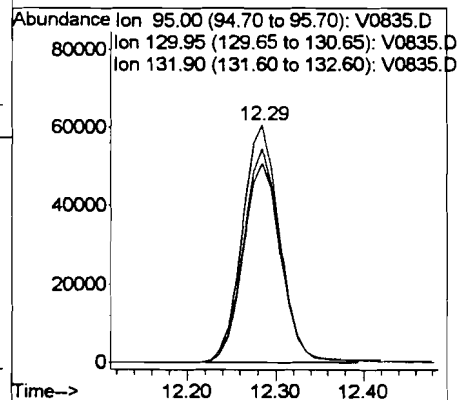
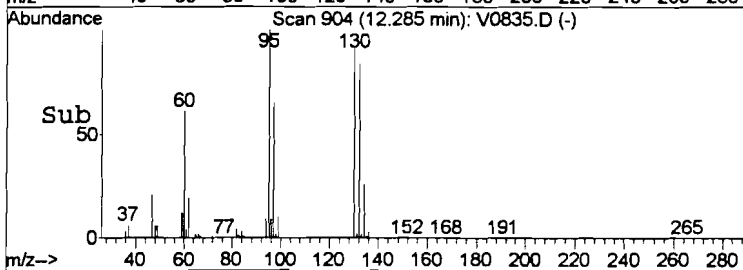
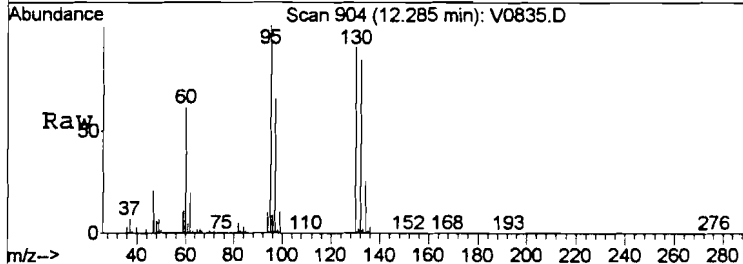
#33
Tetrahydrofuran
Concen: 2.31 ppb
RT: 10.15 min Scan# 687
Delta R.T. -0.02 min
Lab File: V0835.D
Acq: 26 Sep 2001 3:17 pm

Tgt Ion: 42 Resp: 1884
Ion Ratio Lower Upper
42 100
72 30.3 23.1 38.5



#43
Trichloroethene
Concen: 100.68 ppb
RT: 12.29 min Scan# 904
Delta R.T. -0.01 min
Lab File: V0835.D
Acq: 26 Sep 2001 3:17 pm

Tgt Ion: 95 Resp: 179101
Ion Ratio Lower Upper
95 100
130 89.9 70.0 105.0
132 83.7 68.2 102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-05

Date Sampled : 09/18/01 09:46 Order #: 493953 Sample Matrix: WATER
Date Received: 09/18/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/26/01		
ANALYTICAL DILUTION:	25.00		
ACETONE	20	76 J	UG/L
BENZENE	5.0	130 U	UG/L
BROMODICHLOROMETHANE	5.0	130 U	UG/L
BROMOFORM	5.0	130 U	UG/L
BROMOMETHANE	5.0	130 U	UG/L
2-BUTANONE (MEK)	10	250 U	UG/L
CARBON DISULFIDE	10	250 U	UG/L
CARBON TETRACHLORIDE	5.0	130 U	UG/L
CHLOROBENZENE	5.0	130 U	UG/L
CHLOROETHANE	5.0	130 U	UG/L
CHLOROFORM	5.0	130 U	UG/L
CHLOROMETHANE	5.0	130 U	UG/L
DIBROMOCHLOROMETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHANE	5.0	130 U	UG/L
1,2-DICHLOROETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHENE	5.0	38 J	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1800	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	150	UG/L
1,2-DICHLOROPROPANE	5.0	130 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
ETHYLBENZENE	5.0	130 U	UG/L
FREON 113	5.0	130 U	UG/L
2-HEXANONE	10	250 U	UG/L
METHYLENE CHLORIDE	5.0	130 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	250 U	UG/L
STYRENE	5.0	130 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	130 U	UG/L
TETRACHLOROETHENE	5.0	130 U	UG/L
TOLUENE	5.0	130 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	130 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	130 U	UG/L
TRICHLOROETHENE	5.0	2500	UG/L
VINYL CHLORIDE	1.0	420	UG/L
O-XYLENE	5.0	130 U	UG/L
M+P-XYLENE	5.0	130 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	109	%

270

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0836.D

Vial: 12

Acq On : 26 Sep 2001 3:53 pm

Operator: herring

Sample : 493953 25

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 16:24 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	132392	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	232634	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	193548	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	74968	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.44	113	96746	54.54	ppb	0.00
Spiked Amount 50.000			Recovery	=	109.08%	
58) surr3,Toluene-d8	14.46	98	244952	50.14	ppb	0.00
Spiked Amount 50.000			Recovery	=	100.28%	
59) surr2,bfb	19.59	95	94789	47.81	ppb	0.00
Spiked Amount 50.000			Recovery	=	95.62%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	4.36	62	13716	16.76	ppb	96
11) 1,1-Dicethene	6.67	96	2044	1.54	ppb	# 72 J
12) Acetone	6.70	43	3072	3.04	ppb	94 J
21) trans-1,2-Dichloroethene	7.97	96	10441	6.05	ppb	95
28) cis-1,2-Dichloroethene	9.66	96	139900	71.39	ppb	84
33) Tetrahydrofuran	10.16	42	1852	2.30	ppb	96 NT
43) Trichloroethene	12.29	95	175999	100.43	ppb	99
46) 1,4-Dioxane	12.98	88	32	2.30	ppb	# 7

(#) = qualifier out of range (m) = manual integration
V0836.D EXP0924.M Wed Sep 26 16:24:57 2001

R/H 10/4

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0836.D

Vial: 12

Acq On : 26 Sep 2001 3:53 pm

Operator: herring

Sample : 493953 25

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 16:24 2001

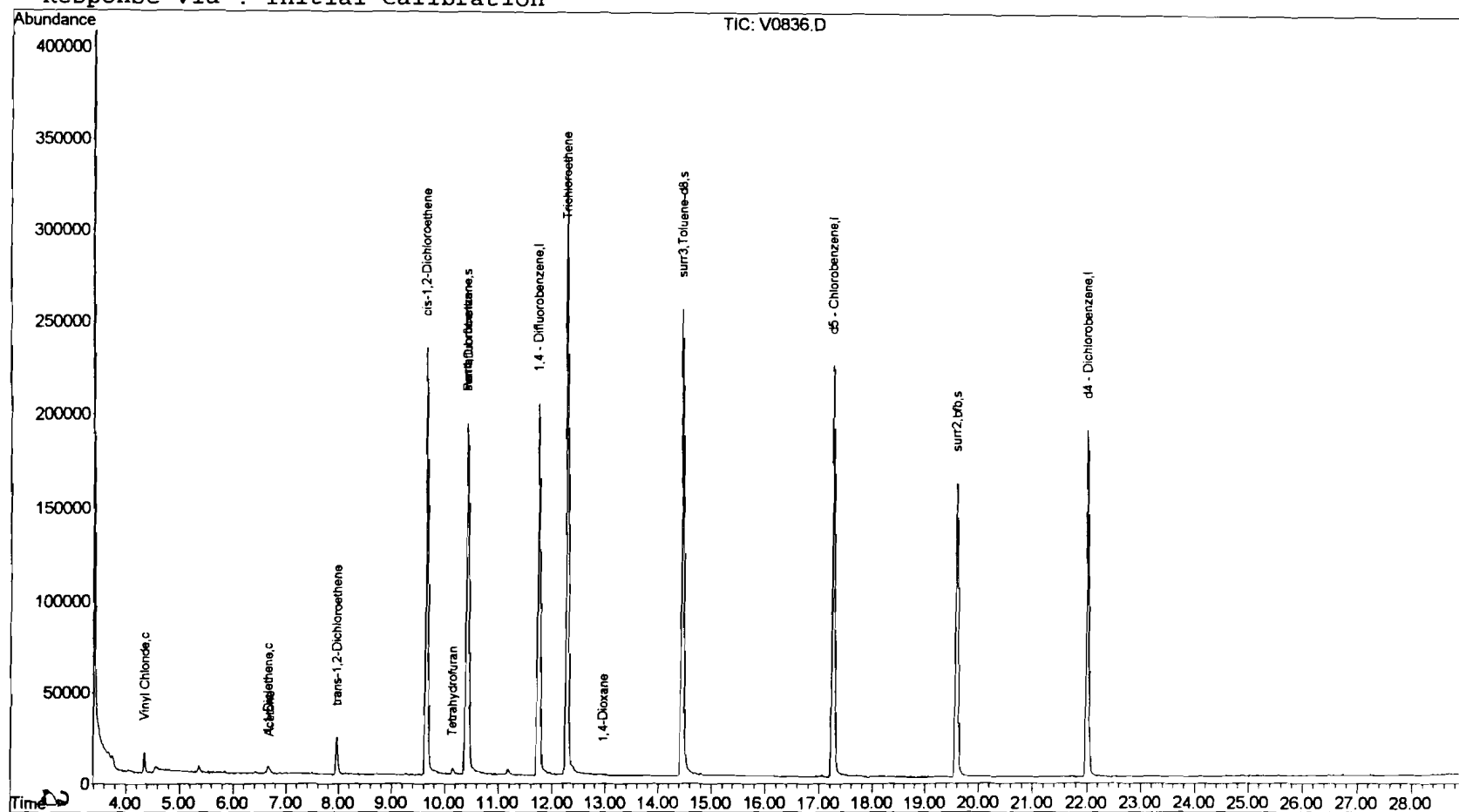
Quant Results File: EXP0924.RES

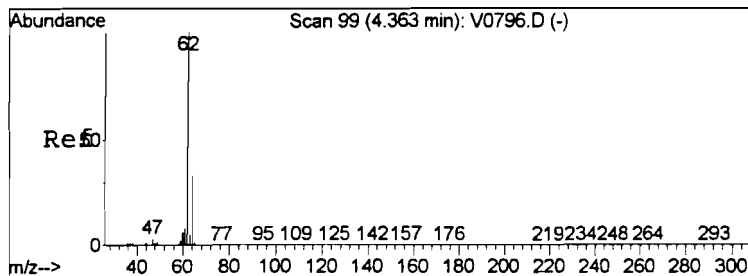
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

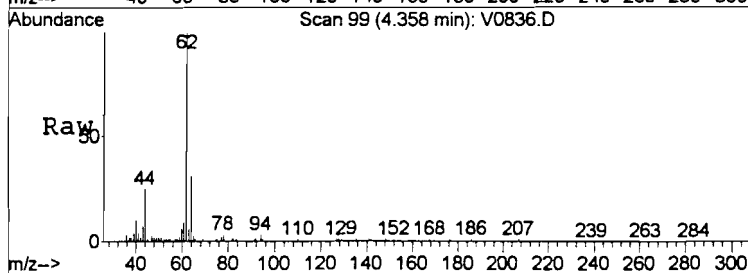
Response via : Initial Calibration



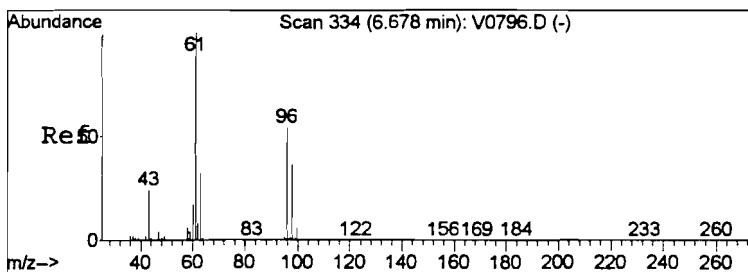
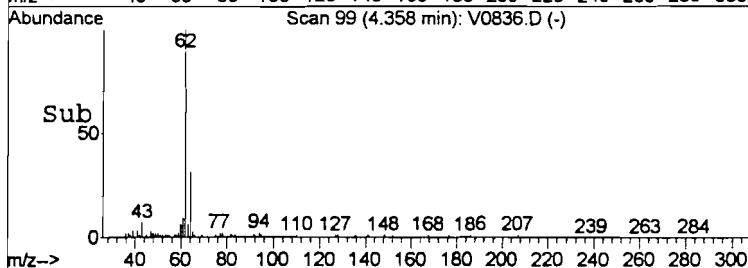
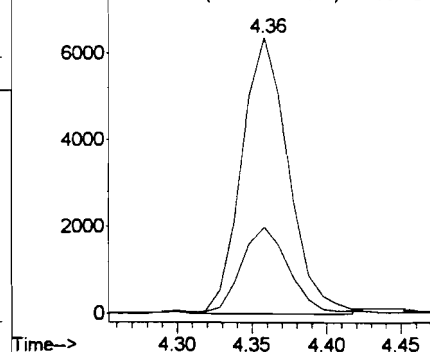


#4
 Vinyl Chloride
 Concen: 16.76 ppb
 RT: 4.36 min Scan# 99
 Delta R.T. -0.01 min
 Lab File: V0836.D
 Acq: 26 Sep 2001 3:53 pm

Tgt Ion	Resp	Ion Ratio	Lower	Upper
62	13716	100		
64		31.1	26.6	39.8

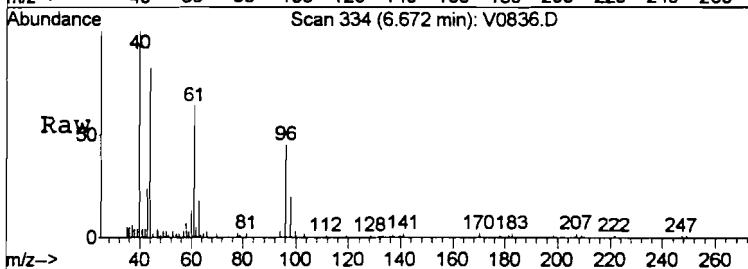


Abundance Ion 62.05 (61.75 to 62.75): V0836.D
 Ion 64.05 (63.75 to 64.75): V0836.D

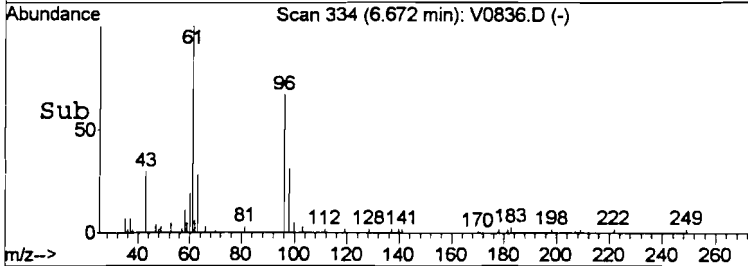
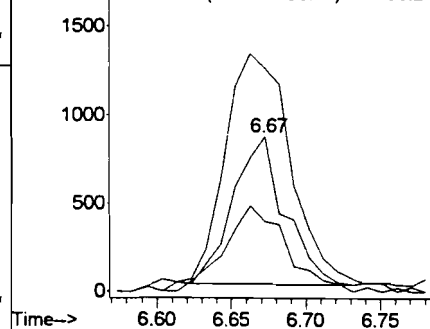


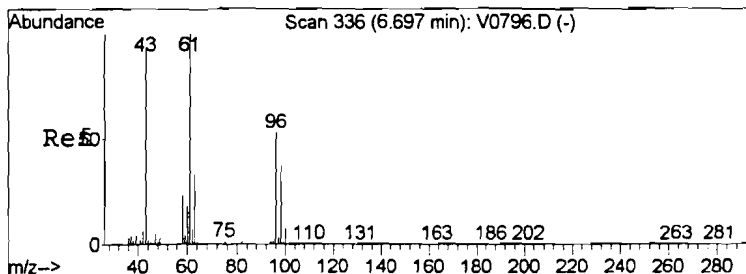
#11
 1,1-Dicethene
 Concen: 1.54 ppb
 RT: 6.67 min Scan# 334
 Delta R.T. -0.01 min
 Lab File: V0836.D
 Acq: 26 Sep 2001 3:53 pm

Tgt Ion	Resp	Ion Ratio	Lower	Upper
96	2044	100		
61		143.4	148.2	222.4#
98		45.1	52.8	79.2#



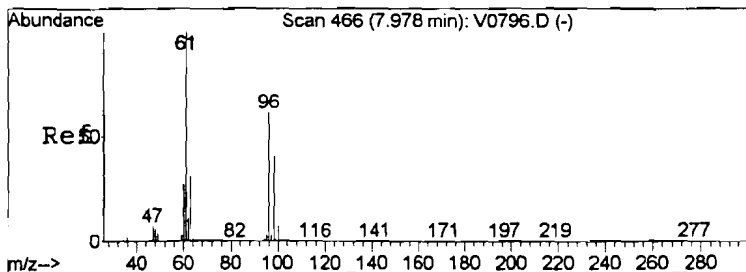
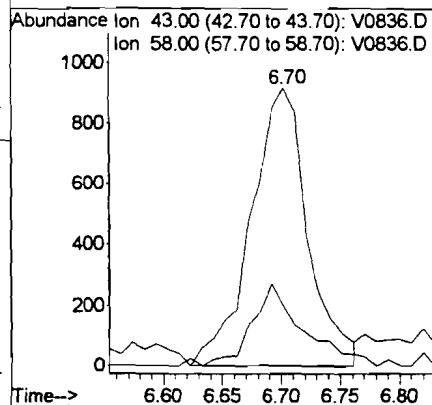
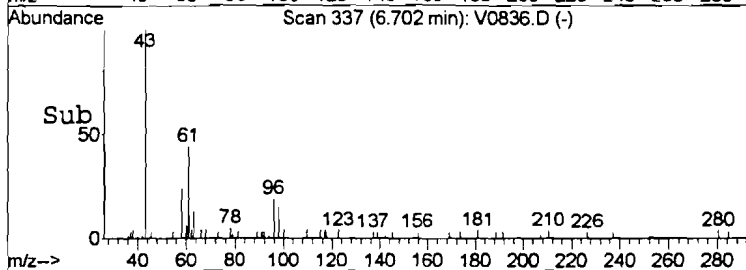
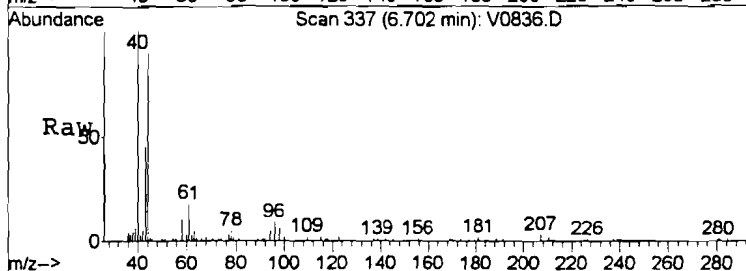
Abundance Ion 96.00 (95.70 to 96.70): V0836.D
 Ion 61.00 (60.70 to 61.70): V0836.D
 Ion 98.00 (97.70 to 98.70): V0836.D





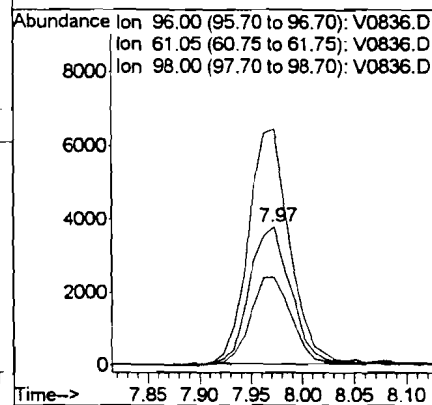
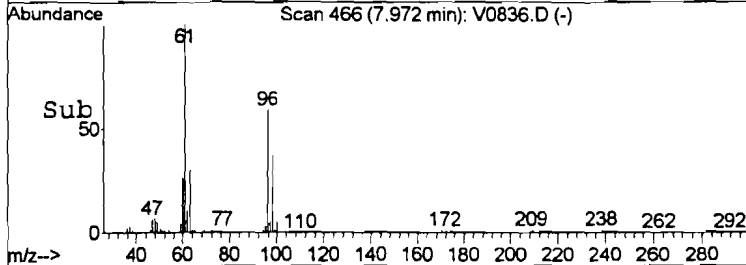
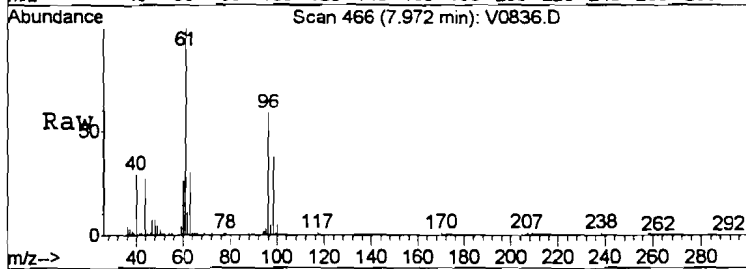
#12
Acetone
Concen: 3.04 ppb
RT: 6.70 min Scan# 337
Delta R.T. 0.01 min
Lab File: V0836.D
Acq: 26 Sep 2001 3:53 pm

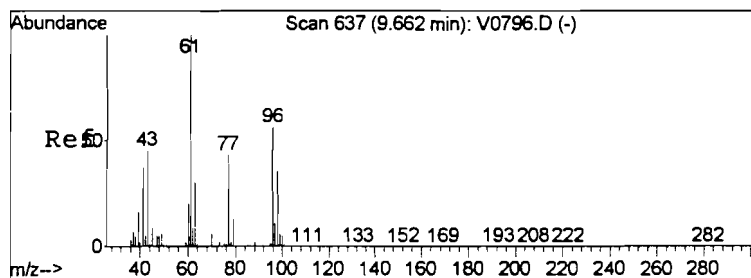
Tgt Ion: 43 Resp: 3072
Ion Ratio Lower Upper
43 100
58 21.8 19.8 29.8



#21
trans-1,2-Dichloroethene
Concen: 6.05 ppb
RT: 7.97 min Scan# 466
Delta R.T. -0.01 min
Lab File: V0836.D
Acq: 26 Sep 2001 3:53 pm

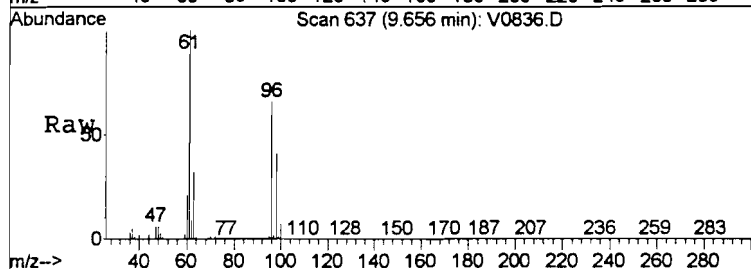
Tgt Ion: 96 Resp: 10441
Ion Ratio Lower Upper
96 100
61 170.3 130.2 195.4
98 63.3 51.9 77.9



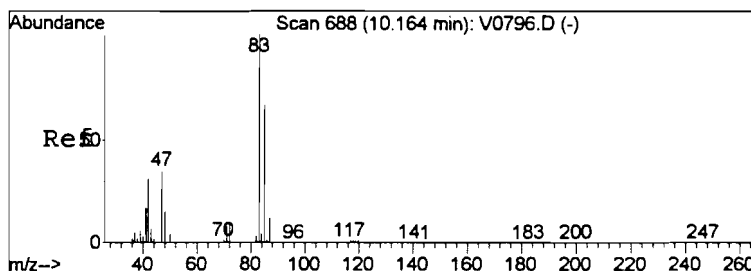
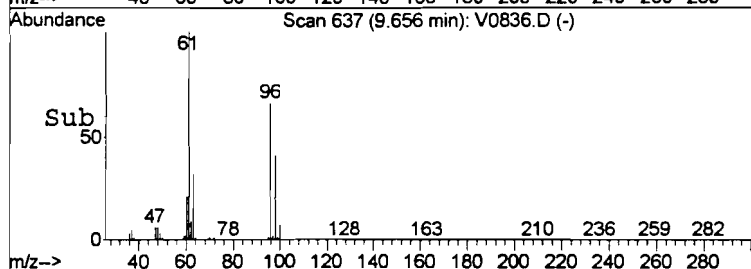
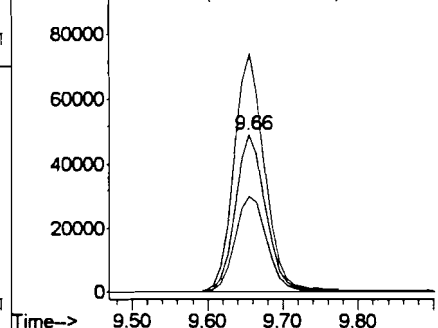


#28
 cis-1,2-Dichloroethene
 Concen: 71.39 ppb
 RT: 9.66 min Scan# 637
 Delta R.T. -0.01 min
 Lab File: V0836.D
 Acq: 26 Sep 2001 3:53 pm

Tgt Ion: 96 Resp: 139900
 Ion Ratio Lower Upper
 96 100
 61 150.7 143.6 215.4
 98 61.3 50.8 76.2

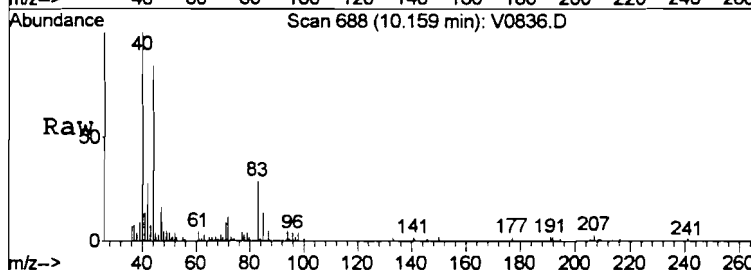


Abundance Ion 96.00 (95.70 to 96.70): V0836.D
 100000 Ion 61.05 (60.75 to 61.75): V0836.D
 Ion 98.00 (97.70 to 98.70): V0836.D

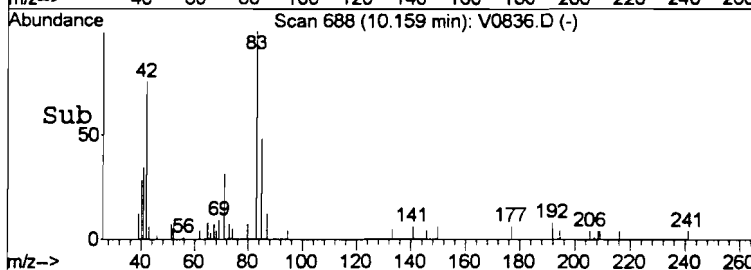
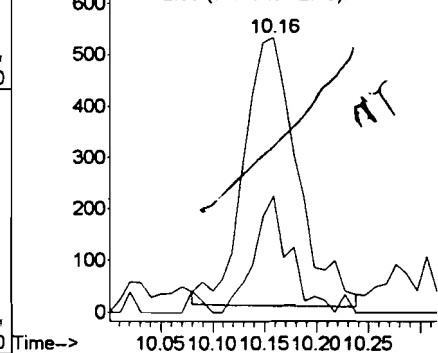


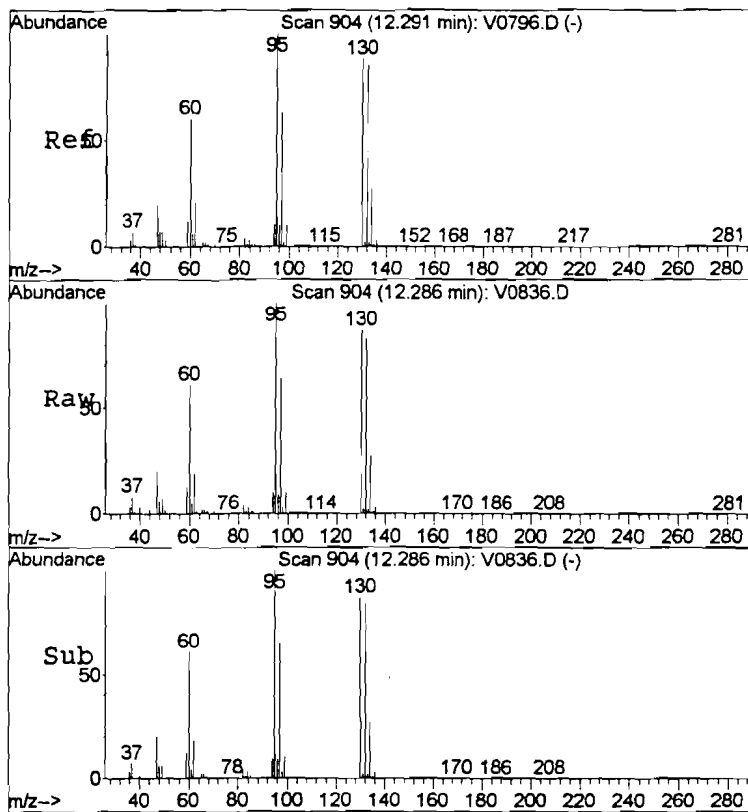
#33
 Tetrahydrofuran
 Concen: 2.30 ppb
 RT: 10.16 min Scan# 688
 Delta R.T. -0.01 min
 Lab File: V0836.D
 Acq: 26 Sep 2001 3:53 pm

Tgt Ion: 42 Resp: 1852
 Ion Ratio Lower Upper
 42 100
 72 28.7 23.1 38.5



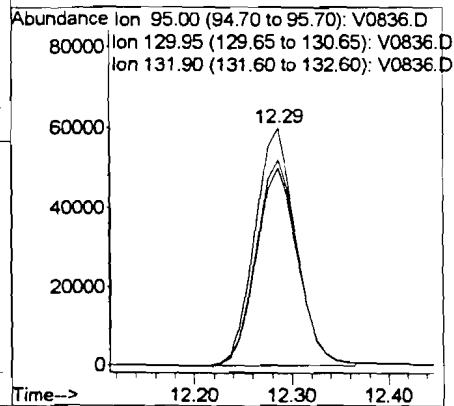
Abundance Ion 42.00 (41.70 to 42.70): V0836.D
 Ion 72.00 (71.70 to 72.70): V0836.D





#43
 Trichloroethene
 Concen: 100.43 ppb
 RT: 12.29 min Scan# 904
 Delta R.T. -0.01 min
 Lab File: V0836.D
 Acq: 26 Sep 2001 3:53 pm

Tgt Ion:	95	Resp:	175999
Ion Ratio	Lower	Upper	
95	100		
130	86.7	70.0	105.0
132	83.4	68.2	102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-09

Date Sampled : 09/18/01 11:18 Order #: 493954
Date Received: 09/18/01 Submission #: R2108550Sample Matrix: WATER
Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 50.00			
ACETONE	20	1000 U	UG/L
BENZENE	5.0	250 U	UG/L
BROMODICHLOROMETHANE	5.0	250 U	UG/L
BROMOFORM	5.0	250 U	UG/L
BROMOMETHANE	5.0	250 U	UG/L
2-BUTANONE (MEK)	10	500 U	UG/L
CARBON DISULFIDE	10	500 U	UG/L
CARBON TETRACHLORIDE	5.0	250 U	UG/L
CHLOROBENZENE	5.0	250 U	UG/L
CHLOROETHANE	5.0	250 U	UG/L
CHLOROFORM	5.0	250 U	UG/L
CHLOROMETHANE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHANE	5.0	250 U	UG/L
1,2-DICHLOROETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHENE	5.0	250 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	68 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	250 U	UG/L
1,2-DICHLOROPROPANE	5.0	250 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
ETHYLBENZENE	5.0	250 U	UG/L
FREON 113	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
METHYLENE CHLORIDE	5.0	250 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	500 U	UG/L
STYRENE	5.0	250 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	250 U	UG/L
TETRACHLOROETHENE	5.0	250 U	UG/L
TOLUENE	5.0	250 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	250 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	250 U	UG/L
TRICHLOROETHENE	5.0	5500	UG/L
VINYL CHLORIDE	1.0	50 U	UG/L
O-XYLENE	5.0	250 U	UG/L
M+P-XYLENE	5.0	250 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	105	%

277

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0837.D

Vial: 13

Acq On : 26 Sep 2001 4:29 pm

Operator: herring

Sample : 493954 50

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 16:58 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.42	168	129383	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	231992	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.27	117	193614	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.01	152	75735	50.00	ppb	-0.01
System Monitoring Compounds						
36) surr4, Dibrflmethane	10.44	113	92923	52.53	ppb	-0.01
Spiked Amount	50.000		Recovery	=	105.06%	
58) surr3, Toluene-d8	14.46	98	248947	50.94	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.88%	
59) surr2, bfb	19.59	95	94061	47.43	ppb	-0.01
Spiked Amount	50.000		Recovery	=	94.86%	
Target Compounds						
28) cis-1,2-Dichloroethene	9.66	96	2609	1.36	ppb	Qvalue # 77 J
33) Tetrahydrofuran	10.16	42	1394	1.77	ppb	# 80 NT
43) Trichloroethene	12.29	95	191686	109.68	ppb	98

R-4 10/4

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

V0837.D EXP0924.M

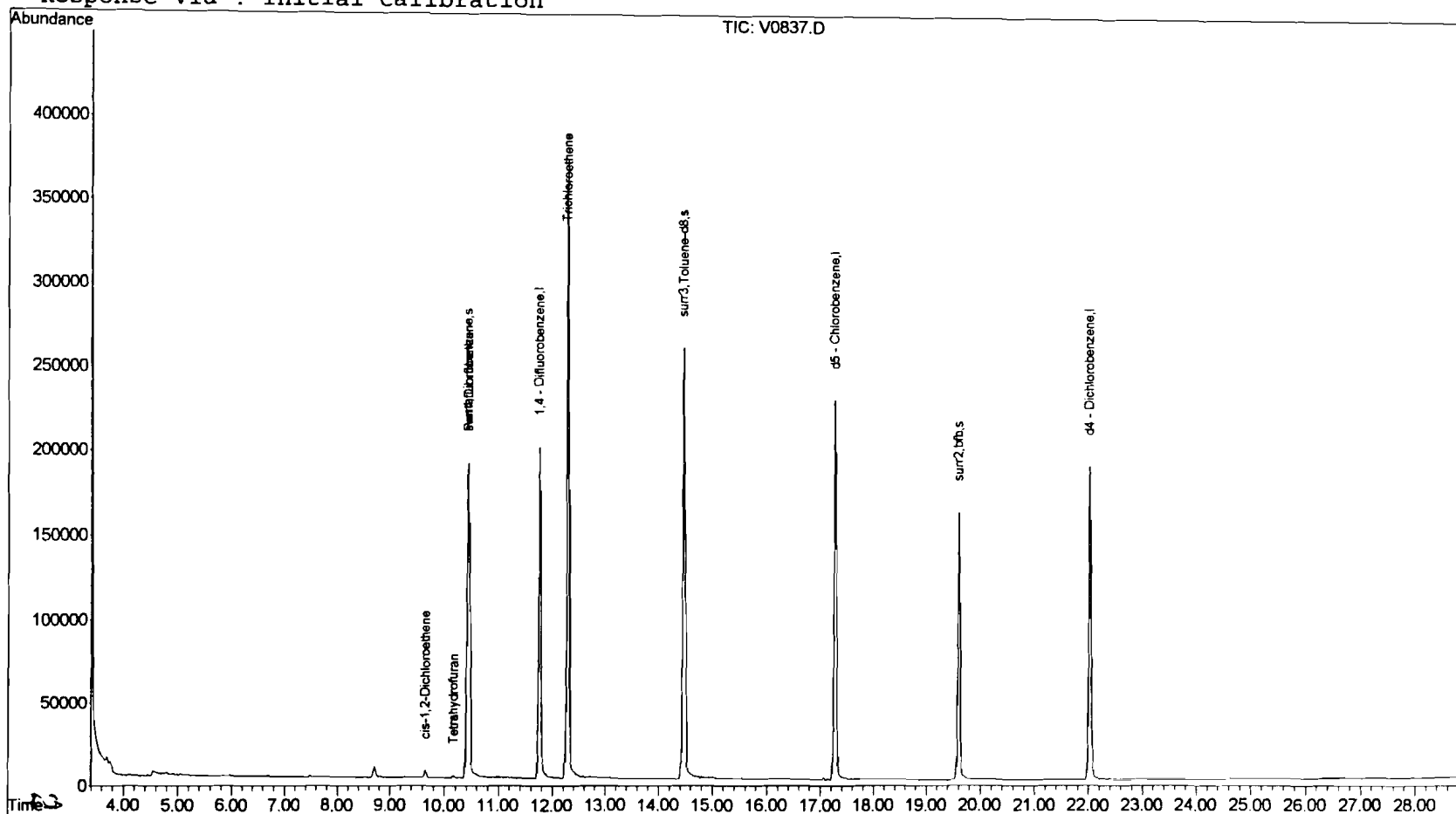
Wed Sep 26 16:59:01 2001

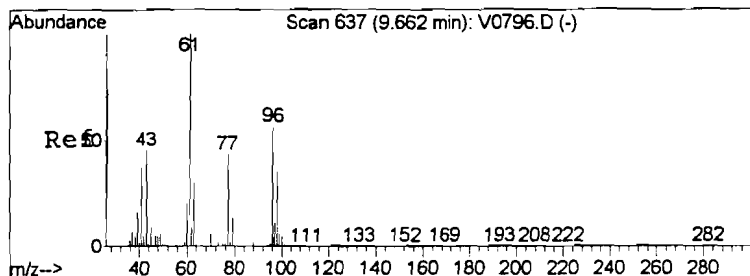
278
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0837.D Vial: 13
Acq On : 26 Sep 2001 4:29 pm Operator: herring
Sample : 493954 50 Inst : GC/MS Ins
Misc : hla r-8550 8206b.tclf Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 26 16:58 2001 Quant Results File: EXP0924.RES

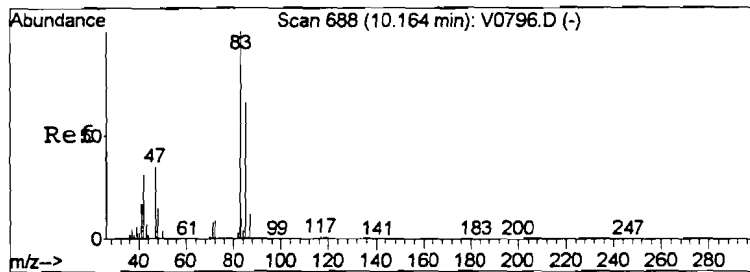
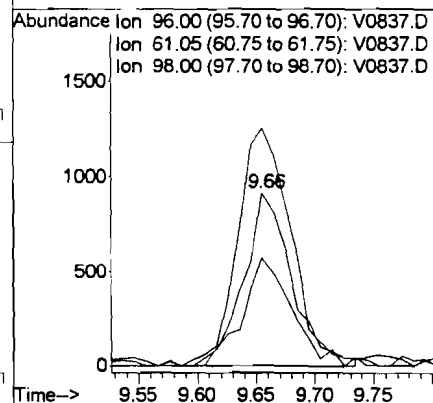
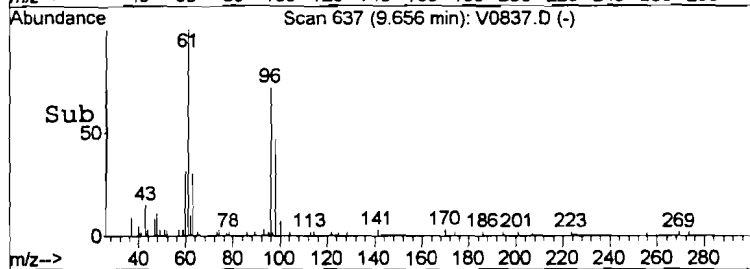
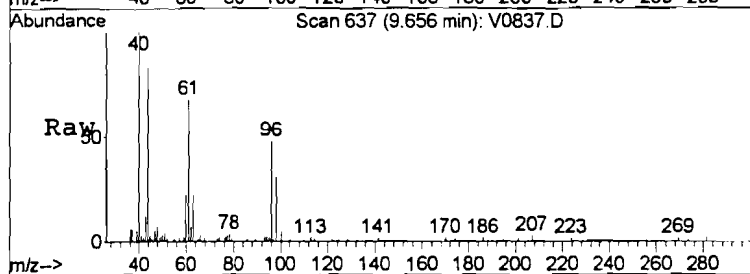
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Wed Sep 26 09:16:34 2001
Response via : Initial Calibration





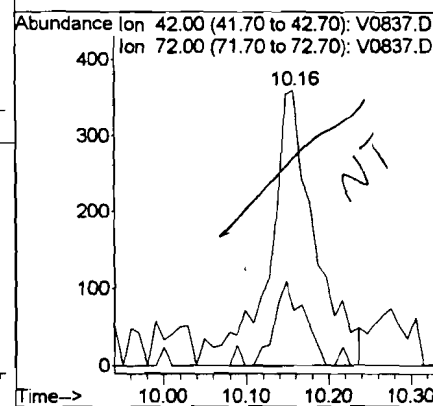
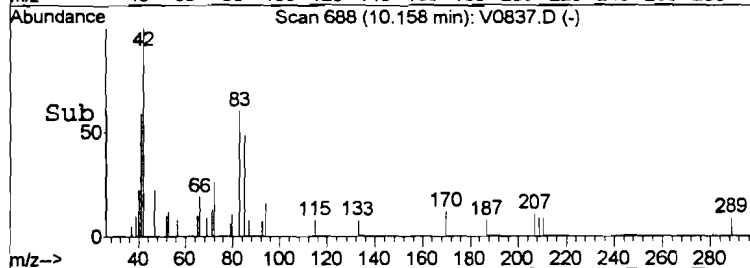
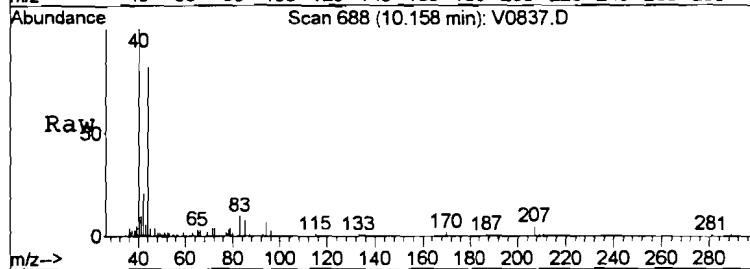
#28
 cis-1,2-Dichloroethene
 Concen: 1.36 ppb
 RT: 9.66 min Scan# 637
 Delta R.T. -0.01 min
 Lab File: V0837.D
 Acq: 26 Sep 2001 4:29 pm

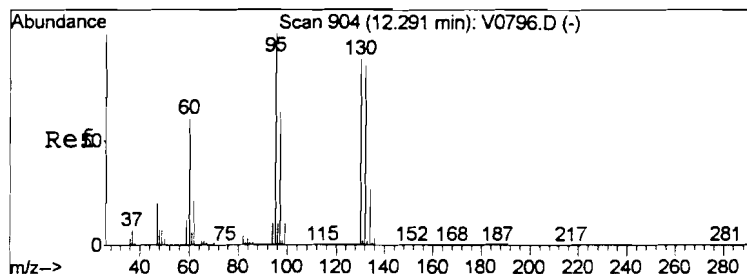
Tgt Ion: 96 Resp: 2609
 Ion Ratio Lower Upper
 96 100
 61 136.8 143.6 215.4#
 98 62.6 50.8 76.2



#33
 Tetrahydrofuran
 Concen: 1.77 ppb
 RT: 10.16 min Scan# 688
 Delta R.T. -0.01 min
 Lab File: V0837.D
 Acq: 26 Sep 2001 4:29 pm

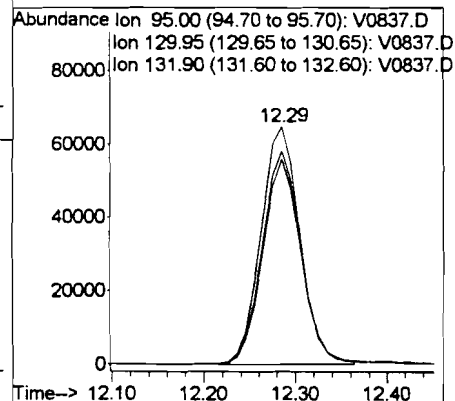
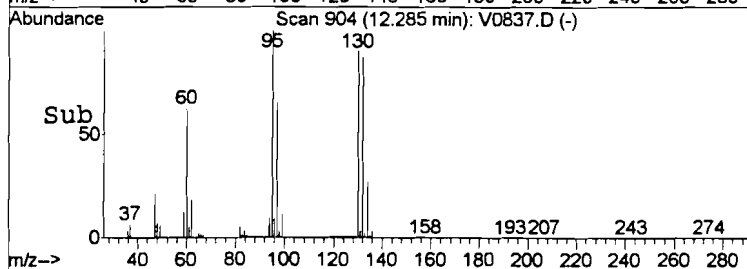
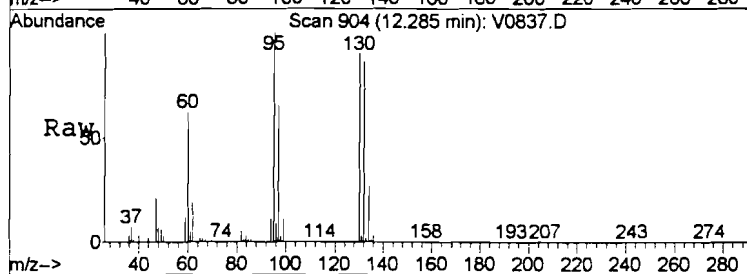
Tgt Ion: 42 Resp: 1394
 Ion Ratio Lower Upper
 42 100
 72 19.6 23.1 38.5#





#43
 Trichloroethene
 Concen: 109.68 ppb
 RT: 12.29 min Scan# 904
 Delta R.T. -0.01 min
 Lab File: V0837.D
 Acq: 26 Sep 2001 4:29 pm

Tgt Ion: 95 Resp: 191686
 Ion Ratio Lower Upper
 95 100
 130 89.7 70.0 105.0
 132 86.0 68.2 102.4



COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-08

Date Sampled : 09/18/01 12:47 Order #: 493955 Sample Matrix: WATER

Date Received: 09/18/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/26/01		
ANALYTICAL DILUTION:	200.00		
ACETONE	20	4000 U	UG/L
BENZENE	5.0	1000 U	UG/L
BROMODICHLOROMETHANE	5.0	1000 U	UG/L
BROMOFORM	5.0	1000 U	UG/L
BROMOMETHANE	5.0	1000 U	UG/L
2-BUTANONE (MEK)	10	2000 U	UG/L
CARBON DISULFIDE	10	2000 U	UG/L
CARBON TETRACHLORIDE	5.0	1000 U	UG/L
CHLOROBENZENE	5.0	1000 U	UG/L
CHLOROETHANE	5.0	1000 U	UG/L
CHLOROFORM	5.0	1000 U	UG/L
CHLOROMETHANE	5.0	1000 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1000 U	UG/L
1,1-DICHLOROETHANE	5.0	1000 U	UG/L
1,2-DICHLOROETHANE	5.0	1000 U	UG/L
1,1-DICHLOROETHENE	5.0	1000 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	560 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	1000 U	UG/L
1,2-DICHLOROPROPANE	5.0	1000 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	1000 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	1000 U	UG/L
ETHYLBENZENE	5.0	1000 U	UG/L
FREON 113	5.0	1000 U	UG/L
2-HEXANONE	10	2000 U	UG/L
METHYLENE CHLORIDE	5.0	1000 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	2000 U	UG/L
STYRENE	5.0	1000 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	1000 U	UG/L
TETRACHLOROETHENE	5.0	1000 U	UG/L
TOLUENE	5.0	1000 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	1000 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	1000 U	UG/L
TRICHLOROETHENE	5.0	27000	UG/L
VINYL CHLORIDE	1.0	200 U	UG/L
O-XYLENE	5.0	1000 U	UG/L
M+P-XYLENE	5.0	1000 U	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	108	% 282

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0838.D

Vial: 14

Acq On : 26 Sep 2001 5:05 pm

Operator: herring

Sample : 493955 200

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tcl

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 17:34 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.42	168	125608	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	225834	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	186739	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	74348	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.44	113	92816	53.90	ppb	0.00
Spiked Amount	50.000		Recovery	=	107.80%	
58) surr3, Toluene-d8	14.46	98	238415	50.58	ppb	0.00
Spiked Amount	50.000		Recovery	=	101.16%	
59) surr2, bfb	19.59	95	88813	46.43	ppb	0.00
Spiked Amount	50.000		Recovery	=	92.86%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
28) cis-1,2-Dichloroethene	9.66	96	5212	2.80	ppb	84 J
33) Tetrahydrofuran	10.16	42	1816	2.37	ppb	99 NJ
39) Iso Butyl Alcohol	10.83	43	103	1.01	ppb	80
43) Trichloroethene	12.29	95	230840	135.69	ppb	98
46) 1,4 Dioxane	12.97	88	16	1.18	ppb	96
73) Cyclohexanone	19.59	55	814	2.87	ppb	92

(#) = qualifier out of range (m) = manual integration
V0838.D EXP0924.M Wed Sep 26 17:35:00 2001

RHT 10/4

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0838.D

Vial: 14

Acq On : 26 Sep 2001 5:05 pm

Operator: herring

Sample : 493955 200

Inst : GC/MS Ins

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Misc      : hla r-8550 8206b.tclrf
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Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 17:34 2001

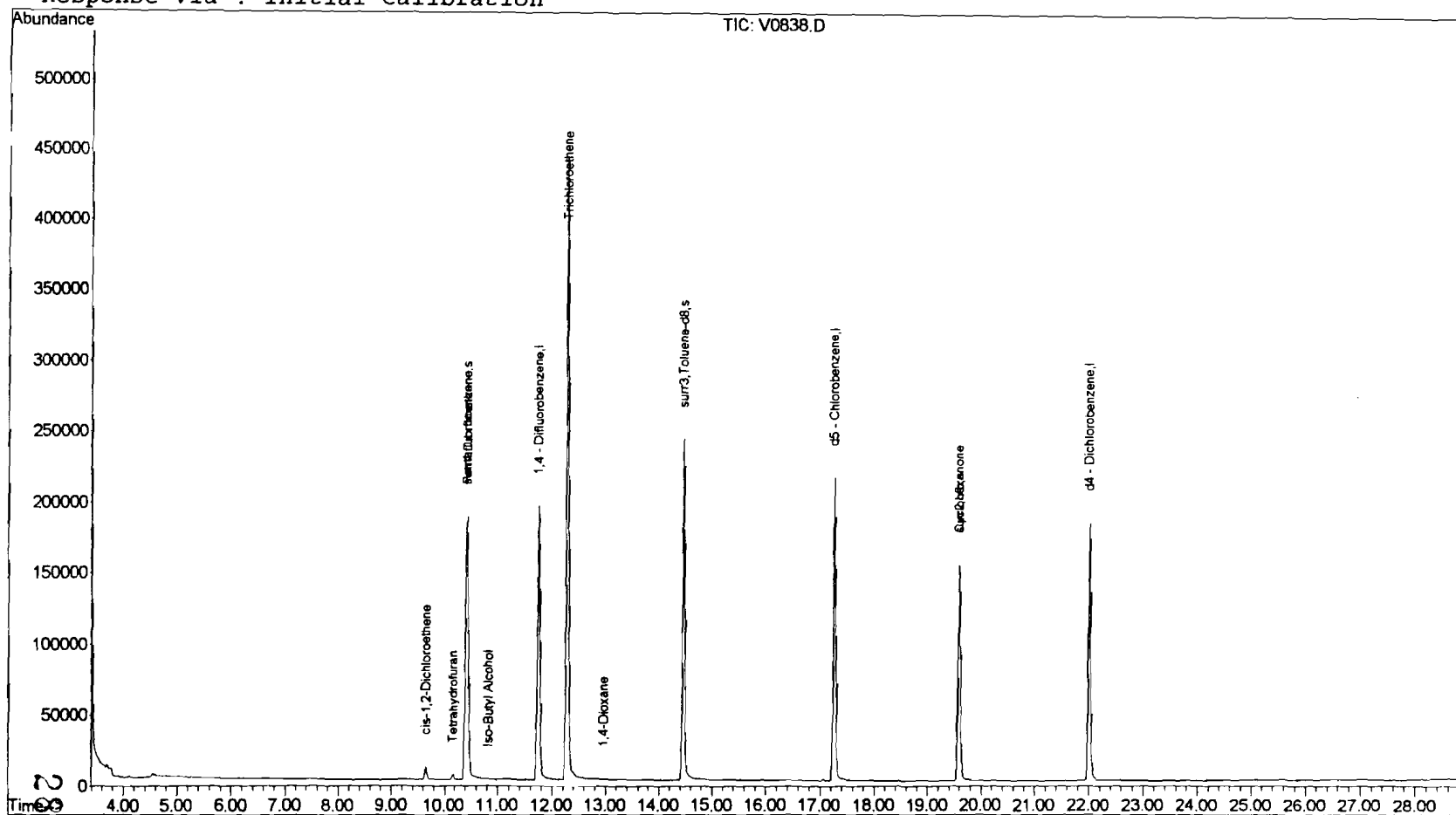
Quant Results File: EXP0924.RES

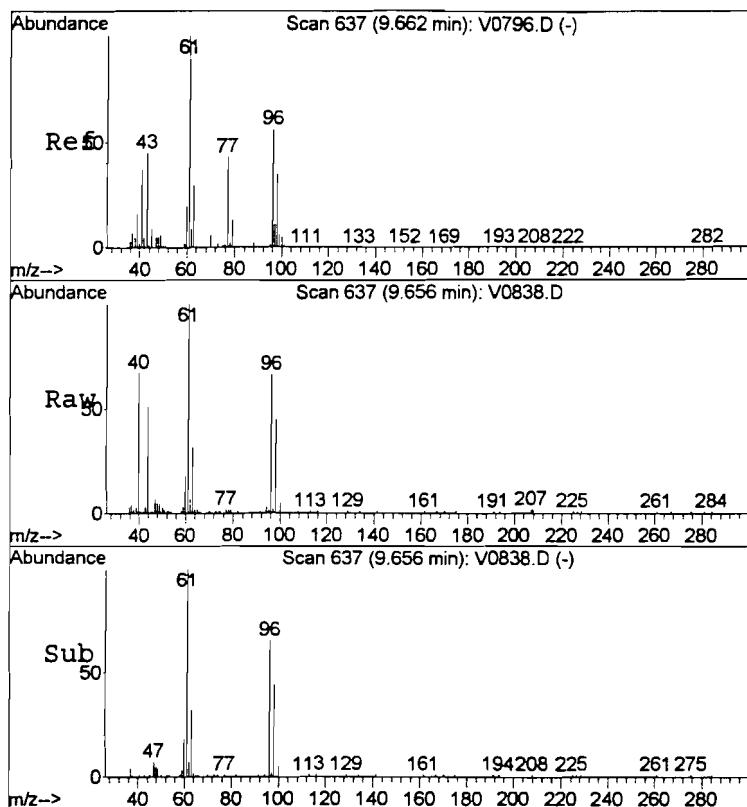
Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

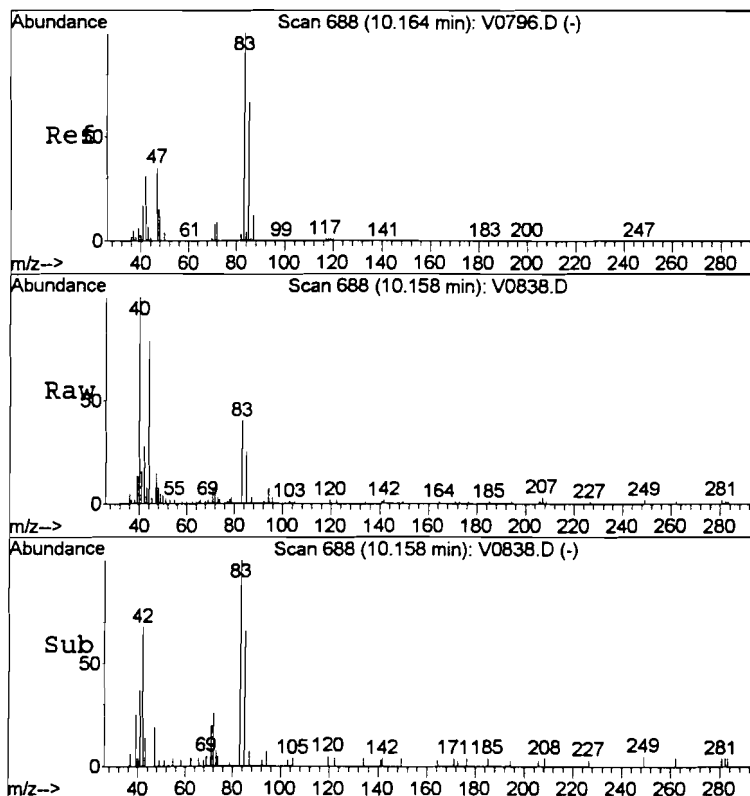
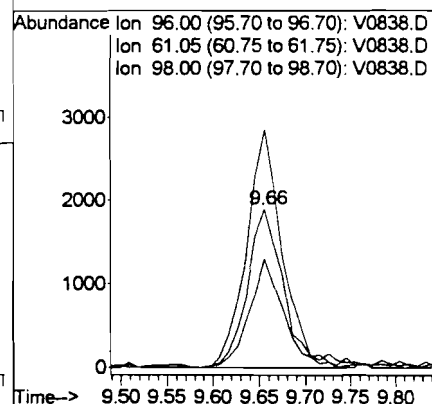
Response via : Initial Calibration





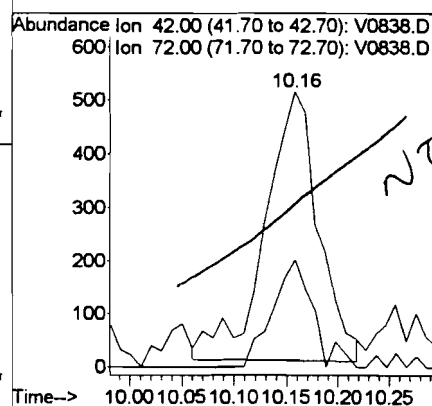
#28
 cis-1,2-Dichloroethene
 Concen: 2.80 ppb
 RT: 9.66 min Scan# 637
 Delta R.T. -0.01 min
 Lab File: V0838.D
 Acq: 26 Sep 2001 5:05 pm

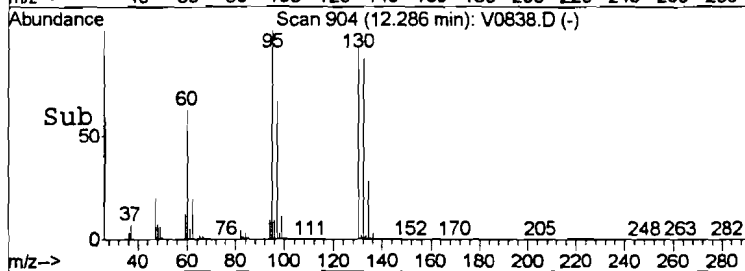
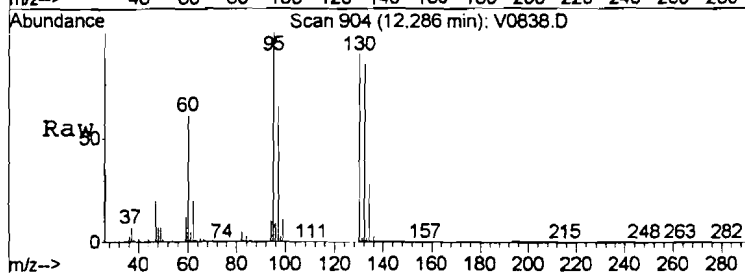
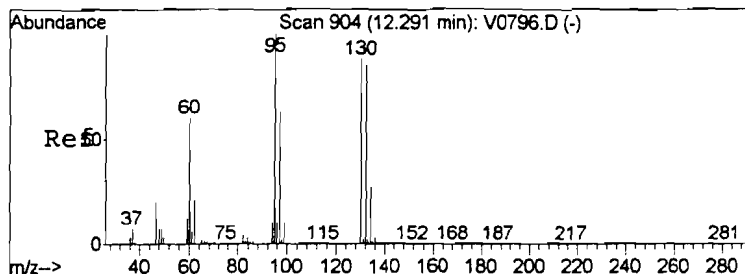
Tgt Ion: 96 Resp: 5212
 Ion Ratio Lower Upper
 96 100
 61 151.2 143.6 215.4
 98 68.6 50.8 76.2



#33
 Tetrahydrofuran
 Concen: 2.37 ppb
 RT: 10.16 min Scan# 688
 Delta R.T. -0.01 min
 Lab File: V0838.D
 Acq: 26 Sep 2001 5:05 pm

Tgt Ion: 42 Resp: 1816
 Ion Ratio Lower Upper
 42 100
 72 30.3 23.1 38.5





#43

Trichloroethene

Concen: 135.69 ppb

RT: 12.29 min Scan# 904

Delta R.T. -0.01 min

Lab File: V0838.D

Acq: 26 Sep 2001 5:05 pm

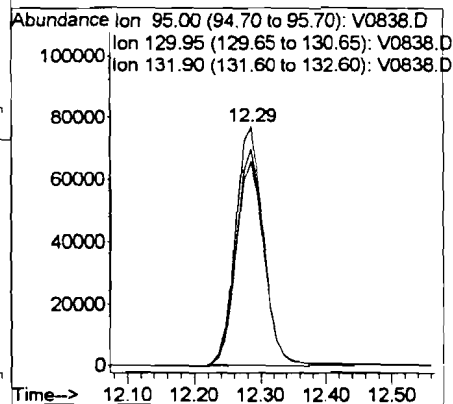
Tgt Ion: 95 Resp: 230840

Ion Ratio Lower Upper

95 100

130 90.3 70.0 105.0

132 85.5 68.2 102.4



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : BR-11

Date Sampled : 09/18/01 15:22 Order #: 493956 Sample Matrix: WATER
Date Received: 09/18/01 Submission #: R2108550 Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 500.00			
ACETONE	20	10000 U	UG/L
BENZENE	5.0	2500 U	UG/L
BROMODICHLOROMETHANE	5.0	2500 U	UG/L
BROMOFORM	5.0	2500 U	UG/L
BROMOMETHANE	5.0	2500 U	UG/L
2-BUTANONE (MEK)	10	5000 U	UG/L
CARBON DISULFIDE	10	5000 U	UG/L
CARBON TETRACHLORIDE	5.0	2500 U	UG/L
CHLOROBENZENE	5.0	2500 U	UG/L
CHLOROETHANE	5.0	2500 U	UG/L
CHLOROFORM	5.0	2500 U	UG/L
CHLOROMETHANE	5.0	2500 U	UG/L
DIBROMOCHLOROMETHANE	5.0	2500 U	UG/L
1,1-DICHLOROETHANE	5.0	2500 U	UG/L
1,2-DICHLOROETHANE	5.0	2500 U	UG/L
1,1-DICHLOROETHENE	5.0	2500 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	2500 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	2500 U	UG/L
1,2-DICHLOROPROPANE	5.0	2500 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	2500 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	2500 U	UG/L
ETHYLBENZENE	5.0	2500 U	UG/L
FREON 113	5.0	2500 U	UG/L
2-HEXANONE	10	5000 U	UG/L
METHYLENE CHLORIDE	5.0	2500 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	5000 U	UG/L
STYRENE	5.0	2500 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	2500 U	UG/L
TETRACHLOROETHENE	5.0	2500 U	UG/L
TOLUENE	5.0	2500 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	2500 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	2500 U	UG/L
TRICHLOROETHENE	5.0	60000	UG/L
VINYL CHLORIDE	1.0	500 U	UG/L
O-XYLENE	5.0	2500 U	UG/L
M+P-XYLENE	5.0	2500 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	107	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0839.D

Vial: 15

Acq On : 26 Sep 2001 5:41 pm

Operator: herring

Sample : 493956 500

Inst : GC/MS Ins

Misc : hla r-8550 8206b.tcl

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 18:10 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	130420	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	230389	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	190617	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	74446	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.45	113	93739	53.36	ppb	0.00
Spiked Amount 50.000			Recovery	=	106.72%	
58) surr3, Toluene-d8	14.46	98	244921	50.91	ppb	-0.02
Spiked Amount 50.000			Recovery	=	101.82%	
59) surr2, bfb	19.60	95	93688	47.98	ppb	0.00
Spiked Amount 50.000			Recovery	=	95.96%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
33) Tetrahydrofuran	10.16	42	2193	2.76	ppb	# 84 NT
39) Iso Butyl Alcohol	10.82	43	121	1.16	ppb	60
43) Trichloroethene	12.28	95	207824	119.75	ppb	97
46) 1,4 Dioxane	12.86	88	15	1.09	ppb	# 7

RTH 10/4

(#) = qualifier out of range (m) = manual integration
V0839.D EXP0924.M Wed Sep 26 18:10:57 2001

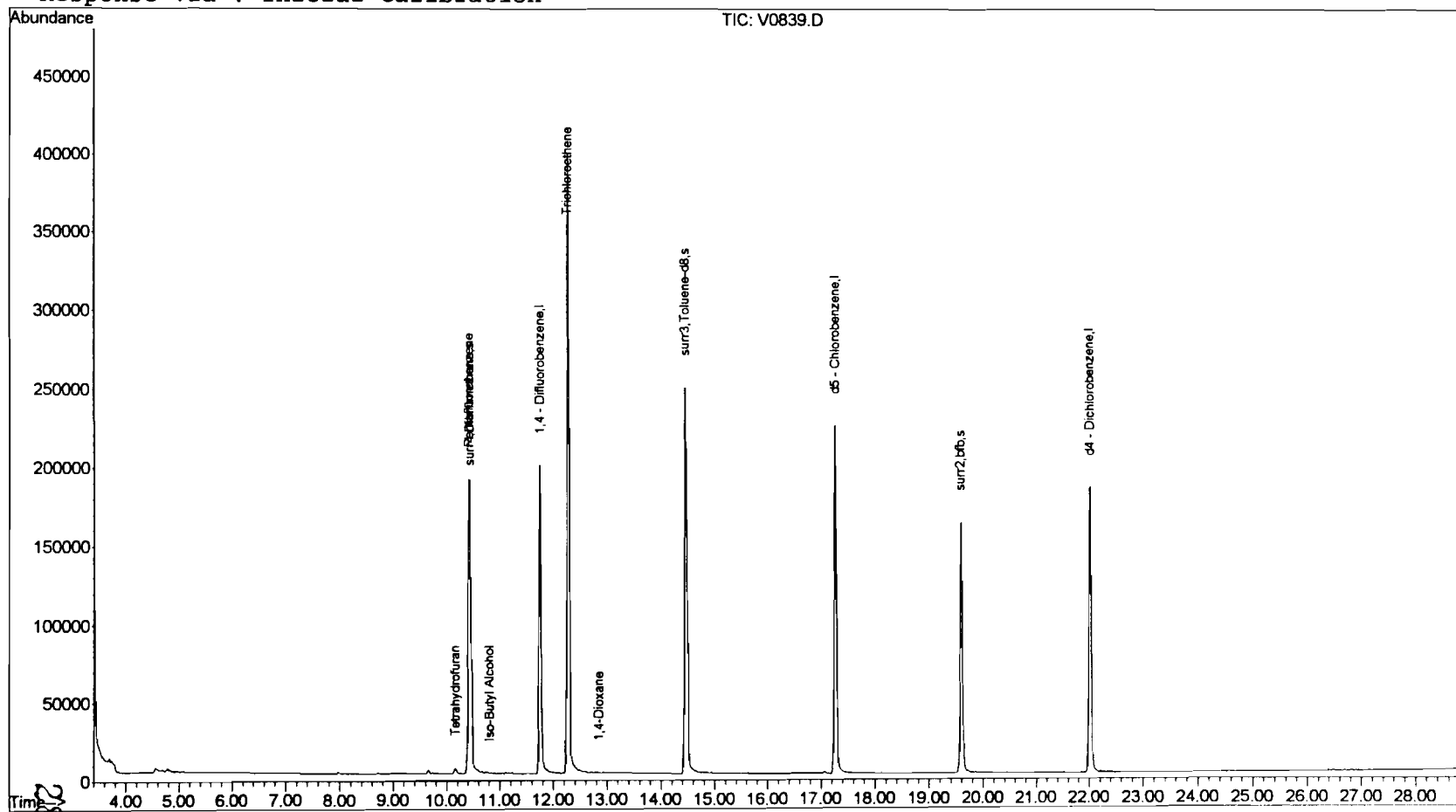
288

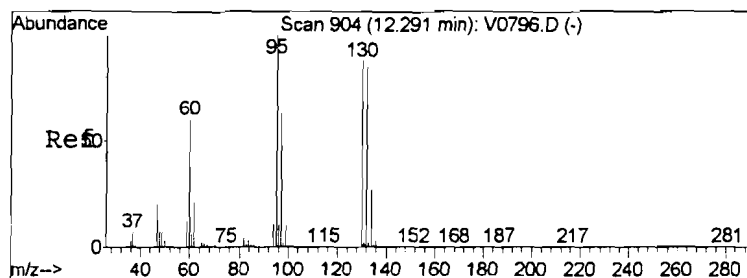
Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0839.D Vial: 15
Acq On : 26 Sep 2001 5:41 pm Operator: herring
Sample : 493956 500 Inst : GC/MS Ins
Misc : hla r-8550 8206b.tclf Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 26 18:10 2001 Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
Title : 8260voa
Last Update : Wed Sep 26 09:16:34 2001
Response via : Initial Calibration





#43

Trichloroethene

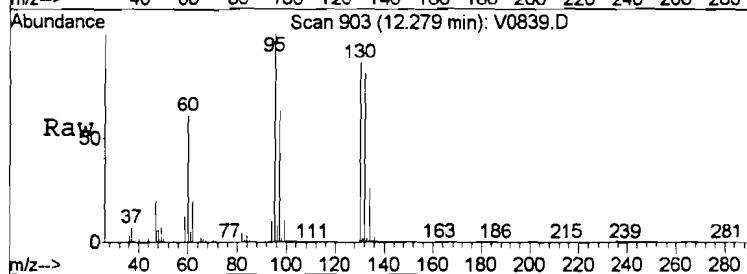
Concen: 119.75 ppb

RT: 12.28 min Scan# 903

Delta R.T. -0.02 min

Lab File: V0839.D

Acq: 26 Sep 2001 5:41 pm



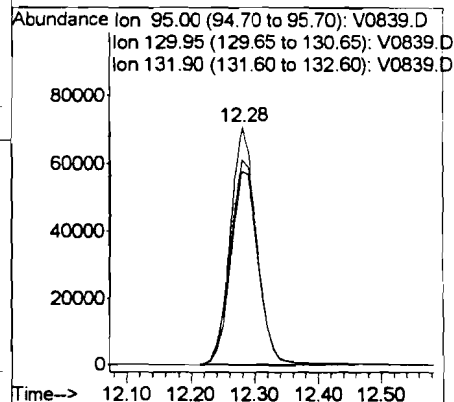
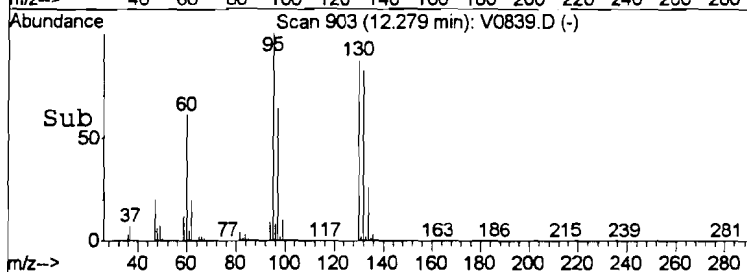
Tgt Ion: 95 Resp: 207824

Ion Ratio Lower Upper

95 100

130 86.3 70.0 105.0

132 81.5 68.2 102.4



VOLATILE ORGANICS
STANDARDS DATA

Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration

Calibration Files

5 =V0632.D 10 =V0624.D 50 =V0626.D
 100 =V0627.D 150 =V0628.D 200 =V0629.D

	Compound	5	10	50	100	150	200	Avg	%RSD
1)	Pentafluorobenzene	-----ISTD-----							
2)	Dichlorodifluoromet	0.668	0.717	0.746	0.734	0.679	0.634	0.696	6.19
3) p	Chloromethane	0.399	0.349	0.366	0.402	0.386	0.370	0.379	5.50
4) c	Vinyl Chloride	0.274	0.303	0.270	0.278	0.257	0.233	0.269	8.67
5)	Bromomethane	0.296	0.297	0.420	0.496	0.502	0.482	0.416	23.26 Lt
6)	Chloroethane	0.477	0.485	0.485	0.489	0.458	0.420	0.469	5.65
7)	Trichlorofluorometh	0.884	0.848	0.901	0.903	0.847	0.796	0.863	4.77
8)	Diethyl Ether	0.569	0.561	0.597	0.581	0.559	0.519	0.564	4.65
9)	Acrolein	0.116	0.117	0.132	0.126	0.121	0.112	0.121	6.07
10)	FREON 113	0.240	0.230	0.241	0.241	0.220	0.208	0.230	6.02
11) c	1,1-Dicethene	0.527	0.487	0.518	0.539	0.508	0.502	0.513	3.60
12)	Acetone	0.329	0.285	0.290	0.276	0.255	0.235	0.278	11.59
13)	Iodomethane	0.182	0.148	0.203	0.217	0.217	0.192	0.193	13.56
14)	Carbon Disulfide	2.161	2.064	2.192	2.150	2.146	1.987	2.116	3.61
15)	Acetonitrile	0.113	0.116	0.129	0.122	0.117	0.110	0.118	5.68
16)	Allyl Chloride	0.275	0.258	0.266	0.262	0.235	0.227	0.254	7.39
17)	Methylene Chloride	0.656	0.672	0.671	0.664	0.656	0.628	0.658	2.47
18)	TBA	0.062	0.056	0.069	0.065	0.063	0.062	0.063	6.69
19)	Acrylonitrile	0.289	0.271	0.310	0.308	0.299	0.279	0.293	5.34
20)	Methyl-t-Butyl Ethe	1.625	1.582	1.680	1.692	1.675	1.580	1.639	3.08
21)	trans-1,2-Dichloroe	0.631	0.599	0.620	0.625	0.615	0.595	0.614	2.33
22) p	1,1-Dicethane	1.152	1.164	1.185	1.194	1.143	1.095	1.155	3.04
23)	Vinyl Acetate	1.269	1.374	1.498	1.445	1.346	1.172	1.351	8.74
24)	2-Chloro-1,3-butadi	1.114	1.046	1.135	1.104	1.133	0.997	1.088	5.06
25)	2,2-Dichloropropane	0.761	0.774	0.821	0.837	0.799	0.739	0.789	4.70
26)	2-Butanone	0.489	0.432	0.499	0.467	0.450	0.423	0.460	6.68
27)	cis-1,2-Dichloroeth	0.670	0.644	0.676	0.721	0.702	0.677	0.682	3.91
28)	Propionitrile	0.105	0.096	0.109	0.109	0.108	0.103	0.105	4.76
29)	Methacrylonitrile	0.270	0.247	0.285	0.275	0.281	0.267	0.271	4.89
30)	Bromochloromethane	0.247	0.239	0.239	0.251	0.264	0.263	0.251	4.42
31) c	Chloroform	1.153	1.152	1.135	1.150	1.116	1.050	1.126	3.54
32)	Tetrahydrofuran		0.316	0.289	0.265	0.261	0.251	0.277	9.50
33)	1,1,1-Trichloroetha	0.890	0.894	0.931	0.950	0.943	0.870	0.913	3.58
34) I	1,4 - Difluorobenzene	-----ISTD-----							
35) s	surr4,Dibrflmethane		0.400	0.392	0.393	0.397	0.386	0.394	1.34
36)	Carbontetrachloride	0.391	0.390	0.406	0.450	0.439	0.435	0.418	6.25
37)	1,1-Dichloropropene	0.483	0.491	0.492	0.528	0.513	0.504	0.502	3.34
38)	Iso-Butyl Alcohol	0.020	0.019	0.022	0.023	0.022	0.022	0.021	8.29
39)	Benzene	1.335	1.274	1.355	1.442	1.440	1.437	1.380	5.07
40)	1,2-Dichloroethane	0.565	0.561	0.571	0.583	0.568	0.532	0.563	3.02
41)	N-Heptane	0.726	0.661	0.694	0.737	0.725	0.696	0.706	4.00
42)	Trichloroethene	0.368	0.328	0.352	0.382	0.386	0.383	0.366	6.25

(#) = Out of Range ### Number of calibration levels exceeded format
 EXP0914.M Tue Sep 18 15:48:46 2001

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 Page 1

Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration

Calibration Files

5 =V0632.D 10 =V0624.D 50 =V0626.D
 100 =V0627.D 150 =V0628.D 200 =V0629.D

	Compound	5	10	50	100	150	200	Avg	%RSD
43)	c 1,2-Diclp propane	0.433	0.419	0.411	0.439	0.435	0.430	0.428	2.49
44)	Methyl Methacrylate	0.247	0.219	0.259	0.269	0.283	0.286	0.261	9.62
45)	1,4-Dioxane	0.004	0.003	0.003	0.003	0.004	0.004	0.003	5.89
46)	Dibromomethane	0.251	0.233	0.223	0.219	0.211	0.197	0.222	8.27
47)	Bromodichloromethan	0.480	0.474	0.497	0.522	0.525	0.521	0.503	4.47
48)	2-Nitropropane	0.134	0.126	0.160	0.170	0.169	0.167	0.154	12.46
49)	2-Chloroethylvinyl	0.250	0.233	0.254	0.264	0.273	0.258	0.255	5.36
50)	cis-1,3-Dichloropro	0.541	0.536	0.576	0.616	0.615	0.623	0.585	6.73
51)	I d5 - Chlorobenzene	-----ISTD-----							
52)	4-Methyl-2-Pentanone	0.674	0.619	0.686	0.700	0.703	0.686	0.678	4.58
53)	c Toluene	1.479	1.434	1.514	1.629	1.615	1.629	1.550	5.50
54)	trans-1,3-Dichlorop	0.604	0.587	0.634	0.661	0.667	0.653	0.634	5.12
55)	Ethyl Methacrylate	0.545	0.495	0.604	0.646	0.659	0.655	0.601	11.21
56)	1,1,2-Trichloroetha	0.317	0.307	0.333	0.345	0.346	0.342	0.332	4.89
57)	surr3,Toluene-d8		1.292	1.277	1.283	1.321	1.291	1.293	1.32
58)	surr2,bfb		0.507	0.537	0.535	0.545	0.539	0.532	2.75
59)	Tetrachloroethene	0.354	0.330	0.360	0.396	0.400	0.410	0.375	8.40
60)	2-Hexanone	0.439	0.397	0.485	0.497	0.503	0.493	0.469	8.95
61)	1,3-Dichloropropane	0.705	0.679	0.721	0.753	0.764	0.755	0.730	4.62
62)	Dibromochloromethan	0.360	0.360	0.396	0.423	0.430	0.433	0.401	8.48
63)	1,2-Dibromoethane	0.399	0.379	0.411	0.428	0.440	0.439	0.416	5.81
64)	p Chlorobenzene	0.942	0.924	0.954	1.041	1.040	1.056	0.993	5.94
65)	1,1,1,2-Tetrachloro	0.325	0.314	0.342	0.372	0.384	0.386	0.354	8.83
66)	c Ethylbenzene	1.680	1.561	1.713	1.873	1.851	1.843	1.753	7.03
67)	(m+p)Xylene	0.589	0.558	0.608	0.675	0.678	0.694	0.634	8.86
68)	o-Xylene	0.589	0.555	0.608	0.669	0.670	0.683	0.629	8.33
69)	Styrene	0.960	0.956	1.046	1.159	1.174	1.195	1.082	10.04
70)	p Bromoform	0.229	0.216	0.263	0.281	0.288	0.289	0.261	12.14
71)	Isopropylbenzene	1.440	1.379	1.575	1.700	1.687	1.707	1.581	9.01
72)	Cyclohexanone	0.062	0.052	0.063	0.058	0.057	0.063	0.059	7.41
73)	I d4 - Dichlorobenzene	-----ISTD-----							
74)	p 1,1,2,2-Tetrachloro	1.114	1.087	1.133	1.151	1.143	1.134	1.127	2.07
75)	Trans-1,4-Dichloro-	0.488	0.418	0.459	0.473	0.476	0.477	0.465	5.39
76)	1,2,3-Trichloroprop	0.356	0.322	0.335	0.347	0.350	0.355	0.344	3.87
77)	n-Propylbenzene	4.492	4.328	4.479	4.880	4.871	4.872	4.654	5.34
78)	Bromobenzene	0.871	0.796	0.829	0.892	0.913	0.926	0.871	5.75
79)	1,3,5-Trimethylbenz	2.715	2.570	2.802	3.000	3.082	3.054	2.871	7.22
80)	2-Chlorotoluene	2.744	2.628	2.763	2.908	2.965	2.953	2.827	4.80
81)	4-Chlorotoluene	2.866	2.586	2.757	2.960	3.021	3.013	2.867	5.95
82)	tert-Butylbenzene	2.200	2.025	2.180	2.408	2.429	2.475	2.286	7.77
83)	1,2,4-Trimethylbenz	2.695	2.726	2.819	3.053	3.101	3.077	2.912	6.40
84)	sec-Butylbenzene	3.733	3.517	3.761	4.047	4.087	4.112	3.876	6.24

(#) = Out of Range ### Number of calibration levels exceeded format ##293
 EXP0914.M Tue Sep 18 15:48:47 2001 Page 2

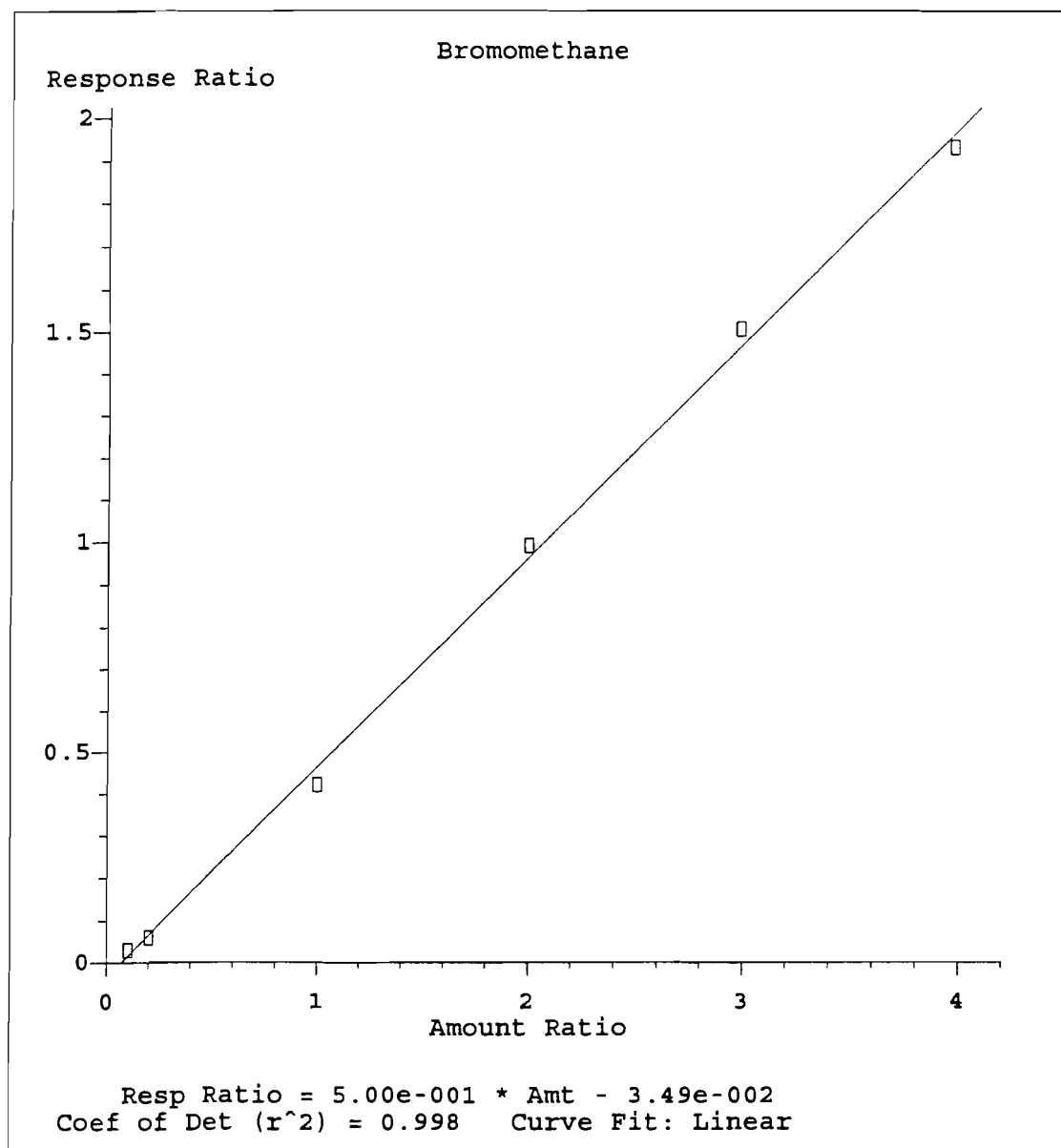
Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration

Calibration Files

5 =V0632.D 10 =V0624.D 50 =V0626.D
 100 =V0627.D 150 =V0628.D 200 =V0629.D

	Compound	5	10	50	100	150	200	Avg	%RSD
85)	p-Isopropyltoluene	2.831	2.594	2.808	3.080	3.153	3.188	2.942	7.98
86)	1,3-Dclbenz	1.383	1.276	1.339	1.424	1.442	1.455	1.386	4.97
87)	1,4-Dclbenz	1.504	1.450	1.474	1.566	1.606	1.618	1.536	4.59
88)	n-Butylbenzene	3.047	2.939	3.147	3.353	3.365	3.392	3.207	5.95
89)	1,2-Dclbenz	1.446	1.309	1.366	1.447	1.482	1.484	1.423	4.94
90)	1,2-Dibromo-3-chlor	0.158	0.157	0.182	0.189	0.190	0.196	0.179	9.38
91)	Nitrobenzene							0.000	-1.00
92)	1,2,4-Tcbenzene	1.110	0.893	0.996	1.094	1.124	1.107	1.054	8.66
93)	Hexachlorobt	0.510	0.440	0.474	0.512	0.526	0.515	0.496	6.55
94)	Naphthalen	2.335	2.036	2.331	2.519	2.548	2.536	2.384	8.28
95)	1,2,3-Tclbenzene	1.004	0.886	0.943	1.047	1.052	1.041	0.996	6.79
96)	TOTAL XYLENE							0.000	-1.00



Method Name: J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M
Calibration Table Last Updated: Tue Sep 18 15:48:32 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0632.D Vial: 14
 Acq On : 14 Sep 2001 6:40 pm Operator: herring
 Sample : 5ppb Inst : GC/MS Ins
 Misc : 8260b water Multiplr: 1.00
 Integration Params: rteint.p
 Quant Time: Sep 18 15:40 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:39:52 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0906

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.37	168	143134	50.00	ppb	0.00
34) 1,4 - Difluorobenzene	11.71	114	251107	50.00	ppb	0.00
51) d5 - Chlorobenzene	17.20	117	209636	50.00	ppb	0.00
73) d4 - Dichlorobenzene	21.95	152	85868	50.00	ppb	0.00

System Monitoring Compounds

35) surr4,Dibrflmethane	10.40	113	97376	49.24	ppb	0.00
Spiked Amount	50.000		Recovery	=	98.48%	
57) surr3,Toluene-d8	14.41	98	269009	49.91	ppb	0.00
Spiked Amount	50.000		Recovery	=	99.82%	
58) surr2,bfb	19.54	95	105974	47.47	ppb	0.00
Spiked Amount	50.000		Recovery	=	94.94%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.73	85	9568	4.80	ppb	98
3) Chloromethane	4.10	50	5717	5.27	ppb	91
4) Vinyl Chloride	4.32	62	3920m	5.08	ppb	92
5) Bromomethane	5.01	94	4232	6.45	ppb	# 76
6) Chloroethane	5.19	64	6825	5.08	ppb	94
7) Trichlorofluoromethane	5.68	101	12648	5.12	ppb	90
8) Diethyl Ether	6.17	59	8141	5.04	ppb	91
9) Acrolein	6.40	56	8310	24.04	ppb	87
10) FREON 113	6.59	85	3440	5.22	ppb	97
11) 1,1-Dicethene	6.63	96	7538	5.13	ppb	87
12) Acetone	6.66	43	4711	6.10	ppb	92
13) Iodomethane	6.92	127	2610	4.72	ppb	79
14) Carbon Disulfide	7.08	76	30926	5.10	ppb	98
15) Acetonitrile	7.13	41	8084	23.98	ppb	# 80
16) Allyl Chloride	7.23	76	3934	5.42	ppb	82
17) Methylene Chloride	7.45	84	9395	4.99	ppb	97
18) TBA	7.51	59	17882	99.35	ppb	99
19) Acrylonitrile	7.82	53	20698	24.71	ppb	95
20) Methyl-t-Butyl Ether	7.87	73	23261	4.96	ppb	96
21) trans-1,2-Dichloroethene	7.93	96	9030	5.14	ppb	90
22) 1,1-Dicethane	8.63	63	16482	4.97	ppb	# 88
23) Vinyl Acetate	8.63	43	18169	4.70	ppb	99
24) 2-Chloro-1,3-butadiene	8.78	53	15938	5.12	ppb	95
25) 2,2-Dichloropropane	9.61	77	10898	4.73	ppb	95
26) 2-Butanone	9.56	43	7000	5.24	ppb	98
27) cis-1,2-Dichloroethene	9.61	96	9584	4.83	ppb	88
28) Propionitrile	9.67	54	7485	24.69	ppb	94
29) Methacrylonitrile	9.94	67	3868	4.97	ppb	69

(#) = qualifier out of range (m) = manual integration
 V0632.D EXP0914.M Tue Sep 18 15:41:45 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0632.D

Vial: 14

Acq On : 14 Sep 2001 6:40 pm

Operator: herring

Sample : 5ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:40 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.04	128	3539	4.93	ppb	87
31) Chloroform	10.12	83	16500	5.11	ppb	95
32) Tetrahydrofuran	10.11	42	5694	7.05	ppb	100
33) 1,1,1-Trichloroethane	10.49	97	12736	4.87	ppb	92
36) Carbontetrachloride	10.79	117	9817	4.67	ppb	# 76
37) 1,1-Dichloropropene	10.76	75	12124	4.81	ppb	91
38) Iso-Butyl Alcohol	10.75	43	9879	90.88	ppb	94
39) Benzene	11.14	78	33530	4.84	ppb	97
40) 1,2-Dichloroethane	11.14	62	14187	5.01	ppb	99
41) N-Heptane	11.46	43	18238	5.14	ppb	98
42) Trichloroethene	12.23	95	9253	5.03	ppb	96
43) 1,2-Diclp propane	12.63	63	10865	5.11	ppb	93
44) Methyl Methacrylate	12.68	69	6211	4.78	ppb	95
45) 1,4-Dioxane	12.80	88	1763	102.75	ppb	95
46) Dibromomethane	12.87	93	6293	5.64	ppb	90
47) Bromodichloromethane	13.09	83	12045	4.77	ppb	98
48) 2-Nitropropane	13.45	43	6737	8.69	ppb	# 89
49) 2-Chloroethylvinyl Ether	13.53	63	6279	4.89	ppb	97
50) cis-1,3-Dichloropropene	13.89	75	13577	4.60	ppb	99
52) 4-Methyl-2-Pentanone	14.08	43	14119	4.97	ppb	97
53) Toluene	14.54	91	31002	4.77	ppb	98
54) trans-1,3-Dichloropropene	14.88	75	12659	4.76	ppb	97
55) Ethyl Methacrylate	14.94	69	11421	4.54	ppb	99
56) 1,1,2-Trichloroethane	15.25	83	6650	4.79	ppb	98
59) Tetrachloroethene	15.61	166	7426	4.75	ppb	97
60) 2-Hexanone	15.62	43	9193	4.68	ppb	100
61) 1,3-Dichloropropane	15.59	76	14777	4.83	ppb	98
62) Dibromochloromethane	16.07	129	7552	4.53	ppb	90
63) 1,2-Dibromoethane	16.34	107	8362	4.79	ppb	100
64) Chlorobenzene	17.26	112	19745	4.74	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.39	131	6804	4.59	ppb	96
66) Ethylbenzene	17.41	91	35223	4.79	ppb	98
67) (m+p)Xylene	17.63	106	24696	9.29	ppb	95
68) o-Xylene	18.46	106	12351	4.75	ppb	97
69) Styrene	18.48	104	20135	4.44	ppb	100
70) Bromoform	18.93	173	4793	4.38	ppb	93
71) Isopropylbenzene	19.16	105	30197	4.55	ppb	97
72) Cyclohexanone	19.43	55	26050	105.22	ppb	99
74) 1,1,2,2-Tetrachloroethane	19.76	83	9564	4.94	ppb	# 96
75) Trans-1,4-Dichloro-2-buten	19.86	53	4191	5.25	ppb	83
76) 1,2,3-Trichloropropane	19.88	110	3054	5.13	ppb	85

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

V0632.D EXP0914.M

Tue Sep 18 15:41:45 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0632.D Vial: 14
 Acq On : 14 Sep 2001 6:40 pm Operator: herring
 Sample : 5ppb Inst : GC/MS Ins
 Misc : 8260b water Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 15:40 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:39:52 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0906

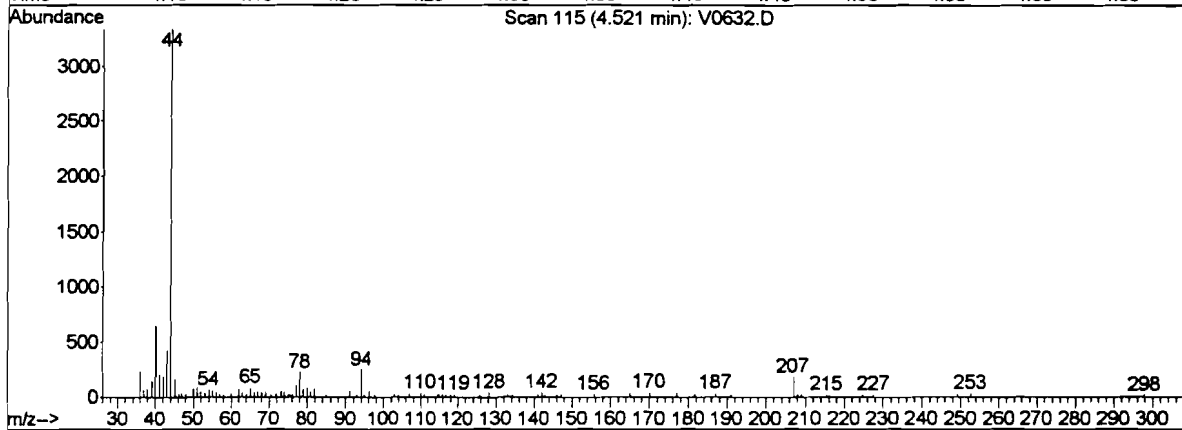
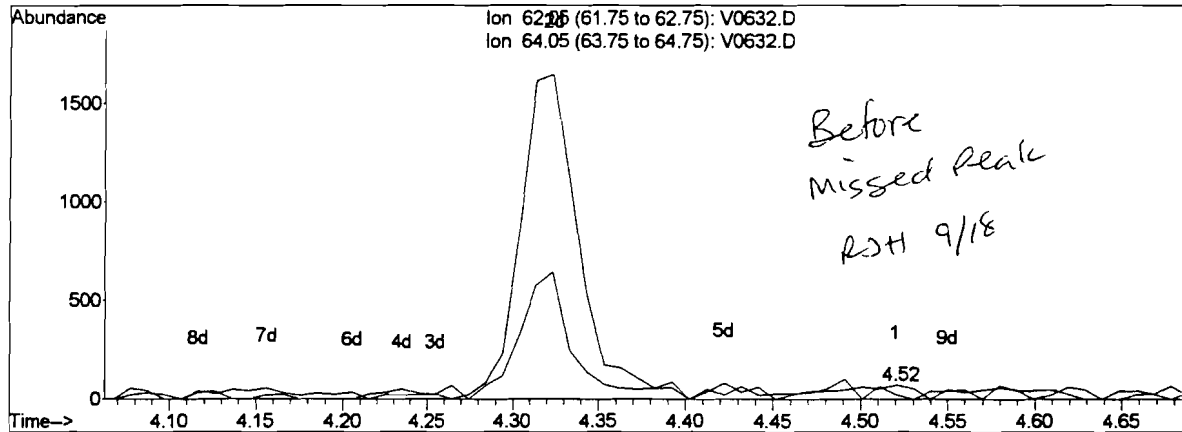
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.01	91	38570	4.83	ppb	95
78) Bromobenzene	19.90	156	7482	5.00	ppb	95
79) 1,3,5-Trimethylbenzene	20.34	105	23316	4.73	ppb	99
80) 2-Chlorotoluene	20.27	91	23559	4.85	ppb	99
81) 4-Chlorotoluene	20.47	91	24613	5.00	ppb	100
82) tert-Butylbenzene	21.05	119	18887	4.81	ppb	91
83) 1,2,4-Trimethylbenzene	21.14	105	23143	4.63	ppb	98
84) sec-Butylbenzene	21.50	105	32058	4.82	ppb	95
85) p-Isopropyltoluene	21.76	119	24312	4.81	ppb	97
86) 1,3-Dclbenz	21.83	146	11874	4.99	ppb	97
87) 1,4-Dclbenz	22.00	146	12917	4.88	ppb	98
88) n-Butylbenzene	22.64	91	26160	4.78	ppb	95
89) 1,2-Dclbenz	22.82	146	12420	5.08	ppb	94
90) 1,2-Dibromo-3-chloropropan	24.46	157	1358	4.43	ppb	# 76
92) 1,2,4-Tcbenzene	26.41	180	9534	5.27	ppb	91
93) Hexachlorobt	26.77	225	4381	5.14	ppb	98
94) Naphthalen	27.08	128	20046	4.90	ppb	95
95) 1,2,3-Tclbenzene	27.74	180	8618	5.04	ppb	95

(#) = qualifier out of range (m) = manual integration
 V0632.D EXP0914.M Tue Sep 18 15:41:45 2001

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0632.D Vial: 14
 Acq On : 14 Sep 2001 6:40 pm Operator: herring
 Sample : 5ppb Inst : GC/MS Ins
 Misc : 8260b water Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 15:39 2001 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:39:52 2001
 Response via : Multiple Level Calibration



(4) Vinyl Chloride (c)

4.52min 0.30ppb

response 229

Ion	Exp%	Act%
62.05	100	100
64.05	30.80	33.80
0.00	0.00	0.00
0.00	0.00	0.00

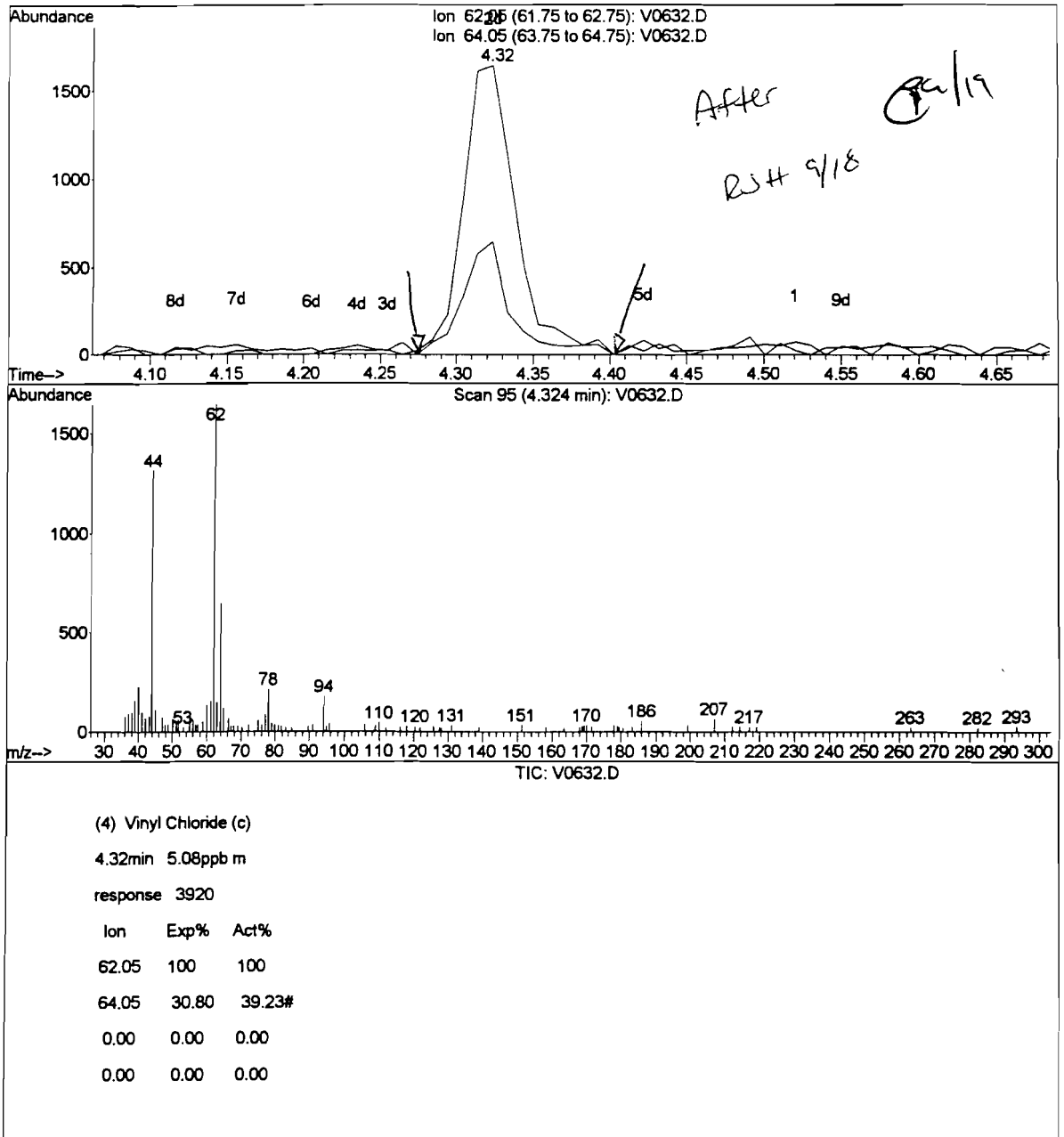
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0632.D
 Acq On : 14 Sep 2001 6:40 pm
 Sample : 5ppb
 Misc : 8260b water
 MS Integration Params: rteint.p
 Quant Time: Sep 18 15:40 2001

Vial: 14
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:39:52 2001
 Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0632.D

Vial: 14

Acq On : 14 Sep 2001 6:40 pm

Operator: herring

Sample : 5ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:40 2001

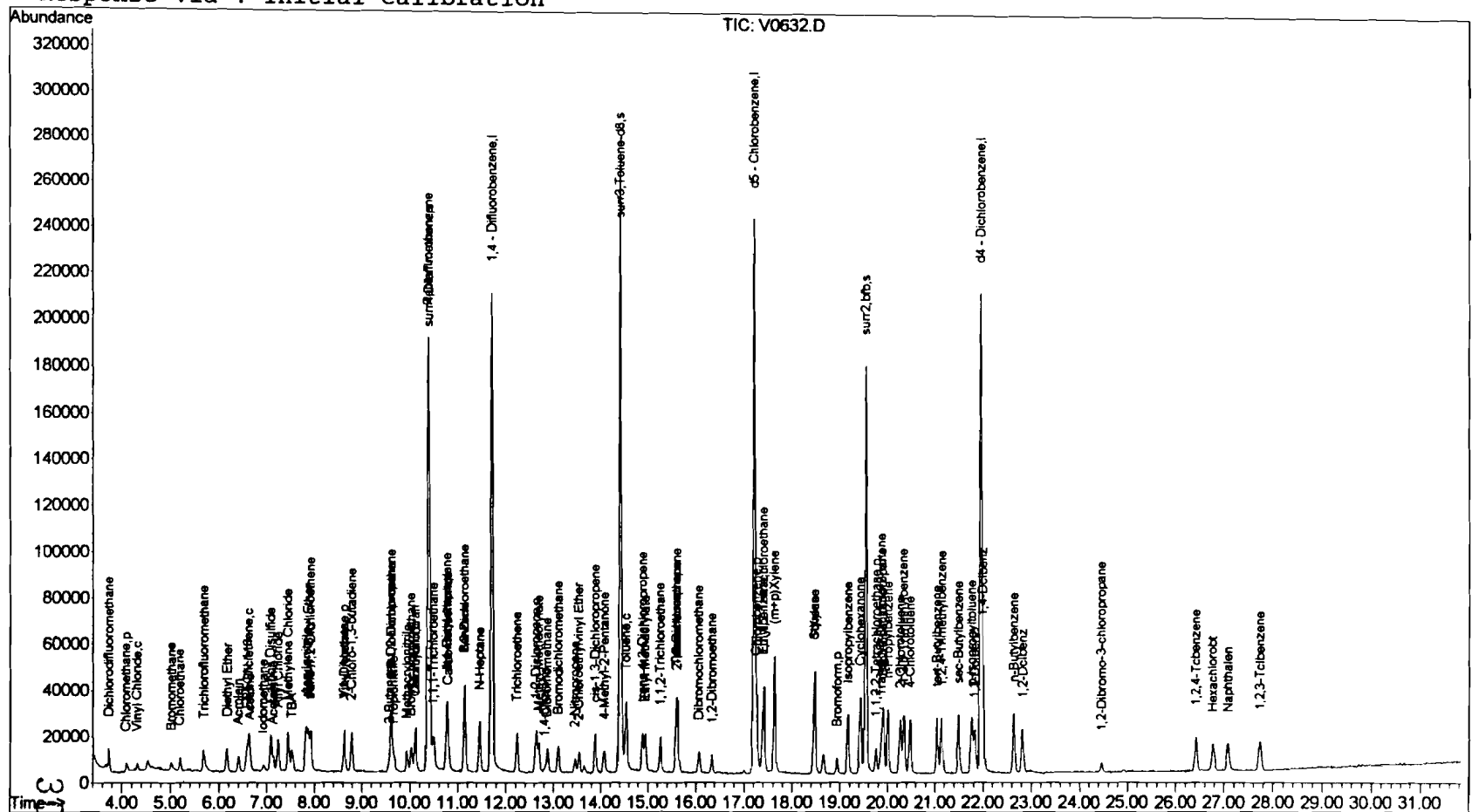
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260vov

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration



V0632.D EXP0914.M

Tue Sep 18 15:41:47 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0624.D

Vial: 6

Acq On : 14 Sep 2001 12:41 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:41 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.37	168	122906	50.00	ppb	0.00
34) 1,4 - Difluorobenzene	11.71	114	217029	50.00	ppb	0.00
51) d5 - Chlorobenzene	17.20	117	181421	50.00	ppb	0.00
73) d4 - Dichlorobenzene	21.95	152	77169	50.00	ppb	0.00

System Monitoring Compounds

35) surr4,Dibrflmethane	10.40	113	86802	50.79	ppb	0.00
Spiked Amount	50.000		Recovery	=	101.58%	
57) surr3,Toluene-d8	14.40	98	234354	50.24	ppb	0.00
Spiked Amount	50.000		Recovery	=	100.48%	
58) surr2,bfb	19.53	95	92004	47.62	ppb	0.00
Spiked Amount	50.000		Recovery	=	95.24%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.73	85	17623	10.30	ppb	99
3) Chloromethane	4.09	50	8575	9.21	ppb	98
4) Vinyl Chloride	4.32	62	7460	11.27	ppb	95
5) Bromomethane	5.01	94	7310	9.44	ppb	95
6) Chloroethane	5.19	64	11924	10.34	ppb	99
7) Trichlorofluoromethane	5.68	101	20839	9.82	ppb	93
8) Diethyl Ether	6.16	59	13785	9.94	ppb	100
9) Acrolein	6.40	56	14355	48.37	ppb	95
10) FREON 113	6.58	85	5663	10.02	ppb	85
11) 1,1-Dicethene	6.62	96	11960	9.48	ppb	97
12) Acetone	6.65	43	7012	10.58	ppb	100
13) Iodomethane	6.93	127	3626	7.64	ppb	66
14) Carbon Disulfide	7.08	76	50728	9.75	ppb	99
15) Acetonitrile	7.13	41	14253	49.23	ppb	87
16) Allyl Chloride	7.23	76	6332	10.16	ppb	91
17) Methylene Chloride	7.44	84	16522	10.22	ppb	94
18) TBA	7.51	59	27577	178.43	ppb	96
19) Acrylonitrile	7.82	53	33340	46.35	ppb	99
20) Methyl-t-Butyl Ether	7.86	73	38897	9.65	ppb	95
21) trans-1,2-Dichloroethene	7.91	96	14729	9.76	ppb	95
22) 1,1-Dicethane	8.62	63	28605	10.05	ppb	95
23) Vinyl Acetate	8.62	43	33766	10.17	ppb	99
24) 2-Chloro-1,3-butadiene	8.78	53	25720	9.62	ppb	97
25) 2,2-Dichloropropane	9.61	77	19030	9.61	ppb	99
26) 2-Butanone	9.55	43	10613	9.24	ppb	95
27) cis-1,2-Dichloroethene	9.61	96	15836	9.30	ppb	94
28) Propionitrile	9.67	54	11816	45.38	ppb	99
29) Methacrylonitrile	9.92	67	6080	9.11	ppb	97

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

V0624.D EXP0914.M

Tue Sep 18 15:43:15 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0624.D

Vial: 6

Acq On : 14 Sep 2001 12:41 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:41 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.03	128	5873	9.53	ppb	88
31) Chloroform	10.12	83	28318	10.22	ppb	97
32) Tetrahydrofuran	10.10	42	7777	11.22	ppb	100
33) 1,1,1-Trichloroethane	10.48	97	21981	9.79	ppb	95
36) Carbontetrachloride	10.79	117	16923	9.32	ppb	92
37) 1,1-Dichloropropene	10.76	75	21312	9.78	ppb	96
38) Iso-Butyl Alcohol	10.75	43	16073	171.09	ppb	88
39) Benzene	11.13	78	55295	9.23	ppb	99
40) 1,2-Dichloroethane	11.13	62	24358	9.96	ppb	97
41) N-Heptane	11.46	43	28678	9.35	ppb	98
42) Trichloroethene	12.23	95	14221	8.94	ppb	99
43) 1,2-Dichloropropane	12.62	63	18175	9.89	ppb	99
44) Methyl Methacrylate	12.69	69	9506	8.47	ppb	93
45) 1,4-Dioxane	12.81	88	2638	177.88	ppb	95
46) Dibromomethane	12.86	93	10125	10.49	ppb	93
47) Bromodichloromethane	13.09	83	20595	9.43	ppb	98
48) 2-Nitropropane	13.45	43	10957	16.35	ppb	# 84
49) 2-Chloroethylvinyl Ether	13.53	63	10107	9.11	ppb	97
50) cis-1,3-Dichloropropene	13.88	75	23279	9.12	ppb	96
52) 4-Methyl-2-Pentanone	14.07	43	22445	9.12	ppb	92
53) Toluene	14.52	91	52044	9.25	ppb	100
54) trans-1,3-Dichloropropene	14.88	75	21300	9.25	ppb	96
55) Ethyl Methacrylate	14.94	69	17954	8.25	ppb	# 89
56) 1,1,2-Trichloroethane	15.25	83	11143	9.28	ppb	91
59) Tetrachloroethene	15.60	166	11975	8.86	ppb	99
60) 2-Hexanone	15.62	43	14417	8.47	ppb	95
61) 1,3-Dichloropropane	15.59	76	24630	9.30	ppb	99
62) Dibromochloromethane	16.07	129	13058	9.05	ppb	91
63) 1,2-Dibromoethane	16.33	107	13768	9.12	ppb	96
64) Chlorobenzene	17.26	112	33530	9.31	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.39	131	11384	8.87	ppb	96
66) Ethylbenzene	17.41	91	56632	8.90	ppb	97
67) (m+p) Xylene	17.63	106	40457	17.59	ppb	97
68) o-Xylene	18.44	106	20124	8.94	ppb	99
69) Styrene	18.46	104	34698	8.84	ppb	96
70) Bromoform	18.93	173	7825	8.27	ppb	86
71) Isopropylbenzene	19.16	105	50038	8.72	ppb	100
72) Cyclohexanone	19.42	55	37721	176.05	ppb	100
74) 1,1,2,2-Tetrachloroethane	19.75	83	16773	9.64	ppb	93
75) Trans-1,4-Dichloro-2-buten	19.85	53	6445	8.98	ppb	84
76) 1,2,3-Trichloropropane	19.89	110	4966	9.27	ppb	87

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

V0624.D EXP0914.M Tue Sep 18 15:43:16 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0624.D

Vial: 6

Acq On : 14 Sep 2001 12:41 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:41 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.00	91	66796	9.31	ppb	99
78) Bromobenzene	19.90	156	12293	9.14	ppb	98
79) 1,3,5-Trimethylbenzene	20.33	105	39658	8.95	ppb	97
80) 2-Chlorotoluene	20.25	91	40560	9.30	ppb	97
81) 4-Chlorotoluene	20.47	91	39905	9.02	ppb	95
82) tert-Butylbenzene	21.04	119	31260	8.86	ppb	95
83) 1,2,4-Trimethylbenzene	21.14	105	42066	9.36	ppb	99
84) sec-Butylbenzene	21.49	105	54279	9.07	ppb	100
85) p-Isopropyltoluene	21.76	119	40037	8.82	ppb	97
86) 1,3-Dclbenz	21.83	146	19687	9.20	ppb	95
87) 1,4-Dclbenz	22.00	146	22379	9.41	ppb	96
88) n-Butylbenzene	22.63	91	45353	9.23	ppb	98
89) 1,2-Dclbenz	22.80	146	20201	9.20	ppb	97
90) 1,2-Dibromo-3-chloropropan	24.46	157	2426	8.80	ppb	85
92) 1,2,4-Tcbenzene	26.41	180	13784	8.47	ppb	90
93) Hexachlorobt	26.77	225	6795	8.87	ppb	97
94) Naphthalen	27.08	128	31419	8.54	ppb	96
95) 1,2,3-Tclbenzene	27.73	180	13669	8.90	ppb	99

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

V0624.D EXP0914.M

Tue Sep 18 15:43:16 2001

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Page 3

Quantitation Report

Data File : J:\ACQUADATA\MSVOA7\DATA\091401\V0624.D

Vial: 6

Acq On : 14 Sep 2001 12:41 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:41 2001

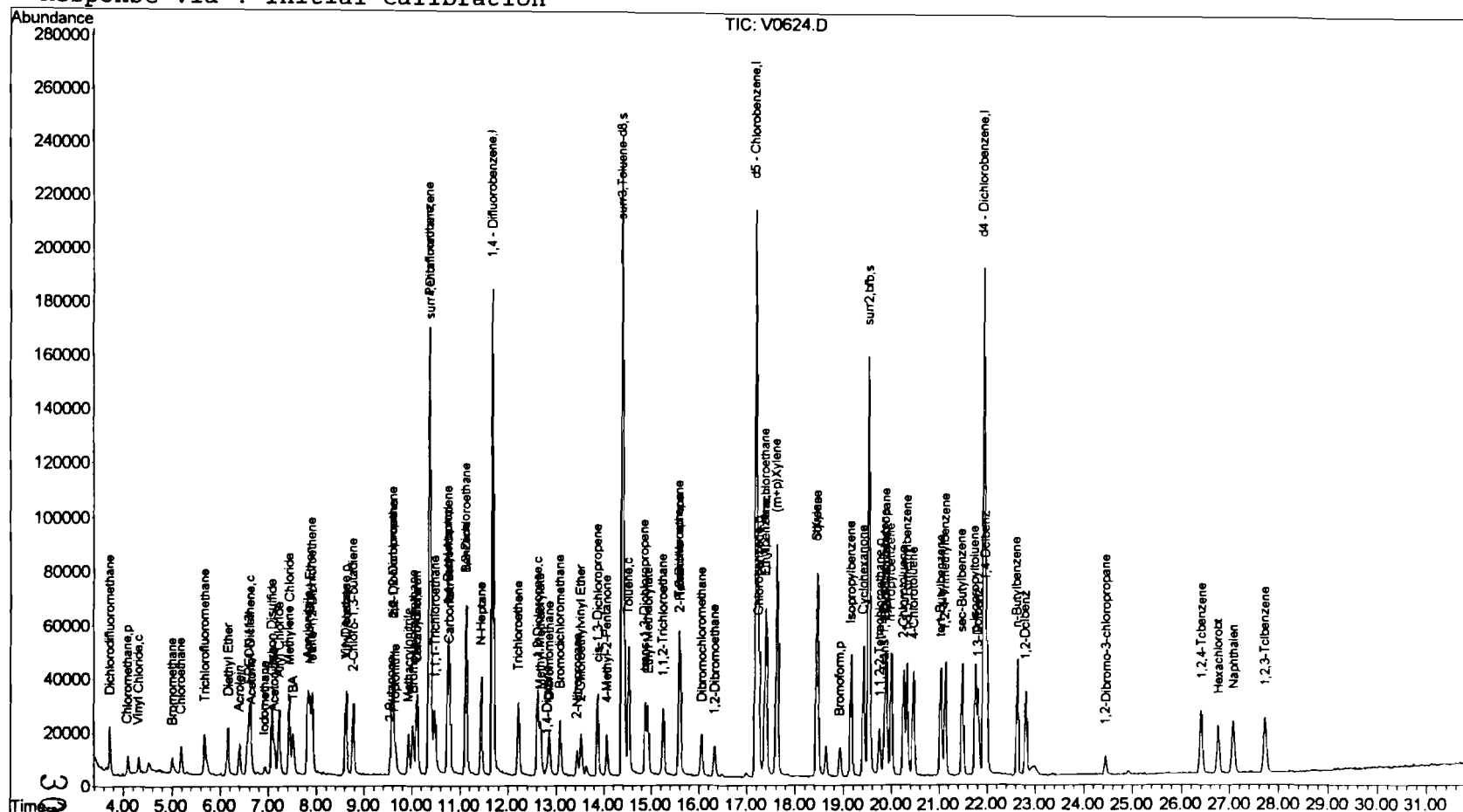
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0626.D

Vial: 8

Acq On : 14 Sep 2001 2:45 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Visc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.37	168	124336	50.00	ppb	0.00
34) 1,4 - Difluorobenzene	11.70	114	222205	50.00	ppb	0.00
51) d5 - Chlorobenzene	17.20	117	184609	50.00	ppb	0.00
73) d4 - Dichlorobenzene	21.96	152	81854	50.00	ppb	0.00

System Monitoring Compounds

35) surr4,Dibrflmethane	10.39	113	130612	74.64	ppb	0.00
Spiked Amount	50.000		Recovery	=	149.28%	
57) surr3,Toluene-d8	14.40	98	353591	74.49	ppb	0.00
Spiked Amount	50.000		Recovery	=	148.98%	
58) surr2,bfb	19.53	95	148604	75.59	ppb	0.00
Spiked Amount	50.000		Recovery	=	151.18%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.73	85	92776	53.58	ppb	100
3) Chloromethane	4.10	50	45564	48.36	ppb	100
4) Vinyl Chloride	4.32	62	33604	50.17	ppb	100
5) Bromomethane	5.01	94	52278	45.57	ppb	100
6) Chloroethane	5.18	64	60289	51.70	ppb	100
7) Trichlorofluoromethane	5.68	101	112005	52.19	ppb	100
8) Diethyl Ether	6.16	59	74222	52.89	ppb	100
9) Acrolein	6.40	56	82088	273.41	ppb	100
10) FREON 113	6.58	85	30008	52.46	ppb	100
11) 1,1-Dicethene	6.62	96	64367	50.43	ppb	100
12) Acetone	6.65	43	36048	53.77	ppb	100
13) Iodomethane	6.93	127	25230	52.56	ppb	100
14) Carbon Disulfide	7.08	76	272525	51.78	ppb	100
15) Acetonitrile	7.13	41	79941	272.96	ppb	100
16) Allyl Chloride	7.23	76	33035	52.40	ppb	100
17) Methylene Chloride	7.44	84	83444	51.01	ppb	100
18) TBA	7.52	59	171316	1095.73	ppb	100
19) Acrylonitrile	7.81	53	192712	264.82	ppb	100
20) Methyl-t-Butyl Ether	7.86	73	208854	51.24	ppb	100
21) trans-1,2-Dichloroethene	7.92	96	77065	50.48	ppb	100
22) 1,1-Dicethane	8.62	63	147352	51.20	ppb	100
23) Vinyl Acetate	8.62	43	186293	55.46	ppb	100
24) 2-Chloro-1,3-butadiene	8.78	53	141067	52.13	ppb	100
25) 2,2-Dichloropropane	9.61	77	102026	50.93	ppb	100
26) 2-Butanone	9.55	43	62065	53.44	ppb	100
27) cis-1,2-Dichloroethene	9.61	96	84051	48.79	ppb	100
28) Propionitrile	9.67	54	67744	257.21	ppb	100
29) Methacrylonitrile	9.93	67	35416	52.43	ppb	100

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

V0626.D EXP0914.M

Tue Sep 18 15:43:58 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0626.D

Vial: 8

Acq On : 14 Sep 2001 2:45 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.03	128	29762	47.76	ppb	100
31) Chloroform	10.12	83	141166	50.36	ppb	100
32) Tetrahydrofuran	10.10	42	35946	51.25	ppb	99
33) 1,1,1-Trichloroethane	10.48	97	115790	50.99	ppb	100
36) Carbontetrachloride	10.79	117	90189	48.50	ppb	100
37) 1,1-Dichloropropene	10.76	75	109388	49.04	ppb	100
38) Iso-Butyl Alcohol	10.75	43	98079	1019.67	ppb	100
39) Benzene	11.13	78	301033	49.07	ppb	100
40) 1,2-Dichloroethane	11.13	62	126914	50.69	ppb	100
41) N-Heptane	11.46	43	154296	49.14	ppb	100
42) Trichloroethene	12.23	95	78171	48.00	ppb	100
43) 1,2-Dicloropropane	12.63	63	91355	48.53	ppb	100
44) Methyl Methacrylate	12.68	69	57497	50.02	ppb	100
45) 1,4-Dioxane	12.81	88	15168	998.97	ppb	100
46) Dibromomethane	12.87	93	49582	50.18	ppb	100
47) Bromodichloromethane	13.09	83	110517	49.43	ppb	100
48) 2-Nitropropane	13.45	43	71226	103.79	ppb	100
49) 2-Chloroethylvinyl Ether	13.54	63	56551	49.79	ppb	100
50) cis-1,3-Dichloropropene	13.88	75	127958	48.99	ppb	100
52) 4-Methyl-2-Pentanone	14.07	43	126726	50.62	ppb	100
53) Toluene	14.53	91	279532	48.85	ppb	100
54) trans-1,3-Dichloropropene	14.88	75	117132	50.01	ppb	100
55) Ethyl Methacrylate	14.93	69	111589	50.37	ppb	100
56) 1,1,2-Trichloroethane	15.25	83	61472	50.30	ppb	100
59) Tetrachloroethene	15.60	166	66474	48.32	ppb	100
60) 2-Hexanone	15.62	43	89451	51.67	ppb	100
61) 1,3-Dichloropropane	15.58	76	133059	49.40	ppb	100
62) Dibromochloromethane	16.07	129	73149	49.82	ppb	100
63) 1,2-Dibromoethane	16.33	107	75873	49.38	ppb	100
64) Chlorobenzene	17.26	112	176185	48.06	ppb	100
65) 1,1,1,2-Tetrachloroethane	17.39	131	63090	48.32	ppb	100
66) Ethylbenzene	17.41	91	316207	48.84	ppb	100
67) (m+p)Xylene	17.63	106	224630	96.01	ppb	100
68) o-Xylene	18.45	106	112253	49.00	ppb	100
69) Styrene	18.47	104	193039	48.34	ppb	100
70) Bromoform	18.93	173	48640	50.49	ppb	100
71) Isopropylbenzene	19.16	105	290765	49.80	ppb	100
72) Cyclohexanone	19.43	55	233392	1070.49	ppb	100
74) 1,1,2,2-Tetrachloroethane	19.75	83	92766	50.28	ppb	100
75) Trans-1,4-Dichloro-2-buten	19.86	53	37598	49.37	ppb	100
76) 1,2,3-Trichloropropane	19.89	110	27403	48.25	ppb	100

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

V0626.D EXP0914.M Tue Sep 18 15:43:58 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0626.D Vial: 8
Acq On : 14 Sep 2001 2:45 pm Operator: herring
Sample : 50ppb Inst : GC/MS Ins
Misc : 8260b water Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 18 15:43 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:39:52 2001
Response via : Initial Calibration
DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.01	91	366654	48.19	ppb	100
78) Bromobenzene	19.91	156	67893	47.59	ppb	100
79) 1,3,5-Trimethylbenzene	20.33	105	229355	48.81	ppb	100
80) 2-Chlorotoluene	20.26	91	226125	48.86	ppb	100
81) 4-Chlorotoluene	20.47	91	225656	48.07	ppb	100
82) tert-Butylbenzene	21.04	119	178408	47.67	ppb	100
83) 1,2,4-Trimethylbenzene	21.14	105	230711	48.40	ppb	100
84) sec-Butylbenzene	21.49	105	307872	48.51	ppb	100
85) p-Isopropyltoluene	21.77	119	229830	47.71	ppb	100
86) 1,3-Dclbenz	21.83	146	109623	48.30	ppb	100
87) 1,4-Dclbenz	22.01	146	120643	47.84	ppb	100
88) n-Butylbenzene	22.64	91	257560	49.40	ppb	100
89) 1,2-Dclbenz	22.81	146	111792	48.00	ppb	100
90) 1,2-Dibromo-3-chloropropan	24.46	157	14874	50.89	ppb	100
92) 1,2,4-Tcbenzene	26.42	180	81527	47.25	ppb	100
93) Hexachlorobt	26.77	225	38795	47.75	ppb	100
94) Naphthalen	27.08	128	190825	48.89	ppb	100
95) 1,2,3-Tclbenzene	27.74	180	77206	47.37	ppb	100

(#) = qualifier out of range (m) = manual integration
V0626.D EXP0914.M Tue Sep 18 15:43:58 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0626.D

Vial: 8

Acq On : 14 Sep 2001 2:45 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

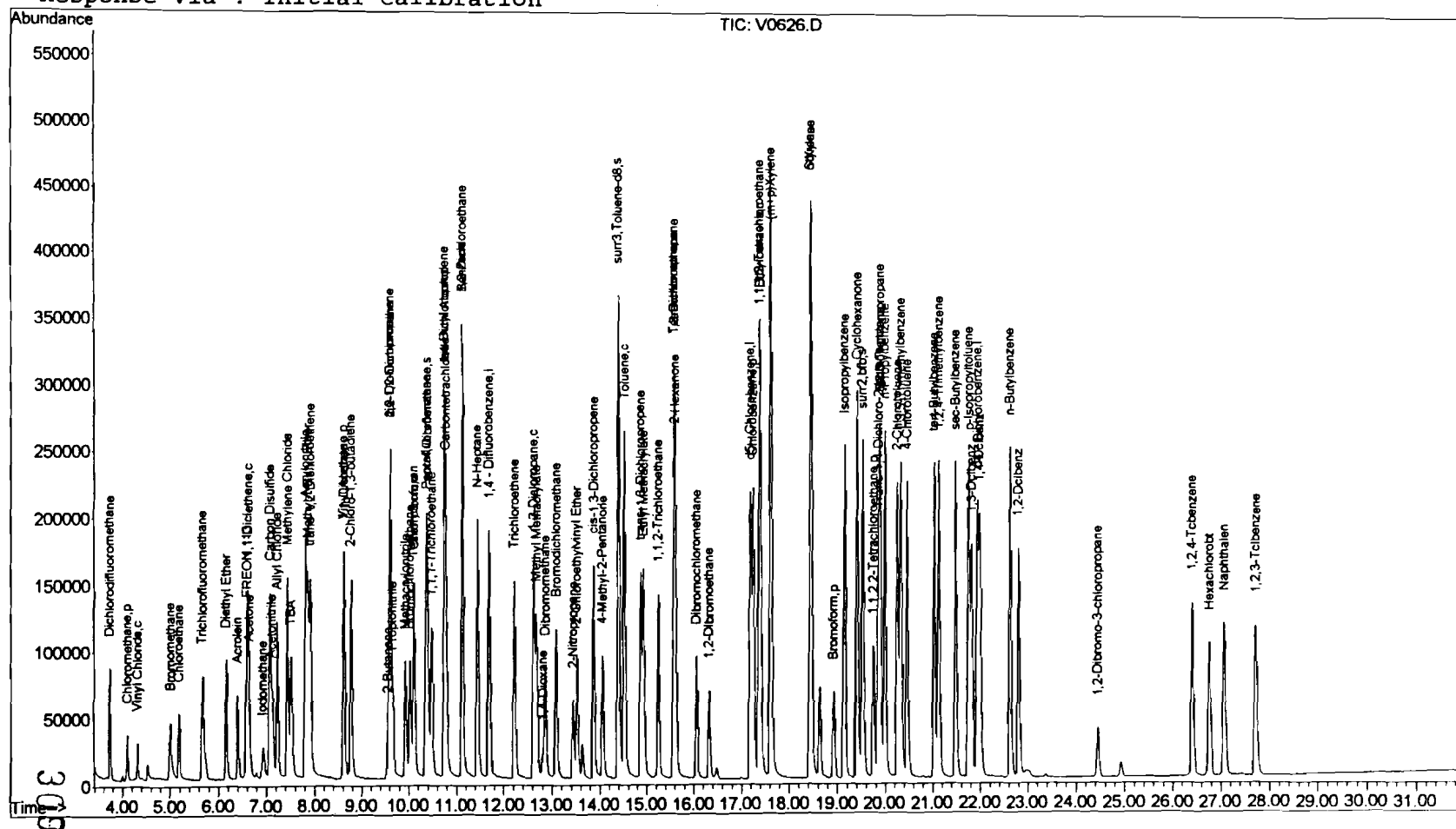
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0627.D

Vial: 9

Acq On : 14 Sep 2001 3:24 pm

Operator: herring

Sample : 100ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.37	168	134748	50.00	ppb	0.00
34) 1,4 - Difluorobenzene	11.71	114	234259	50.00	ppb	0.00
51) d5 - Chlorobenzene	17.20	117	197153	50.00	ppb	0.00
73) d4 - Dichlorobenzene	21.95	152	87826	50.00	ppb	0.00

System Monitoring Compounds

35) surr4,Dibrflmethane	10.40	113	184186	99.84	ppb	0.00
Spiked Amount	50.000		Recovery	=	199.68%	
57) surr3,Toluene-d8	14.41	98	505742	99.77	ppb	0.00
Spiked Amount	50.000		Recovery	=	199.54%	
58) surr2,bfb	19.54	95	210991	100.49	ppb	0.00
Spiked Amount	50.000		Recovery	=	200.98%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.73	85	197690	105.35	ppb	99
3) Chloromethane	4.10	50	108444	106.20	ppb	97
4) Vinyl Chloride	4.31	62	75035	103.37	ppb	98
5) Bromomethane	5.00	94	133682	102.79	ppb	96
6) Chloroethane	5.19	64	131882	104.35	ppb	97
7) Trichlorofluoromethane	5.68	101	243456	104.67	ppb	96
8) Diethyl Ether	6.16	59	156610	102.98	ppb	99
9) Acrolein	6.40	56	170444	523.83	ppb	99
10) FREON 113	6.58	85	64905	104.70	ppb	83
11) 1,1-Dicethene	6.62	96	145145	104.93	ppb	99
12) Acetone	6.65	43	74293	102.25	ppb	97
13) Iodomethane	6.93	127	58522	112.50	ppb	98
14) Carbon Disulfide	7.08	76	579431	101.59	ppb	100
15) Acetonitrile	7.13	41	164241	517.46	ppb	99
16) Allyl Chloride	7.23	76	70494	103.17	ppb	92
17) Methylene Chloride	7.43	84	178888	100.90	ppb	100
18) TBA	7.52	59	350861	2070.69	ppb	99
19) Acrylonitrile	7.82	53	414427	525.49	ppb	99
20) Methyl-t-Butyl Ether	7.87	73	456058	103.24	ppb	99
21) trans-1,2-Dichloroethene	7.93	96	168321	101.73	ppb	96
22) 1,1-Dicethane	8.63	63	321685	103.13	ppb	98
23) Vinyl Acetate	8.63	43	389539	107.00	ppb	97
24) 2-Chloro-1,3-butadiene	8.78	53	297517	101.45	ppb	100
25) 2,2-Dichloropropane	9.61	77	225633	103.94	ppb	98
26) 2-Butanone	9.55	43	125815	99.95	ppb	99
27) cis-1,2-Dichloroethene	9.61	96	194332	104.08	ppb	99
28) Propionitrile	9.66	54	147090	515.31	ppb	100
29) Methacrylonitrile	9.94	67	74052	101.15	ppb	97

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

V0627.D EXP0914.M

Tue Sep 18 15:44:37 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0627.D

Vial: 9

Acq On : 14 Sep 2001 3:24 pm

Operator: herring

Sample : 100ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.03	128	67575	100.06	ppb	97
31) Chloroform	10.12	83	310018	102.05	ppb	97
32) Tetrahydrofuran	10.10	42	71519	94.09	ppb	94
33) 1,1,1-Trichloroethane	10.49	97	256092	104.07	ppb	99
36) Carbontetrachloride	10.79	117	210821	107.53	ppb	94
37) 1,1-Dichloropropene	10.75	75	247545	105.27	ppb	99
38) Iso-Butyl Alcohol	10.75	43	216305	2133.08	ppb	100
39) Benzene	11.13	78	675667	104.47	ppb	100
40) 1,2-Dichloroethane	11.14	62	273216	103.50	ppb	99
41) N-Heptane	11.46	43	345193	104.29	ppb	99
42) Trichloroethene	12.23	95	179097	104.31	ppb	99
43) 1,2-Diclpropane	12.62	63	205774	103.70	ppb	100
44) Methyl Methacrylate	12.68	69	126064	104.04	ppb	99
45) 1,4-Dioxane	12.81	88	31835	1988.78	ppb	94
46) Dibromomethane	12.86	93	102439	98.33	ppb	94
47) Bromodichloromethane	13.09	83	244342	103.66	ppb	99
48) 2-Nitropropane	13.45	43	159062	219.85	ppb	100
49) 2-Chloroethylvinyl Ether	13.53	63	123873	103.45	ppb	99
50) cis-1,3-Dichloropropene	13.89	75	288413	104.73	ppb	100
52) 4-Methyl-2-Pentanone	14.07	43	276194	103.31	ppb	99
53) Toluene	14.54	91	642321	105.10	ppb	100
54) trans-1,3-Dichloropropene	14.88	75	260529	104.16	ppb	100
55) Ethyl Methacrylate	14.94	69	254849	107.71	ppb	99
56) 1,1,2-Trichloroethane	15.25	83	136184	104.33	ppb	94
59) Tetrachloroethene	15.61	166	156136	106.28	ppb	97
60) 2-Hexanone	15.62	43	195981	106.00	ppb	97
61) 1,3-Dichloropropane	15.59	76	297032	103.26	ppb	98
62) Dibromochloromethane	16.06	129	166807	106.38	ppb	96
63) 1,2-Dibromoethane	16.34	107	168787	102.87	ppb	96
64) Chlorobenzene	17.26	112	410572	104.87	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.39	131	146684	105.19	ppb	98
66) Ethylbenzene	17.41	91	738440	106.80	ppb	99
67) (m+p)Xylene	17.63	106	532352	213.05	ppb	99
68) o-Xylene	18.45	106	263720	107.78	ppb	98
69) Styrene	18.46	104	457055	107.16	ppb	99
70) Bromoform	18.94	173	110629	107.53	ppb	99
71) Isopropylbenzene	19.16	105	670134	107.48	ppb	100
72) Cyclohexanone	19.42	55	457606	1965.34	ppb	98
74) 1,1,2,2-Tetrachloroethane	19.75	83	202153	102.12	ppb	99
75) Trans-1,4-Dichloro-2-buten	19.85	53	83037	101.62	ppb	77
76) 1,2,3-Trichloropropane	19.89	110	60917	99.97	ppb	100

(#) = qualifier out of range (m) = manual integration
V0627.D EXP0914.M Tue Sep 18 15:44:37 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0627.D

Vial: 9

Acq On : 14 Sep 2001 3:24 pm

Operator: herring

Sample : 100ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.01	91	857146	104.99	ppb	99
78) Bromobenzene	19.90	156	156724	102.38	ppb	95
79) 1,3,5-Trimethylbenzene	20.34	105	526975	104.51	ppb	100
80) 2-Chlorotoluene	20.27	91	510825	102.88	ppb	100
81) 4-Chlorotoluene	20.47	91	520003	103.25	ppb	98
82) tert-Butylbenzene	21.05	119	423039	105.35	ppb	94
83) 1,2,4-Trimethylbenzene	21.14	105	536314	104.86	ppb	100
84) sec-Butylbenzene	21.50	105	710932	104.41	ppb	99
85) p-Isopropyltoluene	21.76	119	541018	104.68	ppb	100
86) 1,3-Dclbenz	21.83	146	250180	102.73	ppb	98
87) 1,4-Dclbenz	22.01	146	275139	101.69	ppb	96
88) n-Butylbenzene	22.63	91	588972	105.29	ppb	99
89) 1,2-Dclbenz	22.82	146	254200	101.73	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.46	157	33189	105.84	ppb	98
92) 1,2,4-Tcbenzene	26.41	180	192126	103.79	ppb	96
93) Hexachlorobt	26.78	225	89942	103.17	ppb	99
94) Naphthalen	27.08	128	442393	105.64	ppb	100
95) 1,2,3-Tclbenzene	27.73	180	183898	105.16	ppb	99

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

V0627.D EXP0914.M Tue Sep 18 15:44:37 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0627.D

Vial: 9

Acq On : 14 Sep 2001 3:24 pm

Operator: herring

Sample : 100ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:43 2001

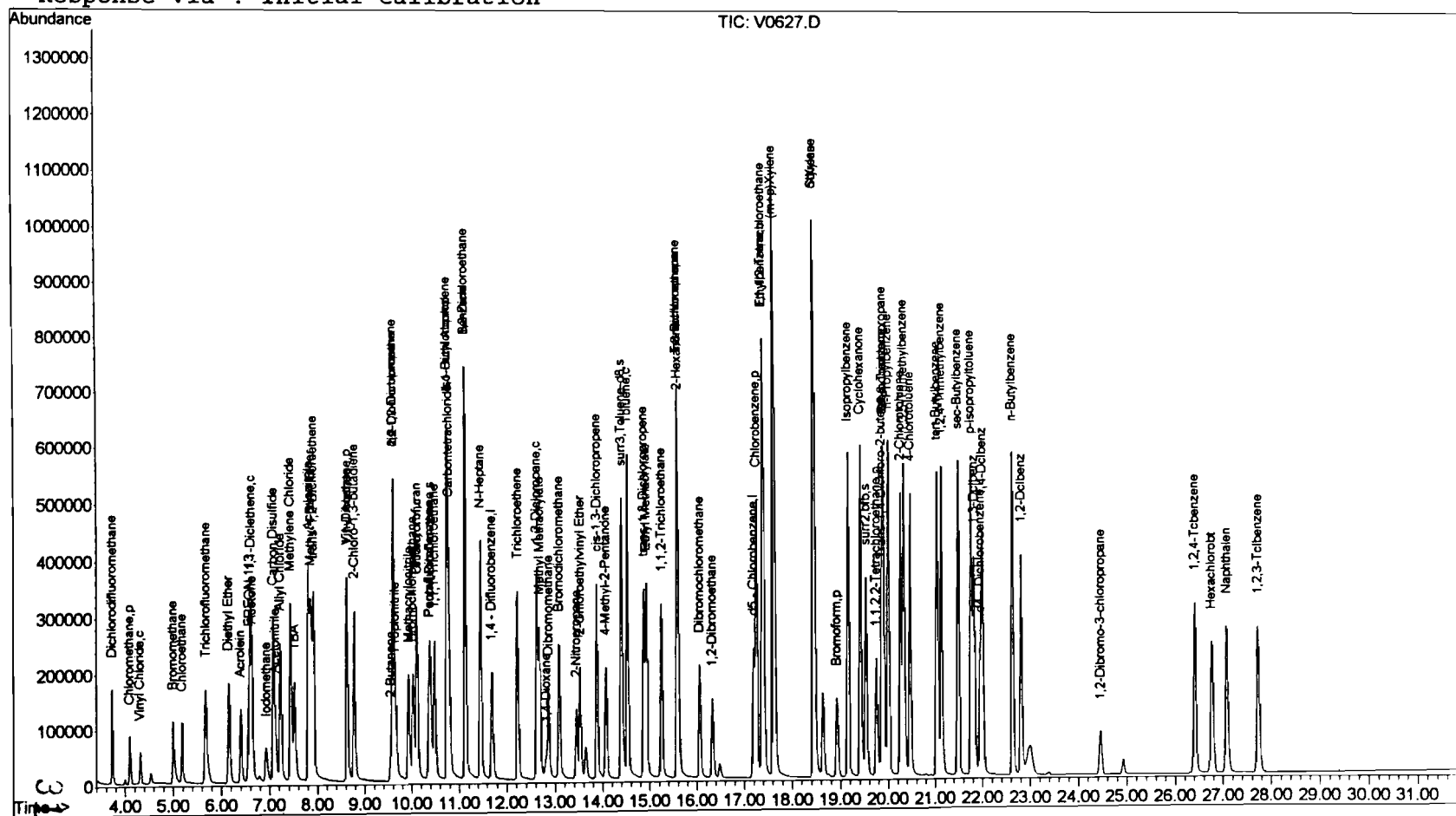
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0628.D

Vial: 10

Acq On : 14 Sep 2001 4:03 pm

Operator: herring

Sample : 150ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.37	168	150029	50.00	ppb	0.00
34) 1,4 - Difluorobenzene	11.70	114	259252	50.00	ppb	0.00
51) d5 - Chlorobenzene	17.21	117	221595	50.00	ppb	0.00
73) d4 - Dichlorobenzene	21.95	152	96920	50.00	ppb	0.00

System Monitoring Compounds

35) surr4,Dibrflmethane	10.40	113	257614	126.18	ppb	0.00
Spiked Amount	50.000		Recovery	=	252.36%	
57) surr3,Toluene-d8	14.41	98	731981	128.47	ppb	0.00
Spiked Amount	50.000		Recovery	=	256.94%	
58) surr2,bfb	19.54	95	301824	127.90	ppb	0.00
Spiked Amount	50.000		Recovery	=	255.80%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.73	85	305606	146.27	ppb	99
3) Chloromethane	4.10	50	173935	152.98	ppb	99
4) Vinyl Chloride	4.31	62	115568	142.99	ppb	96
5) Bromomethane	5.00	94	225862	154.17	ppb	97
6) Chloroethane	5.19	64	205941	146.35	ppb	99
7) Trichlorofluoromethane	5.68	101	381041	147.14	ppb	96
8) Diethyl Ether	6.16	59	251624	148.60	ppb	99
9) Acrolein	6.40	56	271506	749.44	ppb	98
10) FREON 113	6.58	85	98828	143.18	ppb	87
11) 1,1-Dicethene	6.62	96	228676	148.48	ppb	91
12) Acetone	6.65	43	114671	141.74	ppb	99
13) Iodomethane	6.92	127	97496	168.33	ppb	96
14) Carbon Disulfide	7.08	76	965816	152.08	ppb	100
15) Acetonitrile	7.12	41	264294	747.88	ppb	99
16) Allyl Chloride	7.23	76	105675	138.91	ppb	95
17) Methylene Chloride	7.44	84	295179	149.54	ppb	97
18) TBA	7.52	59	566300	3001.74	ppb	97
19) Acrylonitrile	7.81	53	672834	766.24	ppb	100
20) Methyl-t-Butyl Ether	7.87	73	754071	153.32	ppb	98
21) trans-1,2-Dichloroethene	7.92	96	276610	150.15	ppb	99
22) 1,1-Dicethane	8.63	63	514308	148.09	ppb	99
23) Vinyl Acetate	8.62	43	605678	149.43	ppb	99
24) 2-Chloro-1,3-butadiene	8.79	53	510171	156.25	ppb	97
25) 2,2-Dichloropropane	9.61	77	359588	148.77	ppb	98
26) 2-Butanone	9.55	43	202693	144.63	ppb	98
27) cis-1,2-Dichloroethene	9.61	96	315747	151.89	ppb	96
28) Propionitrile	9.66	54	243433	765.98	ppb	99
29) Methacrylonitrile	9.94	67	126412	155.09	ppb	96

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

V0628.D EXP0914.M Tue Sep 18 15:45:16 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0628.D

Vial: 10

Acq On : 14 Sep 2001 4:03 pm

Operator: herring

Sample : 150ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.04	128	118936	158.18	ppb	90
31) Chloroform	10.12	83	502394	148.54	ppb	96
32) Tetrahydrofuran	10.10	42	117573	138.93	ppb	94
33) 1,1,1-Trichloroethane	10.49	97	424351	154.88	ppb	99
36) Carbontetrachloride	10.79	117	341713	157.50	ppb	95
37) 1,1-Dichloropropene	10.75	75	399046	153.33	ppb	98
38) Iso-Butyl Alcohol	10.75	43	343597	3061.71	ppb	99
39) Benzene	11.13	78	1119594	156.43	ppb	99
40) 1,2-Dichloroethane	11.14	62	441604	151.16	ppb	100
41) N-Heptane	11.46	43	563699	153.88	ppb	99
42) Trichloroethene	12.23	95	299893	157.82	ppb	93
43) 1,2-Dicloropropane	12.63	63	338243	154.02	ppb	98
44) Methyl Methacrylate	12.68	69	220115	164.14	ppb	94
45) 1,4-Dioxane	12.81	88	54856	3096.56	ppb	99
46) Dibromomethane	12.86	93	164408	142.60	ppb	98
47) Bromodichloromethane	13.09	83	408141	156.46	ppb	99
48) 2-Nitropropane	13.44	43	262847	328.27	ppb	99
49) 2-Chloroethylvinyl Ether	13.53	63	212379	160.26	ppb	98
50) cis-1,3-Dichloropropene	13.89	75	478599	157.04	ppb	99
52) 4-Methyl-2-Pentanone	14.07	43	467330	155.53	ppb	99
53) Toluene	14.54	91	1073588	156.29	ppb	99
54) trans-1,3-Dichloropropene	14.87	75	443372	157.70	ppb	98
55) Ethyl Methacrylate	14.93	69	437785	164.62	ppb	99
56) 1,1,2-Trichloroethane	15.26	83	230156	156.88	ppb	95
59) Tetrachloroethene	15.60	166	266158	161.19	ppb	96
60) 2-Hexanone	15.62	43	334108	160.77	ppb	97
61) 1,3-Dichloropropane	15.59	76	508141	157.16	ppb	96
62) Dibromochloromethane	16.06	129	285980	162.27	ppb	99
63) 1,2-Dibromoethane	16.34	107	292435	158.57	ppb	94
64) Chlorobenzene	17.26	112	691143	157.06	ppb	96
65) 1,1,1,2-Tetrachloroethane	17.39	131	255095	162.76	ppb	98
66) Ethylbenzene	17.41	91	1230313	158.32	ppb	99
67) (m+p)Xylene	17.63	106	902112	321.21	ppb	98
68) o-Xylene	18.46	106	445423	161.97	ppb	96
69) Styrene	18.47	104	780337	162.78	ppb	100
70) Bromoform	18.93	173	191470	165.58	ppb	100
71) Isopropylbenzene	19.16	105	1121356	160.01	ppb	99
72) Cyclohexanone	19.42	55	753830	2880.47	ppb	100
74) 1,1,2,2-Tetrachloroethane	19.76	83	332388	152.16	ppb	100
75) Trans-1,4-Dichloro-2-buten	19.85	53	138455	153.55	ppb	81
76) 1,2,3-Trichloropropane	19.89	110	101833	151.43	ppb	97

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

V0628.D EXP0914.M Tue Sep 18 15:45:16 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0628.D

Vial: 10

Acq On : 14 Sep 2001 4:03 pm

Operator: herring

Sample : 150ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.01	91	1416380	157.21	ppb	98
78) Bromobenzene	19.90	156	265452	157.14	ppb	97
79) 1,3,5-Trimethylbenzene	20.34	105	896185	161.06	ppb	100
80) 2-Chlorotoluene	20.27	91	862197	157.36	ppb	100
81) 4-Chlorotoluene	20.47	91	878508	158.06	ppb	96
82) tert-Butylbenzene	21.05	119	706144	159.35	ppb	93
83) 1,2,4-Trimethylbenzene	21.14	105	901634	159.74	ppb	98
84) sec-Butylbenzene	21.50	105	1188279	158.14	ppb	98
85) p-Isopropyltoluene	21.76	119	916904	160.76	ppb	99
86) 1,3-Dclbenz	21.83	146	419367	156.04	ppb	98
87) 1,4-Dclbenz	22.01	146	467009	156.41	ppb	96
88) n-Butylbenzene	22.63	91	978263	158.48	ppb	99
89) 1,2-Dclbenz	22.82	146	431008	156.31	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.45	157	55118	159.27	ppb	96
92) 1,2,4-Tcbenzene	26.41	180	326700	159.92	ppb	94
93) Hexachlorobt	26.77	225	152809	158.84	ppb	99
94) Naphthalen	27.08	128	740882	160.32	ppb	99
95) 1,2,3-Tclbenzene	27.73	180	306012	158.57	ppb	99

(#) = qualifier out of range (m) = manual integration
V0628.D EXP0914.M Tue Sep 18 15:45:16 2001

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0628.D

Acq On : 14 Sep 2001 4:03 pm

Sample : 150ppb

Misc : 8260b water

MS Integration Params: rteint.p

Quant Time: Sep 18 15:44 2001

Vial: 10

Operator: herring

Inst : GC/MS Ins

Multiplr: 1.00

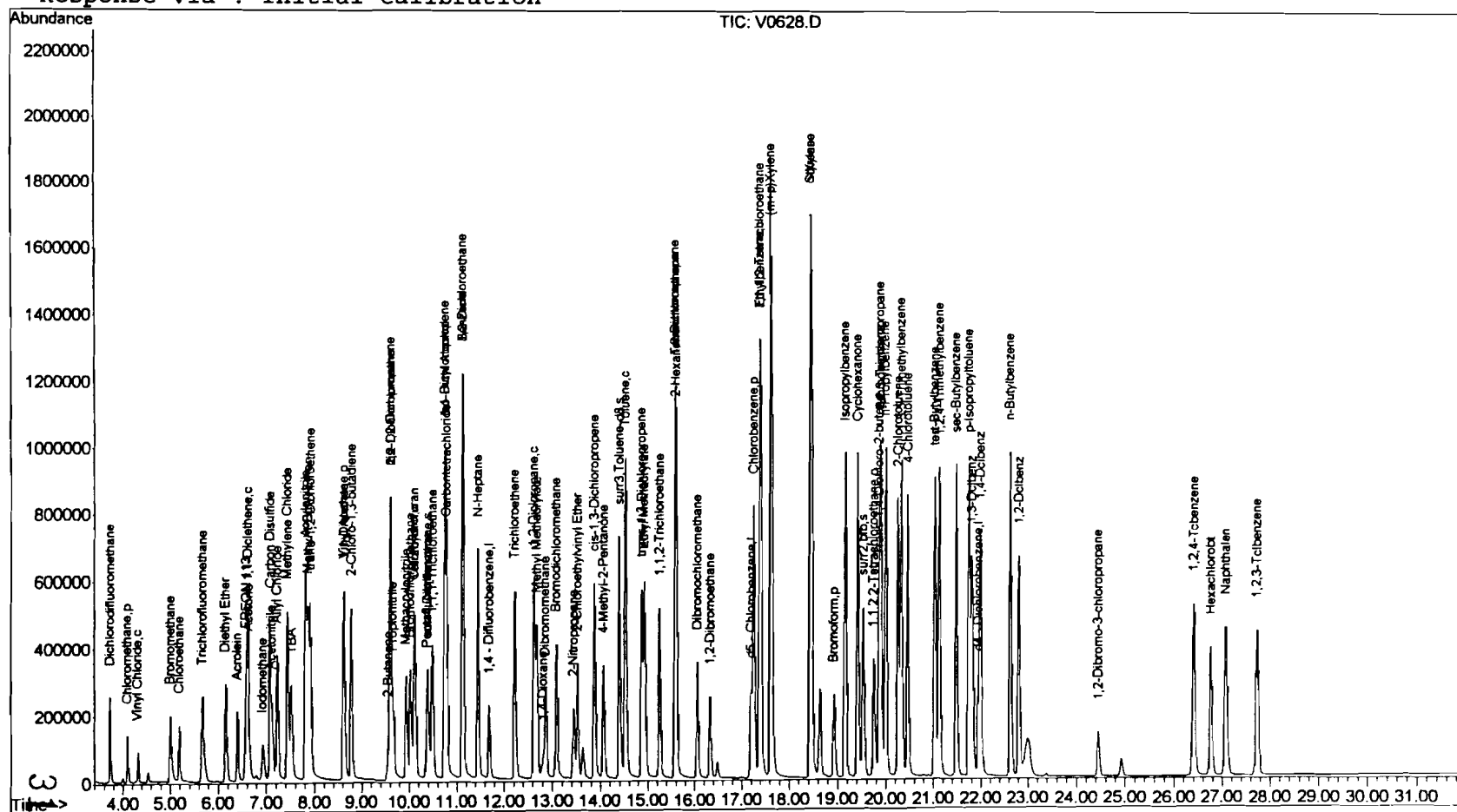
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

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Last Update      : Tue Sep 18 15:39:52 2001
```

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0629.D Vial: 11
 Acq On : 14 Sep 2001 4:42 pm Operator: herring
 Sample : 200ppb Inst : GC/MS Ins
 Misc : 8260b water Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 15:45 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260vua
 Last Update : Tue Sep 18 15:39:52 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0906

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.37	168	164805	50.00	ppb	0.00
34) 1,4 - Difluorobenzene	11.70	114	276369	50.00	ppb	0.00
51) d5 - Chlorobenzene	17.21	117	237727	50.00	ppb	0.00
73) d4 - Dichlorobenzene	21.95	152	104316	50.00	ppb	0.00

System Monitoring Compounds

35) surr4,Dibrflmethane	10.40	113	320316	147.18	ppb	0.00
Spiked Amount 50.000			Recovery	=	294.36%	
57) surr3,Toluene-d8	14.41	98	920588	150.61	ppb	0.00
Spiked Amount 50.000			Recovery	=	301.22%	
58) surr2,bfb	19.54	95	384194	151.75	ppb	0.00
Spiked Amount 50.000			Recovery	=	303.50%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.73	85	417843	182.05	ppb	98
3) Chloromethane	4.10	50	243887	195.27	ppb	97
4) Vinyl Chloride	4.31	62	153809	173.24	ppb	96
5) Bromomethane	5.00	94	317936	196.58	ppb	98
6) Chloroethane	5.19	64	276944	179.16	ppb	100
7) Trichlorofluoromethane	5.68	101	524748	184.47	ppb	97
8) Diethyl Ether	6.16	59	342263	184.01	ppb	97
9) Acrolein	6.40	56	370235	930.34	ppb	99
10) FREON 113	6.58	85	136940	180.61	ppb	80
11) 1,1-Dicethene	6.62	96	331027	195.66	ppb	90
12) Acetone	6.65	43	154942	174.35	ppb	# 89
13) Iodomethane	6.92	127	126302	198.52	ppb	97
14) Carbon Disulfide	7.08	76	1309720	187.74	ppb	99
15) Acetonitrile	7.12	41	361925	932.33	ppb	97
16) Allyl Chloride	7.23	76	149428	178.82	ppb	90
17) Methylene Chloride	7.44	84	413946	190.90	ppb	92
18) TBA	7.52	59	814580	3930.66	ppb	97
19) Acrylonitrile	7.81	53	919112	952.87	ppb	99
20) Methyl-t-Butyl Ether	7.87	73	1041328	192.75	ppb	97
21) trans-1,2-Dichloroethene	7.93	96	392037	193.73	ppb	93
22) 1,1-Dicethane	8.63	63	722132	189.29	ppb	99
23) Vinyl Acetate	8.62	43	772934	173.60	ppb	98
24) 2-Chloro-1,3-butadiene	8.79	53	657272	183.25	ppb	96
25) 2,2-Dichloropropane	9.61	77	487442	183.59	ppb	95
26) 2-Butanone	9.55	43	278546	180.93	ppb	96
27) cis-1,2-Dichloroethene	9.61	96	446159	195.38	ppb	91
28) Propionitrile	9.66	54	340412	975.09	ppb	99
29) Methacrylonitrile	9.94	67	176188	196.78	ppb	94

(#) = qualifier out of range (m) = manual integration
 V0629.D EXP0914.M Tue Sep 18 15:46:04 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0629.D

Vial: 11

Acq On : 14 Sep 2001 4:42 pm

Operator: herring

Sample : 200ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:45 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration

DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.03	128	173389	209.93	ppb	93
31) Chloroform	10.12	83	692205	186.31	ppb	99
32) Tetrahydrofuran	10.11	42	165364	177.88	ppb	95
33) 1,1,1-Trichloroethane	10.49	97	573698	190.62	ppb	100
36) Carbontetrachloride	10.79	117	480478	207.74	ppb	96
37) 1,1-Dichloropropene	10.75	75	557203	200.84	ppb	96
38) Iso-Butyl Alcohol	10.75	43	489921	4095.18	ppb	98
39) Benzene	11.13	78	1588152	208.15	ppb	99
40) 1,2-Dichloroethane	11.14	62	588464	188.96	ppb	98
41) N-Heptane	11.46	43	769381	197.02	ppb	98
42) Trichloroethene	12.23	95	423536	209.08	ppb	93
43) 1,2-Dichloropropane	12.63	63	475373	203.06	ppb	99
44) Methyl Methacrylate	12.69	69	316447	221.36	ppb	92
45) 1,4-Dioxane	12.82	88	79887	4230.24	ppb	97
46) Dibromomethane	12.86	93	217863	177.26	ppb	99
47) Bromodichloromethane	13.09	83	575801	207.06	ppb	99
48) 2-Nitropropane	13.45	43	369633	433.05	ppb	100
49) 2-Chloroethylvinyl Ether	13.53	63	285182	201.87	ppb	98
50) cis-1,3-Dichloropropene	13.89	75	689117	212.11	ppb	98
52) 4-Methyl-2-Pentanone	14.07	43	652374	202.37	ppb	98
53) Toluene	14.54	91	1548637	210.14	ppb	99
54) trans-1,3-Dichloropropene	14.87	75	621084	205.92	ppb	99
55) Ethyl Methacrylate	14.93	69	622394	218.16	ppb	98
56) 1,1,2-Trichloroethane	15.26	83	325053	206.53	ppb	96
59) Tetrachloroethene	15.60	166	389647	219.96	ppb	98
60) 2-Hexanone	15.62	43	469197	210.46	ppb	96
61) 1,3-Dichloropropane	15.59	76	718056	207.01	ppb	91
62) Dibromochloromethane	16.06	129	412201	218.02	ppb	96
63) 1,2-Dibromoethane	16.34	107	417863	211.21	ppb	95
64) Chlorobenzene	17.26	112	1004568	212.79	ppb	95
65) 1,1,1,2-Tetrachloroethane	17.39	131	367105	218.33	ppb	98
66) Ethylbenzene	17.41	91	1752942	210.26	ppb	98
67) (m+p)Xylene	17.63	106	1319429	437.91	ppb	94
68) o-Xylene	18.46	106	649229	220.06	ppb	91
69) Styrene	18.47	104	1135919	220.88	ppb	98
70) Bromoform	18.93	173	274916	221.62	ppb	98
71) Isopropylbenzene	19.17	105	1622786	215.85	ppb	98
72) Cyclohexanone	19.42	55	1190292	4239.60	ppb	99
74) 1,1,2,2-Tetrachloroethane	19.76	83	473033	201.19	ppb	97
75) Trans-1,4-Dichloro-2-buten	19.85	53	199112	205.16	ppb	84
76) 1,2,3-Trichloropropane	19.89	110	148223	204.79	ppb	99

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

V0629.D EXP0914.M

Tue Sep 18 15:46:05 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0629.D Vial: 11
 Acq On : 14 Sep 2001 4:42 pm Operator: herring
 Sample : 200ppb Inst : GC/MS Ins
 Misc : 8260b water Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 15:45 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:39:52 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0906

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.01	91	2032941	209.65	ppb	98
78) Bromobenzene	19.90	156	386526	212.59	ppb	96
79) 1,3,5-Trimethylbenzene	20.34	105	1274332	212.78	ppb	98
80) 2-Chlorotoluene	20.27	91	1232029	208.91	ppb	97
81) 4-Chlorotoluene	20.48	91	1257309	210.18	ppb	97
82) tert-Butylbenzene	21.05	119	1032860	216.55	ppb	92
83) 1,2,4-Trimethylbenzene	21.14	105	1284045	211.37	ppb	97
84) sec-Butylbenzene	21.50	105	1715983	212.18	ppb	97
85) p-Isopropyltoluene	21.77	119	1330175	216.68	ppb	98
86) 1,3-Dclbenz	21.83	146	606942	209.82	ppb	97
87) 1,4-Dclbenz	22.01	146	675133	210.09	ppb	97
88) n-Butylbenzene	22.63	91	1415264	213.01	ppb	99
89) 1,2-Dclbenz	22.82	146	619420	208.71	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.45	157	81622	219.14	ppb	98
92) 1,2,4-Tcbenzene	26.41	180	461964	210.10	ppb	97
93) Hexachlorobt	26.78	225	214925	207.56	ppb	96
94) Naphthalen	27.08	128	1058166	212.75	ppb	99
95) 1,2,3-Tclbenzene	27.73	180	434548	209.21	ppb	99

(#) = qualifier out of range (m) = manual integration
 V0629.D EXP0914.M Tue Sep 18 15:46:05 2001

Quantitation Report

Data File : J:\ACQUADATA\MSVOA7\DATA\091401\V0629.D

Vial: 11

Acq On : 14 Sep 2001 4:42 pm

Operator: herring

Sample : 200ppb

Inst : GC/MS Ins

Misc : 8260b water

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 15:45 2001

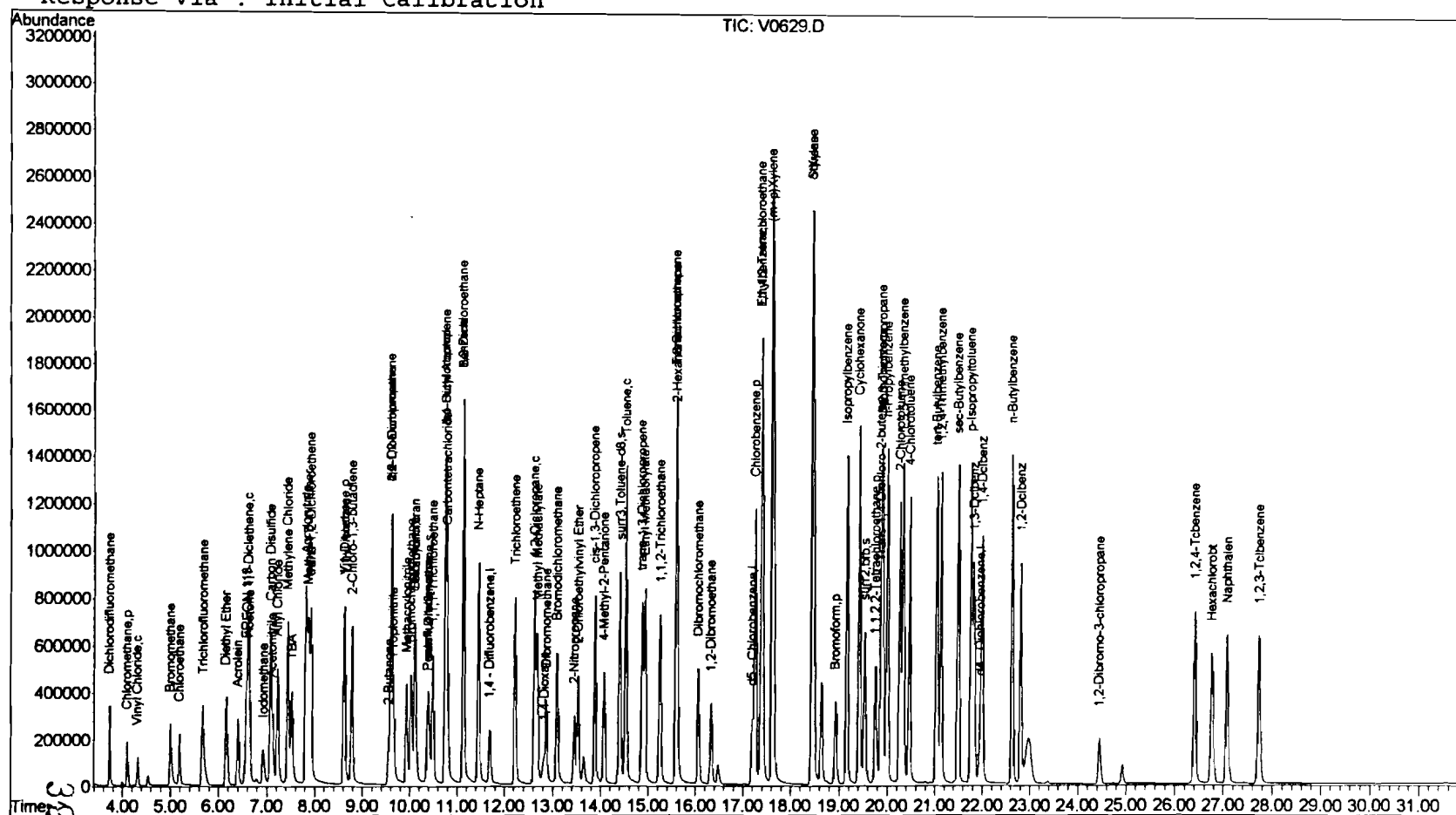
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:39:52 2001

Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260vov
 Last Update : Tue Sep 25 16:35:23 2001
 Response via : Initial Calibration

Calibration Files

5 =V0794.D 10 =V0795.D 50 =V0796.D
 100 =V0797.D 150 =V0798.D 200 =V0799.D

	Compound	5	10	50	100	150	200	Avg	%RSD
1)	Pentafluorobenzene	-----ISTD-----							
2)	Dichlorodifluoromet	0.607	0.630	0.664	0.652	0.616	0.592	0.627	4.36
3) p	Chloromethane	0.696	0.689	0.679	0.723	0.652	0.647	0.681	4.19
4) c	Vinyl Chloride	0.323	0.310	0.317	0.329	0.293	0.283	0.309	5.80
5)	Bromomethane	0.226	0.203	0.259	0.286	0.293	0.319	0.264	16.46 ^u
6)	Chloroethane	0.479	0.489	0.492	0.477	0.445	0.421	0.467	6.02
7)	Trichlorofluorometh	0.868	0.869	0.929	0.919	0.860	0.844	0.882	3.87
8)	Diethyl Ether	0.579	0.612	0.610	0.610	0.607	0.579	0.599	2.72
9)	Acrolein	0.130	0.129	0.136	0.133	0.132	0.126	0.131	2.69
10)	FREON 113	0.232	0.231	0.241	0.246	0.232	0.229	0.235	2.86
11) c	1,1-Dicethene	0.482	0.477	0.508	0.524	0.509	0.516	0.503	3.79
12)	Acetone	0.460	0.376	0.407	0.367	0.346	0.336	0.382	11.88
13)	Iodomethane		0.078	0.119	0.127	0.124	0.128	0.115	18.32 ^u
14)	Carbon Disulfide	1.877	1.885	2.180	2.049	1.977	2.005	1.995	5.65
15)	Acetonitrile	0.130	0.125	0.126	0.127	0.121	0.118	0.124	3.49
16)	Allyl Chloride	0.248	0.265	0.232	0.225	0.195	0.172	0.223	15.34
17)	Methylene Chloride	0.682	0.662	0.686	0.734	0.726	0.746	0.706	4.79
18)	TBA	0.066	0.066	0.069	0.070	0.070	0.067	0.068	2.53
19)	Acrylonitrile	0.302	0.303	0.313	0.321	0.309	0.303	0.308	2.40
20)	Methyl-t-Butyl Ethe	1.724	1.770	1.785	1.817	1.769	1.760	1.771	1.72
21)	trans-1,2-Dichloroe	0.671	0.616	0.658	0.669	0.647	0.650	0.652	3.07
22) p	1,1-Dicethane	1.251	1.230	1.246	1.254	1.198	1.175	1.226	2.64
23)	Vinyl Acetate		0.392	0.626	0.813	0.817	0.743	0.678	26.19 ^u
24)	2-Chloro-1,3-butadi	1.074	1.066	1.241	1.173	1.112	1.083	1.125	6.12
25)	2,2-Dichloropropane	0.501	0.620	0.706	0.829	0.810	0.777	0.707	17.95 ^u
26)	2-Butanone	0.475	0.463	0.479	0.454	0.434	0.435	0.457	4.16
27)	Ethyl Acetate	0.790	0.871	1.000	1.029	0.981	0.944	0.936	9.58
28)	cis-1,2-Dichloroeth	0.727	0.719	0.741	0.766	0.744	0.744	0.740	2.21
29)	Propionitrile	0.107	0.107	0.109	0.117	0.114	0.112	0.111	3.54
30)	Methacrylonitrile	0.266	0.273	0.279	0.300	0.302	0.300	0.287	5.61
31)	Bromochloromethane	0.260	0.253	0.233	0.245	0.240	0.250	0.247	3.86
32) c	Chloroform	1.272	1.225	1.186	1.239	1.190	1.166	1.213	3.24
33)	Tetrahydrofuran		0.365	0.299	0.296	0.291	0.273	0.305	11.59
34)	1,1,1-Trichloroetha	0.913	0.919	0.979	1.002	0.963	0.976	0.958	3.68
35) I	1,4 - Difluorobenzene	-----ISTD-----							
36) s	surr4,Dibrflmethane		0.327	0.376	0.411	0.402	0.390	0.381	8.70
37)	Carbontetrachloride	0.394	0.400	0.421	0.466	0.453	0.453	0.431	7.05
38)	1,1-Dichloropropene	0.480	0.489	0.506	0.552	0.542	0.539	0.518	5.84
39)	Iso-Butyl Alcohol	0.022	0.020	0.021	0.025	0.024	0.023	0.023	7.45
40)	Benzene	1.350	1.340	1.375	1.475	1.481	1.508	1.422	5.24
41)	1,2-Dichloroethane	0.606	0.592	0.591	0.629	0.611	0.584	0.602	2.73
42)	N-Heptane	0.715	0.673	0.692	0.750	0.732	0.717	0.713	3.85

(#) = Out of Range ### Number of calibration levels exceeded format
 EXP0924.M Tue Sep 25 16:36:14 2001

Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:35:23 2001
 Response via : Initial Calibration

Calibration Files

5 =V0794.D 10 =V0795.D 50 =V0796.D
 100 =V0797.D 150 =V0798.D 200 =V0799.D

	Compound	5	10	50	100	150	200	Avg	%RSD
43)	Trichloroethene	0.360	0.342	0.366	0.394	0.389	0.409	0.377	6.61
44) c	1,2-Diclp propane	0.439	0.414	0.421	0.464	0.453	0.458	0.442	4.63
45)	Methyl Methacrylate	0.251	0.254	0.260	0.294	0.298	0.304	0.277	8.83
46)	1,4-Dioxane	0.003	0.003	0.003	0.003	0.003	0.003	0.003	8.98
47)	Dibromomethane	0.269	0.260	0.262	0.279	0.271	0.259	0.267	2.93
48)	Bromodichloromethan	0.479	0.494	0.515	0.561	0.555	0.563	0.528	6.92
49)	2-Nitropropane	0.133	0.129	0.131	0.155	0.154	0.151	0.142	8.80
50)	2-Chloroethylvinyl		0.028	0.031	0.036	0.039	0.043	0.035	17.83 10
51)	cis-1,3-Dichloropro	0.575	0.562	0.590	0.636	0.650	0.665	0.613	7.01
52) I	d5 - Chlorobenzene	-----ISTD-----							
53)	4-Methyl-2-Pentanone	0.682	0.658	0.750	0.754	0.741	0.737	0.720	5.58
54) c	Toluene	1.602	1.615	1.611	1.733	1.740	1.775	1.680	4.64
55)	trans-1,3-Dichlorop	0.597	0.627	0.650	0.717	0.713	0.719	0.670	7.87
56)	Ethyl Methacrylate	0.556	0.590	0.625	0.684	0.694	0.705	0.643	9.54
57)	1,1,2-Trichloroetha	0.341	0.349	0.349	0.375	0.375	0.373	0.360	4.28
58) s	surr3,Toluene-d8		1.084	1.268	1.320	1.329	1.310	1.262	8.11
59) s	surr2,bfb		0.417	0.524	0.537	0.541	0.542	0.512	10.51
60)	Tetrachloroethene	0.375	0.380	0.387	0.413	0.425	0.440	0.403	6.61
61)	2-Hexanone	0.442	0.450	0.520	0.535	0.543	0.530	0.503	8.99
62)	1,3-Dichloropropane	0.774	0.779	0.771	0.816	0.820	0.828	0.798	3.27
63)	Dibromochloromethan	0.401	0.397	0.416	0.451	0.460	0.468	0.432	7.20
64)	1,2-Dibromoethane	0.433	0.436	0.436	0.465	0.473	0.480	0.454	4.70
65) p	Chlorobenzene	1.012	1.021	0.991	1.082	1.095	1.132	1.056	5.24
66)	1,1,1,2-Tetrachloro	0.351	0.351	0.371	0.396	0.404	0.424	0.383	7.83
67) c	Ethylbenzene	1.728	1.754	1.806	1.947	1.960	2.033	1.871	6.68
68)	(m+p)Xylene	0.582	0.615	0.638	0.706	0.722	0.766	0.671	10.52
69)	o-Xylene	0.593	0.584	0.627	0.690	0.712	0.751	0.660	10.32
70)	Styrene	0.978	0.999	1.092	1.216	1.256	1.314	1.142	12.26
71) p	Bromoform	0.253	0.253	0.271	0.303	0.311	0.317	0.285	10.23
72)	Isopropylbenzene	1.499	1.531	1.653	1.776	1.791	1.855	1.684	8.71
73)	Cyclohexanone	0.072	0.065	0.076	0.082	0.077	0.085	0.076	9.41
74) I	d4 - Dichlorobenzene	-----ISTD-----							
75) p	1,1,2,2-Tetrachloro	1.266	1.288	1.229	1.295	1.299	1.269	1.274	2.05
76)	Trans-1,4-Dichloro-	0.423	0.491	0.471	0.528	0.531	0.531	0.496	8.73
77)	1,2,3-Trichloroprop	0.391	0.397	0.364	0.397	0.405	0.403	0.393	3.84
78)	n-Propylbenzene	4.748	4.803	4.845	5.202	5.311	5.420	5.055	5.75
79)	Bromobenzene	0.919	0.914	0.883	0.964	0.994	1.019	0.949	5.50
80)	1,3,5-Trimethylbenz	2.834	2.978	2.961	3.213	3.278	3.426	3.115	7.24
81)	2-Chlorotoluene	2.914	2.926	2.977	3.227	3.249	3.293	3.098	5.69
82)	4-Chlorotoluene	2.843	2.994	2.989	3.217	3.276	3.353	3.112	6.39
83)	tert-Butylbenzene	2.284	2.325	2.383	2.591	2.642	2.704	2.488	7.20
84)	1,2,4-Trimethylbenz	2.787	2.947	2.978	3.268	3.319	3.415	3.119	7.97

(#) = Out of Range ### Number of calibration levels exceeded format
 EXP0924.M Tue Sep 25 16:36:15 2001

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Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:35:23 2001
 Response via : Initial Calibration

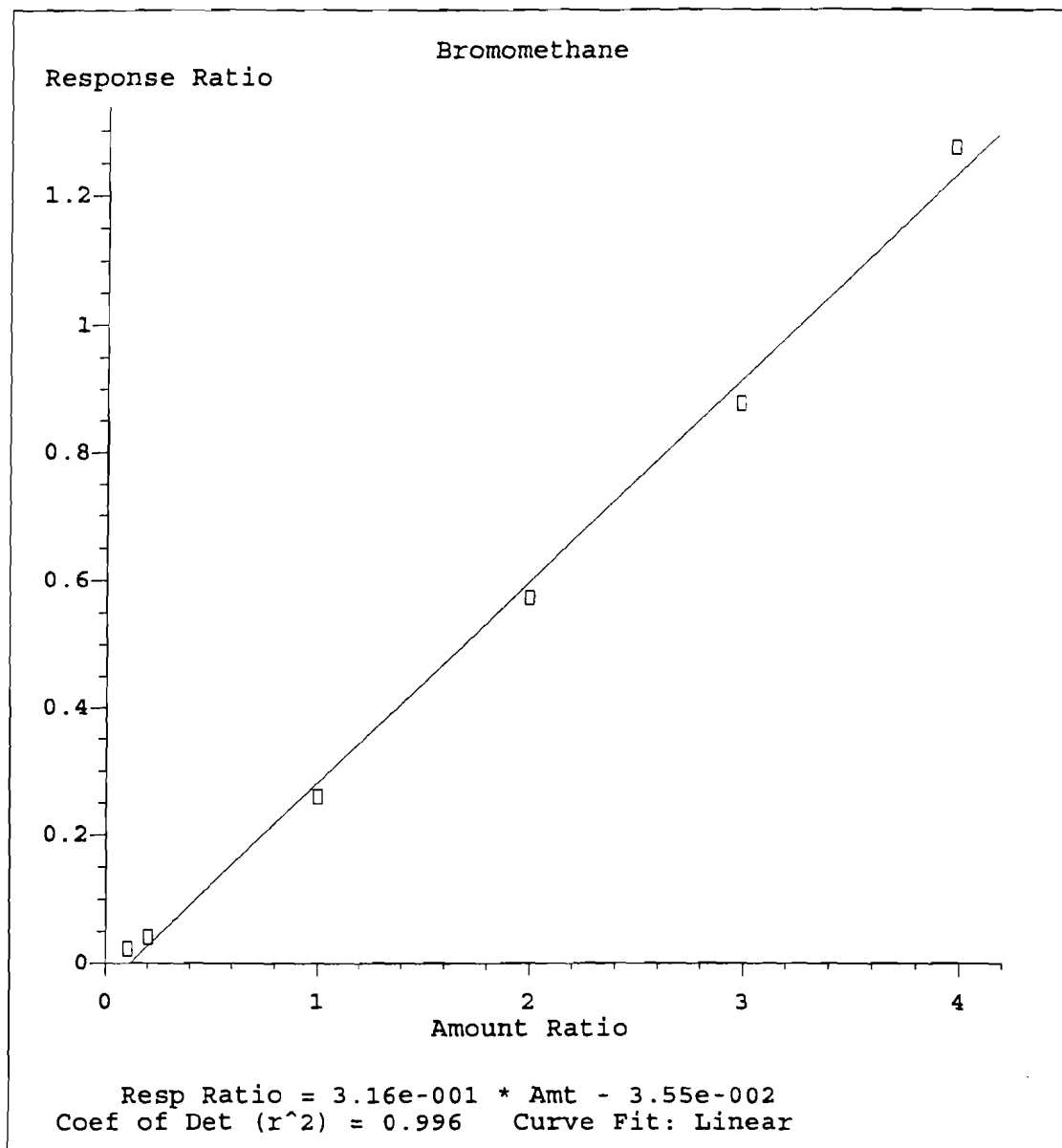
Calibration Files

5	=V0794.D	10	=V0795.D	50	=V0796.D
100	=V0797.D	150	=V0798.D	200	=V0799.D

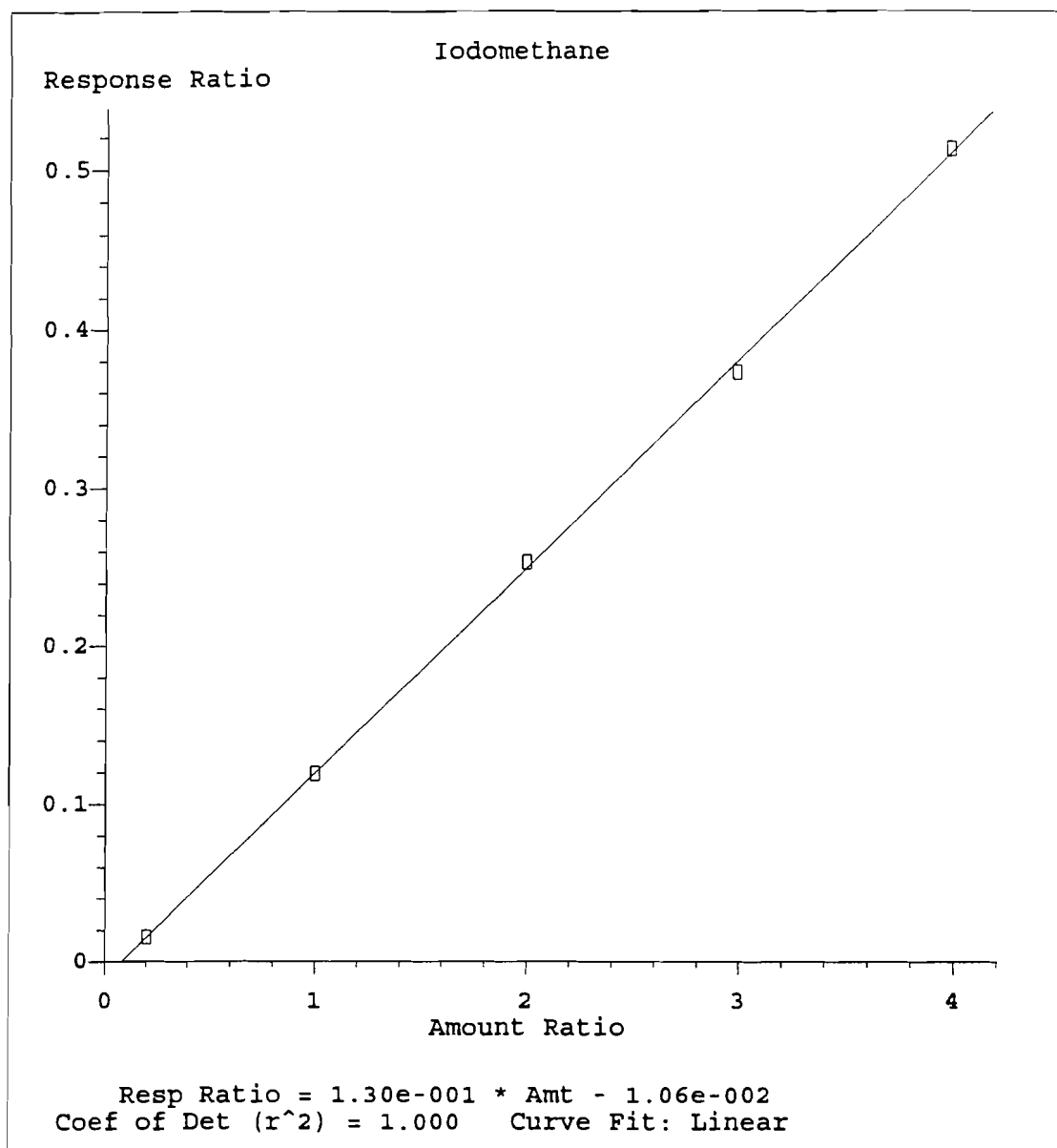
	Compound	5	10	50	100	150	200	Avg	%RSD
85)	sec-Butylbenzene	3.772	3.873	3.988	4.376	4.410	4.540	4.160	7.72
86)	p-Isopropyltoluene	2.854	2.885	2.970	3.275	3.371	3.518	3.145	8.88
87)	1,3-Dclbenz	1.399	1.383	1.390	1.528	1.552	1.596	1.475	6.42
88)	1,4-Dclbenz	1.600	1.601	1.542	1.695	1.715	1.780	1.656	5.38
89)	n-Butylbenzene	3.094	3.212	3.255	3.602	3.613	3.693	3.412	7.44
90)	1,2-Dclbenz	1.430	1.446	1.426	1.551	1.583	1.627	1.511	5.79
91)	1,2-Dibromo-3-chlor	0.156	0.184	0.179	0.201	0.209	0.207	0.189	10.66
92)	Nitrobenzene							0.000	-1.00
93)	1,2,4-Tcbenzene	1.026	1.024	1.028	1.129	1.139	1.176	1.087	6.31
94)	Hexachlorobt	0.488	0.490	0.486	0.519	0.531	0.543	0.510	4.84
95)	Naphthalen	2.222	2.338	2.294	2.544	2.575	2.604	2.430	6.75
96)	1,2,3-Tclbenzene	0.979	0.976	0.964	1.052	1.066	1.102	1.023	5.63
97)	TOTAL XYLENE							0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format
 EXP0924.M Tue Sep 25 16:36:15 2001

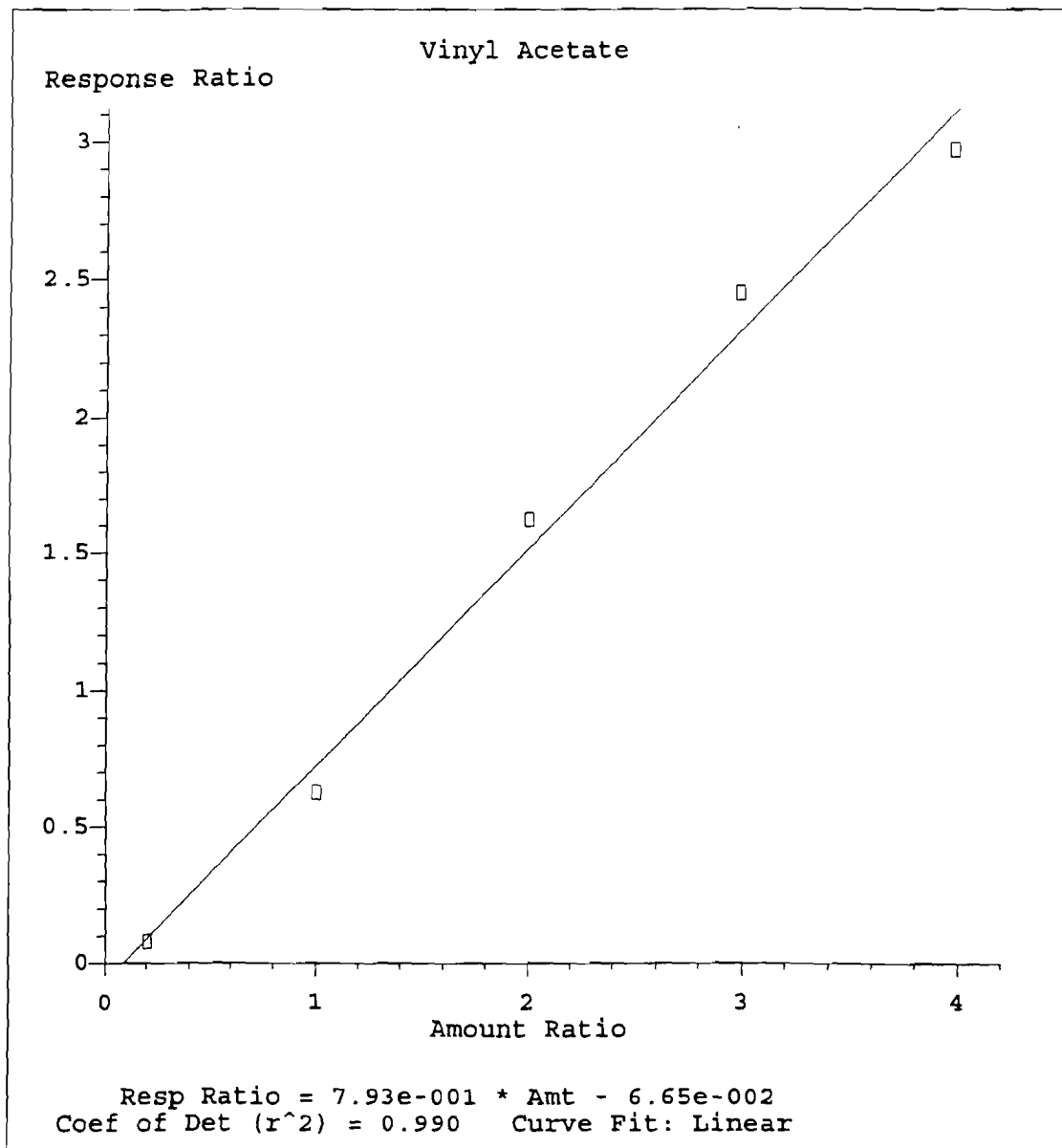
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 Page 3



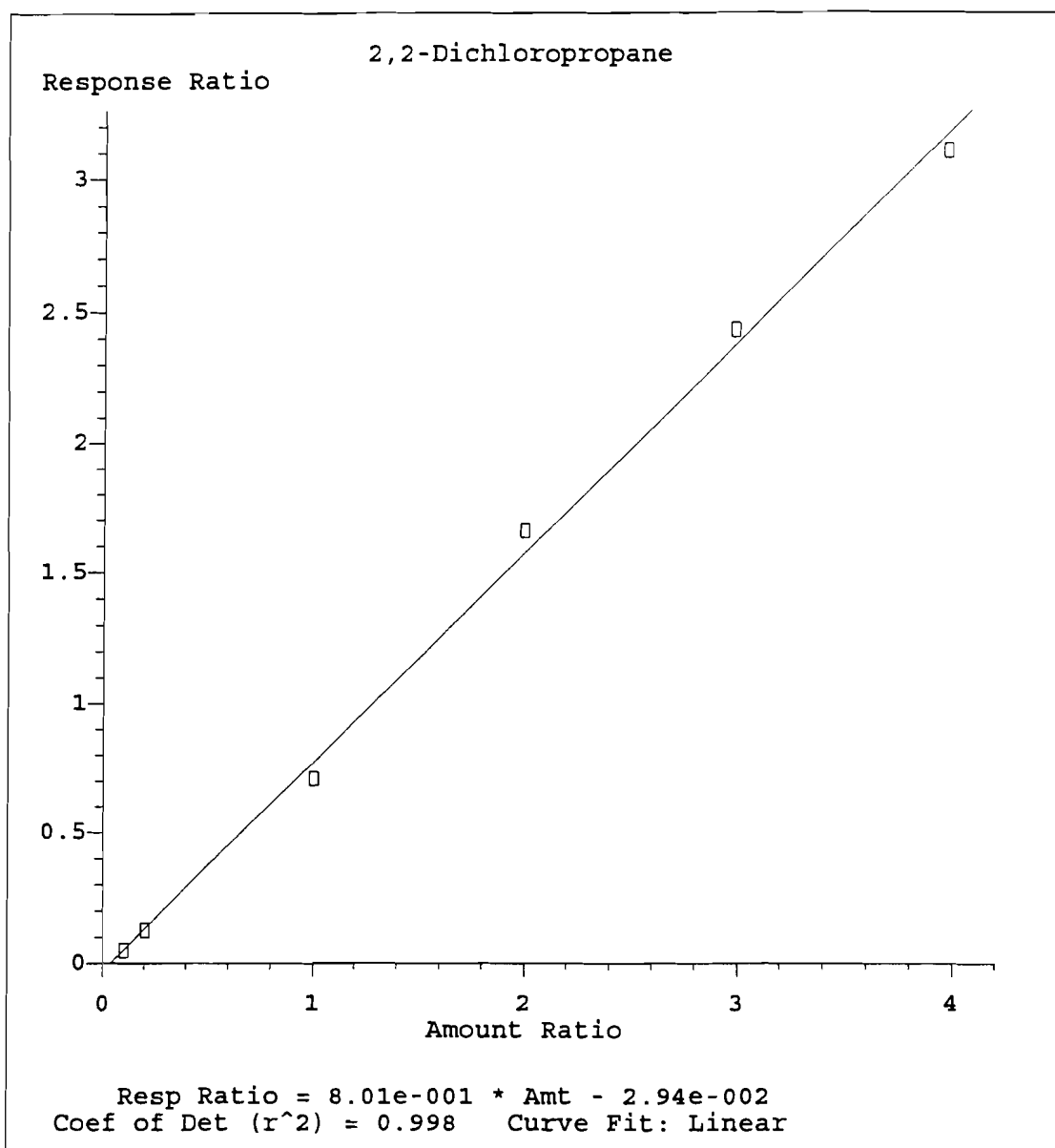
Method Name: J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M
Calibration Table Last Updated: Tue Sep 25 15:03:56 2001



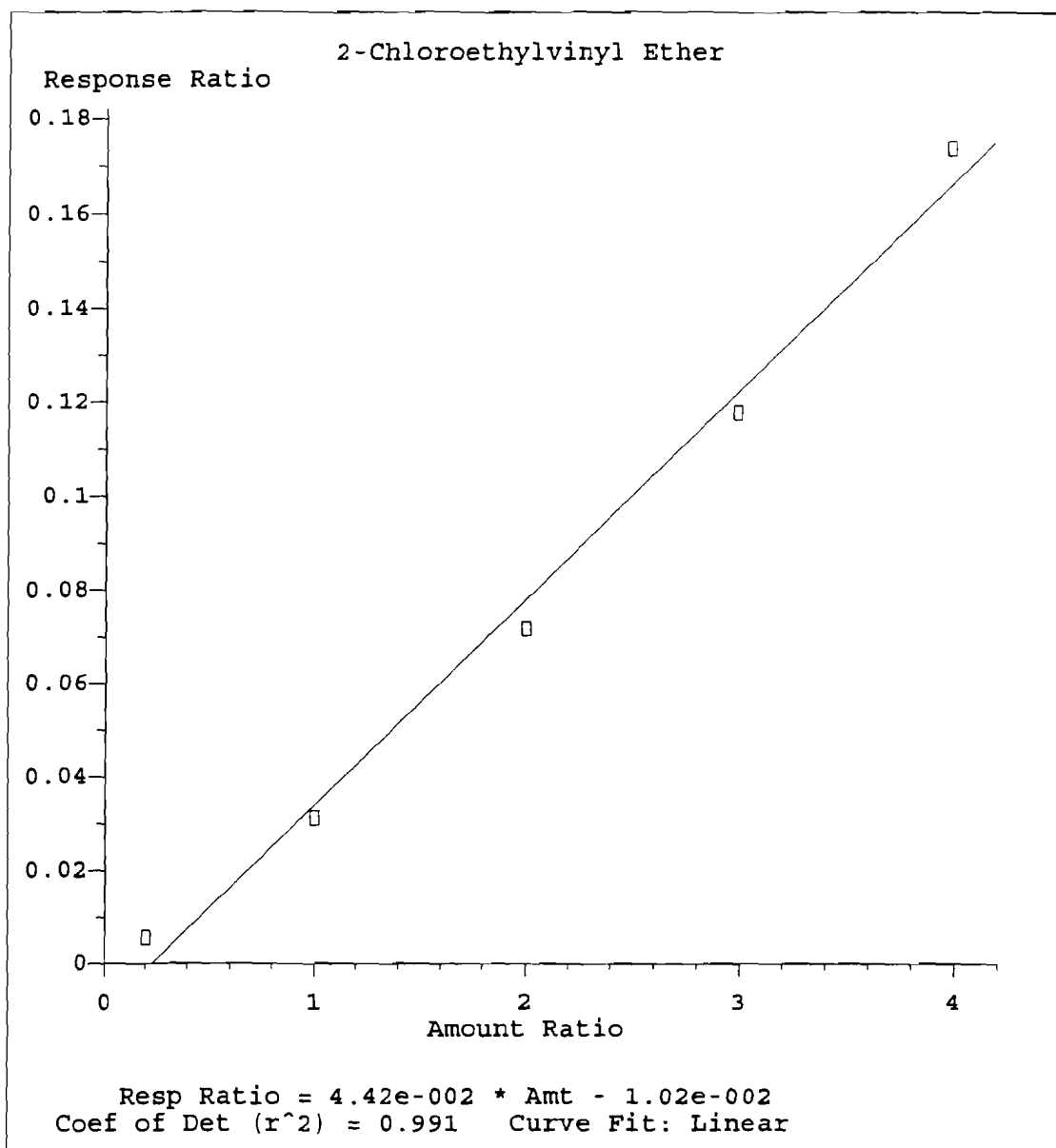
Method Name: J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M
Calibration Table Last Updated: Tue Sep 25 14:52:46 2001



Method Name: J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M
Calibration Table Last Updated: Tue Sep 25 14:57:00 2001



Method Name: J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M
Calibration Table Last Updated: Tue Sep 25 14:58:41 2001



Method Name: J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M
Calibration Table Last Updated: Tue Sep 25 16:20:11 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0794.D

Vial: 11

Acq On : 24 Sep 2001 5:32 pm

Operator: herring

Sample : 5ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.43	168	148179	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.77	114	259271	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	211826	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.03	152	85613	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.45	113	99032	50.09	ppb	-0.01
Spiked Amount 50.000			Recovery	=	100.18%	
58) surr3, Toluene-d8	14.46	98	275863	51.56	ppb	0.00
Spiked Amount 50.000			Recovery	=	103.12%	
59) surr2, bfb	19.61	95	106692	49.16	ppb	0.00
Spiked Amount 50.000			Recovery	=	98.32%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	9000	4.84	ppb	99
3) Chloromethane	4.13	50	10309	5.11	ppb	98
4) Vinyl Chloride	4.36	62	4791	5.23	ppb	93
5) Bromomethane	5.05	94	3355	9.56	ppb	82
6) Chloroethane	5.24	64	7102	5.13	ppb	100
7) Trichlorofluoromethane	5.73	101	12868	4.93	ppb	98
8) Diethyl Ether	6.20	59	8574	4.84	ppb	93
9) Acrolein	6.45	56	9603	24.73	ppb	97
10) FREON 113	6.64	85	3445	4.94	ppb	99
11) 1,1-Dicethene	6.67	96	7144	4.80	ppb	92
12) Acetone	6.69	43	6814	6.02	ppb	94
13) Iodomethane	6.98	127	789	2.89	ppb	81
14) Carbon Disulfide	7.14	76	27812	4.70	ppb	99
15) Acetonitrile	7.19	41	9620	26.11	ppb	86
16) Allyl Chloride	7.28	76	3670	5.56	ppb	94
17) Methylene Chloride	7.49	84	10110	4.83	ppb	95
18) TBA	7.56	59	19544	96.77	ppb	99
19) Acrylonitrile	7.87	53	22400	24.64	ppb	91
20) Methyl-t-Butyl Ether	7.92	73	25545	4.87	ppb	97
21) trans-1,2-Dichloroethene	7.97	96	9947	5.15	ppb	94
22) 1,1-Dicethane	8.68	63	18537	5.08	ppb	98
23) Vinyl Acetate	8.68	43	3085	1.72	ppb	# 89
24) 2-Chloro-1,3-butadiene	8.83	53	15918	4.75	ppb	88
25) 2,2-Dichloropropane	9.67	77	7421	3.54	ppb	94
26) 2-Butanone	9.61	43	7035	5.21	ppb	98
27) Ethyl Acetate	9.67	43	11710	3.95	ppb	# 91
28) cis-1,2-Dichloroethene	9.66	96	10778	4.90	ppb	94
29) Propionitrile	9.73	54	7924	24.07	ppb	# 88

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

V0794.D EXP0924.M

Tue Sep 25 15:10:42 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0794.D

Vial: 11

Acq On : 24 Sep 2001 5:32 pm

Operator: herring

Sample : 5ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	10.00	67	3939	4.64	ppb	93
31) Bromochloromethane	10.09	128	3854	5.27	ppb	86
32) Chloroform	10.18	83	18850	5.25	ppb	96
33) Tetrahydrofuran	10.16	42	6448	7.15	ppb	100
34) 1,1,1-Trichloroethane	10.55	97	13530	4.76	ppb	92
37) Carbontetrachloride	10.86	117	10208	4.57	ppb	97
38) 1,1-Dichloropropene	10.82	75	12444	4.63	ppb	98
39) Iso-Butyl Alcohol	10.82	43	11283	97.21	ppb	100
40) Benzene	11.20	78	35009	4.75	ppb	94
41) 1,2-Dichloroethane	11.20	62	15699	5.03	ppb	99
42) N-Heptane	11.52	43	18528	5.01	ppb	98
43) Trichloroethene	12.30	95	9328	4.78	ppb	92
44) 1,2-Dicloropropane	12.69	63	11393	4.90	ppb	93
45) Methyl Methacrylate	12.75	69	6501	4.56	ppb	88
46) 1,4-Dioxane	12.88	88	1678	107.51	ppb	92
47) Dibromomethane	12.92	93	6985	5.05	ppb	86
48) Bromodichloromethane	13.15	83	12431	4.54	ppb	96
49) 2-Nitropropane	13.51	43	6909	9.36	ppb	94
50) 2-Chloroethylvinyl Ether	13.60	63	582	3.15	ppb	98
51) cis-1,3-Dichloropropene	13.94	75	14919	4.70	ppb	92
53) 4-Methyl-2-Pentanone	14.13	43	14456	4.74	ppb	91
54) Toluene	14.59	91	33944	4.77	ppb	99
55) trans-1,3-Dichloropropene	14.94	75	12649	4.45	ppb	95
56) Ethyl Methacrylate	15.00	69	11784	4.30	ppb	98
57) 1,1,2-Trichloroethane	15.32	83	7233	4.75	ppb	96
60) Tetrachloroethene	15.67	166	7933	4.62	ppb	94
61) 2-Hexanone	15.69	43	9358	4.39	ppb	92
62) 1,3-Dichloropropane	15.66	76	16386	4.88	ppb	93
63) Dibromochloromethane	16.13	129	8501	4.65	ppb	89
64) 1,2-Dibromoethane	16.39	107	9168	4.77	ppb	91
65) Chlorobenzene	17.33	112	21446	4.80	ppb	100
66) 1,1,1,2-Tetrachloroethane	17.46	131	7425	4.59	ppb	93
67) Ethylbenzene	17.48	91	36610	4.62	ppb	99
68) (m+p)Xylene	17.70	106	24650	8.67	ppb	93
69) o-Xylene	18.52	106	12563	4.49	ppb	98
70) Styrene	18.54	104	20708	4.28	ppb	92
71) Bromoform	19.00	173	5354	4.44	ppb	91
72) Isopropylbenzene	19.23	105	31753	4.45	ppb	98
73) Cyclohexanone	19.49	55	30651	95.43	ppb	97
75) 1,1,2,2-Tetrachloroethane	19.82	83	10835	5.00	ppb	96
76) Trans-1,4-Dichloro-2-buten	19.93	53	3622	4.30	ppb #	49

(#) = qualifier out of range (m) = manual integration
V0794.D EXP0924.M Tue Sep 25 15:10:42 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0794.D Vial: 11
 Acq On : 24 Sep 2001 5:32 pm Operator: herring
 Sample : 5ppb Inst : GC/MS Ins
 Misc : Initial Calibration - 8260B water Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 14:41 2001 Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 14:41:07 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.96	110	3345	5.01	ppb	93
78) n-Propylbenzene	20.08	91	40653	4.73	ppb	98
79) Bromobenzene	19.98	156	7869	4.88	ppb	94
80) 1,3,5-Trimethylbenzene	20.40	105	24266	4.58	ppb	95
81) 2-Chlorotoluene	20.33	91	24950	4.74	ppb	98
82) 4-Chlorotoluene	20.54	91	24340	4.60	ppb	98
83) tert-Butylbenzene	21.11	119	19552	4.66	ppb	94
84) 1,2,4-Trimethylbenzene	21.21	105	23857	4.50	ppb	100
85) sec-Butylbenzene	21.57	105	32295	4.56	ppb	98
86) p-Isopropyltoluene	21.84	119	24435	4.56	ppb	98
87) 1,3-Dclbenz	21.90	146	11979	4.78	ppb	93
88) 1,4-Dclbenz	22.08	146	13700	4.89	ppb	99
89) n-Butylbenzene	22.71	91	26489	4.57	ppb	97
90) 1,2-Dclbenz	22.88	146	12240	4.76	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.53	157	1339	4.16	ppb #	82
93) 1,2,4-Tcbenzene	26.51	180	8787	4.74	ppb	92
94) Hexachlorobt	26.86	225	4178	4.82	ppb	97
95) Naphthalen	27.18	128	19025	4.60	ppb	99
96) 1,2,3-Tclbenzene	27.83	180	8379	4.81	ppb	98

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0794.D

Acq On : 24 Sep 2001 5:32 pm

Sample : 5ppb

Misc : Initial Calibration - 8260B water

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Vial: 11

Operator: herring

Inst : GC/MS Ins

Multiplr: 1.00

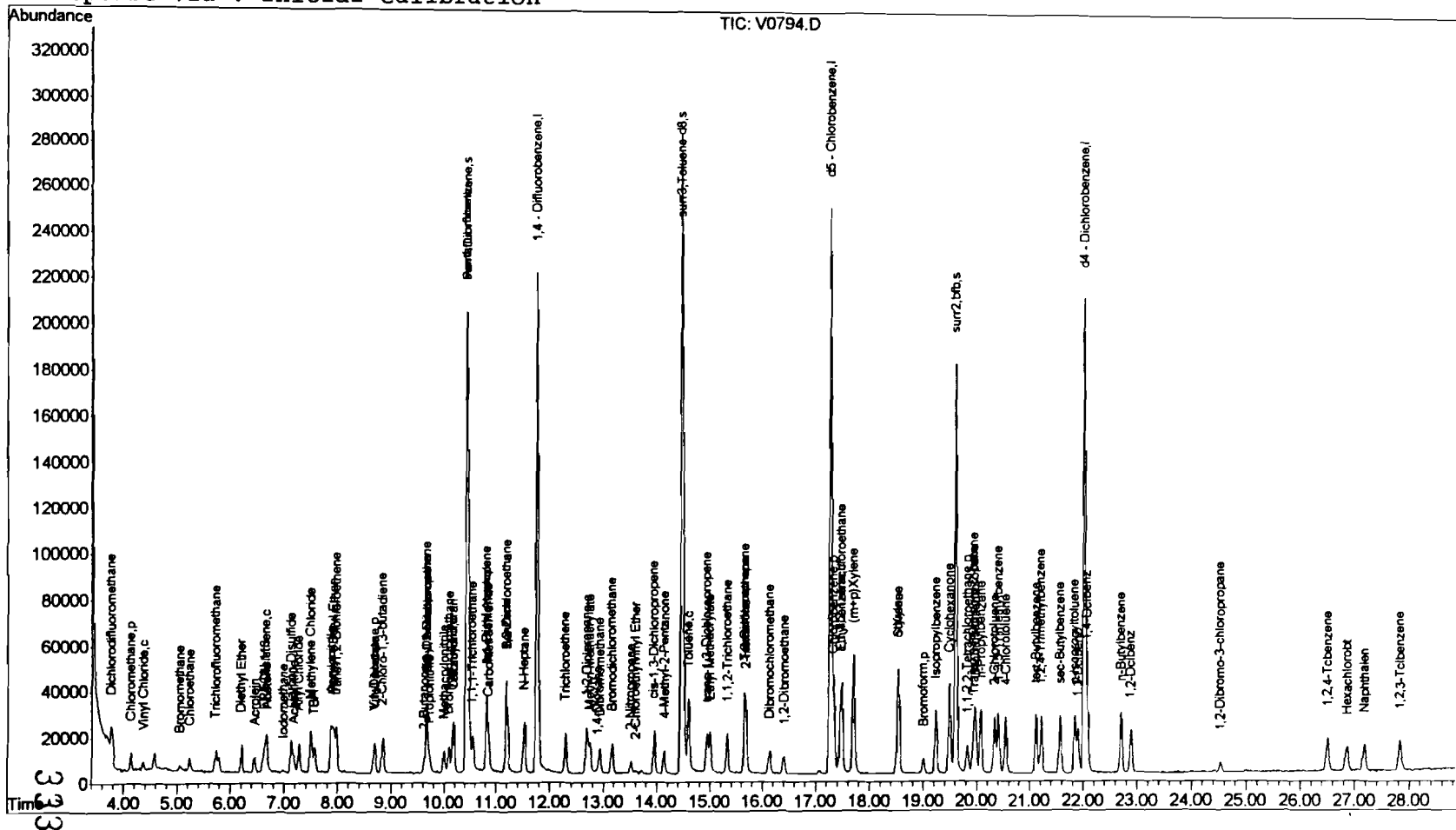
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0795.D

Vial: 12

Acq On : 24 Sep 2001 6:08 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 15:10 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	149904	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	264965	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	212557	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.03	152	88002	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.45	113	129926	64.31	ppb	0.00
Spiked Amount	50.000		Recovery	=	128.62%	
58) surr3,Toluene-d8	14.47	98	345516	64.40	ppb	0.00
Spiked Amount	50.000		Recovery	=	128.80%	
59) surr2,bfb	19.60	95	132845	61.02	ppb	0.00
Spiked Amount	50.000		Recovery	=	122.04%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.77	85	18877	10.04	ppb	100
3) Chloromethane	4.14	50	20668	10.12	ppb	98
4) Vinyl Chloride	4.36	62	9284	10.02	ppb	97
5) Bromomethane	5.06	94	6083	12.01	ppb	# 69
6) Chloroethane	5.23	64	14652	10.46	ppb	93
7) Trichlorofluoromethane	5.73	101	26040	9.85	ppb	97
8) Diethyl Ether	6.21	59	18354	10.21	ppb	94
9) Acrolein	6.46	56	19305	49.15	ppb	94
10) FREON 113	6.62	85	6939	9.83	ppb	83
11) 1,1-Dicethene	6.67	96	14291	9.48	ppb	92
12) Acetone	6.70	43	11265	9.83	ppb	91
13) Iodomethane	6.98	127	2338	10.08	ppb	97
14) Carbon Disulfide	7.13	76	56520	9.45	ppb	97
15) Acetonitrile	7.18	41	18727	50.24	ppb	94
16) Allyl Chloride	7.28	76	7936	11.88	ppb	94
17) Methylene Chloride	7.49	84	19845	9.38	ppb	97
18) TBA	7.57	59	39843	195.19	ppb	97
19) Acrylonitrile	7.87	53	45390	49.09	ppb	96
20) Methyl-t-Butyl Ether	7.92	73	53060	9.99	ppb	95
21) trans-1,2-Dichloroethene	7.97	96	18481	9.46	ppb	96
22) 1,1-Dicethane	8.68	63	36872	10.03	ppb	98
23) Vinyl Acetate	8.68	43	11761	9.14	ppb	99
24) 2-Chloro-1,3-butadiene	8.84	53	31960	9.48	ppb	99
25) 2,2-Dichloropropane	9.67	77	18596	9.57	ppb	95
26) 2-Butanone	9.61	43	13891	10.14	ppb	95
27) Ethyl Acetate	9.67	43	26116	9.31	ppb	97
28) cis-1,2-Dichloroethene	9.67	96	21932	9.88	ppb	98
29) Propionitrile	9.72	54	16019	48.20	ppb	94

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

V0795.D EXP0924.M Tue Sep 25 15:10:59 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0795.D

Vial: 12

Acq On : 24 Sep 2001 6:08 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 15:10 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	10.00	67	8181	9.52	ppb	92
31) Bromochloromethane	10.09	128	7575	10.24	ppb	98
32) Chloroform	10.18	83	36232	9.96	ppb	99
33) Tetrahydrofuran	10.17	42	10947	11.99	ppb	97
34) 1,1,1-Trichloroethane	10.54	97	27543	9.59	ppb	95
37) Carbontetrachloride	10.86	117	21199	9.28	ppb	95
38) 1,1-Dichloropropene	10.82	75	25939	9.45	ppb	98
39) Iso-Butyl Alcohol	10.81	43	21721	181.25	ppb	99
40) Benzene	11.19	78	71030	9.43	ppb	100
41) 1,2-Dichloroethane	11.19	62	31375	9.83	ppb	99
42) N-Heptane	11.52	43	35688	9.44	ppb	97
43) Trichloroethene	12.29	95	18121	9.08	ppb	96
44) 1,2-Dichloropropane	12.69	63	22239	9.50	ppb	98
45) Methyl Methacrylate	12.75	69	13446	9.17	ppb	98
46) 1,4-Dioxane	12.88	88	2743	172.98	ppb	87
47) Dibromomethane	12.94	93	13766	9.74	ppb	94
48) Bromodichloromethane	13.15	83	26191	9.37	ppb	97
49) 2-Nitropropane	13.51	43	13674	18.14	ppb	100
50) 2-Chloroethylvinyl Ether	13.60	63	1607	15.21	ppb	# 84
51) cis-1,3-Dichloropropene	13.95	75	29757	9.16	ppb	98
53) 4-Methyl-2-Pentanone	14.14	43	27963	9.13	ppb	100
54) Toluene	14.60	91	68670	9.62	ppb	99
55) trans-1,3-Dichloropropene	14.94	75	26670	9.36	ppb	94
56) Ethyl Methacrylate	14.99	69	25094	9.19	ppb	98
57) 1,1,2-Trichloroethane	15.32	83	14852	9.69	ppb	95
60) Tetrachloroethene	15.67	166	16168	9.43	ppb	90
61) 2-Hexanone	15.68	43	19114	8.93	ppb	97
62) 1,3-Dichloropropane	15.65	76	33106	9.76	ppb	93
63) Dibromochloromethane	16.14	129	16871	9.18	ppb	97
64) 1,2-Dibromoethane	16.40	107	18522	9.60	ppb	94
65) Chlorobenzene	17.33	112	43419	9.67	ppb	97
66) 1,1,1,2-Tetrachloroethane	17.47	131	14913	9.17	ppb	94
67) Ethylbenzene	17.48	91	74577	9.37	ppb	98
68) (m+p)Xylene	17.70	106	52275	18.32	ppb	98
69) o-Xylene	18.52	106	24846	8.86	ppb	92
70) Styrene	18.54	104	42472	8.75	ppb	95
71) Bromoform	19.01	173	10770	8.90	ppb	98
72) Isopropylbenzene	19.24	105	65103	9.09	ppb	97
73) Cyclohexanone	19.49	55	54898	169.83	ppb	98
75) 1,1,2,2-Tetrachloroethane	19.82	83	22292	9.94	ppb	97
76) Trans-1,4-Dichloro-2-buten	19.93	53	8475	9.71	ppb	# 69

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

V0795.D EXP0924.M

Tue Sep 25 15:11:00 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0795.D

Vial: 12

Acq On : 24 Sep 2001 6:08 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 15:10 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.96	110	6824	9.87	ppb	95
78) n-Propylbenzene	20.08	91	83475	9.38	ppb	98
79) Bromobenzene	19.98	156	15782	9.45	ppb	96
80) 1,3,5-Trimethylbenzene	20.41	105	51174	9.33	ppb	100
81) 2-Chlorotoluene	20.33	91	50512	9.26	ppb	97
82) 4-Chlorotoluene	20.55	91	51683	9.44	ppb	99
83) tert-Butylbenzene	21.12	119	39479	9.02	ppb	97
84) 1,2,4-Trimethylbenzene	21.22	105	51017	9.29	ppb	100
85) sec-Butylbenzene	21.56	105	66791	9.12	ppb	98
86) p-Isopropyltoluene	21.84	119	50156	9.06	ppb	97
87) 1,3-Dclbenz	21.91	146	23871	9.20	ppb	97
88) 1,4-Dclbenz	22.07	146	26719	9.17	ppb	100
89) n-Butylbenzene	22.70	91	55184	9.19	ppb	97
90) 1,2-Dclbenz	22.89	146	24849	9.35	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.54	157	3174	9.52	ppb #	80
93) 1,2,4-Tcbenzene	26.50	180	18031	9.43	ppb	87
94) Hexachlorobt	26.86	225	8464	9.44	ppb	90
95) Naphthalen	27.18	128	40358	9.44	ppb	98
96) 1,2,3-Tclbenzene	27.84	180	16865	9.37	ppb	93

(#) = qualifier out of range (m) = manual integration
V0795.D EXP0924.M Tue Sep 25 15:11:00 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0795.D

Vial: 12

Acq On : 24 Sep 2001 6:08 pm

Operator: herring

Sample : 10ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 15:10 2001

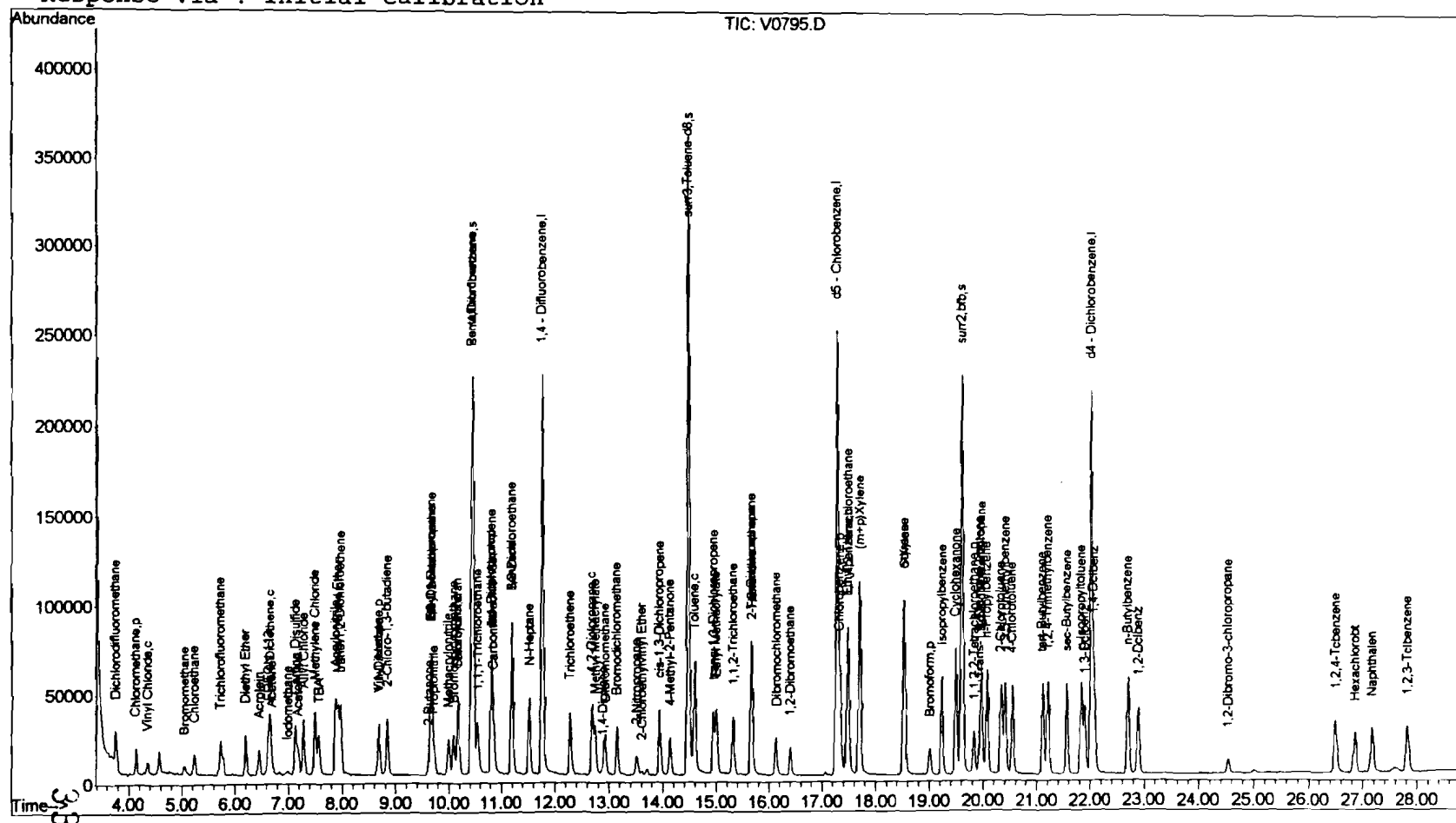
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0796.D

Vial: 13

Acq On : 24 Sep 2001 6:44 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.43	168	143641	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.77	114	262805	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	211694	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.03	152	90646	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.46	113	98702	49.26	ppb	0.00
Spiked Amount	50.000		Recovery	=	98.52%	
58) surr3, Toluene-d8	14.47	98	268411	50.20	ppb	0.00
Spiked Amount	50.000		Recovery	=	100.40%	
59) surr2, bfb	19.61	95	111026	51.19	ppb	0.00
Spiked Amount	50.000		Recovery	=	102.38%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	95417	52.99	ppb	100
3) Chloromethane	4.14	50	97586	49.87	ppb	100
4) Vinyl Chloride	4.36	62	45593	51.34	ppb	100
5) Bromomethane	5.05	94	37197	48.15	ppb	100
6) Chloroethane	5.24	64	70709	52.67	ppb	100
7) Trichlorofluoromethane	5.73	101	133426	52.69	ppb	100
8) Diethyl Ether	6.21	59	87649	51.07	ppb	100
9) Acrolein	6.45	56	97942	260.21	ppb	100
10) FREON 113	6.63	85	34656	51.26	ppb	100
11) 1,1-Dicethene	6.68	96	72903	50.49	ppb	100
12) Acetone	6.70	43	58511	53.30	ppb	100
13) Iodomethane	6.98	127	17076	64.60	ppb	100
14) Carbon Disulfide	7.13	76	313139	54.62	ppb	100
15) Acetonitrile	7.18	41	90646	253.76	ppb	100
16) Allyl Chloride	7.29	76	33382	52.17	ppb	100
17) Methylene Chloride	7.50	84	98501	48.56	ppb	100
18) TBA	7.56	59	198096	1011.86	ppb	100
19) Acrylonitrile	7.87	53	224720	255.00	ppb	100
20) Methyl-t-Butyl Ether	7.92	73	256451	50.42	ppb	100
21) trans-1,2-Dichloroethene	7.98	96	94459	50.44	ppb	100
22) 1,1-Dicethane	8.69	63	179012	50.65	ppb	100
23) Vinyl Acetate	8.68	43	89852	51.80	ppb	100
24) 2-Chloro-1,3-butadiene	8.83	53	178200	54.86	ppb	100
25) 2,2-Dichloropropane	9.67	77	101434	49.92	ppb	100
26) 2-Butanone	9.61	43	68745	52.50	ppb	100
27) Ethyl Acetate	9.67	43	143617	50.00	ppb	100
28) cis-1,2-Dichloroethene	9.66	96	106406	49.92	ppb	100
29) Propionitrile	9.72	54	78291	245.31	ppb	100

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

V0796.D EXP0924.M

Tue Sep 25 15:11:09 2001

Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0796.D

Vial: 13

Acq On : 24 Sep 2001 6:44 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	10.00	67	40016	48.64	ppb	100
31) Bromochloromethane	10.10	128	33522	47.29	ppb	100
32) Chloroform	10.17	83	170307	48.97	ppb	100
33) Tetrahydrofuran	10.16	42	42889	49.03	ppb	100
34) 1,1,1-Trichloroethane	10.55	97	140612	51.07	ppb	100
37) Carbontetrachloride	10.85	117	110695	48.85	ppb	100
38) 1,1-Dichloropropene	10.82	75	133046	48.86	ppb	100
39) Iso-Butyl Alcohol	10.81	43	111665	949.11	ppb	100
40) Benzene	11.20	78	361393	48.36	ppb	100
41) 1,2-Dichloroethane	11.19	62	155441	49.11	ppb	100
42) N-Heptane	11.52	43	181860	48.47	ppb	100
43) Trichloroethene	12.29	95	96149	48.57	ppb	100
44) 1,2-Diclpropane	12.69	63	110694	47.01	ppb	100
45) Methyl Methacrylate	12.74	69	68305	47.32	ppb	100
46) 1,4-Dioxane	12.88	88	14293	903.48	ppb	100
47) Dibromomethane	12.93	93	68936	49.20	ppb	100
48) Bromodichloromethane	13.16	83	135222	48.75	ppb	100
49) 2-Nitropropane	13.51	43	68659	91.81	ppb	100
50) 2-Chloroethylvinyl Ether	13.60	63	8184	43.71	ppb	100
51) cis-1,3-Dichloropropene	13.95	75	155152	48.23	ppb	100
53) 4-Methyl-2-Pentanone	14.13	43	158799	52.06	ppb	100
54) Toluene	14.60	91	341072	47.97	ppb	100
55) trans-1,3-Dichloropropene	14.94	75	137619	48.48	ppb	100
56) Ethyl Methacrylate	15.00	69	132359	48.29	ppb	100
57) 1,1,2-Trichloroethane	15.32	83	73889	48.51	ppb	100
60) Tetrachloroethene	15.67	166	81976	47.76	ppb	100
61) 2-Hexanone	15.69	43	110127	51.69	ppb	100
62) 1,3-Dichloropropane	15.66	76	163255	48.63	ppb	100
63) Dibromochloromethane	16.13	129	88129	48.19	ppb	100
64) 1,2-Dibromoethane	16.41	107	92375	48.07	ppb	100
65) Chlorobenzene	17.33	112	209834	46.95	ppb	100
66) 1,1,1,2-Tetrachloroethane	17.46	131	78616	48.59	ppb	100
67) Ethylbenzene	17.48	91	382278	48.25	ppb	100
68) (m+p)Xylene	17.70	106	270074	95.02	ppb	100
69) o-Xylene	18.52	106	132802	47.50	ppb	100
70) Styrene	18.53	104	231101	47.78	ppb	100
71) Bromoform	19.01	173	57402	47.63	ppb	100
72) Isopropylbenzene	19.23	105	349897	49.04	ppb	100
73) Cyclohexanone	19.49	55	321685	1002.15	ppb	100
75) 1,1,2,2-Tetrachloroethane	19.82	83	111399	48.55	ppb	100
76) Trans-1,4-Dichloro-2-buten	19.92	53	42733	47.87	ppb	100

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

V0796.D EXP0924.M

Tue Sep 25 15:11:09 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0796.D

Vial: 13

Acq On : 24 Sep 2001 6:44 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.96	110	32977	46.62	ppb	100
78) n-Propylbenzene	20.08	91	439181	48.24	ppb	100
79) Bromobenzene	19.98	156	80053	46.84	ppb	100
80) 1,3,5-Trimethylbenzene	20.41	105	268367	47.86	ppb	100
81) 2-Chlorotoluene	20.34	91	269832	48.37	ppb	100
82) 4-Chlorotoluene	20.54	91	270947	48.36	ppb	100
83) tert-Butylbenzene	21.12	119	215979	48.62	ppb	100
84) 1,2,4-Trimethylbenzene	21.21	105	269978	48.05	ppb	100
85) sec-Butylbenzene	21.57	105	361467	48.24	ppb	100
86) p-Isopropyltoluene	21.83	119	269176	47.48	ppb	100
87) 1,3-Dclbenz	21.90	146	125979	47.44	ppb	100
88) 1,4-Dclbenz	22.08	146	139779	47.09	ppb	100
89) n-Butylbenzene	22.71	91	295036	48.02	ppb	100
90) 1,2-Dclbenz	22.89	146	129270	47.52	ppb	100
91) 1,2-Dibromo-3-chloropropan	24.54	157	16262	47.69	ppb	100
93) 1,2,4-Tcbenzene	26.50	180	93140	47.42	ppb	100
94) Hexachlorobt	26.87	225	44050	48.01	ppb	100
95) Naphthalen	27.17	128	207920	47.52	ppb	100
96) 1,2,3-Tclbenzene	27.83	180	87358	47.41	ppb	100

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0796.D

Vial: 13

Acq On : 24 Sep 2001 6:44 pm

Operator: herring

Sample : 50ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

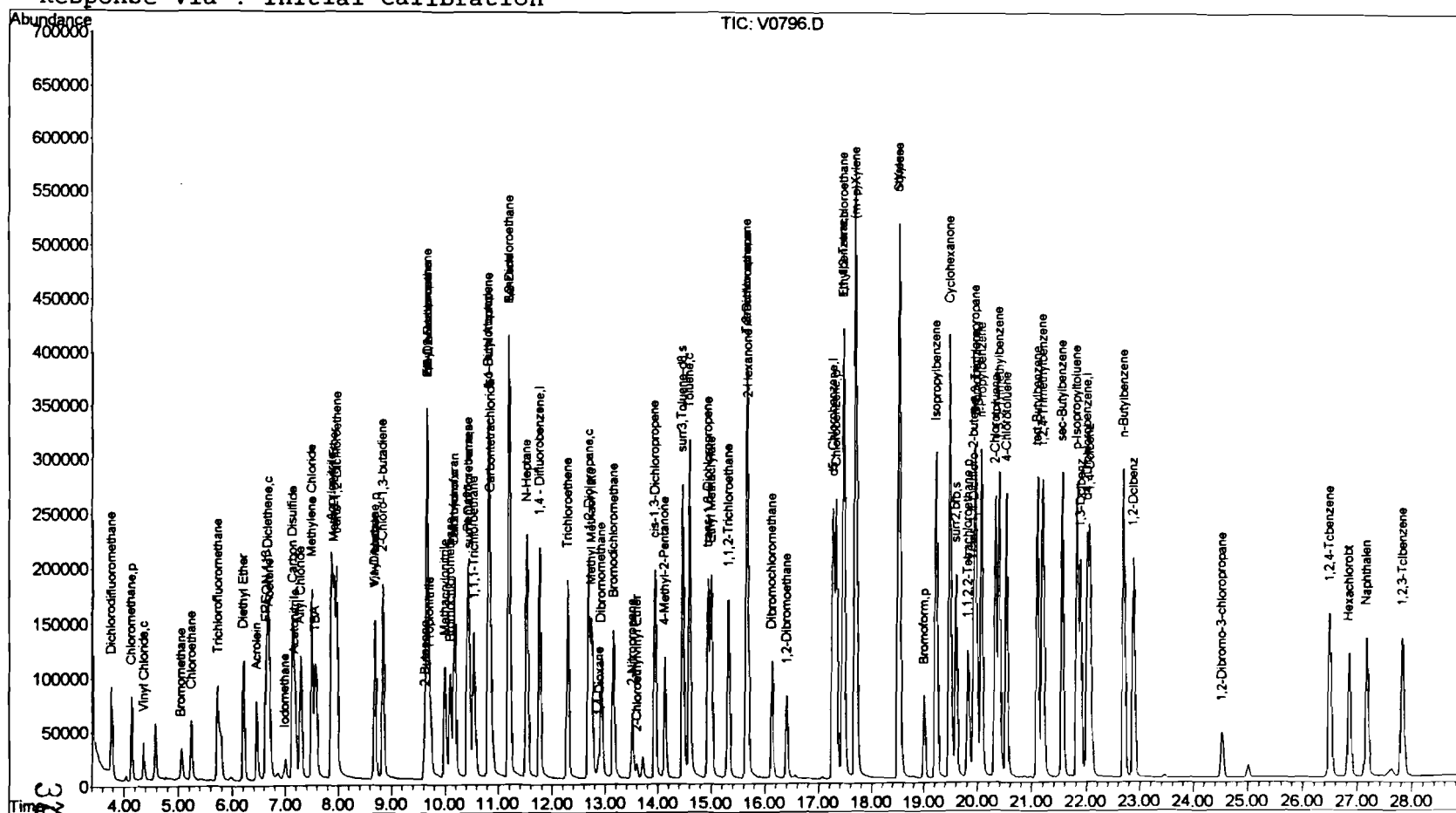
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0797.D

Vial: 14

Acq On : 24 Sep 2001 7:20 pm

Operator: herring

Sample : 100ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.43	168	157646	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.77	114	275925	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	227726	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.03	152	96539	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.46	113	226836	107.82	ppb	0.00
Spiked Amount 50.000			Recovery	=	215.64%	
58) surr3,Toluene-d8	14.47	98	601149	104.51	ppb	0.00
Spiked Amount 50.000			Recovery	=	209.02%	
59) surr2,bfb	19.61	95	244525	104.80	ppb	0.00
Spiked Amount 50.000			Recovery	=	209.60%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	205527	103.99	ppb	100
3) Chloromethane	4.14	50	227944	106.13	ppb	98
4) Vinyl Chloride	4.36	62	103596	106.30	ppb	98
5) Bromomethane	5.05	94	90296	99.39	ppb	95
6) Chloroethane	5.24	64	150506	102.15	ppb	94
7) Trichlorofluoromethane	5.73	101	289695	104.24	ppb	98
8) Diethyl Ether	6.20	59	192451	102.18	ppb	98
9) Acrolein	6.45	56	209754	507.76	ppb	100
10) FREON 113	6.63	85	77593	104.57	ppb	96
11) 1,1-Dicethene	6.68	96	165368	104.36	ppb	99
12) Acetone	6.70	43	115732	96.06	ppb	99
13) Iodomethane	6.98	127	39914	137.59	ppb	95
14) Carbon Disulfide	7.13	76	646088	102.69	ppb	100
15) Acetonitrile	7.18	41	199457	508.77	ppb	97
16) Allyl Chloride	7.29	76	70882	100.93	ppb	98
17) Methylene Chloride	7.49	84	231395	103.95	ppb	97
18) TBA	7.56	59	442118	2057.69	ppb	98
19) Acrylonitrile	7.87	53	505776	522.93	ppb	99
20) Methyl-t-Butyl Ether	7.92	73	572777	102.60	ppb	98
21) trans-1,2-Dichloroethene	7.98	96	211063	102.69	ppb	98
22) 1,1-Dicethane	8.69	63	395299	101.92	ppb	100
23) Vinyl Acetate	8.68	43	256242	134.61	ppb	99
24) 2-Chloro-1,3-butadiene	8.83	53	369871	103.76	ppb	97
25) 2,2-Dichloropropane	9.67	77	261475	117.25	ppb	99
26) 2-Butanone	9.61	43	143175	99.64	ppb	99
27) Ethyl Acetate	9.67	43	324355	102.89	ppb	100
28) cis-1,2-Dichloroethene	9.67	96	241562	103.25	ppb	99
29) Propionitrile	9.72	54	183906	525.04	ppb	98

(#) = qualifier out of range (m) = manual integration
 V0797.D EXP0924.M Tue Sep 25 15:11:18 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0797.D

Vial: 14

Acq On : 24 Sep 2001 7:20 pm

Operator: herring

Sample : 100ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	10.00	67	94712	104.89	ppb	97
31) Bromochloromethane	10.09	128	77106	99.10	ppb	95
32) Chloroform	10.17	83	390540	102.31	ppb	97
33) Tetrahydrofuran	10.16	42	93317	97.21	ppb	98
34) 1,1,1-Trichloroethane	10.55	97	315790	104.50	ppb	98
37) Carbontetrachloride	10.85	117	256955	108.00	ppb	98
38) 1,1-Dichloropropene	10.82	75	304621	106.54	ppb	99
39) Iso-Butyl Alcohol	10.81	43	272976	2209.86	ppb	98
40) Benzene	11.20	78	814148	103.77	ppb	99
41) 1,2-Dichloroethane	11.20	62	347090	104.44	ppb	99
42) N-Heptane	11.52	43	413952	105.09	ppb	99
43) Trichloroethene	12.29	95	217659	104.72	ppb	99
44) 1,2-Dicloropropane	12.69	63	256231	103.63	ppb	98
45) Methyl Methacrylate	12.74	69	162005	106.89	ppb	99
46) 1,4-Dioxane	12.88	88	34372	2069.38	ppb	98
47) Dibromomethane	12.93	93	153914	104.62	ppb	94
48) Bromodichloromethane	13.16	83	309576	106.30	ppb	98
49) 2-Nitropropane	13.51	43	170899	217.66	ppb	98
50) 2-Chloroethylvinyl Ether	13.59	63	19785	100.65	ppb	95
51) cis-1,3-Dichloropropene	13.95	75	351074	103.94	ppb	98
53) 4-Methyl-2-Pentanone	14.13	43	343241	104.60	ppb	98
54) Toluene	14.60	91	789116	103.16	ppb	99
55) trans-1,3-Dichloropropene	14.94	75	326381	106.88	ppb	98
56) Ethyl Methacrylate	15.00	69	311749	105.74	ppb	100
57) 1,1,2-Trichloroethane	15.32	83	170743	104.21	ppb	97
60) Tetrachloroethene	15.67	166	188311	101.99	ppb	98
61) 2-Hexanone	15.69	43	243713	106.33	ppb	98
62) 1,3-Dichloropropane	15.66	76	371574	102.88	ppb	99
63) Dibromochloromethane	16.13	129	205481	104.45	ppb	100
64) 1,2-Dibromoethane	16.41	107	211926	102.51	ppb	98
65) Chlorobenzene	17.33	112	492797	102.49	ppb	99
66) 1,1,1,2-Tetrachloroethane	17.46	131	180195	103.53	ppb	96
67) Ethylbenzene	17.48	91	886849	104.05	ppb	99
68) (m+p)Xylene	17.70	106	643322	210.40	ppb	98
69) o-Xylene	18.52	106	314416	104.54	ppb	100
70) Styrene	18.53	104	553943	106.46	ppb	98
71) Bromoform	19.01	173	138072	106.49	ppb	96
72) Isopropylbenzene	19.23	105	809012	105.41	ppb	98
73) Cyclohexanone	19.49	55	744767	2156.84	ppb	98
75) 1,1,2,2-Tetrachloroethane	19.82	83	250071	102.34	ppb	99
76) Trans-1,4-Dichloro-2-buten	19.92	53	101936	107.23	ppb	95

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

V0797.D EXP0924.M

Tue Sep 25 15:11:19 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0797.D Vial: 14
 Acq On : 24 Sep 2001 7:20 pm Operator: herring
 Sample : 100ppb Inst : GC/MS Ins
 Misc : Initial Calibration - 8260B water Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 14:41 2001 Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 14:41:07 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.96	110	76661	101.76	ppb	97
78) n-Propylbenzene	20.08	91	1004442	103.60	ppb	99
79) Bromobenzene	19.98	156	186097	102.25	ppb	99
80) 1,3,5-Trimethylbenzene	20.41	105	620382	103.88	ppb	100
81) 2-Chlorotoluene	20.34	91	623006	104.86	ppb	99
82) 4-Chlorotoluene	20.54	91	621170	104.10	ppb	100
83) tert-Butylbenzene	21.11	119	500254	105.74	ppb	100
84) 1,2,4-Trimethylbenzene	21.21	105	630961	105.43	ppb	99
85) sec-Butylbenzene	21.57	105	844875	105.87	ppb	98
86) p-Isopropyltoluene	21.83	119	632312	104.72	ppb	100
87) 1,3-Dclbenz	21.90	146	294942	104.28	ppb	99
88) 1,4-Dclbenz	22.08	146	327310	103.54	ppb	99
89) n-Butylbenzene	22.71	91	695459	106.29	ppb	100
90) 1,2-Dclbenz	22.89	146	299540	103.40	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.54	157	38757	106.71	ppb	95
93) 1,2,4-Tcbenzene	26.50	180	217896	104.17	ppb	92
94) Hexachlorobt	26.86	225	100290	102.63	ppb	99
95) Naphthalen	27.17	128	491191	105.42	ppb	100
96) 1,2,3-Tclbenzene	27.83	180	203189	103.54	ppb	98

(#) = qualifier out of range (m) = manual integration
 V0797.D EXP0924.M Tue Sep 25 15:11:19 2001

Quantitation Report

Acq On : 24 Sep 2001 7:20 pm

Misc : Initial Calibration - 8260B water

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:41 2001

rator: herring

Inst : GC/MS Ins

Multiplr: 1.00

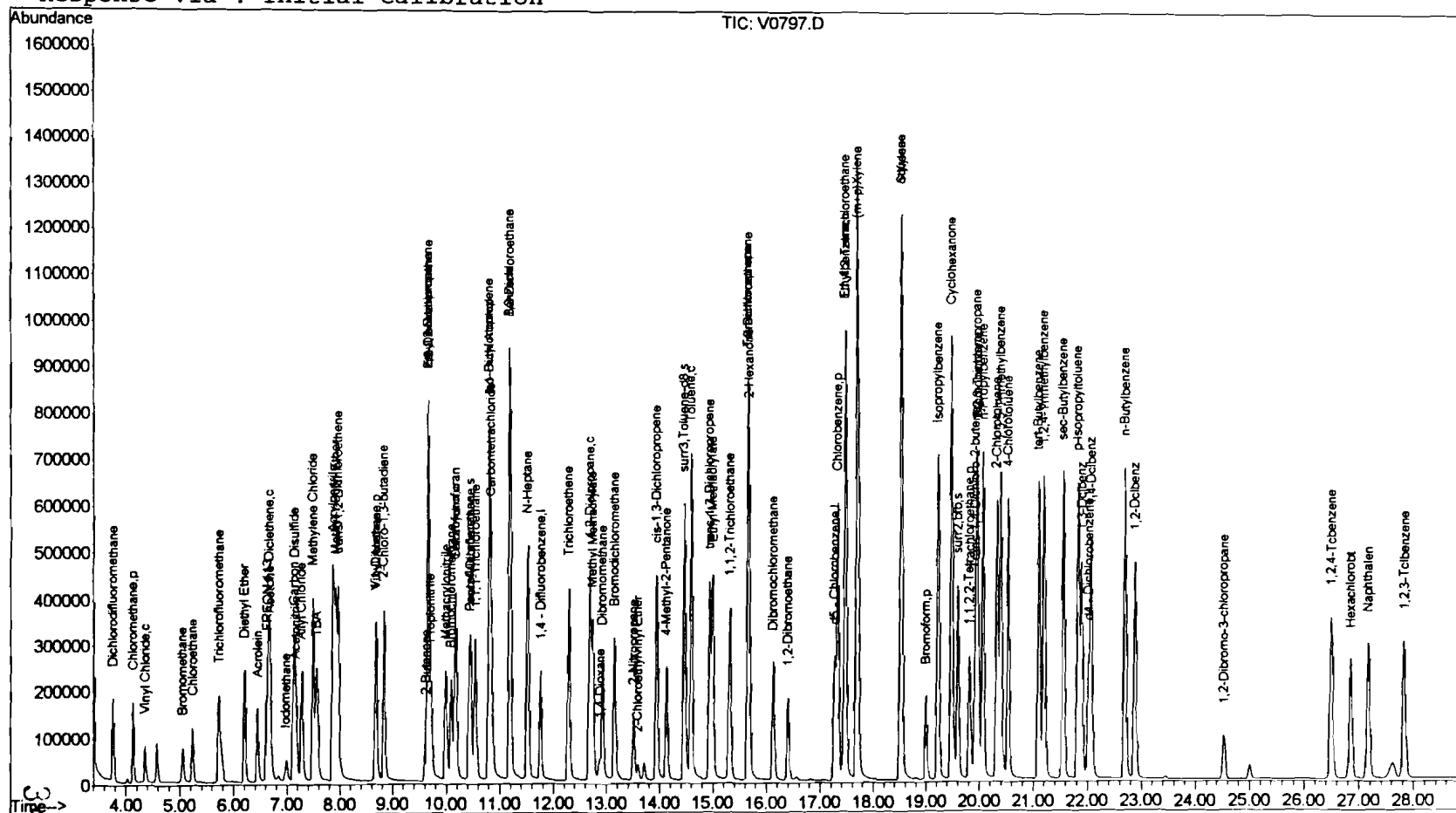
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0798.D Vial: 15
 Acq On : 24 Sep 2001 7:56 pm Operator: herring
 Sample : 150ppb Inst : GC/MS Ins
 Misc : Initial Calibration - 8260B water Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 14:42 2001 Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 14:41:07 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.43	168	168325	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.77	114	291563	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	242712	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.03	152	102826	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.46	113	293365	131.96	ppb	0.00
Spiked Amount	50.000		Recovery	=	263.92%	
58) surr3,Toluene-d8	14.47	98	806188	131.50	ppb	0.00
Spiked Amount	50.000		Recovery	=	263.00%	
59) surr2,bfb	19.61	95	328352	132.03	ppb	0.00
Spiked Amount	50.000		Recovery	=	264.06%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.76	85	310880	147.32	ppb	100
3) Chloromethane	4.13	50	329277	143.59	ppb	98
4) Vinyl Chloride	4.36	62	147952	142.18	ppb	97
5) Bromomethane	5.05	94	147791	149.23	ppb	100
6) Chloroethane	5.24	64	224731	142.85	ppb	94
7) Trichlorofluoromethane	5.73	101	434461	146.41	ppb	98
8) Diethyl Ether	6.20	59	306535	152.42	ppb	96
9) Acrolein	6.45	56	333044	755.06	ppb	97
10) FREON 113	6.64	85	117248	147.99	ppb	97
11) 1,1-Dicethene	6.68	96	256857	151.81	ppb	97
12) Acetone	6.70	43	174894	135.95	ppb	96
13) Iodomethane	6.98	127	62788m	202.71	ppb	93
14) Carbon Disulfide	7.13	76	998285	148.60	ppb	100
15) Acetonitrile	7.18	41	304601	727.68	ppb	98
16) Allyl Chloride	7.29	76	98543	131.41	ppb	94
17) Methylene Chloride	7.49	84	366789	154.31	ppb	94
18) TBA	7.56	59	702949	3064.07	ppb	97
19) Acrylonitrile	7.87	53	779469	754.78	ppb	99
20) Methyl-t-Butyl Ether	7.92	73	893148	149.84	ppb	98
21) trans-1,2-Dichloroethene	7.98	96	326677	148.85	ppb	95
22) 1,1-Dicethane	8.68	63	605030	146.09	ppb	99
23) Vinyl Acetate	8.67	43	412801	203.10	ppb	100
24) 2-Chloro-1,3-butadiene	8.84	53	561363	147.49	ppb	93
25) 2,2-Dichloropropane	9.67	77	409147	171.82	ppb	100
26) 2-Butanone	9.61	43	219364	142.97	ppb	98
27) Ethyl Acetate	9.67	43	495212	147.12	ppb	99
28) cis-1,2-Dichloroethene	9.67	96	375819	150.45	ppb	97
29) Propionitrile	9.72	54	286889	767.09	ppb	99

(#) = qualifier out of range (m) = manual integration
 V0798.D EXP0924.M Tue Sep 25 15:11:30 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0798.D

Vial: 15

Acq On : 24 Sep 2001 7:56 pm

Operator: herring

Sample : 150ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:42 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	9.99	67	152659	158.33	ppb	97
31) Bromochloromethane	10.09	128	121177	145.87	ppb	94
32) Chloroform	10.18	83	601123	147.49	ppb	98
33) Tetrahydrofuran	10.16	42	146760	143.18	ppb	97
34) 1,1,1-Trichloroethane	10.55	97	486201	150.68	ppb	98
37) Carbontetrachloride	10.85	117	396303	157.64	ppb	98
38) 1,1-Dichloropropene	10.82	75	474491	157.05	ppb	98
39) Iso-Butyl Alcohol	10.81	43	419289	3212.28	ppb	99
40) Benzene	11.20	78	1295711	156.29	ppb	99
41) 1,2-Dichloroethane	11.20	62	534537	152.22	ppb	98
42) N-Heptane	11.52	43	640367	153.85	ppb	99
43) Trichloroethene	12.29	95	340579	155.06	ppb	96
44) 1,2-Diclp propane	12.69	63	396488	151.76	ppb	98
45) Methyl Methacrylate	12.74	69	260961	162.94	ppb	94
46) 1,4-Dioxane	12.88	88	55339	3153.01	ppb	98
47) Dibromomethane	12.93	93	236710	152.27	ppb	95
48) Bromodichloromethane	13.16	83	485019	157.61	ppb	99
49) 2-Nitropropane	13.51	43	270205	325.68	ppb	98
50) 2-Chloroethylvinyl Ether	13.60	63	34351	165.38	ppb	95
51) cis-1,3-Dichloropropene	13.94	75	568854	159.38	ppb	98
53) 4-Methyl-2-Pentanone	14.13	43	539805	154.35	ppb	99
54) Toluene	14.59	91	1267000	155.41	ppb	99
55) trans-1,3-Dichloropropene	14.94	75	519047	159.48	ppb	98
56) Ethyl Methacrylate	15.00	69	505180	160.77	ppb	99
57) 1,1,2-Trichloroethane	15.32	83	272918	156.29	ppb	94
60) Tetrachloroethene	15.68	166	309682	157.37	ppb	96
61) 2-Hexanone	15.69	43	395153	161.75	ppb	97
62) 1,3-Dichloropropane	15.66	76	596725	155.02	ppb	95
63) Dibromochloromethane	16.13	129	334659	159.61	ppb	100
64) 1,2-Dibromoethane	16.41	107	344472	156.33	ppb	100
65) Chlorobenzene	17.33	112	797140	155.55	ppb	99
66) 1,1,1,2-Tetrachloroethane	17.46	131	294354	158.68	ppb	98
67) Ethylbenzene	17.48	91	1427023	157.09	ppb	98
68) (m+p)Xylene	17.71	106	1050839	322.46	ppb	95
69) o-Xylene	18.52	106	518641	161.79	ppb	100
70) Styrene	18.54	104	914664	164.93	ppb	94
71) Bromoform	19.01	173	226106	163.63	ppb	95
72) Isopropylbenzene	19.23	105	1303828	159.40	ppb	98
73) Cyclohexanone	19.49	55	1117107	3035.39	ppb	99
75) 1,1,2,2-Tetrachloroethane	19.82	83	400809	153.99	ppb	98
76) Trans-1,4-Dichloro-2-buten	19.92	53	163684	161.65	ppb	93

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

V0798.D EXP0924.M

Tue Sep 25 15:11:30 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0798.D

Vial: 15

Acq On : 24 Sep 2001 7:56 pm

Operator: herring

Sample : 150ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:42 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.96	110	124973	155.74	ppb	99
78) n-Propylbenzene	20.08	91	1638321	158.65	ppb	98
79) Bromobenzene	19.98	156	306526	158.11	ppb	100
80) 1,3,5-Trimethylbenzene	20.40	105	1011218	158.97	ppb	97
81) 2-Chlorotoluene	20.33	91	1002254	158.38	ppb	99
82) 4-Chlorotoluene	20.54	91	1010490	158.98	ppb	99
83) tert-Butylbenzene	21.11	119	814905	161.71	ppb	98
84) 1,2,4-Trimethylbenzene	21.21	105	1023702	160.60	ppb	98
85) sec-Butylbenzene	21.57	105	1360439	160.05	ppb	98
86) p-Isopropyltoluene	21.84	119	1039764	161.67	ppb	99
87) 1,3-Dclbenz	21.90	146	478668	158.89	ppb	97
88) 1,4-Dclbenz	22.08	146	529059	157.13	ppb	99
89) n-Butylbenzene	22.71	91	1114668	159.94	ppb	99
90) 1,2-Dclbenz	22.89	146	488281	158.24	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.54	157	64383	166.43	ppb	92
93) 1,2,4-Tcbenzene	26.50	180	351305	157.68	ppb	96
94) Hexachlorobt	26.86	225	163865	157.44	ppb	98
95) Naphthalen	27.18	128	794464	160.08	ppb	99
96) 1,2,3-Tclbenzene	27.83	180	328747	157.28	ppb	95

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

V0798.D EXP0924.M

Tue Sep 25 15:11:30 2001

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Page 3

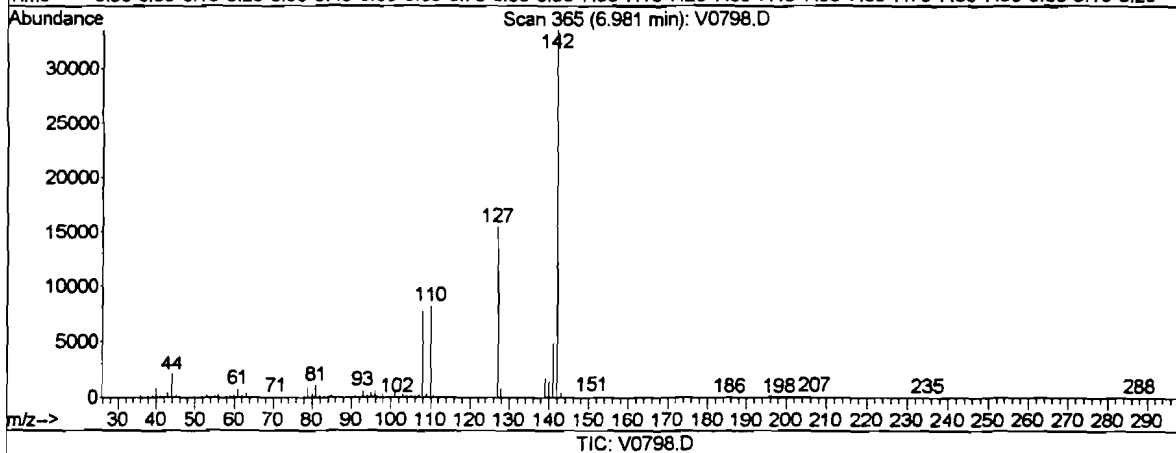
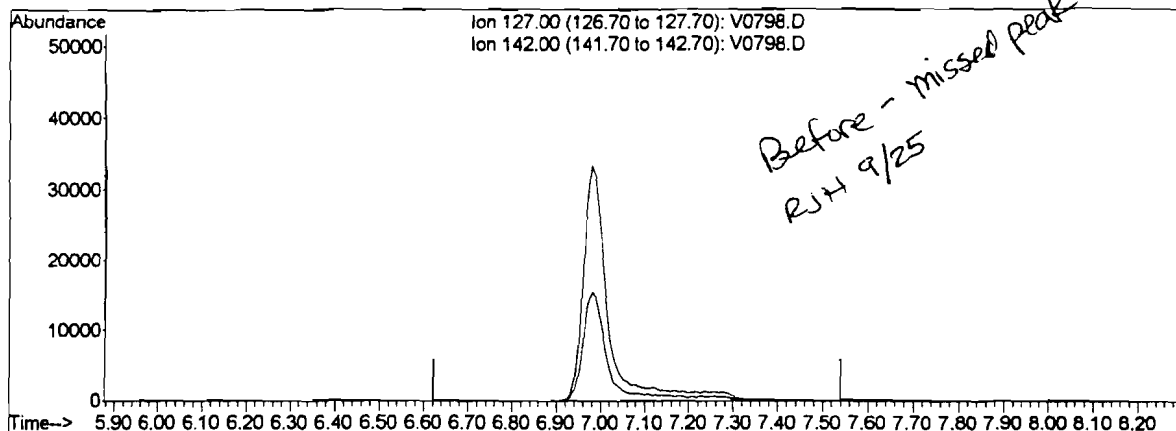
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0798.D
 Acq On : 24 Sep 2001 7:56 pm
 Sample : 150ppb
 Misc : Initial Calibration - 8260B water
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 14:42 2001

Vial: 15
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 14:41:07 2001
 Response via : Multiple Level Calibration



(13) Iodomethane

6.98min 0.00ppb

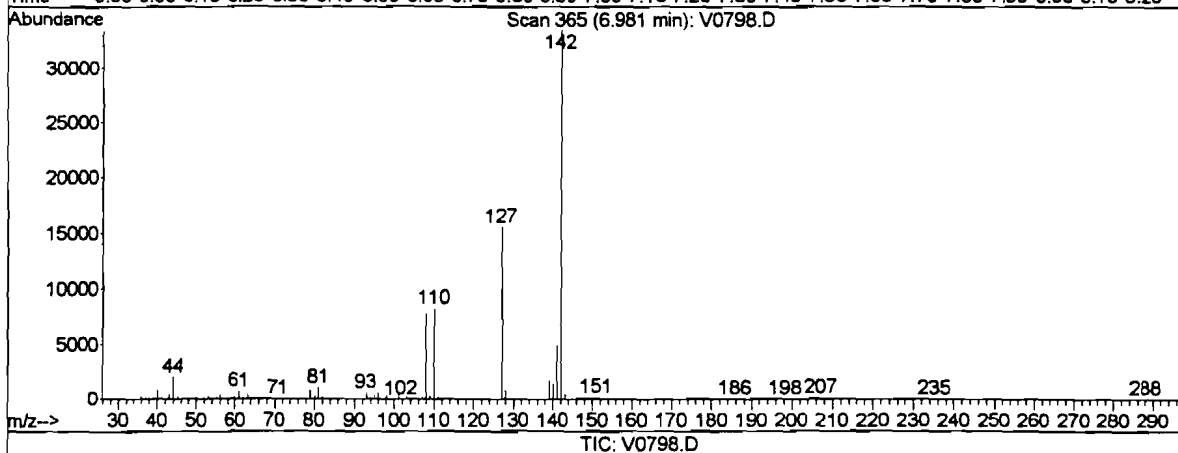
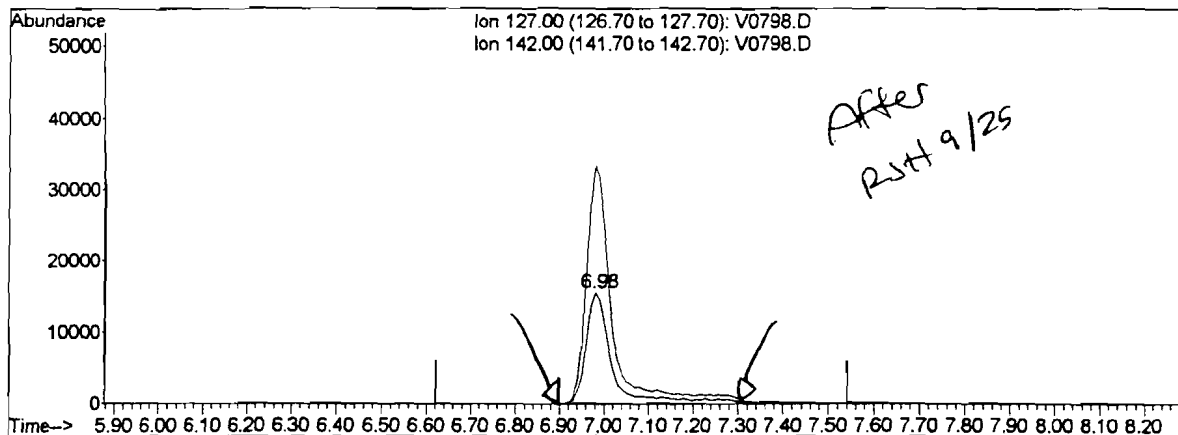
response 0

Ion	Exp%	Act%
127.00	100	0.00
142.00	197.70	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0798.D Vial: 15
 Acq On : 24 Sep 2001 7:56 pm Operator: herring
 Sample : 150ppb Inst : GC/MS Ins
 Misc : Initial Calibration - 8260B water Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 14:42 2001 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 14:41:07 2001
 Response via : Multiple Level Calibration



(13) Iodomethane

6.98min 202.71ppb m

response 62788

Ion	Exp%	Act%
127.00	100	100
142.00	197.70	215.65
0.00	0.00	0.00
0.00	0.00	0.00

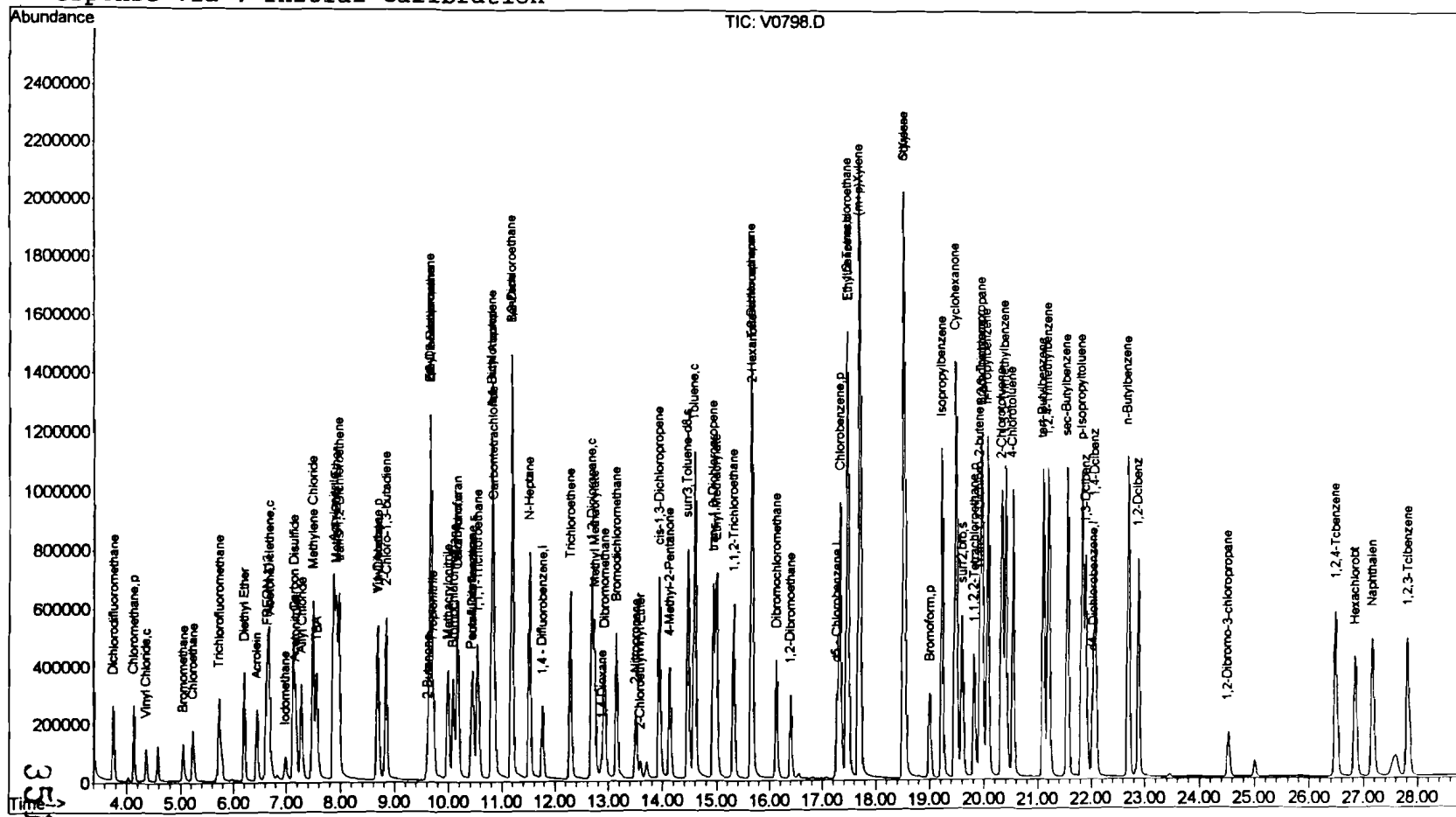
Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0798.D
Acq On : 24 Sep 2001 7:56 pm
Sample : 150ppb
Misc : Initial Calibration - 8260B water
MS Integration Params: RTEINT.P
Quant Time: Sep 25 14:42 2001 Quant R

Vial: 15
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0924.RES

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Method      : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
Title       : 8260voa
Last Update : Tue Sep 25 15:08:06 2001
Response via : Initial Calibration
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Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0799.D

Vial: 16

Acq On : 24 Sep 2001 8:32 pm

Operator: herring

Sample : 200ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:43 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.43	168	178428	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.77	114	310901	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	259780	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	110732	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4, Dibromomethane	10.46	113	363991	153.54	ppb	0.00
Spiked Amount	50.000		Recovery	=	307.08%	
58) surr3, Toluene-d8	14.47	98	1020849	155.58	ppb	0.00
Spiked Amount	50.000		Recovery	=	311.16%	
59) surr2, bfb	19.61	95	422073	158.57	ppb	0.00
Spiked Amount	50.000		Recovery	=	317.14%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	422691	188.96	ppb	99
3) Chloromethane	4.14	50	461540	189.87	ppb	100
4) Vinyl Chloride	4.36	62	201740	182.89	ppb	97
5) Bromomethane	5.05	94	227332	213.91	ppb	100
6) Chloroethane	5.24	64	300512	180.20	ppb	92
7) Trichlorofluoromethane	5.73	101	602484	191.54	ppb	99
8) Diethyl Ether	6.20	59	412915	193.69	ppb	92
9) Acrolein	6.45	56	451056	964.71	ppb	97
10) FREON 113	6.63	85	163316	194.47	ppb	96
11) 1,1-Dichloroethene	6.68	96	368313	205.36	ppb	91
12) Acetone	6.70	43	240142	176.10	ppb	95
13) Iodomethane	6.98	127	91501	278.68	ppb	87
14) Carbon Disulfide	7.13	76	1430829	200.93	ppb	99
15) Acetonitrile	7.18	41	420724	948.18	ppb	96
16) Allyl Chloride	7.29	76	122599	154.23	ppb	86
17) Methylene Chloride	7.49	84	532491	211.34	ppb	91
18) TBA	7.56	59	962779	3959.02	ppb	98
19) Acrylonitrile	7.87	53	1080914	987.42	ppb	98
20) Methyl-t-Butyl Ether	7.92	73	1256398	198.85	ppb	94
21) trans-1,2-Dichloroethene	7.98	96	463751	199.35	ppb	94
22) 1,1-Dichloroethane	8.69	63	838477	191.00	ppb	99
23) Vinyl Acetate	8.68	43	530215	246.09	ppb	99
24) 2-Chloro-1,3-butadiene	8.83	53	772938	191.57	ppb	92
25) 2,2-Dichloropropane	9.67	77	554643	219.74	ppb	98
26) 2-Butanone	9.61	43	310750	191.07	ppb	96
27) Ethyl Acetate	9.67	43	673476	188.76	ppb	99
28) cis-1,2-Dichloroethene	9.67	96	530679	200.41	ppb	95
29) Propionitrile	9.72	54	399576	1007.90	ppb	100

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

V0799.D EXP0924.M Tue Sep 25 15:11:47 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0799.D

Vial: 16

Acq On : 24 Sep 2001 8:32 pm

Operator: herring

Sample : 200ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:43 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	10.00	67	213828	209.22	ppb	98
31) Bromochloromethane	10.09	128	178401	202.59	ppb	88
32) Chloroform	10.18	83	832504	192.70	ppb	98
33) Tetrahydrofuran	10.16	42	194667	179.16	ppb	96
34) 1,1,1-Trichloroethane	10.55	97	696365	203.60	ppb	98
37) Carbontetrachloride	10.85	117	563432	210.18	ppb	97
38) 1,1-Dichloropropene	10.82	75	669739	207.89	ppb	99
39) Iso-Butyl Alcohol	10.81	43	584221	4197.47	ppb	99
40) Benzene	11.20	78	1875492	212.15	ppb	100
41) 1,2-Dichloroethane	11.20	62	726466	194.01	ppb	96
42) N-Heptane	11.52	43	891108	200.77	ppb	98
43) Trichloroethene	12.29	95	508092	216.94	ppb	94
44) 1,2-Dicloropropane	12.69	63	569669	204.48	ppb	97
45) Methyl Methacrylate	12.74	69	378073	221.38	ppb	88
46) 1,4-Dioxane	12.88	88	77918	4163.35	ppb	95
47) Dibromomethane	12.93	93	321513	193.95	ppb	93
48) Bromodichloromethane	13.16	83	699796	213.26	ppb	99
49) 2-Nitropropane	13.51	43	376793	425.90	ppb	98
50) 2-Chloroethylvinyl Ether	13.59	63	53979	243.72	ppb	95
51) cis-1,3-Dichloropropene	13.94	75	827384	217.40	ppb	96
53) 4-Methyl-2-Pentanone	14.13	43	766228	204.70	ppb	98
54) Toluene	14.59	91	1844929	211.43	ppb	99
55) trans-1,3-Dichloropropene	14.94	75	747017	214.44	ppb	97
56) Ethyl Methacrylate	15.00	69	733011	217.95	ppb	100
57) 1,1,2-Trichloroethane	15.32	83	387690	207.43	ppb	95
60) Tetrachloroethene	15.67	166	457335	217.14	ppb	98
61) 2-Hexanone	15.69	43	550847	210.67	ppb	98
62) 1,3-Dichloropropane	15.66	76	860888	208.96	ppb	93
63) Dibromochloromethane	16.13	129	486165	216.63	ppb	100
64) 1,2-Dibromoethane	16.41	107	499072	211.61	ppb	98
65) Chlorobenzene	17.33	112	1176640	214.52	ppb	98
66) 1,1,1,2-Tetrachloroethane	17.46	131	440187	221.71	ppb	97
67) Ethylbenzene	17.48	91	2112280	217.25	ppb	98
68) (m+p)Xylene	17.70	106	1591194	456.19	ppb	93
69) o-Xylene	18.52	106	780448	227.47	ppb	93
70) Styrene	18.53	104	1365183	230.00	ppb	94
71) Bromoform	19.00	173	329458	222.76	ppb	95
72) Isopropylbenzene	19.23	105	1927327	220.15	ppb	97
73) Cyclohexanone	19.49	55	1763469	4476.85	ppb	97
75) 1,1,2,2-Tetrachloroethane	19.82	83	561881	200.46	ppb	99
76) Trans-1,4-Dichloro-2-buten	19.92	53	235017	215.53	ppb	99

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

V0799.D EXP0924.M

Tue Sep 25 15:11:47 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0799.D

Vial: 16

Acq On : 24 Sep 2001 8:32 pm

Operator: herring

Sample : 200ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 14:43 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 14:41:07 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.96	110	178447	206.51	ppb	99
78) n-Propylbenzene	20.08	91	2400759	215.88	ppb	97
79) Bromobenzene	19.97	156	451517	216.28	ppb	93
80) 1,3,5-Trimethylbenzene	20.41	105	1517510	221.53	ppb	97
81) 2-Chlorotoluene	20.34	91	1458646	214.04	ppb	99
82) 4-Chlorotoluene	20.54	91	1485267	217.00	ppb	99
83) tert-Butylbenzene	21.11	119	1197747	220.72	ppb	96
84) 1,2,4-Trimethylbenzene	21.21	105	1512453	220.34	ppb	97
85) sec-Butylbenzene	21.57	105	2011029	219.70	ppb	98
86) p-Isopropyltoluene	21.83	119	1558392	225.01	ppb	99
87) 1,3-Dclbenz	21.90	146	706874	217.89	ppb	99
88) 1,4-Dclbenz	22.08	146	788552	217.48	ppb	98
89) n-Butylbenzene	22.71	91	1635876	217.97	ppb	98
90) 1,2-Dclbenz	22.89	146	720725	216.89	ppb	100
91) 1,2-Dibromo-3-chloropropan	24.53	157	91803	220.37	ppb	93
93) 1,2,4-Tcbenzene	26.50	180	520755	217.05	ppb	95
94) Hexachlorobt	26.87	225	240319	214.41	ppb	100
95) Naphthalen	27.17	128	1153336	215.80	ppb	100
96) 1,2,3-Tclbenzene	27.83	180	487934	216.77	ppb	96

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0799.D

Vial: 16

Acq On : 24 Sep 2001 8:32 pm

Operator: herring

Sample : 200ppb

Inst : GC/MS Ins

Misc : Initial Calibration - 8260B water

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Results File: EXP0924.RES

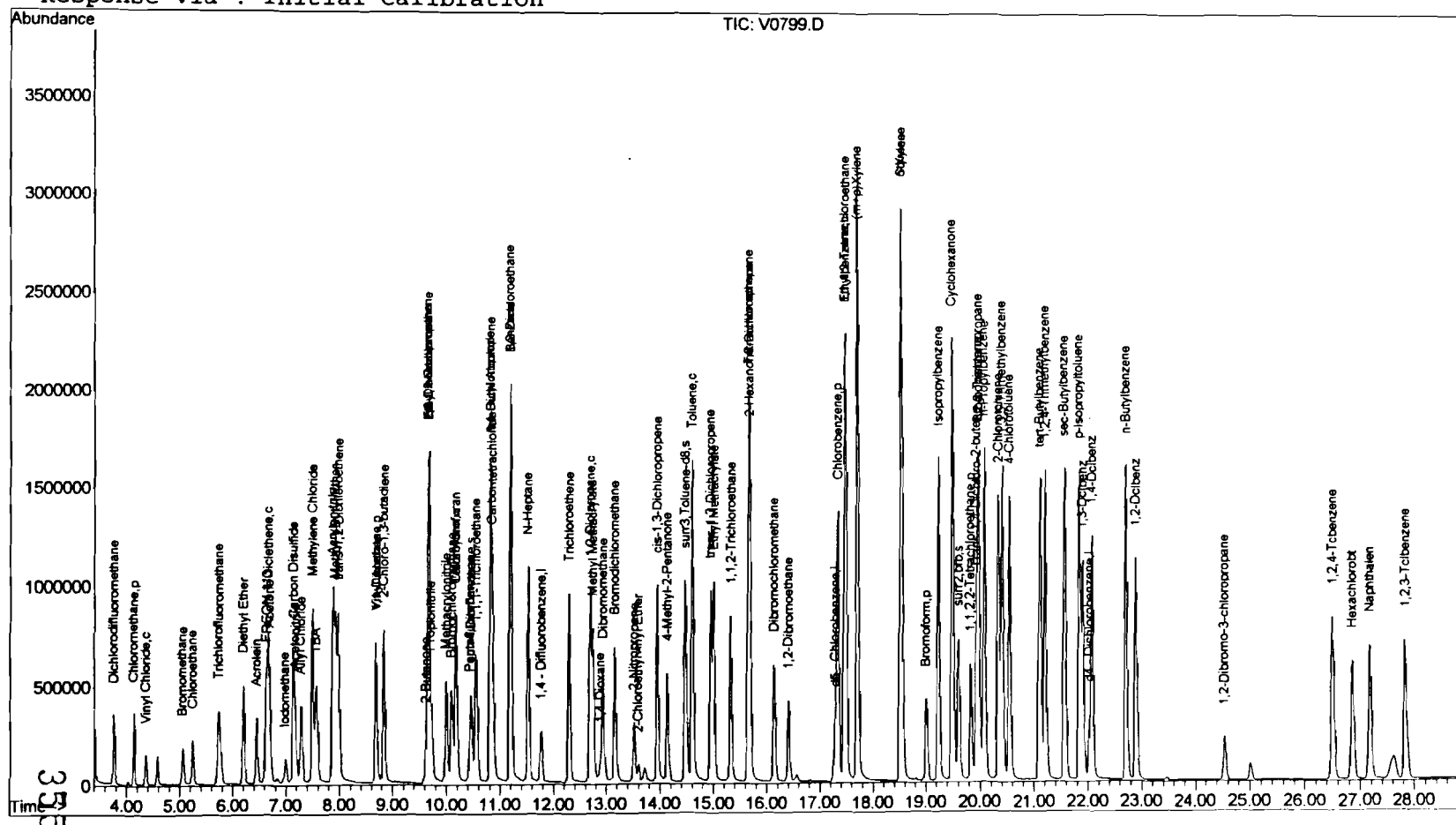
Quant Time: Sep 25 14:43 2001

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 15:08:06 2001

Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D

Vial: 5

Acq On : 18 Sep 2001 11:53 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area	% Dev (min)
1	Pentafluorobenzene	1.000	1.000	0.0	117	0.03
2	Dichlorodifluoromethane	0.696	0.688	1.1	107	0.02
3 p	Chloromethane	0.379	0.472	-24.5	150	0.02
4 c	Vinyl Chloride	0.269	0.304	-13.0	131	0.02
5	Bromomethane	0.416	0.303	27.2#	84	0.02
6	Chloroethane	0.469	0.445	5.1	107	0.03
7	Trichlorofluoromethane	0.863	0.845	2.1	109	0.02
8	Diethyl Ether	0.564	0.572	-1.4	112	0.02
9	Acrolein	0.121	0.093	23.1	82	0.02
10	FREON 113	0.230	0.226	1.7	109	0.02
11 c	1,1-Dichloroethene	0.513	0.477	7.0	107	0.02
12	Acetone	0.270	0.253	6.3	106	0.02
13	Iodomethane	0.193	0.174	9.8	100	0.04
14	Carbon Disulfide	2.116	2.049	3.2	109	0.02
15	Acetonitrile	0.118	0.121	-2.5	110	0.02
16	Allyl Chloride	0.254	0.237	6.7	104	0.03
17	Methylene Chloride	0.658	0.620	5.8	108	0.02
18	TBA	0.063	0.066	-4.8	111	0.03
19	Acrylonitrile	0.293	0.296	-1.0	111	0.02
20	Methyl-t-Butyl Ether	1.639	1.641	-0.1	114	0.02
21	trans-1,2-Dichloroethene	0.614	0.606	1.3	114	0.02
22 p	1,1-Dichloroethane	1.157	1.117	3.5	110	0.03
23	Vinyl Acetate	1.351	1.387	-2.7	108	0.02
24	2-Chloro-1,3-butadiene	1.088	1.187	-9.1	122	0.02
25	2,2-Dichloropropane	0.806	0.843	-4.6	118	0.02
26	2-Butanone	0.467	0.467	0.0	109	0.02
27	cis-1,2-Dichloroethene	0.693	0.655	5.5	113	0.02
28	Propionitrile	0.106	0.102	3.8	107	0.02
29	Methacrylonitrile	0.272	0.272	0.0	110	0.03
30	Bromochloromethane	0.251	0.229	8.8	112	0.02
31 c	Chloroform	1.127	1.085	3.7	111	0.02
32	Tetrahydrofuran	0.282	0.266	5.7	109	0.02
33	1,1,1-Trichloroethane	0.913	0.875	4.2	109	0.03
34 I	1,4 - Difluorobenzene	1.000	1.000	0.0	115	0.02
35 s	surr4,Dibromomethane	0.394	0.388	1.5	114	0.03
36	Carbontetrachloride	0.418	0.400	4.3	113	0.03
37	1,1-Dichloropropene	0.502	0.473	5.8	111	0.02
38	Iso-Butyl Alcohol	0.022	0.022	0.0	111	0.03
39	Benzene	1.380	1.240	10.1	105	0.02
40	1,2-Dichloroethane	0.563	0.564	-0.2	114	0.02

(#) = Out of Range

V0673.D EXP0914.M

Tue Sep 18 12:41:54 2001

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Page 1

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D
 Acq On : 18 Sep 2001 11:53 am
 Sample : ccv
 Misc :
 MS Integration Params: rteint.p

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Mon Sep 17 09:47:42 2001
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
41	N-Heptane	0.706	0.682	3.4	113	0.03
42	Trichloroethene	0.366	0.325	11.2	106	0.03
43 c	1,2-Dichloropropane	0.424	0.394	7.1	110	0.03
44	Methyl Methacrylate	0.259	0.245	5.4	110	0.03
45	1,4-Dioxane	0.003	0.003	0.0	118	0.05
46	Dibromomethane	0.222	0.227	-2.3	117	0.03
47	Bromodichloromethane	0.503	0.481	4.4	111	0.03
48	2-Nitropropane	0.154	0.164	-6.5	118	0.03
49	2-Chloroethylvinyl Ether	0.256	0.008	96.9#	4#	0.03
50	cis-1,3-Dichloropropene	0.588	0.554	5.8	111	0.03
51 I	d5 - Chlorobenzene	1.000	1.000	0.0	116	0.03
52	4-Methyl-2-Pentanone	0.678	0.657	3.1	111	0.02
53 c	Toluene	1.550	1.457	6.0	111	0.03
54	trans-1,3-Dichloropropene	0.634	0.619	2.4	113	0.03
55	Ethyl Methacrylate	0.600	0.575	4.2	110	0.03
56	1,1,2-Trichloroethane	0.331	0.318	3.9	112	0.03
57 s	surr3,Toluene-d8	1.286	1.274	0.9	116	0.03
58 s	surr2,bfb	0.532	0.516	3.0	111	0.03
59	Tetrachloroethene	0.373	0.341	8.6	111	0.02
60	2-Hexanone	0.469	0.451	3.8	108	0.03
61	1,3-Dichloropropane	0.730	0.695	4.8	112	0.03
62	Dibromochloromethane	0.398	0.382	4.0	114	0.03
63	1,2-Dibromoethane	0.416	0.394	5.3	111	0.03
64 p	Chlorobenzene	0.993	0.914	8.0	111	0.03
65	1,1,1,2-Tetrachloroethane	0.354	0.329	7.1	111	0.03
66 c	Ethylbenzene	1.753	1.641	6.4	111	0.03
67	(m+p)Xylene	0.634	0.581	8.4	111	0.04
68	o-Xylene	0.621	0.572	7.9	110	0.03
69	Styrene	1.082	0.992	8.3	110	0.03
70 p	Bromoform	0.261	0.245	6.1	108	0.04
71	Isopropylbenzene	1.581	1.482	6.3	109	0.03
72	Cyclohexanone	0.059	0.049	16.9	91	0.02
73 I	d4 - Dichlorobenzene	1.000	1.000	0.0	116	0.04
74 p	1,1,2,2-Tetrachloroethane	1.127	1.083	3.9	111	0.03
75	Trans-1,4-Dichloro-2-butene	0.465	0.438	5.8	110	0.03
76	1,2,3-Trichloropropane	0.347	0.320	7.8	110	0.04
77	n-Propylbenzene	4.648	4.257	8.4	109	0.03
78	Bromobenzene	0.871	0.793	9.0	111	0.04
79	1,3,5-Trimethylbenzene	2.871	2.634	8.3	109	0.04

(#) = Out of Range

V0673.D EXP0914.M

Tue Sep 18 12:41:55 2001

Page 2

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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D

Vial: 5

Acq On : 18 Sep 2001 11:53 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	2-Chlorotoluene	2.827	2.607	7.8	109	0.03
81	4-Chlorotoluene	2.867	2.608	9.0	110	0.03
82	tert-Butylbenzene	2.286	2.048	10.4	109	0.03
83	1,2,4-Trimethylbenzene	2.912	2.658	8.7	109	0.03
84	sec-Butylbenzene	3.876	3.528	9.0	109	0.03
85	p-Isopropyltoluene	2.942	2.660	9.6	110	0.04
86	1,3-Dclbenz	1.386	1.264	8.8	109	0.03
87	1,4-Dclbenz	1.540	1.433	6.9	113	0.04
88	n-Butylbenzene	3.185	2.930	8.0	108	0.03
89	1,2-Dclbenz	1.423	1.292	9.2	109	0.03
90	1,2-Dibromo-3-chloropropane	0.179	0.171	4.5	109	0.04
91	Nitrobenzene	0.000	0.000	0.0	110	0.03
92	1,2,4-Tcbenzene	1.054	0.959	9.0	111	0.04
93	Hexachlorobt	0.496	0.453	8.7	111	0.05
94	Naphthalen	2.384	2.245	5.8	111	0.04
95	1,2,3-Tclbenzene	0.996	0.921	7.5	113	0.04
96	TOTAL XYLENE	0.000	0.000	0.0	82	0.02

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

V0673.D EXP0914.M

Tue Sep 18 12:41:55 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D Vial: 5
 Acq On : 18 Sep 2001 11:53 am Operator: herring
 Sample : ccv Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 12:25 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Mon Sep 17 09:47:42 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.40	168	144915	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.73	114	255911	50.00	ppb	0.02
51) d5 - Chlorobenzene	17.23	117	213818	50.00	ppb	0.03
73) d4 - Dichlorobenzene	21.99	152	94752	50.00	ppb	0.04

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
35) surr4,Dibrflmethane		10.43	113	148756	73.81	ppb	0.03
Spiked Amount	50.000			Recovery	=	147.62%	
57) surr3,Toluene-d8		14.43	98	408762	74.35	ppb	0.03
Spiked Amount	50.000			Recovery	=	148.70%	
58) surr2,bfb		19.57	95	165403	72.64	ppb	0.03
Spiked Amount	50.000			Recovery	=	145.28%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.75	85	99687	49.39	ppb	100
3) Chloromethane	4.11	50	68436	62.32	ppb	99
4) Vinyl Chloride	4.34	62	44114	56.51	ppb	96
5) Bromomethane	5.03	94	43876	33.79	ppb	95
6) Chloroethane	5.22	64	64550	47.49	ppb	99
7) Trichlorofluoromethane	5.70	101	122443	48.95	ppb	99
8) Diethyl Ether	6.18	59	82837	50.65	ppb	97
9) Acrolein	6.42	56	67701	193.47	ppb	99
10) FREON 113	6.61	85	32818	49.22	ppb	85
11) 1,1-Dicethene	6.64	96	69190	46.51	ppb	97
12) Acetone	6.67	43	36682	46.94	ppb	98
13) Iodomethane	6.96	127	25261	45.15	ppb	97
14) Carbon Disulfide	7.10	76	296984	48.41	ppb	99
15) Acetonitrile	7.15	41	87764	257.11	ppb	97
16) Allyl Chloride	7.25	76	34358	46.76	ppb	100
17) Methylene Chloride	7.46	84	89903	47.15	ppb	98
18) TBA	7.54	59	190691	1046.45	ppb	100
19) Acrylonitrile	7.84	53	214694	253.13	ppb	99
20) Methyl-t-Butyl Ether	7.89	73	237856	50.07	ppb	99
21) trans-1,2-Dichloroethene	7.94	96	87778	49.33	ppb	97
22) 1,1-Dicethane	8.65	63	161827	48.24	ppb	99
23) Vinyl Acetate	8.64	43	201056	51.35	ppb	99
24) 2-Chloro-1,3-butadiene	8.80	53	171999	54.54	ppb	96
25) 2,2-Dichloropropane	9.63	77	122096	52.30	ppb	98
26) 2-Butanone	9.58	43	67621	49.95	ppb	100
27) cis-1,2-Dichloroethene	9.63	96	94984	47.30	ppb	98
28) Propionitrile	9.69	54	74008	241.09	ppb	98
29) Methacrylonitrile	9.96	67	39471	50.13	ppb	97

(#) = qualifier out of range (m) = manual integration
 V0673.D EXP0914.M Tue Sep 18 12:25:53 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D
 Acq On : 18 Sep 2001 11:53 am
 Sample : ccv
 Misc :

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 12:25 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.05	128	33252	45.78	ppb	96
31) Chloroform	10.14	83	157301	48.15	ppb	96
32) Tetrahydrofuran	10.13	42	38549	47.16	ppb	99
33) 1,1,1-Trichloroethane	10.51	97	126754	47.90	ppb	98
36) Carbontetrachloride	10.82	117	102285	47.76	ppb	97
37) 1,1-Dichloropropene	10.78	75	121066	47.13	ppb	99
38) Iso-Butyl Alcohol	10.78	43	112120	1012.12	ppb	98
39) Benzene	11.15	78	317438	44.93	ppb	99
40) 1,2-Dichloroethane	11.15	62	144307	50.04	ppb	97
41) N-Heptane	11.49	43	174416	48.24	ppb	99
42) Trichloroethene	12.26	95	83101	44.30	ppb	94
43) 1,2-Diclpropane	12.65	63	100924	46.56	ppb	98
44) Methyl Methacrylate	12.71	69	62707	47.37	ppb	98
45) 1,4-Dioxane	12.85	88	17825	1019.34	ppb	97
46) Dibromomethane	12.90	93	58040	51.00	ppb	98
47) Bromodichloromethane	13.11	83	123066	47.79	ppb	99
48) 2-Nitropropane	13.48	43	83751	105.96	ppb	98
49) 2-Chloroethylvinyl Ether	13.56	63	2128	1.63	ppb	92
50) cis-1,3-Dichloropropene	13.91	75	141724	47.11	ppb	100
52) 4-Methyl-2-Pentanone	14.10	43	140460	48.44	ppb	97
53) Toluene	14.56	91	311622	47.01	ppb	99
54) trans-1,3-Dichloropropene	14.91	75	132380	48.80	ppb	99
55) Ethyl Methacrylate	14.97	69	123034	47.95	ppb	99
56) 1,1,2-Trichloroethane	15.28	83	68087	48.10	ppb	97
59) Tetrachloroethene	15.63	166	72909	45.76	ppb	97
60) 2-Hexanone	15.65	43	96532	48.14	ppb	99
61) 1,3-Dichloropropane	15.62	76	148610	47.63	ppb	99
62) Dibromochloromethane	16.10	129	81775	48.09	ppb	95
63) 1,2-Dibromoethane	16.36	107	84227	47.33	ppb	94
64) Chlorobenzene	17.29	112	195533	46.05	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.42	131	70340	46.51	ppb	98
66) Ethylbenzene	17.44	91	350959	46.80	ppb	99
67) (m+p)Xylene	17.66	106	248635	91.75	ppb	100
68) o-Xylene	18.48	106	122399	46.13	ppb	98
69) Styrene	18.50	104	212184	45.87	ppb	99
70) Bromoform	18.96	173	52463	47.02	ppb	100
71) Isopropylbenzene	19.19	105	316808	46.85	ppb	100
72) Cyclohexanone	19.45	55	209136	828.20	ppb	97
74) 1,1,2,2-Tetrachloroethane	19.78	83	102596	48.04	ppb	98
75) Trans-1,4-Dichloro-2-buten	19.89	53	41471	47.04	ppb	100
76) 1,2,3-Trichloropropane	19.92	110	30319	46.12	ppb	100

(#) = qualifier out of range (m) = manual integration
 V0673.D EXP0914.M Tue Sep 18 12:25:53 2001

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 Page 2

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D Vial: 5
Acq On : 18 Sep 2001 11:53 am Operator: herring
Sample : ccv Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 18 12:25 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Mon Sep 17 09:47:42 2001
Response via : Initial Calibration
DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.04	91	403340	45.79	ppb	100
78) Bromobenzene	19.94	156	75139	45.50	ppb	98
79) 1,3,5-Trimethylbenzene	20.37	105	249580	45.88	ppb	99
80) 2-Chlorotoluene	20.29	91	246991	46.11	ppb	99
81) 4-Chlorotoluene	20.50	91	247105	45.48	ppb	100
82) tert-Butylbenzene	21.07	119	194027	44.79	ppb	96
83) 1,2,4-Trimethylbenzene	21.17	105	251818	45.64	ppb	99
84) sec-Butylbenzene	21.52	105	334288	45.51	ppb	99
85) p-Isopropyltoluene	21.80	119	252042	45.20	ppb	99
86) 1,3-Dclbenz	21.86	146	119771	45.59	ppb	98
87) 1,4-Dclbenz	22.04	146	135815	46.53	ppb	96
88) n-Butylbenzene	22.67	91	277650	46.01	ppb	100
89) 1,2-Dclbenz	22.84	146	122397	45.40	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.50	157	16214	47.93	ppb	89
92) 1,2,4-Tcbenzene	26.45	180	90901	45.51	ppb	95
93) Hexachlorobt	26.81	225	42931	45.65	ppb	94
94) Naphthalen	27.12	128	212703	47.08	ppb	98
95) 1,2,3-Tclbenzene	27.78	180	87307	46.28	ppb	99

(#) = qualifier out of range (m) = manual integration
V0673.D EXP0914.M Tue Sep 18 12:25:53 2001

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0673.D

Acq On : 18 Sep 2001 11:53 am

Sample : ccv

Misc :

MS Integration Params: rteint.p

Quant Time: Sep 18 12:25 2001

Vial: 5

Operator: herring

Inst : GC/MS Ins

Multiplr: 1.00

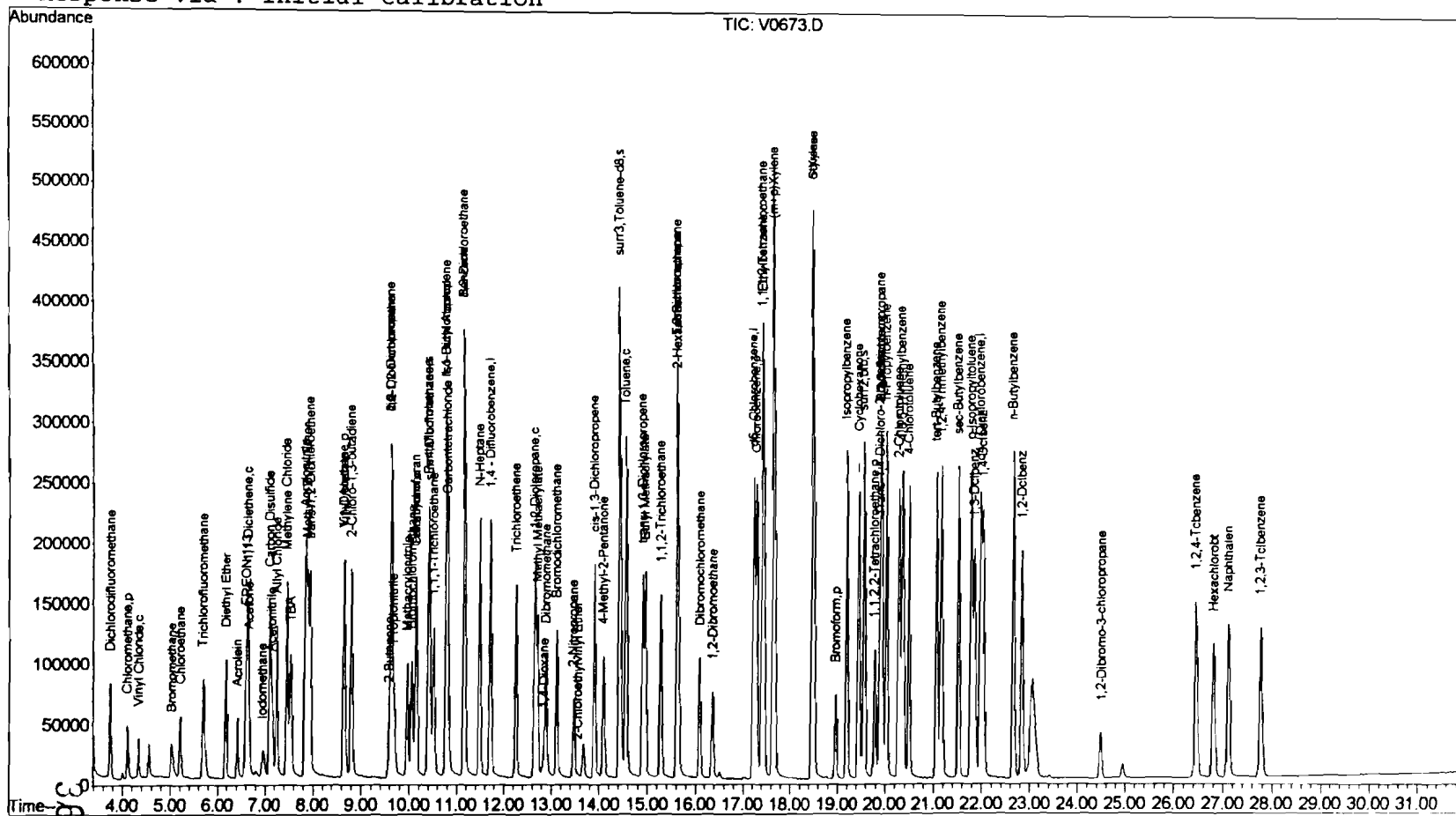
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D

Vial: 5

Acq On : 19 Sep 2001 11:44 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Multiple Level Calibration

John J. Herring

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area	% Dev(min)
1	Pentafluorobenzene	1.000	1.000	0.0	120	0.03
2	Dichlorodifluoromethane	0.696	0.726	-4.3	117	0.03
3 p	Chloromethane	0.379	0.354	6.6	116	0.04
4 c	Vinyl Chloride	0.269	0.307	-14.1	136	0.04
5	Bromomethane	0.416	0.266	36.1#	76	0.06
6	Chloroethane	0.469	0.443	5.5	109	0.04
7	Trichlorofluoromethane	0.863	0.893	-3.5	119	0.03
8	Diethyl Ether	0.564	0.566	-0.4	114	0.04
9	Acrolein	0.121	0.084	30.6#	76	0.03
10	FREON 113	0.230	0.227	1.3	112	0.04
11 c	1,1-Dicethene	0.513	0.529	-3.1	122	0.04
12	Acetone	0.278	0.309	-11.2	128	0.03
13	Iodomethane	0.193	0.102	47.2#	60	0.06
14	Carbon Disulfide	2.116	2.095	1.0	114	0.03
15	Acetonitrile	0.118	0.122	-3.4	114	0.04
16	Allyl Chloride	0.254	0.191	24.8	86	0.03
17	Methylene Chloride	0.658	0.661	-0.5	118	0.04
18	TBA	0.063	0.061	3.2	105	0.03
19	Acrylonitrile	0.293	0.300	-2.4	116	0.04
20	Methyl-t-Butyl Ether	1.639	1.498	8.6	107	0.04
21	trans-1,2-Dichloroethene	0.614	0.601	2.1	116	0.03
22 p	1,1-Dicethane	1.155	1.176	-1.8	119	0.03
23	Vinyl Acetate	1.351	0.785	41.9#	63	0.04
24	2-Chloro-1,3-butadiene	1.088	1.102	-1.3	116	0.04
25	2,2-Dichloropropane	0.789	0.466	40.9#	68	0.04
26	2-Butanone	0.460	0.439	4.6	105	0.04
27	cis-1,2-Dichloroethene	0.682	0.690	-1.2	122	0.03
28	Propionitrile	0.105	0.109	-3.8	120	0.03
29	Methacrylonitrile	0.271	0.263	3.0	110	0.04
30	Bromochloromethane	0.251	0.224	10.8	112	0.04
31 c	Chloroform	1.126	1.116	0.9	118	0.03
32	Tetrahydrofuran	0.277	0.272	1.8	113	0.04
33	1,1,1-Trichloroethane	0.913	0.855	6.4	110	0.04
34 I	1,4 - Difluorobenzene	1.000	1.000	0.0	116	0.04
35 s	surr4,Dibrflmethane	0.394	0.377	4.3	112	0.03
36	Carbontetrachloride	0.418	0.331	20.8	95	0.04
37	1,1-Dichloropropene	0.502	0.497	1.0	117	0.04
38	Iso-Butyl Alcohol	0.021	0.022	-4.8	114	0.04
39	Benzene	1.380	1.344	2.6	115	0.04
40	1,2-Dichloroethane	0.563	0.547	2.8	111	0.03

(#) = Out of Range

V0697.D EXP0914.M

Wed Sep 19 12:48:24 2001

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Page 1

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D

Vial: 5

Acq On : 19 Sep 2001 11:44 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
41	N-Heptane	0.706	0.736	-4.2	123	0.03
42	Trichloroethene	0.366	0.348	4.9	115	0.03
43 c	1,2-Diclp propane	0.428	0.420	1.9	119	0.04
44	Methyl Methacrylate	0.261	0.257	1.5	115	0.03
45	1,4-Dioxane	0.003	0.004	-33.3#	129	0.02
46	Dibromomethane	0.222	0.178	19.8	93	0.04
47	Bromodichloromethane	0.503	0.459	8.7	107	0.04
48	2-Nitropropane	0.154	0.144	6.5	104	0.03
49	2-Chloroethylvinyl Ether	0.255	0.007	97.3#	3#	0.03
50	cis-1,3-Dichloropropene	0.585	0.490	16.2	99	0.03
51 I	d5 - Chlorobenzene	1.000	1.000	0.0	120	0.03
52	4-Methyl-2-Pentanone	0.678	0.654	3.5	114	0.03
53 c	Toluene	1.550	1.539	0.7	122	0.03
54	trans-1,3-Dichloropropene	0.634	0.593	6.5	112	0.04
55	Ethyl Methacrylate	0.601	0.598	0.5	119	0.03
56	1,1,2-Trichloroethane	0.332	0.320	3.6	115	0.03
57 s	surr3,Toluene-d8	1.293	1.203	7.0	113	0.03
58 s	surr2,bfb	0.532	0.505	5.1	113	0.03
59	Tetrachloroethene	0.375	0.357	4.8	119	0.04
60	2-Hexanone	0.469	0.449	4.3	111	0.03
61	1,3-Dichloropropane	0.730	0.694	4.9	115	0.03
62	Dibromochloromethane	0.401	0.384	4.2	116	0.04
63	1,2-Dibromoethane	0.416	0.398	4.3	116	0.03
64 p	Chlorobenzene	0.993	0.962	3.1	121	0.03
65	1,1,1,2-Tetrachloroethane	0.354	0.337	4.8	118	0.03
66 c	Ethylbenzene	1.753	1.731	1.3	121	0.03
67	(m+p)Xylene	0.634	0.627	1.1	124	0.03
68	o-Xylene	0.629	0.619	1.6	122	0.03
69	Styrene	1.082	1.058	2.2	121	0.04
70 p	Bromoform	0.261	0.253	3.1	115	0.04
71	Isopropylbenzene	1.581	1.586	-0.3	121	0.03
72	Cyclohexanone	0.059	0.066	-11.9	124	0.03
73 I	d4 - Dichlorobenzene	1.000	1.000	0.0	118	0.04
74 p	1,1,2,2-Tetrachloroethane	1.127	1.125	0.2	118	0.03
75	Trans-1,4-Dichloro-2-butene	0.465	0.436	6.2	112	0.03
76	1,2,3-Trichloropropane	0.344	0.321	6.7	113	0.03
77	n-Propylbenzene	4.654	4.643	0.2	123	0.03
78	Bromobenzene	0.871	0.847	2.8	121	0.04
79	1,3,5-Trimethylbenzene	2.871	2.929	-2.0	124	0.03

(#) = Out of Range

V0697.D EXP0914.M

Wed Sep 19 12:48:25 2001

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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D Vial: 5
 Acq On : 19 Sep 2001 11:44 am Operator: herring
 Sample : ccv Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area	% Dev (min)
80	2-Chlorotoluene	2.827	2.780	1.7	119	0.03
81	4-Chlorotoluene	2.867	2.849	0.6	122	0.03
82	tert-Butylbenzene	2.286	2.249	1.6	122	0.03
83	1,2,4-Trimethylbenzene	2.912	2.930	-0.6	123	0.03
84	sec-Butylbenzene	3.876	3.839	1.0	121	0.03
85	p-Isopropyltoluene	2.942	2.950	-0.3	124	0.04
86	1,3-Dclbenz	1.386	1.373	0.9	121	0.03
87	1,4-Dclbenz	1.536	1.523	0.8	122	0.03
88	n-Butylbenzene	3.207	3.247	-1.2	122	0.04
89	1,2-Dclbenz	1.423	1.396	1.9	121	0.03
90	1,2-Dibromo-3-chloropropane	0.179	0.179	0.0	116	0.04
91	Nitrobenzene	0.000	0.000	0.0	113	0.04
92	1,2,4-Tcbenzene	1.054	1.061	-0.7	126	0.04
93	Hexachlorobt	0.496	0.492	0.8	123	0.03
94	Naphthalen	2.384	2.401	-0.7	122	0.04
95	1,2,3-Tclbenzene	0.996	0.985	1.1	124	0.05
96	TOTAL XYLENE	0.000	0.000	0.0	65	0.06

(#) = Out of Range
 V0697.D EXP0914.M

SPCC's out = 0 CCC's out = 0
 Wed Sep 19 12:48:25 2001

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Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D

Vial: 5

Acq On : 19 Sep 2001 11:44 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 12:15 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	148899	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.74	114	257988	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.24	117	221394	50.00	ppb	0.03
73) d4 - Dichlorobenzene	22.00	152	96954	50.00	ppb	0.04

System Monitoring Compounds

35) surr4,Dibrflmethane	10.43	113	145917	71.82	ppb	0.03
Spiked Amount	50.000		Recovery	=	143.64%	
57) surr3,Toluene-d8	14.44	98	399449	69.79	ppb	0.03
Spiked Amount	50.000		Recovery	=	139.58%	
58) surr2,bfb	19.57	95	167800	71.17	ppb	0.03
Spiked Amount	50.000		Recovery	=	142.34%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.77	85	108122	52.14	ppb	98
3) Chloromethane	4.14	50	52702	46.70	ppb	100
4) Vinyl Chloride	4.36	62	45685	56.95	ppb	99
5) Bromomethane	5.07	94	39558	30.08	ppb	97
6) Chloroethane	5.23	64	65983	47.25	ppb	95
7) Trichlorofluoromethane	5.72	101	132978	51.74	ppb	99
8) Diethyl Ether	6.20	59	84316	50.17	ppb	95
9) Acrolein	6.44	56	62291	173.25	ppb	98
10) FREON 113	6.62	85	33729	49.24	ppb	90
11) 1,1-Dicethene	6.66	96	78759	51.53	ppb	98
12) Acetone	6.68	43	46068	55.59	ppb	98
13) Iodomethane	6.99	127	15130	26.32	ppb	87
14) Carbon Disulfide	7.12	76	311937	49.49	ppb	100
15) Acetonitrile	7.17	41	91052	259.61	ppb	98
16) Allyl Chloride	7.26	76	28452	37.68	ppb	93
17) Methylene Chloride	7.48	84	98496	50.28	ppb	97
18) TBA	7.56	59	180489	963.96	ppb	98
19) Acrylonitrile	7.85	53	223338	256.27	ppb	100
20) Methyl-t-Butyl Ether	7.91	73	223057	45.70	ppb	99
21) trans-1,2-Dichloroethene	7.96	96	89460	48.93	ppb	99
22) 1,1-Dicethane	8.66	63	175048	50.88	ppb	98
23) Vinyl Acetate	8.66	43	116868	29.05	ppb	98
24) 2-Chloro-1,3-butadiene	8.83	53	164055	50.63	ppb	98
25) 2,2-Dichloropropane	9.66	77	69367	29.54	ppb	91
26) 2-Butanone	9.60	43	65336	47.70	ppb	98
27) cis-1,2-Dichloroethene	9.65	96	102801	50.65	ppb	94
28) Propionitrile	9.70	54	81367	260.09	ppb	100
29) Methacrylonitrile	9.98	67	39113	48.49	ppb	97

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

V0697.D EXP0914.M Wed Sep 19 12:16:13 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D Vial: 5
 Acq On : 19 Sep 2001 11:44 am Operator: herring
 Sample : ccv Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 19 12:15 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.07	128	33380	44.73	ppb	98
31) Chloroform	10.16	83	166166	49.55	ppb	96
32) Tetrahydrofuran	10.15	42	40486	49.15	ppb	98
33) 1,1,1-Trichloroethane	10.53	97	127371	46.84	ppb	97
36) Carbontetrachloride	10.84	117	85316	39.51	ppb	94
37) 1,1-Dichloropropene	10.80	75	128201	49.50	ppb	98
38) Iso-Butyl Alcohol	10.80	43	111770	1018.69	ppb	99
39) Benzene	11.17	78	346706	48.68	ppb	100
40) 1,2-Dichloroethane	11.17	62	141186	48.57	ppb	98
41) N-Heptane	11.50	43	189891	52.09	ppb	99
42) Trichloroethene	12.27	95	89844	47.51	ppb	98
43) 1,2-Diclpropane	12.67	63	108329	49.08	ppb	100
44) Methyl Methacrylate	12.72	69	66372	49.37	ppb	98
45) 1,4-Dioxane	12.85	88	19565	1109.84	ppb	96
46) Dibromomethane	12.91	93	45915	40.02	ppb	97
47) Bromodichloromethane	13.13	83	118471	45.64	ppb	98
48) 2-Nitropropane	13.49	43	74213	93.14	ppb	99
49) 2-Chloroethylvinyl Ether	13.57	63	1812	1.37	ppb	96
50) cis-1,3-Dichloropropene	13.92	75	126369	41.90	ppb	100
52) 4-Methyl-2-Pentanone	14.11	43	144902	48.27	ppb	98
53) Toluene	14.57	91	340822	49.66	ppb	98
54) trans-1,3-Dichloropropene	14.92	75	131240	46.72	ppb	99
55) Ethyl Methacrylate	14.96	69	132300	49.75	ppb	100
56) 1,1,2-Trichloroethane	15.29	83	70888	48.25	ppb	99
59) Tetrachloroethene	15.64	166	78989	47.56	ppb	99
60) 2-Hexanone	15.65	43	99407	47.88	ppb	99
61) 1,3-Dichloropropane	15.62	76	153679	47.57	ppb	100
62) Dibromochloromethane	16.11	129	85026	47.94	ppb	95
63) 1,2-Dibromoethane	16.37	107	88085	47.81	ppb	100
64) Chlorobenzene	17.30	112	212959	48.44	ppb	96
65) 1,1,1,2-Tetrachloroethane	17.43	131	74545	47.61	ppb	99
66) Ethylbenzene	17.45	91	383137	49.35	ppb	100
67) (m+p)Xylene	17.66	106	277670	98.96	ppb	100
68) o-Xylene	18.49	106	136944	49.18	ppb	94
69) Styrene	18.51	104	234144	48.89	ppb	100
70) Bromoform	18.97	173	55926	48.41	ppb	98
71) Isopropylbenzene	19.20	105	351067	50.14	ppb	100
72) Cyclohexanone	19.46	55	290145	1108.64	ppb	98
74) 1,1,2,2-Tetrachloroethane	19.79	83	109030	49.89	ppb	97
75) Trans-1,4-Dichloro-2-buten	19.89	53	42230	46.82	ppb	74
76) 1,2,3-Trichloropropane	19.93	110	31085	46.59	ppb	94

(#) = qualifier out of range (m) = manual integration
 V0697.D EXP0914.M Wed Sep 19 12:16:14 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D

Vial: 5

Acq On : 19 Sep 2001 11:44 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 12:15 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.05	91	450115	49.88	ppb	99
78) Bromobenzene	19.95	156	82089	48.58	ppb	96
79) 1,3,5-Trimethylbenzene	20.37	105	284012	51.02	ppb	100
80) 2-Chlorotoluene	20.30	91	269555	49.18	ppb	100
81) 4-Chlorotoluene	20.51	91	276251	49.69	ppb	98
82) tert-Butylbenzene	21.08	119	218093	49.20	ppb	96
83) 1,2,4-Trimethylbenzene	21.18	105	284028	50.30	ppb	99
84) sec-Butylbenzene	21.53	105	372160	49.51	ppb	98
85) p-Isopropyltoluene	21.81	119	285970	50.12	ppb	99
86) 1,3-Dclbenz	21.87	146	133165	49.53	ppb	99
87) 1,4-Dclbenz	22.05	146	147651	49.56	ppb	98
88) n-Butylbenzene	22.68	91	314827	50.63	ppb	98
89) 1,2-Dclbenz	22.85	146	135379	49.08	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.50	157	17316	50.02	ppb	92
92) 1,2,4-Tcbenzene	26.46	180	102832	50.31	ppb	95
93) Hexachlorobt	26.81	225	47688	49.56	ppb	96
94) Naphthalen	27.13	128	232823	50.36	ppb	99
95) 1,2,3-Tclbenzene	27.79	180	95458	49.45	ppb	99

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

V0697.D EXP0914.M

Wed Sep 19 12:16:14 2001

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0697.D

Vial: 5

Acq On : 19 Sep 2001 11:44 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 12:15 2001

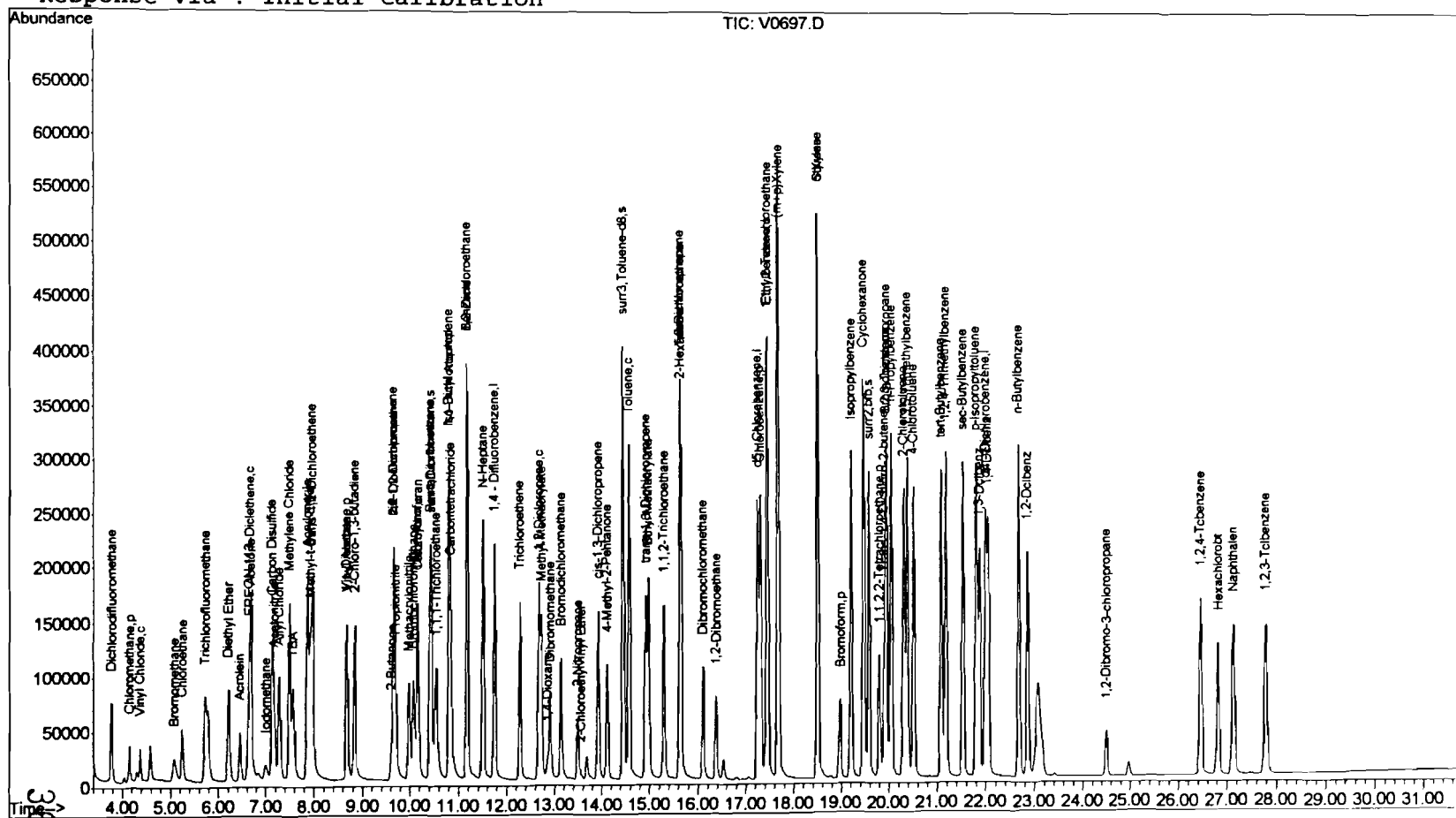
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D

Vial: 5

Acq On : 21 Sep 2001 12:05 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	Pentafluorobenzene	1.000	1.000	0.0	125	0.04
2	Dichlorodifluoromethane	0.696	0.648	6.9	109	0.03
3 p	Chloromethane	0.379	0.312	17.7	106	0.04
4 c	Vinyl Chloride	0.269	0.283	-5.2	131	0.04
5	Bromomethane	0.416	0.215	48.3#	64	0.06
6	Chloroethane	0.469	0.432	7.9	111	0.04
7	Trichlorofluoromethane	0.863	0.823	4.6	114	0.03
8	Diethyl Ether	0.564	0.541	4.1	113	0.04
9	Acrolein	0.121	0.076	37.2#	72	0.03
10	FREON 113	0.230	0.209	9.1	108	0.05
11 c	1,1-Dicethene	0.513	0.496	3.3	120	0.04
12	Acetone	0.278	0.326	-17.3	140	0.03
13	Iodomethane	0.193	0.065	66.3#	40#	0.06
14	Carbon Disulfide	2.116	2.063	2.5	118	0.04
15	Acetonitrile	0.118	0.112	5.1	109	0.04
16	Allyl Chloride	0.254	0.185	27.2#	87	0.04
17	Methylene Chloride	0.658	0.635	3.5	118	0.04
18	TBA	0.063	0.052	17.5	94	0.03
19	Acrylonitrile	0.293	0.285	2.7	115	0.04
20	Methyl-t-Butyl Ether	1.639	1.382	15.7	103	0.04
21	trans-1,2-Dichloroethene	0.614	0.583	5.0	117	0.03
22 p	1,1-Dicethane	1.155	1.102	4.6	116	0.04
23	Vinyl Acetate	1.351	0.508	62.4#	42#	0.05
24	2-Chloro-1,3-butadiene	1.088	1.115	-2.5	123	0.04
25	2,2-Dichloropropane	0.789	0.326	58.7#	50#	0.04
26	2-Butanone	0.460	0.415	9.8	104	0.04
27	cis-1,2-Dichloroethene	0.682	0.669	1.9	124	0.03
28	Propionitrile	0.105	0.105	0.0	120	0.04
29	Methacrylonitrile	0.271	0.262	3.3	115	0.04
30	Bromochloromethane	0.251	0.226	10.0	118	0.04
31 c	Chloroform	1.126	1.049	6.8	115	0.03
32	Tetrahydrofuran	0.277	0.269	2.9	116	0.04
33	1,1,1-Trichloroethane	0.913	0.800	12.4	107	0.04
34 I	1,4 - Difluorobenzene	1.000	1.000	0.0	121	0.04
35 s	surr4,Dibrflmethane	0.394	0.386	2.0	119	0.03
36	Carbontetrachloride	0.418	0.305	27.0#	91	0.04
37	1,1-Dichloropropene	0.502	0.475	5.4	116	0.04
38	Iso-Butyl Alcohol	0.021	0.021	0.0	115	0.04
39	Benzene	1.380	1.281	7.2	114	0.04
40	1,2-Dichloroethane	0.563	0.518	8.0	109	0.03

(#) = Out of Range

V0746.D EXP0914.M

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Page 1

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D

Vial: 5

Acq On : 21 Sep 2001 12:05 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	N-Heptane	0.706	0.701	0.7	122	0.03
42	Trichloroethene	0.366	0.329	10.1	113	0.04
43 c	1,2-Diclp propane	0.428	0.400	6.5	117	0.04
44	Methyl Methacrylate	0.261	0.249	4.6	116	0.04
45	1,4-Dioxane	0.003	0.003	0.0	110	0.03
46	Dibromomethane	0.222	0.173	22.1	94	0.04
47	Bromodichloromethane	0.503	0.422	16.1	102	0.04
48	2-Nitropropane	0.154	0.124	19.5	93	0.03
49	2-Chloroethylvinyl Ether	0.255	0.045	82.4#	21#	0.04
50	cis-1,3-Dichloropropene	0.585	0.427	27.0#	89	0.03
51 I	d5 - Chlorobenzene	1.000	1.000	0.0	124	0.04
52	4-Methyl-2-Pentanone	0.678	0.687	-1.3	124	0.03
53 c	Toluene	1.550	1.488	4.0	122	0.03
54	trans-1,3-Dichloropropene	0.634	0.535	15.6	105	0.04
55	Ethyl Methacrylate	0.601	0.585	2.7	120	0.04
56	1,1,2-Trichloroethane	0.332	0.299	9.9	111	0.04
57 s	surr3,Toluene-d8	1.293	1.268	1.9	123	0.03
58 s	surr2,bfb	0.532	0.526	1.1	122	0.04
59	Tetrachloroethene	0.375	0.353	5.9	121	0.04
60	2-Hexanone	0.469	0.480	-2.3	123	0.04
61	1,3-Dichloropropene	0.730	0.677	7.3	116	0.04
62	Dibromochloromethane	0.401	0.363	9.5	114	0.04
63	1,2-Dibromoethane	0.416	0.387	7.0	117	0.04
64 p	Chlorobenzene	0.993	0.925	6.8	120	0.04
65	1,1,1,2-Tetrachloroethane	0.354	0.328	7.3	119	0.04
66 c	Ethylbenzene	1.753	1.651	5.8	120	0.04
67	(m+p)Xylene	0.634	0.603	4.9	123	0.04
68	o-Xylene	0.629	0.585	7.0	119	0.04
69	Styrene	1.082	1.025	5.3	122	0.04
70 p	Bromoform	0.261	0.242	7.3	114	0.04
71	Isopropylbenzene	1.581	1.527	3.4	120	0.04
72	Cyclohexanone	0.059	0.075	-27.1#	147	0.04
73 I	d4 - Dichlorobenzene	1.000	1.000	0.0	124	0.04
74 p	1,1,2,2-Tetrachloroethane	1.127	1.052	6.7	115	0.04
75	Trans-1,4-Dichloro-2-butene	0.465	0.420	9.7	113	0.04
76	1,2,3-Trichloropropene	0.344	0.319	7.3	118	0.04
77	n-Propylbenzene	4.654	4.344	6.7	120	0.03
78	Bromobenzene	0.871	0.809	7.1	121	0.04
79	1,3,5-Trimethylbenzene	2.871	2.724	5.1	120	0.04

(#) = Out of Range

V0746.D EXP0914.M

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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D Vial: 5
 Acq On : 21 Sep 2001 12:05 pm Operator: herring
 Sample : ccv Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	2-Chlorotoluene	2.827	2.627	7.1	118	0.04
81	4-Chlorotoluene	2.867	2.676	6.7	120	0.04
82	tert-Butylbenzene	2.286	2.157	5.6	122	0.04
83	1,2,4-Trimethylbenzene	2.912	2.748	5.6	121	0.04
84	sec-Butylbenzene	3.876	3.598	7.2	118	0.04
85	p-Isopropyltoluene	2.942	2.731	7.2	120	0.04
86	1,3-Dclbenz	1.386	1.269	8.4	117	0.04
87	1,4-Dclbenz	1.536	1.412	8.1	118	0.04
88	n-Butylbenzene	3.207	2.963	7.6	116	0.04
89	1,2-Dclbenz	1.423	1.299	8.7	118	0.04
90	1,2-Dibromo-3-chloropropane	0.179	0.162	9.5	110	0.05
91	Nitrobenzene	0.000	0.000	0.0	98	0.05
92	1,2,4-Tcbenzene	1.054	0.950	9.9	118	0.06
93	Hexachlorobt	0.496	0.436	12.1	114	0.05
94	Naphthalen	2.384	2.162	9.3	115	0.06
95	1,2,3-Tclbenzene	0.996	0.876	12.0	115	0.06
96	TOTAL XYLENE	0.000	0.000	0.0	45#	0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 V0746.D EXP0914.M Fri Sep 21 12:49:23 2001

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Page 3

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D Vial: 5
 Acq On : 21 Sep 2001 12:05 pm Operator: herring
 Sample : ccv Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 21 12:48 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	155368	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.74	114	267918	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	228924	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.00	152	101181	50.00	ppb	0.04

System Monitoring Compounds

35) surr4,Dibrflmethane	10.43	113	154945	73.44	ppb	0.03
Spiked Amount	50.000		Recovery	=	146.88%	
57) surr3,Toluene-d8	14.44	98	435250	73.54	ppb	0.03
Spiked Amount	50.000		Recovery	=	147.08%	
58) surr2,bfb	19.58	95	180774	74.15	ppb	0.04
Spiked Amount	50.000		Recovery	=	148.30%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.77	85	100751	46.56	ppb	100
3) Chloromethane	4.14	50	48462	41.16	ppb	91
4) Vinyl Chloride	4.36	62	44024	52.60	ppb	95
5) Bromomethane	5.07	94	33396m	25.00	ppb	224
6) Chloroethane	5.23	64	67093	46.04	ppb	98
7) Trichlorofluoromethane	5.72	101	127889	47.69	ppb	98
8) Diethyl Ether	6.20	59	84101	47.96	ppb	100
9) Acrolein	6.44	56	59232	157.88	ppb	93
10) FREON 113	6.63	85	32440	45.38	ppb	99
11) 1,1-Dicethene	6.66	96	77040	48.30	ppb	96
12) Acetone	6.68	43	50618	58.53	ppb	97
13) Iodomethane	6.99	127	10101	16.84	ppb	92
14) Carbon Disulfide	7.13	76	320466	48.73	ppb	100
15) Acetonitrile	7.17	41	86998	237.72	ppb	98
16) Allyl Chloride	7.27	76	28806	36.56	ppb	84
17) Methylene Chloride	7.48	84	98632	48.25	ppb	99
18) TBA	7.56	59	160268	820.33	ppb	99
19) Acrylonitrile	7.85	53	221244	243.30	ppb	100
20) Methyl-t-Butyl Ether	7.91	73	214774	42.17	ppb	100
21) trans-1,2-Dichloroethene	7.96	96	90542	47.46	ppb	95
22) 1,1-Dicethane	8.67	63	171291	47.71	ppb	99
23) Vinyl Acetate	8.67	43	78967	18.81	ppb	96
24) 2-Chloro-1,3-butadiene	8.83	53	173182	51.22	ppb	98
25) 2,2-Dichloropropane	9.66	77	50705	20.69	ppb	# 86
26) 2-Butanone	9.60	43	64429	45.08	ppb	97
27) cis-1,2-Dichloroethene	9.65	96	103987	49.10	ppb	95
28) Propionitrile	9.71	54	81367	249.26	ppb	98
29) Methacrylonitrile	9.98	67	40694	48.34	ppb	99

(#) = qualifier out of range (m) = manual integration
 V0746.D EXP0914.M Fri Sep 21 12:49:29 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D

Vial: 5

Acq On : 21 Sep 2001 12:05 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 12:48 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.07	128	35131	45.12	ppb	95
31) Chloroform	10.16	83	162947	46.57	ppb	98
32) Tetrahydrofuran	10.15	42	41811	48.65	ppb	96
33) 1,1,1-Trichloroethane	10.53	97	124332	43.82	ppb	98
36) Carbontetrachloride	10.84	117	81828	36.49	ppb	99
37) 1,1-Dichloropropene	10.80	75	127143	47.27	ppb	98
38) Iso-Butyl Alcohol	10.80	43	113092	992.53	ppb	100
39) Benzene	11.17	78	343176	46.40	ppb	98
40) 1,2-Dichloroethane	11.17	62	138858	45.99	ppb	98
41) N-Heptane	11.50	43	187723	49.59	ppb	99
42) Trichloroethene	12.28	95	88058	44.84	ppb	95
43) 1,2-Dichloropropane	12.67	63	107092	46.72	ppb	99
44) Methyl Methacrylate	12.73	69	66711	47.78	ppb	95
45) 1,4-Dioxane	12.86	88	16610	907.29	ppb	99
46) Dibromomethane	12.91	93	46424	38.96	ppb	95
47) Bromodichloromethane	13.13	83	112932	41.89	ppb	98
48) 2-Nitropropane	13.49	43	66334	80.17	ppb	99
49) 2-Chloroethylvinyl Ether	13.58	63	11974	8.75	ppb	93
50) cis-1,3-Dichloropropene	13.92	75	114404	36.53	ppb	99
52) 4-Methyl-2-Pentanone	14.11	43	157180	50.63	ppb	100
53) Toluene	14.57	91	340719	48.01	ppb	99
54) trans-1,3-Dichloropropene	14.92	75	122538	42.19	ppb	98
55) Ethyl Methacrylate	14.97	69	133956	48.72	ppb	100
56) 1,1,2-Trichloroethane	15.30	83	68460	45.07	ppb	95
59) Tetrachloroethene	15.64	166	80731	47.01	ppb	96
60) 2-Hexanone	15.66	43	109949	51.21	ppb	100
61) 1,3-Dichloropropane	15.63	76	155011	46.41	ppb	99
62) Dibromochloromethane	16.11	129	83163	45.35	ppb	99
63) 1,2-Dibromoethane	16.38	107	88642	46.53	ppb	90
64) Chlorobenzene	17.31	112	211784	46.59	ppb	95
65) 1,1,1,2-Tetrachloroethane	17.44	131	75059	46.36	ppb	98
66) Ethylbenzene	17.46	91	377926	47.08	ppb	99
67) (m+p)Xylene	17.67	106	275927	95.10	ppb	100
68) o-Xylene	18.50	106	133864	46.49	ppb	98
69) Styrene	18.51	104	234673	47.39	ppb	98
70) Bromoform	18.97	173	55461	46.43	ppb	100
71) Isopropylbenzene	19.21	105	349554	48.28	ppb	100
72) Cyclohexanone	19.47	55	343084	1267.79	ppb	99
74) 1,1,2,2-Tetrachloroethane	19.80	83	106474	46.69	ppb	99
75) Trans-1,4-Dichloro-2-buten	19.90	53	42531	45.18	ppb	83
76) 1,2,3-Trichloropropane	19.94	110	32251	46.32	ppb	95

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

V0746.D EXP0914.M

Fri Sep 21 12:49:29 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D

Vial: 5

Acq On : 21 Sep 2001 12:05 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 12:48 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.05	91	439501	46.67	ppb	99
78) Bromobenzene	19.95	156	81899	46.44	ppb	97
79) 1,3,5-Trimethylbenzene	20.38	105	275596	47.44	ppb	99
80) 2-Chlorotoluene	20.31	91	265817	46.47	ppb	98
81) 4-Chlorotoluene	20.52	91	270765	46.66	ppb	99
82) tert-Butylbenzene	21.09	119	218224	47.17	ppb	92
83) 1,2,4-Trimethylbenzene	21.19	105	278053	47.19	ppb	99
84) sec-Butylbenzene	21.54	105	363999	46.40	ppb	99
85) p-Isopropyltoluene	21.81	119	276331	46.41	ppb	99
86) 1,3-Dclbenz	21.88	146	128385	45.76	ppb	99
87) 1,4-Dclbenz	22.06	146	142844	45.94	ppb	98
88) n-Butylbenzene	22.68	91	299800	46.20	ppb	99
89) 1,2-Dclbenz	22.86	146	131431	45.66	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.51	157	16381	45.34	ppb	96
92) 1,2,4-Tcbenzene	26.48	180	96081	45.05	ppb	96
93) Hexachlorobt	26.83	225	44069	43.89	ppb	96
94) Naphthalen	27.15	128	218734	45.34	ppb	99
95) 1,2,3-Tclbenzene	27.80	180	88677	44.02	ppb	100

(#) = qualifier out of range (m) = manual integration
V0746.D EXP0914.M Fri Sep 21 12:49:29 2001

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Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D

Vial: 5

Acq On : 21 Sep 2001 12:05 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 12:33 2001

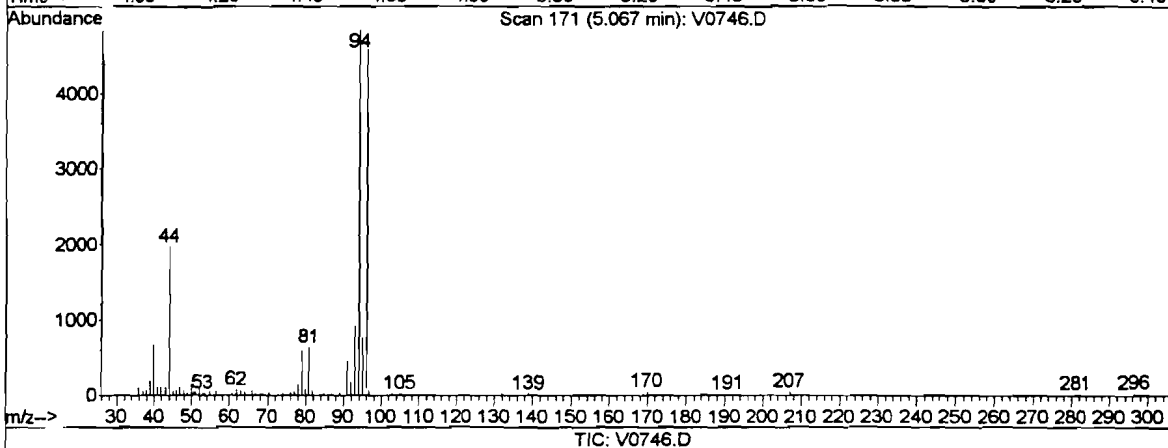
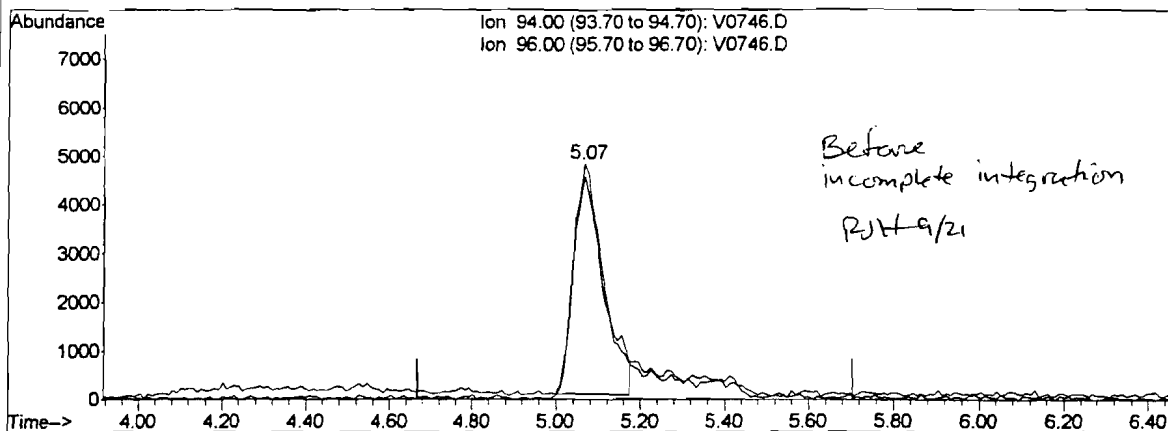
Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Multiple Level Calibration



(5) Bromomethane

5.07min 18.79ppb

response 23746

Ion	Exp%	Act%
94.00	100	100
96.00	90.60	94.52
0.00	0.00	0.00
0.00	0.00	0.00

V0746.D EXP0914.M

Fri Sep 21 12:48:56 2001

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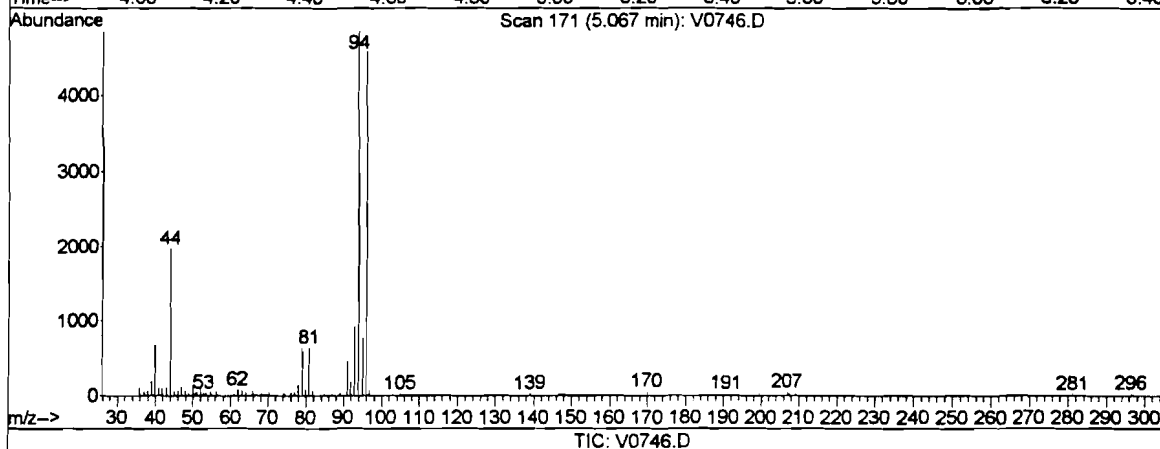
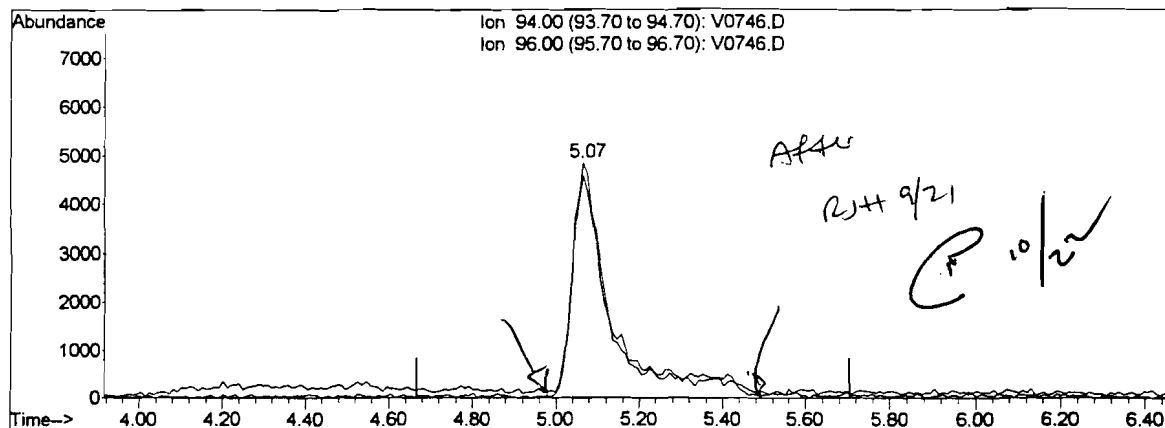
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D
 Acq On : 21 Sep 2001 12:05 pm
 Sample : ccv
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Sep 21 12:48 2001

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Multiple Level Calibration



(5) Bromomethane

5.07min 25.00ppb m

response 33396

Ion	Exp%	Act%
94.00	100	100
96.00	90.60	94.52
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0746.D

Vial: 5

Acq On : 21 Sep 2001 12:05 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 12:48 2001

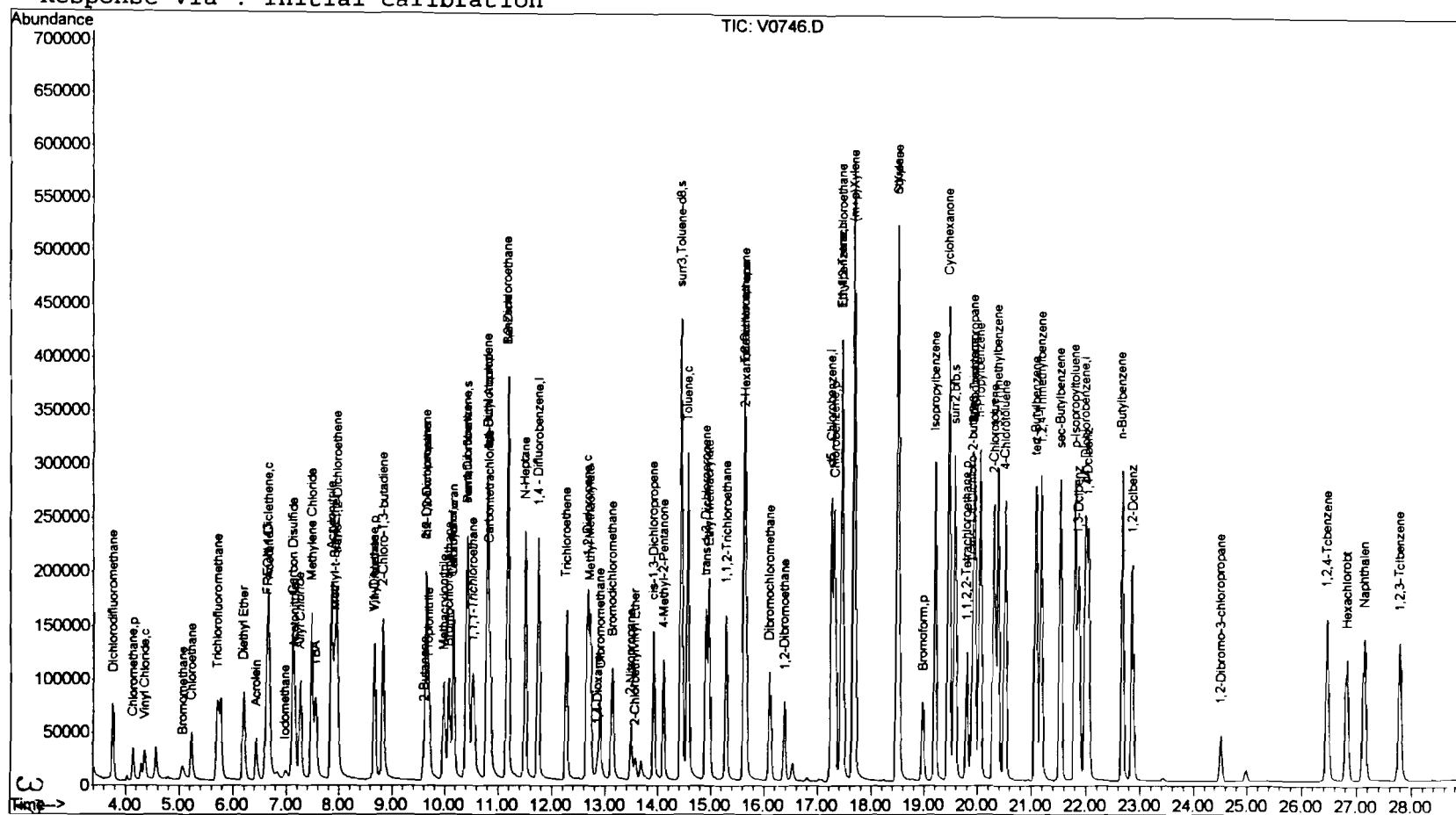
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

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Last Update      : Tue Sep 18 15:48:32 2001
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Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\VO807.D

Vial: 5

Acq On : 25 Sep 2001 2:21 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:35:23 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	Pentafluorobenzene	1.000	1.000	0.0	116	0.00
2	Dichlorodifluoromethane	0.627	0.584	6.9	102	0.00
3 p	Chloromethane	0.681	0.465	31.7#	80	0.00
4 c	Vinyl Chloride	0.309	0.279	9.7	102	0.00
5	Bromomethane	0.264	0.231	12.5	104	0.00
6	Chloroethane	0.467	0.426	8.8	100	0.00
7	Trichlorofluoromethane	0.882	0.838	5.0	105	0.00
8	Diethyl Ether	0.599	0.533	11.0	101	0.00
9	Acrolein	0.131	0.095	27.5#	81	0.00
10	FREON 113	0.235	0.198	15.7	95	0.00
11 c	1,1-Dicethene	0.503	0.486	3.4	111	0.00
12	Acetone	0.382	0.356	6.8	102	0.00
13	Iodomethane	0.115	0.077	33.0#	76	0.00
14	Carbon Disulfide	1.995	1.874	6.1	100	0.00
15	Acetonitrile	0.124	0.107	13.7	98	0.00
16	Allyl Chloride	0.223	0.108	51.6#	54	0.00
17	Methylene Chloride	0.706	0.669	5.2	113	0.00
18	TBA	0.068	0.051	25.0#	86	0.00
19	Acrylonitrile	0.308	0.269	12.7	100	0.00
20	Methyl-t-Butyl Ether	1.771	1.551	12.4	101	0.00
21	trans-1,2-Dichloroethene	0.652	0.605	7.2	107	0.00
22 p	1,1-Dicethane	1.226	1.151	6.1	107	0.00
23	Vinyl Acetate	0.678	0.000	100.0#	0#	-8.68# NT
24	2-Chloro-1,3-butadiene	1.125	1.034	8.1	97	0.00
25	2,2-Dichloropropane	0.707	0.499	29.4#	82	0.00
26	2-Butanone	0.457	0.182	60.2#	44#	0.00
27	Ethyl Acetate	0.936	0.696	25.6#	81	0.00
28	cis-1,2-Dichloroethene	0.740	0.699	5.5	110	0.00
29	Propionitrile	0.111	0.097	12.6	104	0.00
30	Methacrylonitrile	0.287	0.252	12.2	105	0.00
31	Bromochloromethane	0.247	0.254	-2.8	127	0.00
32 c	Chloroform	1.213	1.084	10.6	106	0.00
33	Tetrahydrofuran	0.305	0.245	19.7	95	0.00
34	1,1,1-Trichloroethane	0.958	0.855	10.8	102	0.00
35 I	1,4 - Difluorobenzene	1.000	1.000	0.0	108	0.00
36 s	surr4,Dibrflmethane	0.381	0.363	4.7	104	0.00
37	Carbontetrachloride	0.431	0.322	25.3#	82	0.00
38	1,1-Dichloropropene	0.518	0.518	0.0	110	0.00
39	Iso-Butyl Alcohol	0.023	0.017	26.1#	86	0.00
40	Benzene	1.422	1.370	3.7	107	0.00

(#)= Out of Range

VO807.D EXP0924.M

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Page 1

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0807.D

Vial: 5

Acq On : 25 Sep 2001 2:21 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:35:23 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	1,2-Dichloroethane	0.602	0.480	20.3	87	0.00
42	N-Heptane	0.713	0.728	-2.1	113	0.00
43	Trichloroethene	0.377	0.361	4.2	106	0.00
44 c	1,2-Diclp propane	0.442	0.440	0.5	112	0.00
45	Methyl Methacrylate	0.277	0.256	7.6	106	0.00
46	1,4-Dioxane	0.003	0.002	33.3#	93	0.00
47	Dibromomethane	0.267	0.155	41.9#	64	0.00
48	Bromodichloromethane	0.528	0.447	15.3	93	0.00
49	2-Nitropropane	0.142	0.090	36.6#	74	0.00
50	2-Chloroethylvinyl Ether	0.035	0.025	28.6#	85	0.00
51	cis-1,3-Dichloropropene	0.613	0.535	12.7	97	0.00
52 I	d5 - Chlorobenzene	1.000	1.000	0.0	113	0.00
53	4-Methyl-2-Pentanone	0.720	0.617	14.3	93	0.00
54 c	Toluene	1.680	1.617	3.7	113	0.00
55	trans-1,3-Dichloropropene	0.670	0.534	20.3	93	0.00
56	Ethyl Methacrylate	0.643	0.611	5.0	110	0.00
57	1,1,2-Trichloroethane	0.360	0.335	6.9	108	0.00
58 s	surr3,Toluene-d8	1.262	1.276	-1.1	113	0.00
59 s	surr2,bfb	0.512	0.510	0.4	109	0.00
60	Tetrachloroethene	0.403	0.390	3.2	113	0.00
61	2-Hexanone	0.503	0.429	14.7	93	0.00
62	1,3-Dichloropropane	0.798	0.749	6.1	109	0.00
63	Dibromochloromethane	0.432	0.405	6.2	109	0.00
64	1,2-Dibromoethane	0.454	0.425	6.4	110	0.00
65 p	Chlorobenzene	1.056	1.020	3.4	116	0.00
66	1,1,1,2-Tetrachloroethane	0.383	0.362	5.5	110	0.00
67 c	Ethylbenzene	1.871	1.828	2.3	114	0.00
68	(m+p)Xylene	0.671	0.670	0.1	118	0.00
69	o-Xylene	0.660	0.651	1.4	117	0.00
70	Styrene	1.142	1.136	0.5	117	0.00
71 p	Bromoform	0.285	0.267	6.3	111	0.00
72	Isopropylbenzene	1.684	1.671	0.8	114	0.00
73	Cyclohexanone	0.076	0.058	23.7	86	0.00
74 I	d4 - Dichlorobenzene	1.000	1.000	0.0	114	0.00
75 p	1,1,2,2-Tetrachloroethane	1.274	1.157	9.2	107	0.00
76	Trans-1,4-Dichloro-2-butene	0.496	0.447	9.9	108	0.00
77	1,2,3-Trichloropropane	0.393	0.348	11.5	109	0.00
78	n-Propylbenzene	5.055	4.844	4.2	114	0.00
79	Bromobenzene	0.949	0.903	4.8	116	0.00

(#) = Out of Range

V0807.D EXP0924.M

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Page 2

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0807.D
 Acq On : 25 Sep 2001 2:21 pm
 Sample : ccv
 Misc :
 MS Integration Params: RTEINT.P

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:35:23 2001
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	1,3,5-Trimethylbenzene	3.115	3.024	2.9	116	0.00
81	2-Chlorotoluene	3.098	2.978	3.9	114	0.00
82	4-Chlorotoluene	3.112	3.000	3.6	114	0.00
83	tert-Butylbenzene	2.488	2.417	2.9	115	0.00
84	1,2,4-Trimethylbenzene	3.119	2.989	4.2	114	0.00
85	sec-Butylbenzene	4.160	4.053	2.6	115	0.00
86	p-Isopropyltoluene	3.145	3.075	2.2	118	0.00
87	1,3-Dclbenz	1.475	1.429	3.1	117	0.00
88	1,4-Dclbenz	1.656	1.577	4.8	116	0.00
89	n-Butylbenzene	3.412	3.285	3.7	115	0.00
90	1,2-Dclbenz	1.511	1.447	4.2	115	0.00
91	1,2-Dibromo-3-chloropropane	0.189	0.175	7.4	111	0.00
92	Nitrobenzene	0.000	0.000	0.0	105	0.00
93	1,2,4-Tcbenzene	1.087	1.046	3.8	116	0.00
94	Hexachlorobt	0.510	0.502	1.6	117	0.00
95	Naphthalen	2.430	2.233	8.1	111	0.00
96	1,2,3-Tclbenzene	1.023	0.964	5.8	114	0.00
97	TOTAL XYLENE	0.000	0.000	0.0	111	0.00

(#) = Out of Range
 V0807.D EXP0924.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 25 16:39:06 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0807.D

Vial: 5

Acq On : 25 Sep 2001 2:21 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 16:36 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:35:23 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	166948	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	282841	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	238207	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.03	152	102905	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.45	113	102791	47.66	ppb	0.00
Spiked Amount 50.000			Recovery	=	95.32%	
58) surr3, Toluene-d8	14.47	98	303951	50.55	ppb	0.00
Spiked Amount 50.000			Recovery	=	101.10%	
59) surr2, bfb	19.60	95	121436	49.77	ppb	0.00
Spiked Amount 50.000			Recovery	=	99.54%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.77	85	97452	46.56	ppb	99
3) Chloromethane	4.14	50	77613	34.13	ppb	95
4) Vinyl Chloride	4.37	62	46564	45.12	ppb	96
5) Bromomethane	5.07	94	38614	42.14	ppb	93
6) Chloroethane	5.24	64	71041	45.53	ppb	95
7) Trichlorofluoromethane	5.73	101	139839	47.51	ppb	100
8) Diethyl Ether	6.22	59	88954	44.44	ppb	93
9) Acrolein	6.46	56	78957	180.48	ppb	94
10) FREON 113	6.64	85	33034	42.03	ppb	97
11) 1,1-Dicethene	6.68	96	81190	48.38	ppb	96
12) Acetone	6.69	43	59498	46.63	ppb	99
13) Iodomethane	6.99	127	12916	33.83	ppb	90
14) Carbon Disulfide	7.13	76	312807	46.95	ppb	99
15) Acetonitrile	7.18	41	89042	214.47	ppb	94
16) Allyl Chloride	7.28	76	18005	24.21	ppb	88
17) Methylene Chloride	7.50	84	111692	47.38	ppb	94
18) TBA	7.58	59	171251	753.30	ppb	98
19) Acrylonitrile	7.87	53	224564	218.07	ppb	99
20) Methyl-t-Butyl Ether	7.92	73	258987	43.80	ppb	96
21) trans-1,2-Dichloroethene	7.98	96	100977	46.39	ppb	97
22) 1,1-Dicethane	8.69	63	192101	46.94	ppb	100
24) 2-Chloro-1,3-butadiene	8.84	53	172608	45.96	ppb	93
25) 2,2-Dichloropropane	9.68	77	83281	32.96	ppb	96
26) 2-Butanone	9.62	43	30463	19.97	ppb	100
27) Ethyl Acetate	9.68	43	116270	37.22	ppb	# 93
28) cis-1,2-Dichloroethene	9.67	96	116671	47.21	ppb	94
29) Propionitrile	9.72	54	81217	219.44	ppb	98
30) Methacrylonitrile	10.00	67	41996	43.89	ppb	99

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

V0807.D EXP0924.M Tue Sep 25 16:39:13 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0807.D Vial: 5
 Acq On : 25 Sep 2001 2:21 pm Operator: herring
 Sample : ccv Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 25 16:36 2001 Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:35:23 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Bromochloromethane	10.09	128	42430	51.50	ppb	94
32) Chloroform	10.18	83	181006	44.69	ppb	98
33) Tetrahydrofuran	10.17	42	40907	40.22	ppb	98
34) 1,1,1-Trichloroethane	10.55	97	142775	44.61	ppb	96
37) Carbontetrachloride	10.86	117	91095	37.35	ppb	98
38) 1,1-Dichloropropene	10.82	75	146413	49.95	ppb	99
39) Iso-Butyl Alcohol	10.81	43	96405	753.59	ppb	98
40) Benzene	11.19	78	387627	48.20	ppb	99
41) 1,2-Dichloroethane	11.20	62	135735	39.84	ppb	100
42) N-Heptane	11.52	43	205898	51.04	ppb	99
43) Trichloroethene	12.30	95	102224	47.98	ppb	96
44) 1,2-Dicloropropane	12.69	63	124406	49.78	ppb	97
45) Methyl Methacrylate	12.75	69	72401	46.25	ppb	87
46) 1,4-Dioxane	12.89	88	13255	783.08	ppb	99
47) Dibromomethane	12.94	93	43812	29.05	ppb	92
48) Bromodichloromethane	13.16	83	126325	42.32	ppb	99
49) 2-Nitropropane	13.51	43	50910	63.25	ppb	99
50) 2-Chloroethylvinyl Ether	13.59	63	6958	39.37	ppb	# 89
51) cis-1,3-Dichloropropene	13.94	75	151179	43.58	ppb	97
53) 4-Methyl-2-Pentanone	14.14	43	146926	42.81	ppb	98
54) Toluene	14.60	91	385190	48.14	ppb	100
55) trans-1,3-Dichloropropene	14.93	75	127313	39.86	ppb	100
56) Ethyl Methacrylate	14.99	69	145661	47.58	ppb	100
57) 1,1,2-Trichloroethane	15.32	83	79738	46.43	ppb	97
60) Tetrachloroethene	15.66	166	92896	48.33	ppb	97
61) 2-Hexanone	15.68	43	102308	42.67	ppb	99
62) 1,3-Dichloropropane	15.65	76	178487	46.95	ppb	94
63) Dibromochloromethane	16.13	129	96388	46.81	ppb	98
64) 1,2-Dibromoethane	16.40	107	101225	46.81	ppb	99
65) Chlorobenzene	17.33	112	242973	48.31	ppb	99
66) 1,1,1,2-Tetrachloroethane	17.46	131	86293	47.33	ppb	98
67) Ethylbenzene	17.48	91	435534	48.85	ppb	97
68) (m+p)Xylene	17.70	106	319186	99.80	ppb	96
69) o-Xylene	18.52	106	155150	49.36	ppb	97
70) Styrene	18.54	104	270661	49.73	ppb	94
71) Bromoform	19.00	173	63647	46.93	ppb	98
72) Isopropylbenzene	19.23	105	398073	49.61	ppb	98
73) Cyclohexanone	19.48	55	275768	761.26	ppb	100
75) 1,1,2,2-Tetrachloroethane	19.82	83	119066	45.40	ppb	99
76) Trans-1,4-Dichloro-2-buten	19.93	53	45971	45.05	ppb	# 70
77) 1,2,3-Trichloropropane	19.96	110	35822	44.31	ppb	96

(#) = qualifier out of range (m) = manual integration
 V0807.D EXP0924.M Tue Sep 25 16:39:13 2001

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0807.D

Vial: 5

Acq On : 25 Sep 2001 2:21 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 16:36 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:35:23 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) n-Propylbenzene	20.08	91	498519	47.92	ppb	99
79) Bromobenzene	19.98	156	92872	47.55	ppb	97
80) 1,3,5-Trimethylbenzene	20.40	105	311216	48.54	ppb	98
81) 2-Chlorotoluene	20.33	91	306465	48.07	ppb	99
82) 4-Chlorotoluene	20.54	91	308755	48.21	ppb	99
83) tert-Butylbenzene	21.11	119	248689	48.57	ppb	95
84) 1,2,4-Trimethylbenzene	21.21	105	307592	47.92	ppb	99
85) sec-Butylbenzene	21.57	105	417069	48.72	ppb	97
86) p-Isopropyltoluene	21.84	119	316459	48.88	ppb	100
87) 1,3-Dclbenz	21.90	146	147026	48.45	ppb	98
88) 1,4-Dclbenz	22.07	146	162331	47.64	ppb	98
89) n-Butylbenzene	22.70	91	338063	48.15	ppb	99
90) 1,2-Dclbenz	22.89	146	148946	47.91	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.54	157	18021	46.23	ppb	94
93) 1,2,4-Tcbenzene	26.51	180	107675	48.14	ppb	92
94) Hexachlorobt	26.86	225	51675	49.27	ppb	99
95) Naphthalen	27.18	128	229771	45.95	ppb	97
96) 1,2,3-Tclbenzene	27.83	180	99244	47.14	ppb	97

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

V0807.D EXP0924.M

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0807.D

Vial: 5

Acq On : 25 Sep 2001 2:21 pm

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 16:36 2001

Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

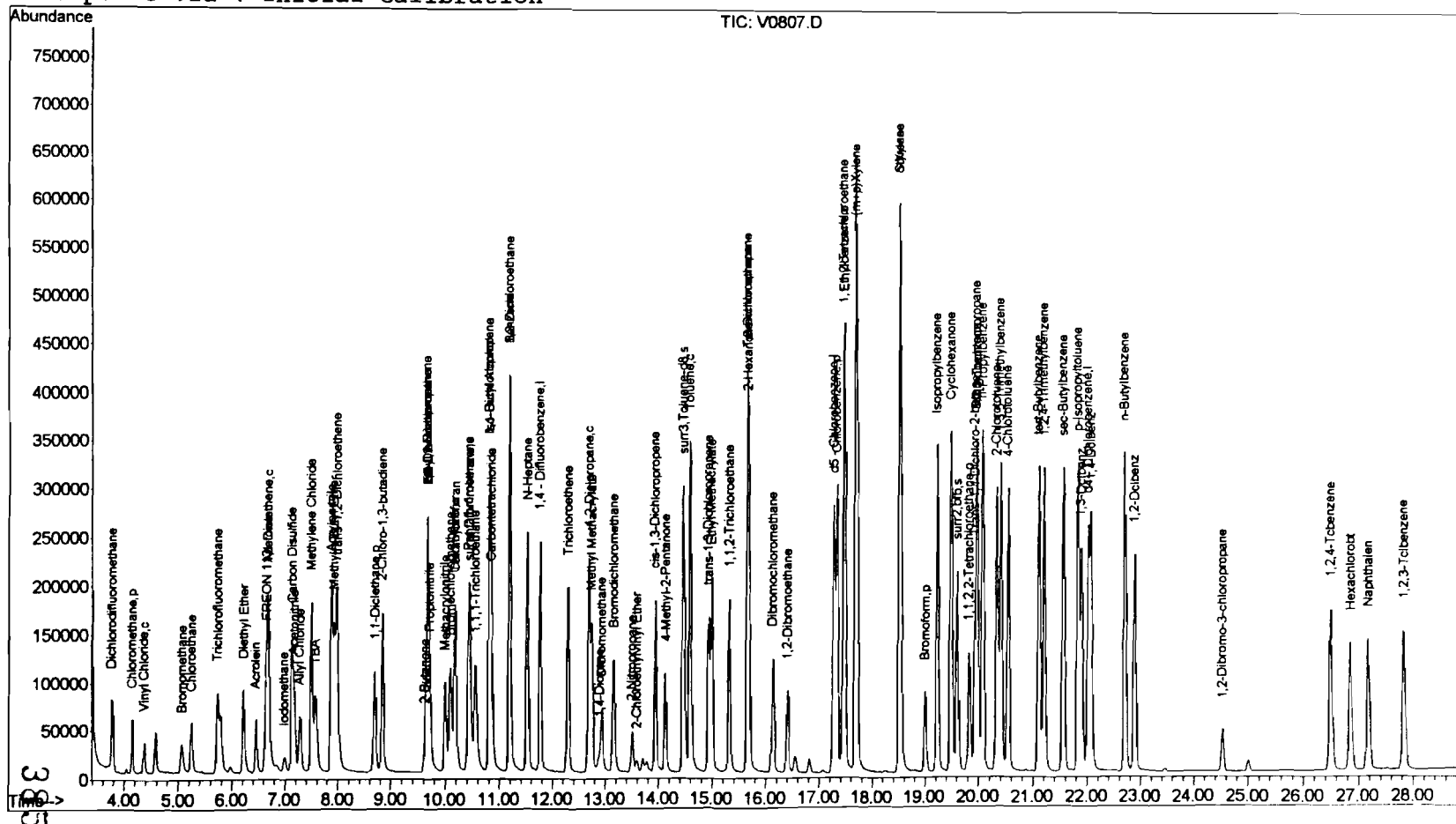
Title : 8260voa

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Last Update      : Tue Sep 25 16:35:23 2001

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Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D

Vial: 5

Acq On : 26 Sep 2001 11:19 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1	Pentafluorobenzene	1.000	1.000	0.0	95	0.00
2	Dichlorodifluoromethane	0.627	0.674	-7.5	96	0.00
3 p	Chloromethane	0.681	0.546	19.8	76	0.00
4 c	Vinyl Chloride	0.309	0.346	-12.0	103	0.00
5	Bromomethane	0.264	0.226	14.4	83	0.00
6	Chloroethane	0.467	0.463	0.9	89	0.00
7	Trichlorofluoromethane	0.882	0.971	-10.1	99	0.00
8	Diethyl Ether	0.599	0.596	0.5	93	0.00
9	Acrolein	0.131	0.092	29.8#	64	0.00
10	FREON 113	0.235	0.231	1.7	91	0.00
11 c	1,1-Dicethene	0.503	0.514	-2.2	96	0.00
12	Acetone	0.382	0.398	-4.2	93	0.00
13	Iodomethane	0.115	0.070	39.1#	56	0.00
14	Carbon Disulfide	1.995	2.032	-1.9	88	0.00
15	Acetonitrile	0.124	0.120	3.2	90	-0.01
16	Allyl Chloride	0.223	0.110	50.7#	45#	0.00
17	Methylene Chloride	0.706	0.720	-2.0	100	0.00
18	TBA	0.068	0.055	19.1	76	-0.01
19	Acrylonitrile	0.308	0.300	2.6	91	0.00
20	Methyl-t-Butyl Ether	1.771	1.610	9.1	86	0.00
21	trans-1,2-Dichloroethene	0.652	0.622	4.6	90	0.00
22 p	1,1-Dicethane	1.226	1.237	-0.9	94	-0.01
23	Vinyl Acetate	0.678	0.108	84.1#	16#	0.00 NT
24	2-Chloro-1,3-butadiene	1.125	1.156	-2.8	88	0.00
25	2,2-Dichloropropane	0.707	0.427	39.6#	57	0.00
26	2-Butanone	0.457	0.204	55.4#	41#	0.01
27	Ethyl Acetate	0.936	0.983	-5.0	93	-0.01
28	cis-1,2-Dichloroethene	0.740	0.734	0.8	94	0.00
29	Propionitrile	0.111	0.105	5.4	91	-0.01
30	Methacrylonitrile	0.287	0.257	10.5	87	0.00
31	Bromochloromethane	0.247	0.254	-2.8	103	0.00
32 c	Chloroform	1.213	1.203	0.8	96	0.00
33	Tetrahydrofuran	0.305	0.249	18.4	79	-0.01
34	1,1,1-Trichloroethane	0.958	0.888	7.3	86	0.00
35 I	1,4 - Difluorobenzene	1.000	1.000	0.0	92	0.00
36 s	surr4,Dibrflmethane	0.381	0.369	3.1	90	0.00
37	Carbontetrachloride	0.431	0.309	28.3#	67	0.00
38	1,1-Dichloropropene	0.518	0.535	-3.3	97	0.00
39	Iso-Butyl Alcohol	0.023	0.018	21.7	77	0.00
40	Benzene	1.422	1.421	0.1	95	0.00

(#) = Out of Range

V0829.D EXP0924.M

Wed Sep 26 12:01:10 2001

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Page 1

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D
 Acq On : 26 Sep 2001 11:19 am
 Sample : ccv
 Misc :
 MS Integration Params: RTEINT.P

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Wed Sep 26 09:16:34 2001
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	1,2-Dichloroethane	0.602	0.497	17.4	77	-0.01
42	N-Heptane	0.713	0.745	-4.5	99	0.00
43	Trichloroethene	0.377	0.360	4.5	90	-0.01
44 c	1,2-Diclp propane	0.442	0.443	-0.2	96	-0.01
45	Methyl Methacrylate	0.277	0.250	9.7	88	-0.01
46	1,4-Dioxane	0.003	0.002	33.3#	84	-0.01
47	Dibromomethane	0.267	0.157	41.2#	55	-0.01
48	Bromodichloromethane	0.528	0.444	15.9	79	-0.01
49	2-Nitropropane	0.142	0.093	34.5#	65	0.00
50	2-Chloroethylvinyl Ether	0.035	0.036	-2.9	107	0.00
51	cis-1,3-Dichloropropene	0.613	0.515	16.0	80	0.00
52 I	d5 - Chlorobenzene	1.000	1.000	0.0	95	-0.01
53	4-Methyl-2-Pentanone	0.720	0.660	8.3	84	-0.01
54 c	Toluene	1.680	1.635	2.7	97	-0.01
55	trans-1,3-Dichloropropene	0.670	0.575	14.2	85	0.00
56	Ethyl Methacrylate	0.643	0.609	5.3	93	-0.01
57	1,1,2-Trichloroethane	0.360	0.346	3.9	95	-0.01
58 s	surr3,Toluene-d8	1.262	1.297	-2.8	98	-0.01
59 s	surr2,bfb	0.512	0.523	-2.1	95	-0.01
60	Tetrachloroethene	0.403	0.383	5.0	94	0.00
61	2-Hexanone	0.503	0.453	9.9	83	0.00
62	1,3-Dichloropropene	0.798	0.739	7.4	91	-0.01
63	Dibromochloromethane	0.432	0.407	5.8	93	0.00
64	1,2-Dibromoethane	0.454	0.422	7.0	92	-0.01
65 p	Chlorobenzene	1.056	1.021	3.3	98	0.00
66	1,1,1,2-Tetrachloroethane	0.383	0.363	5.2	93	-0.01
67 c	Ethylbenzene	1.871	1.845	1.4	98	-0.01
68	(m+p)Xylene	0.671	0.668	0.4	100	-0.01
69	o-Xylene	0.660	0.658	0.3	100	-0.01
70	Styrene	1.142	1.142	0.0	100	-0.01
71 p	Bromoform	0.285	0.270	5.3	95	-0.01
72	Isopropylbenzene	1.684	1.702	-1.1	98	-0.01
73	Cyclohexanone	0.076	0.051	32.9#	64	0.00
74 I	d4 - Dichlorobenzene	1.000	1.000	0.0	100	-0.01
75 p	1,1,2,2-Tetrachloroethane	1.274	1.157	9.2	94	0.00
76	Trans-1,4-Dichloro-2-butene	0.496	0.448	9.7	95	-0.01
77	1,2,3-Trichloropropane	0.393	0.338	14.0	93	-0.01
78	n-Propylbenzene	5.055	4.846	4.1	100	-0.01
79	Bromobenzene	0.949	0.886	6.6	101	-0.01

(#) = Out of Range

V0829.D EXP0924.M

Wed Sep 26 12:01:11 2001

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Page 2

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D

Vial: 5

Acq On : 26 Sep 2001 11:19 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	1,3,5-Trimethylbenzene	3.115	2.997	3.8	101	0.00
81	2-Chlorotoluene	3.098	2.921	5.7	98	-0.01
82	4-Chlorotoluene	3.112	2.935	5.7	98	-0.01
83	tert-Butylbenzene	2.488	2.399	3.6	101	-0.01
84	1,2,4-Trimethylbenzene	3.119	3.019	3.2	102	-0.01
85	sec-Butylbenzene	4.160	4.030	3.1	101	-0.01
86	p-Isopropyltoluene	3.145	3.041	3.3	103	-0.01
87	1,3-Dclbenz	1.475	1.419	3.8	102	-0.01
88	1,4-Dclbenz	1.656	1.584	4.3	103	-0.01
89	n-Butylbenzene	3.412	3.341	2.1	103	-0.01
90	1,2-Dclbenz	1.511	1.446	4.3	102	-0.01
91	1,2-Dibromo-3-chloropropane	0.189	0.178	5.8	100	0.00
92	Nitrobenzene	0.000	0.000	0.0	91	-0.01
93	1,2,4-Tcbenzene	1.087	1.064	2.1	104	-0.02
94	Hexachlorobt	0.510	0.491	3.7	101	-0.01
95	Naphthalen	2.430	2.260	7.0	99	-0.01
96	1,2,3-Tclbenzene	1.023	0.981	4.1	102	-0.01
97	TOTAL XYLENE	0.000	0.000	0.0	96	0.00

(#) = Out of Range
V0829.D EXP0924.M

SPCC's out = 0 CCC's out = 0
Wed Sep 26 12:01:11 2001

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Page 3

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D

Vial: 5

Acq On : 26 Sep 2001 11:19 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 12:00 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	136362	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	240762	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.25	117	202111	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.01	152	90810	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4,Dibrflmethane	10.45	113	88776	48.36	ppb	0.00
Spiked Amount 50.000			Recovery	=	96.72%	
58) surr3,Toluene-d8	14.46	98	262166	51.39	ppb	-0.01
Spiked Amount 50.000			Recovery	=	102.78%	
59) surr2,bfb	19.59	95	105644	51.03	ppb	-0.01
Spiked Amount 50.000			Recovery	=	102.06%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.77	85	91917	53.77	ppb	98
3) Chloromethane	4.15	50	74398	40.06	ppb	99
4) Vinyl Chloride	4.36	62	47126	55.90	ppb	95
5) Bromomethane	5.07	94	30868	41.37	ppb	93
6) Chloroethane	5.24	64	63172	49.57	ppb	99
7) Trichlorofluoromethane	5.73	101	132378	55.06	ppb	99
8) Diethyl Ether	6.21	59	81257	49.70	ppb	99
9) Acrolein	6.45	56	62936	176.13	ppb	98
10) FREON 113	6.64	85	31436	48.97	ppb	94
11) 1,1-Dicethene	6.68	96	70077	51.13	ppb	97
12) Acetone	6.69	43	54306	52.11	ppb	96
13) Iodomethane	6.99	127	9519	30.92	ppb	97
14) Carbon Disulfide	7.13	76	277036	50.91	ppb	99
15) Acetonitrile	7.17	41	81496	240.33	ppb	94
16) Allyl Chloride	7.28	76	15041	24.76	ppb	60
17) Methylene Chloride	7.49	84	98242	51.02	ppb	97
18) TBA	7.56	59	150076	808.23	ppb	99
19) Acrylonitrile	7.87	53	204434	243.05	ppb	99
20) Methyl-t-Butyl Ether	7.92	73	219571	45.47	ppb	97
21) trans-1,2-Dichloroethene	7.98	96	84848	47.72	ppb	98
22) 1,1-Dicethane	8.68	63	168653	50.46	ppb	99
23) Vinyl Acetate	8.68	43	14780	11.03	ppb	# 91
24) 2-Chloro-1,3-butadiene	8.83	53	157567	51.37	ppb	98
25) 2,2-Dichloropropane	9.67	77	58272	28.49	ppb	97
26) 2-Butanone	9.63	43	27857m	22.36	ppb	2.51
27) Ethyl Acetate	9.66	43	134000	52.51	ppb	# 94
28) cis-1,2-Dichloroethene	9.66	96	100100	49.59	ppb	95
29) Propionitrile	9.71	54	71288	235.82	ppb	97

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

V0829.D EXP0924.M

Wed Sep 26 12:01:20 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D

Vial: 5

Acq On : 26 Sep 2001 11:19 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 12:00 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	10.00	67	34987	44.76	ppb	97
31) Bromochloromethane	10.08	128	34578	51.38	ppb	96
32) Chloroform	10.17	83	164066	49.59	ppb	98
33) Tetrahydrofuran	10.15	42	34002	40.93	ppb	99
34) 1,1,1-Trichloroethane	10.55	97	121130	46.34	ppb	96
37) Carbontetrachloride	10.85	117	74444	35.86	ppb	97
38) 1,1-Dichloropropene	10.81	75	128839	51.64	ppb	98
39) Iso-Butyl Alcohol	10.80	43	85557	785.68	ppb	97
40) Benzene	11.19	78	342181	49.98	ppb	100
41) 1,2-Dichloroethane	11.19	62	119563	41.23	ppb	99
42) N-Heptane	11.51	43	179312	52.22	ppb	98
43) Trichloroethene	12.28	95	86661	47.78	ppb	98
44) 1,2-Diclpropane	12.67	63	106712	50.17	ppb	100
45) Methyl Methacrylate	12.73	69	60112	45.11	ppb	94
46) 1,4-Dioxane	12.87	88	12032	835.06	ppb	92
47) Dibromomethane	12.92	93	37726	29.39	ppb	98
48) Bromodichloromethane	13.15	83	106788	42.02	ppb	98
49) 2-Nitropropane	13.50	43	44625	65.14	ppb	99
50) 2-Chloroethylvinyl Ether	13.58	63	8766	52.73	ppb	100
51) cis-1,3-Dichloropropene	13.93	75	124096	42.03	ppb	98
53) 4-Methyl-2-Pentanone	14.12	43	133459	45.83	ppb	97
54) Toluene	14.58	91	330359	48.66	ppb	98
55) trans-1,3-Dichloropropene	14.93	75	116302	42.91	ppb	99
56) Ethyl Methacrylate	14.98	69	123126	47.40	ppb	99
57) 1,1,2-Trichloroethane	15.30	83	69930	48.00	ppb	98
60) Tetrachloroethene	15.66	166	77426	47.47	ppb	99
61) 2-Hexanone	15.68	43	91532	45.00	ppb	97
62) 1,3-Dichloropropane	15.64	76	149308	46.29	ppb	96
63) Dibromochloromethane	16.12	129	82222	47.06	ppb	97
64) 1,2-Dibromoethane	16.39	107	85323	46.50	ppb	99
65) Chlorobenzene	17.32	112	206360	48.36	ppb	99
66) 1,1,1,2-Tetrachloroethane	17.44	131	73395	47.44	ppb	97
67) Ethylbenzene	17.46	91	372879	49.29	ppb	100
68) (m+p)Xylene	17.69	106	269868	99.45	ppb	99
69) o-Xylene	18.50	106	132966	49.86	ppb	96
70) Styrene	18.52	104	230905	50.00	ppb	96
71) Bromoform	18.99	173	54643	47.49	ppb	98
72) Isopropylbenzene	19.21	105	344009	50.53	ppb	99
73) Cyclohexanone	19.48	55	204851	666.49	ppb	96
75) 1,1,2,2-Tetrachloroethane	19.81	83	105088	45.41	ppb	97
76) Trans-1,4-Dichloro-2-buten	19.91	53	40699	45.20	ppb	91

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

V0829.D EXP0924.M Wed Sep 26 12:01:20 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D

Vial: 5

Acq On : 26 Sep 2001 11:19 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 12:00 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.94	110	30711	43.05	ppb	97
78) n-Propylbenzene	20.06	91	440065	47.93	ppb	100
79) Bromobenzene	19.96	156	80470	46.69	ppb	98
80) 1,3,5-Trimethylbenzene	20.40	105	272171	48.11	ppb	97
81) 2-Chlorotoluene	20.32	91	265235	47.14	ppb	99
82) 4-Chlorotoluene	20.52	91	266535	47.16	ppb	99
83) tert-Butylbenzene	21.09	119	217891	48.22	ppb	98
84) 1,2,4-Trimethylbenzene	21.19	105	274123	48.39	ppb	100
85) sec-Butylbenzene	21.56	105	365993	48.44	ppb	98
86) p-Isopropyltoluene	21.82	119	276145	48.34	ppb	99
87) 1,3-Dclbenz	21.88	146	128814	48.10	ppb	99
88) 1,4-Dclbenz	22.06	146	143866	47.84	ppb	98
89) n-Butylbenzene	22.69	91	303383	48.96	ppb	98
90) 1,2-Dclbenz	22.88	146	131297	47.86	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.53	157	16198	47.09	ppb	81
93) 1,2,4-Tcbenzene	26.48	180	96641	48.96	ppb	94
94) Hexachlorobt	26.85	225	44564	48.15	ppb	98
95) Naphthalen	27.16	128	205210	46.51	ppb	99
96) 1,2,3-Tclbenzene	27.81	180	89129	47.97	ppb	97

(#) = qualifier out of range (m) = manual integration
V0829.D EXP0924.M Wed Sep 26 12:01:21 2001

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Page 3

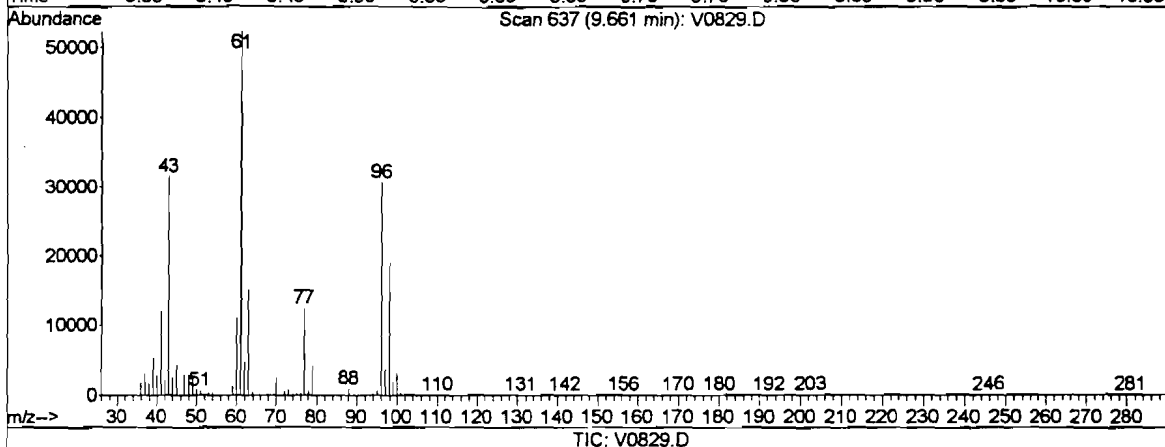
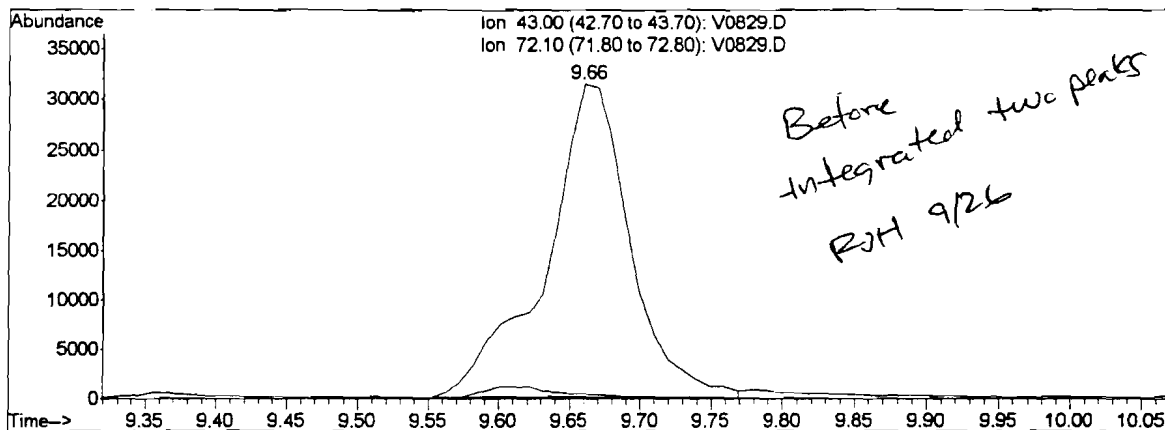
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D
 Acq On : 26 Sep 2001 11:19 am
 Sample : ccv
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Sep 26 11:47 2001

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Wed Sep 26 09:16:34 2001
 Response via : Multiple Level Calibration



(26) 2-Butanone

9.66min 105.22ppb

response 131072

Ion	Exp%	Act%
43.00	100	100
72.10	14.70	1.69#
0.00	0.00	0.00
0.00	0.00	0.00

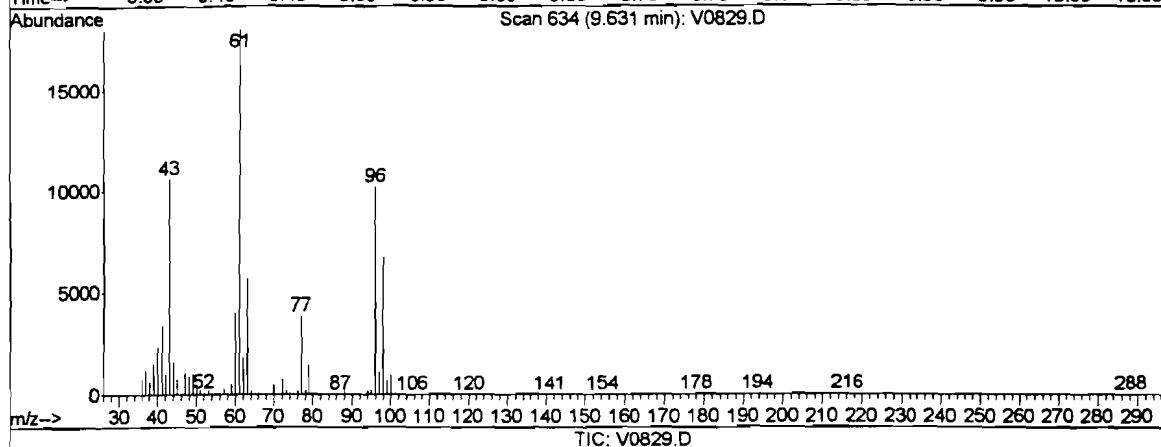
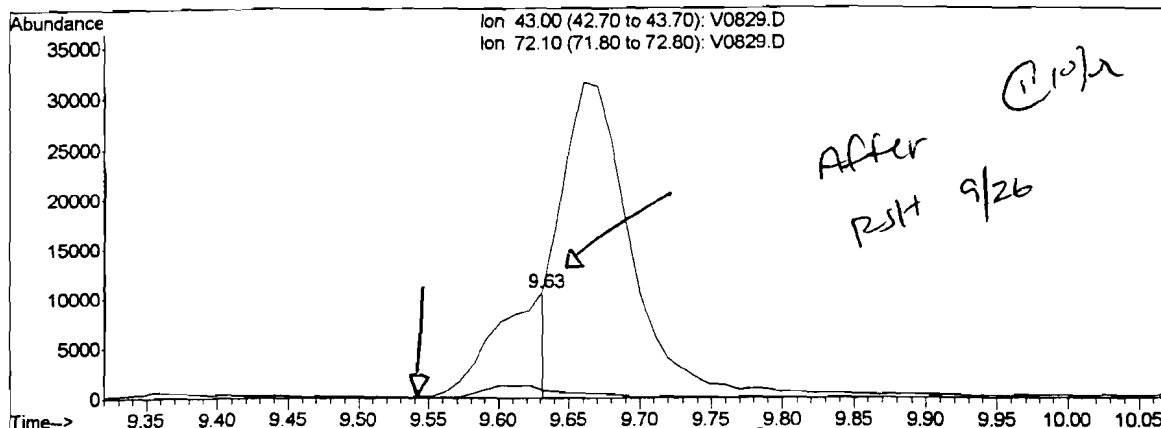
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D
 Acq On : 26 Sep 2001 11:19 am
 Sample : ccv
 Misc :
 MS Integration Params: RTEINT.P
 Quant Time: Sep 26 12:00 2001

Vial: 5
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Wed Sep 26 09:16:34 2001
 Response via : Multiple Level Calibration



(26) 2-Butanone

9.63min 22.36ppb m

response 27857

Ion	Exp%	Act%
43.00	100	100
72.10	14.70	7.07#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0829.D

Vial: 5

Acq On : 26 Sep 2001 11:19 am

Operator: herring

Sample : ccv

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 12:00 2001

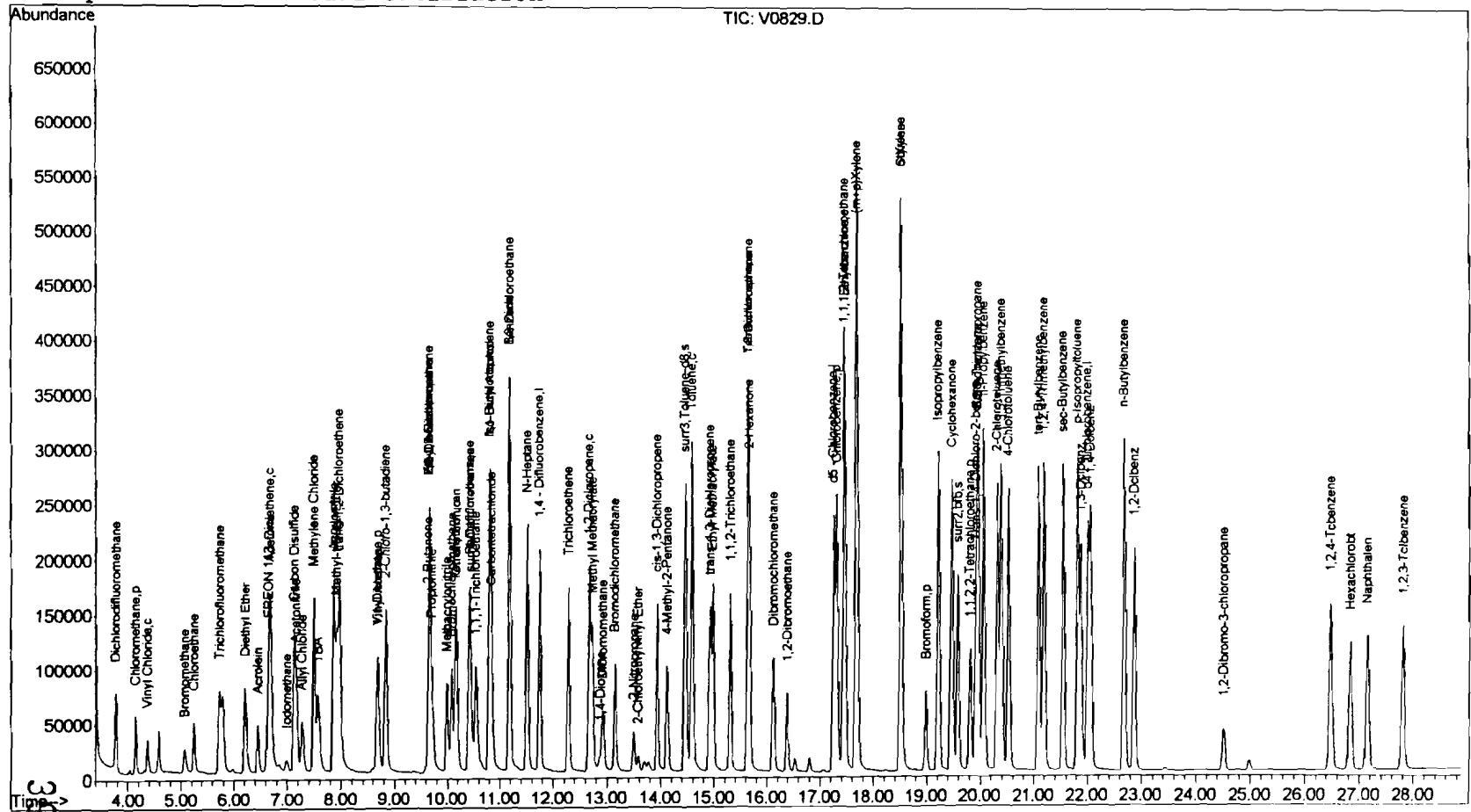
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration



V0829.D EXP0924.M

Wed Sep 26 12:01:22 2001

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VOLATILE ORGANICS

RAW QC DATA

Data File : J:\ACQUDATA\MSVOA7\DATA\091401\V0622.D

Vial: 4

Acq On : 14 Sep 2001 11:37 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

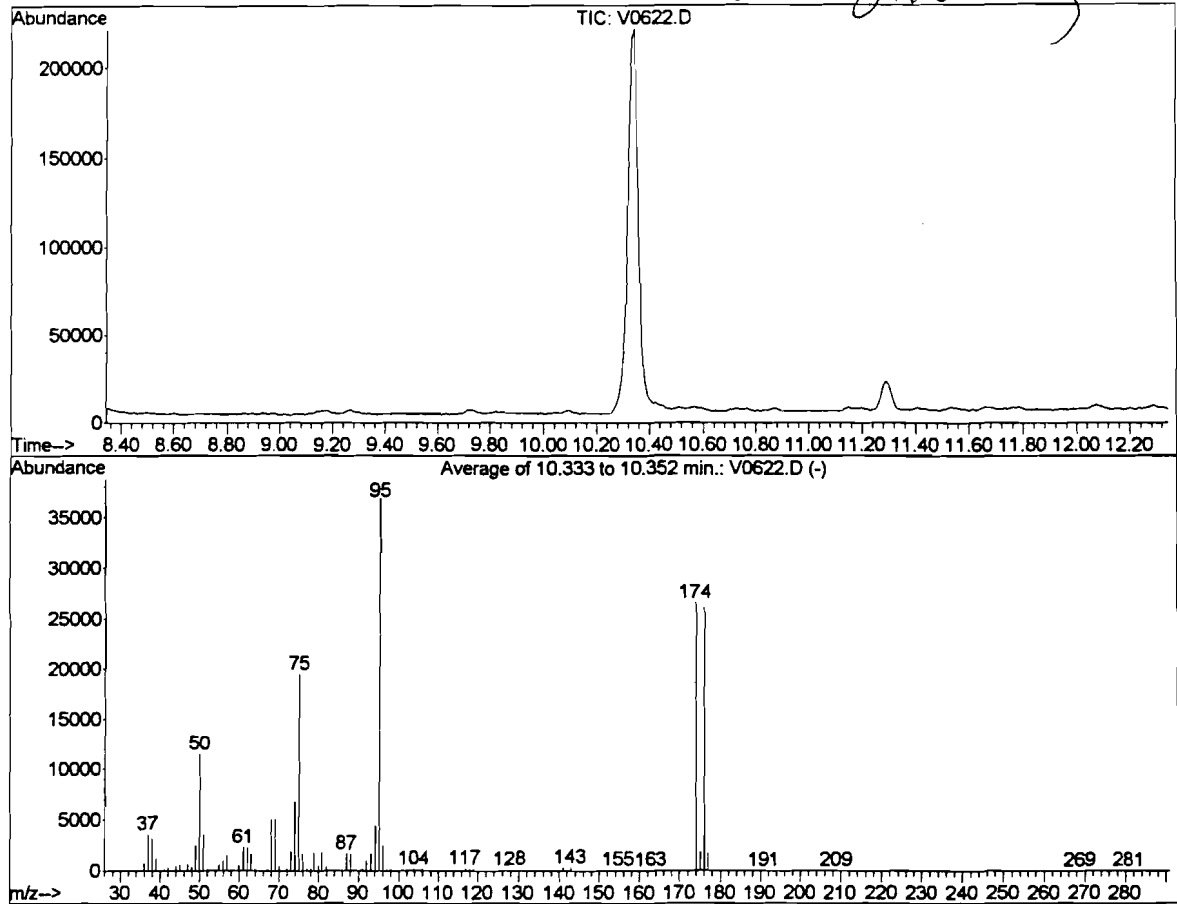
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 203, 204, 205; Background Corrected with Scan 194

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.2	11532	PASS
75	95	30	60	52.7	19460	PASS
95	95	100	100	100.0	36925	PASS
96	95	5	9	6.6	2438	PASS
173	174	0.00	2	0.2	59	PASS
174	95	50	120	72.0	26584	PASS
175	174	5	9	7.1	1875	PASS
176	174	95	101	98.2	26117	PASS
177	176	5	9	6.7	1738	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0671.D

Vial: 3

Acq On : 18 Sep 2001 10:38 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

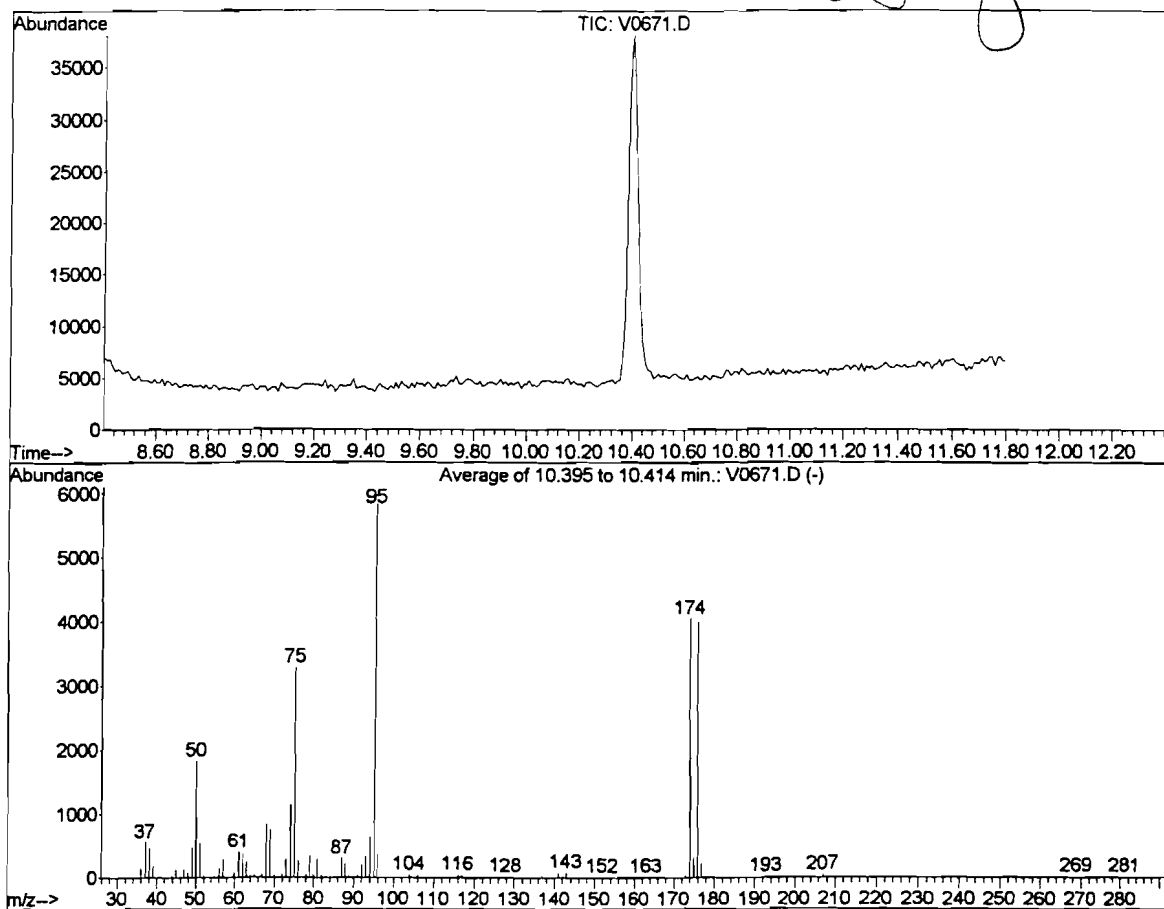
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 209, 210, 211; Background Corrected with Scan 199

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.4	1826	PASS
75	95	30	60	56.3	3277	PASS
95	95	100	100	100.0	5824	PASS
96	95	5	9	5.9	346	PASS
173	174	0.00	2	0.6	25	PASS
174	95	50	120	69.5	4047	PASS
175	174	5	9	7.6	309	PASS
176	174	95	101	98.7	3993	PASS
177	176	5	9	5.3	213	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0695.D

Vial: 3

Acq On : 19 Sep 2001 10:18 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

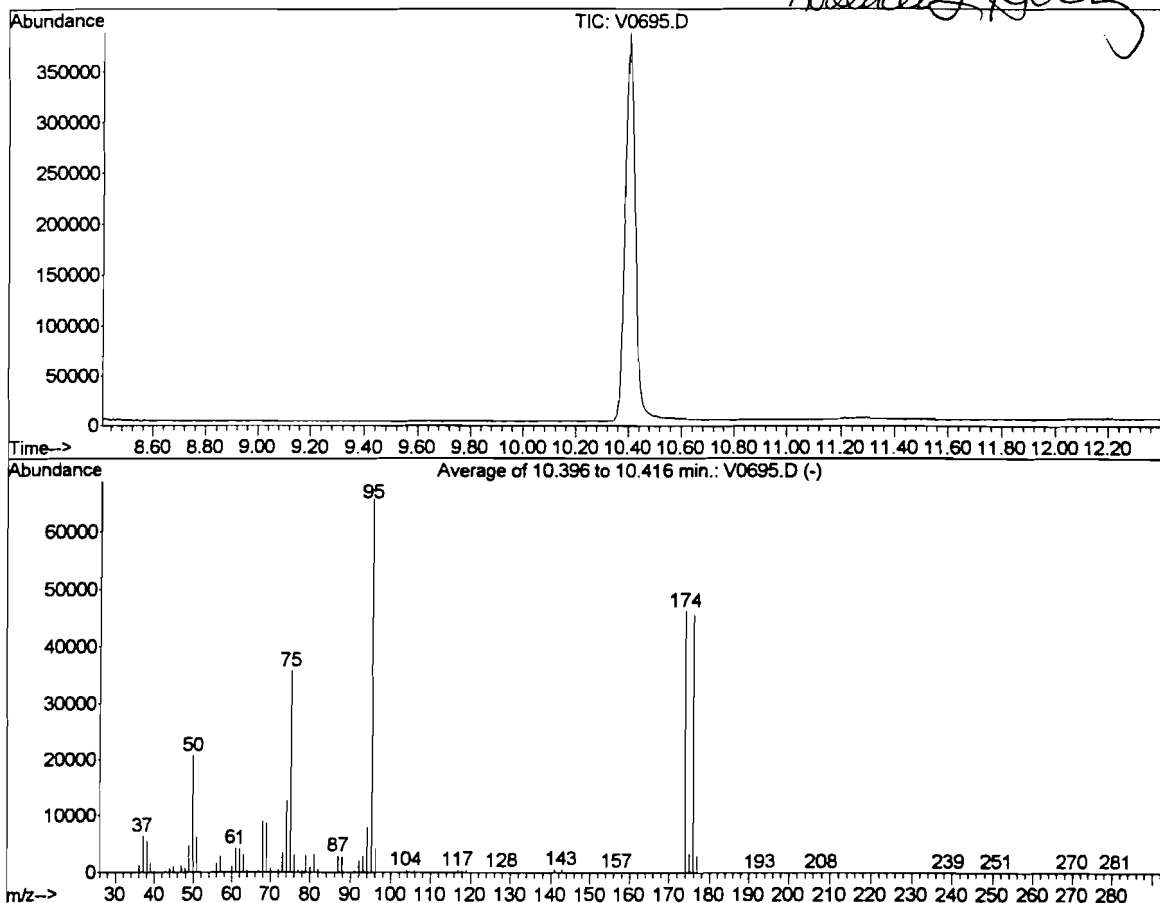
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 209, 210, 211; Background Corrected with Scan 201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.4	20617	PASS
75	95	30	60	54.4	35669	PASS
95	95	100	100	100.0	65576	PASS
96	95	5	9	6.5	4248	PASS
173	174	0.00	2	0.4	180	PASS
174	95	50	120	70.5	46227	PASS
175	174	5	9	7.0	3213	PASS
176	174	95	101	98.3	45461	PASS
177	176	5	9	6.4	2921	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0745.D

Vial: 4

Acq On : 21 Sep 2001 11:31 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

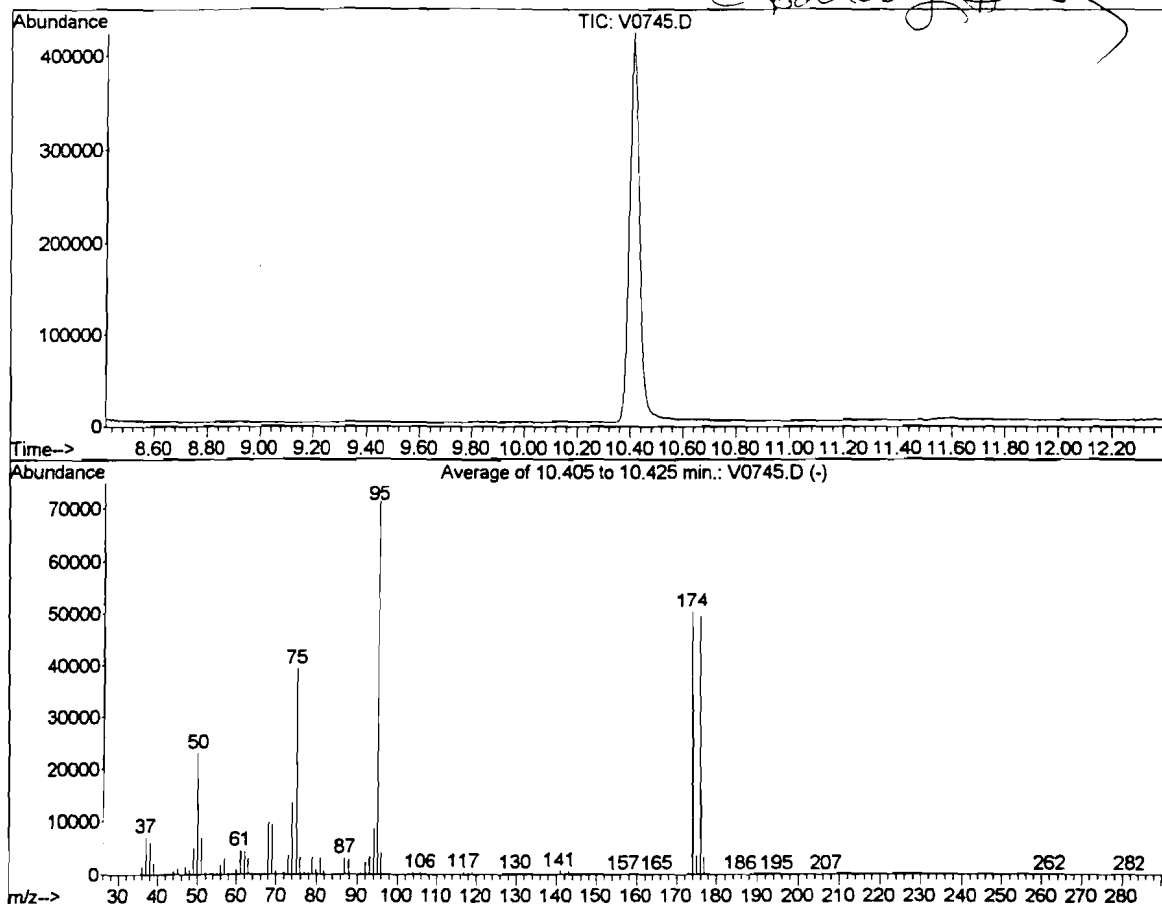
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 210, 211, 212; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	32.4	23120	PASS
75	95	30	60	55.2	39349	PASS
95	95	100	100	100.0	71257	PASS
96	95	5	9	5.9	4227	PASS
173	174	0.00	2	0.6	295	PASS
174	95	50	120	70.7	50363	PASS
175	174	5	9	6.9	3476	PASS
176	174	95	101	98.3	49523	PASS
177	176	5	9	6.6	3248	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\092401\V0792.D

Vial: 9

Acq On : 24 Sep 2001 4:22 pm

Operator: herring

Sample : tune check

Inst : GC/MS Ins

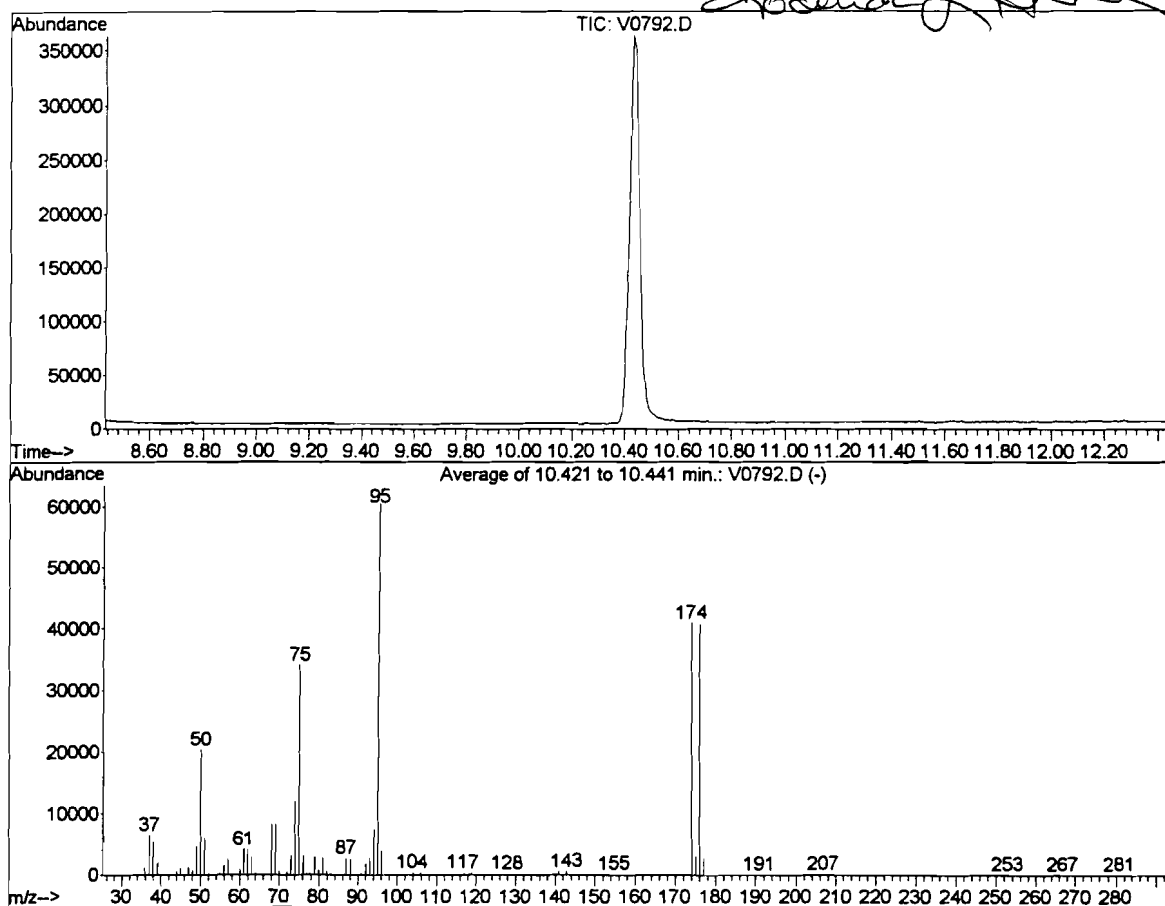
Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 212, 213, 214; Background Corrected with Scan 205

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	33.6	20309	PASS
75	95	30	60	56.4	34099	PASS
95	95	100	100	100.0	60472	PASS
96	95	5	9	6.4	3874	PASS
173	174	0.00	2	0.4	155	PASS
174	95	50	120	67.6	40875	PASS
175	174	5	9	7.2	2955	PASS
176	174	95	101	99.5	40685	PASS
177	176	5	9	6.6	2690	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0806.D

Vial: 4

Acq On : 25 Sep 2001 1:47 pm

Operator: herring

Sample : tune check

Inst : GC/MS Ins

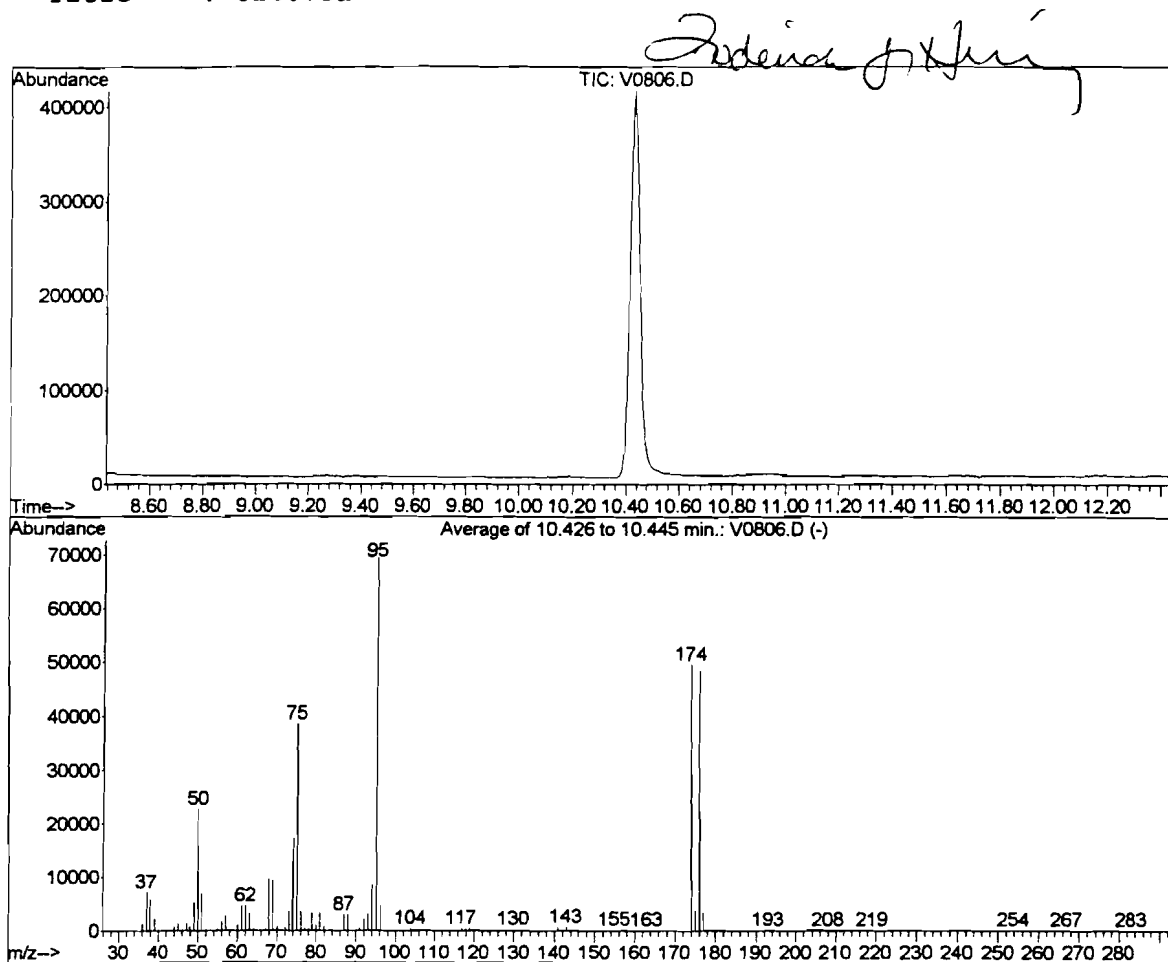
Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 212, 213, 214; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	32.8	22773	PASS
75	95	30	60	55.5	38493	PASS
95	95	100	100	100.0	69365	PASS
96	95	5	9	6.7	4672	PASS
173	174	0.00	2	0.2	102	PASS
174	95	50	120	71.3	49485	PASS
175	174	5	9	7.3	3607	PASS
176	174	95	101	97.8	48403	PASS
177	176	5	9	6.7	3228	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0828.D

Vial: 4

Acq On : 26 Sep 2001 10:45 am

Operator: herring

Sample : tune check

Inst : GC/MS Ins

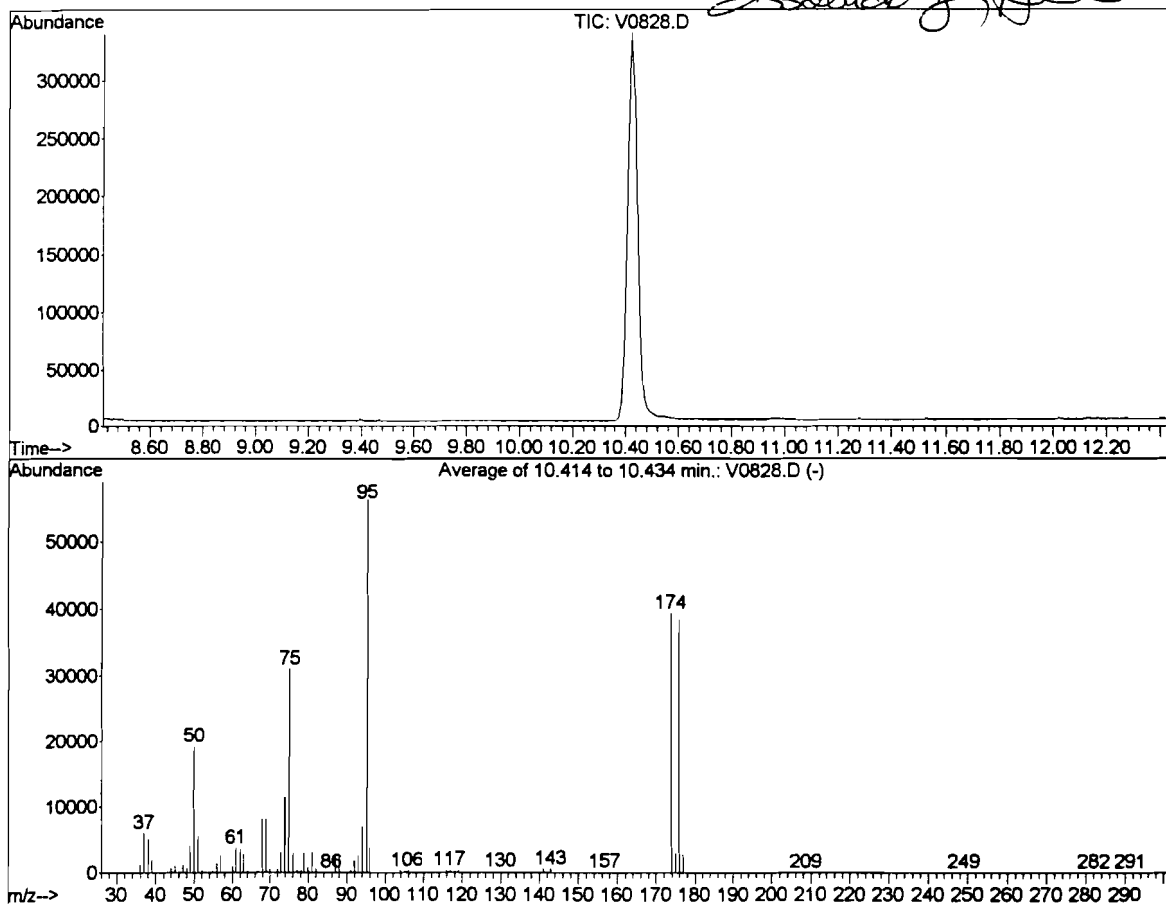
Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa



AutoFind: Scans 211, 212, 213; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	34.1	19220	PASS
75	95	30	60	54.9	30911	PASS
95	95	100	100	100.0	56325	PASS
96	95	5	9	6.6	3723	PASS
173	174	0.00	2	0.2	69	PASS
174	95	50	120	69.6	39224	PASS
175	174	5	9	7.2	2834	PASS
176	174	95	101	97.6	38283	PASS
177	176	5	9	6.7	2580	PASS

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 502722	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	92	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	99	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0674.D

Vial: 6

Acq On : 18 Sep 2001 12:32 pm

Operator: herring

Sample : met blk 502722 1.0

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 13:04 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.40	168	150509	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.73	114	260944	50.00	ppb	0.02
51) d5 - Chlorobenzene	17.23	117	219680	50.00	ppb	0.02
73) d4 - Dichlorobenzene	21.99	152	87811	50.00	ppb	0.03

System Monitoring Compounds

35) surr4, Dibrflmethane	10.42	113	102133	49.70	ppb	0.02
Spiked Amount	50.000		Recovery	=	99.40%	
57) surr3, Toluene-d8	14.43	98	278379	49.28	ppb	0.02
Spiked Amount	50.000		Recovery	=	98.56%	
58) surr2, bfb	19.57	95	107925	46.13	ppb	0.03
Spiked Amount	50.000		Recovery	=	92.26%	

Target Compounds

						Qvalue
18) TBA	7.55	59	989	5.23	ppb	# 51
32) Tetrahydrofuran	10.14	42	2789	3.29	ppb	94 NT
38) Iso Butyl Alcohol	10.79	43	511	4.52	ppb	75
45) 1,4 Dioxane	12.84	88	122	6.84	ppb	89
72) Cyclohexanone	19.46	55	705	2.72	ppb	91

RHT 9/18

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

V0674.D EXP0914.M

Tue Sep 18 13:05:00 2001

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Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0674.D

Vial: 6

Acq On : 18 Sep 2001 12:32 pm

Operator: herring

Sample : met blk

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 13:04 2001

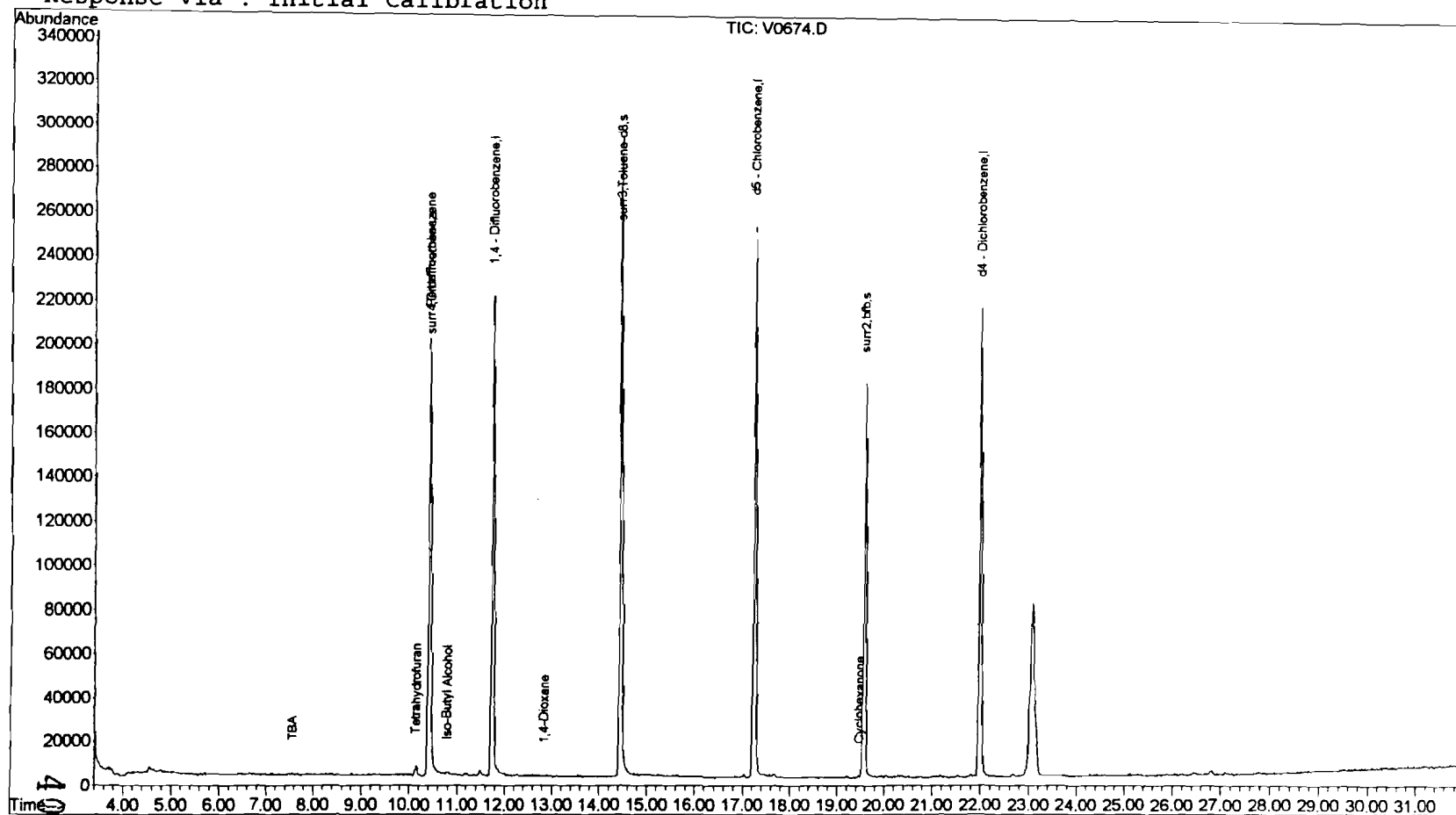
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :

Order #: 502729

Sample Matrix: WATER

Date Received:

Submission #:

Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	93	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0698.D

Vial: 6

Acq On : 19 Sep 2001 12:23 pm

Operator: herring

Sample : met blk 502729 1.0

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 10 15:25 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

RCT 10/10

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.41	168	160268	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.73	114	277353	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.24	117	232509	50.00	ppb	0.03
73) d4 - Dichlorobenzene	22.00	152	92387	50.00	ppb	0.04

System Monitoring Compounds

35) surr4, Dibromomethane	10.43	113	109467	50.12	ppb	0.03
Spiked Amount	50.000		Recovery	=	100.24%	
57) surr3, Toluene-d8	14.44	98	292951	48.73	ppb	0.03
Spiked Amount	50.000		Recovery	=	97.46%	
58) surr2, bfb	19.57	95	115206	46.53	ppb	0.03
Spiked Amount	50.000		Recovery	=	93.06%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
12) Acetone	6.68	43	992	1.11	ppb	95 < 5
32) Tetrahydrofuran	10.13	42	2372	2.68	ppb	90 ~

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0698.D

Vial: 6

Acq On : 19 Sep 2001 12:23 pm

Operator: herring

Sample : met blk

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Oct 10 15:25 2001

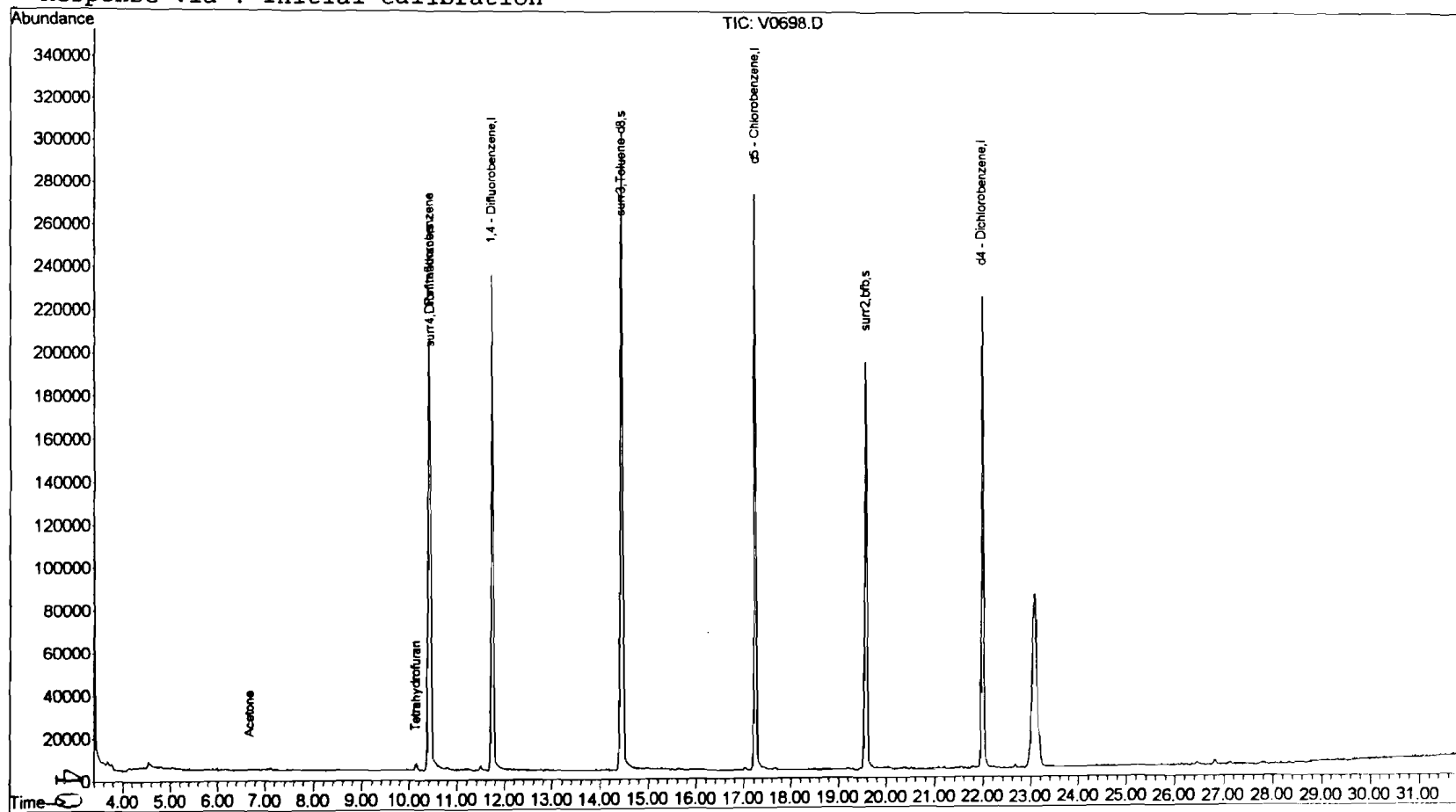
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Oct 10 12:56:06 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 502733	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(87 - 111 %)
TOLUENE-D8	(87 - 108 %)
DIBROMOFLUOROMETHANE	(86 - 117 %)

93	%
96	%
95	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0748.D

Vial: 7

Acq On : 21 Sep 2001 1:21 pm

Operator: herring

Sample : met blk 502733 1.0

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 13:50 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.40	168	160092	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.74	114	276801	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	235085	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.01	152	93954	50.00	ppb	0.05

System Monitoring Compounds

35) surr4, Dibrflmethane	10.43	113	103689	47.57	ppb	0.03
Spiked Amount	50.000		Recovery	=	95.14%	
57) surr3, Toluene-d8	14.45	98	291292	47.93	ppb	0.04
Spiked Amount	50.000		Recovery	=	95.86%	
58) surr2, bfb	19.58	95	116584	46.57	ppb	0.04
Spiked Amount	50.000		Recovery	=	93.14%	

Target Compounds

						Qvalue
18) TBA	7.54	59	445	2.21	ppb	#
32) Tetrahydrofuran	10.15	42	1948	2.20	ppb	93 NT
38) Iso-Butyl Alcohol	10.78	43	433	3.68	ppb	68
45) 1,4 Dioxane	12.97	88	64	3.38	ppb	94
72) Cyclohexanone	19.47	55	517	1.86	ppb	86

(#) = qualifier out of range (m) = manual integration
V0748.D EXP0914.M Fri Sep 21 13:50:42 2001

Quantitation Report

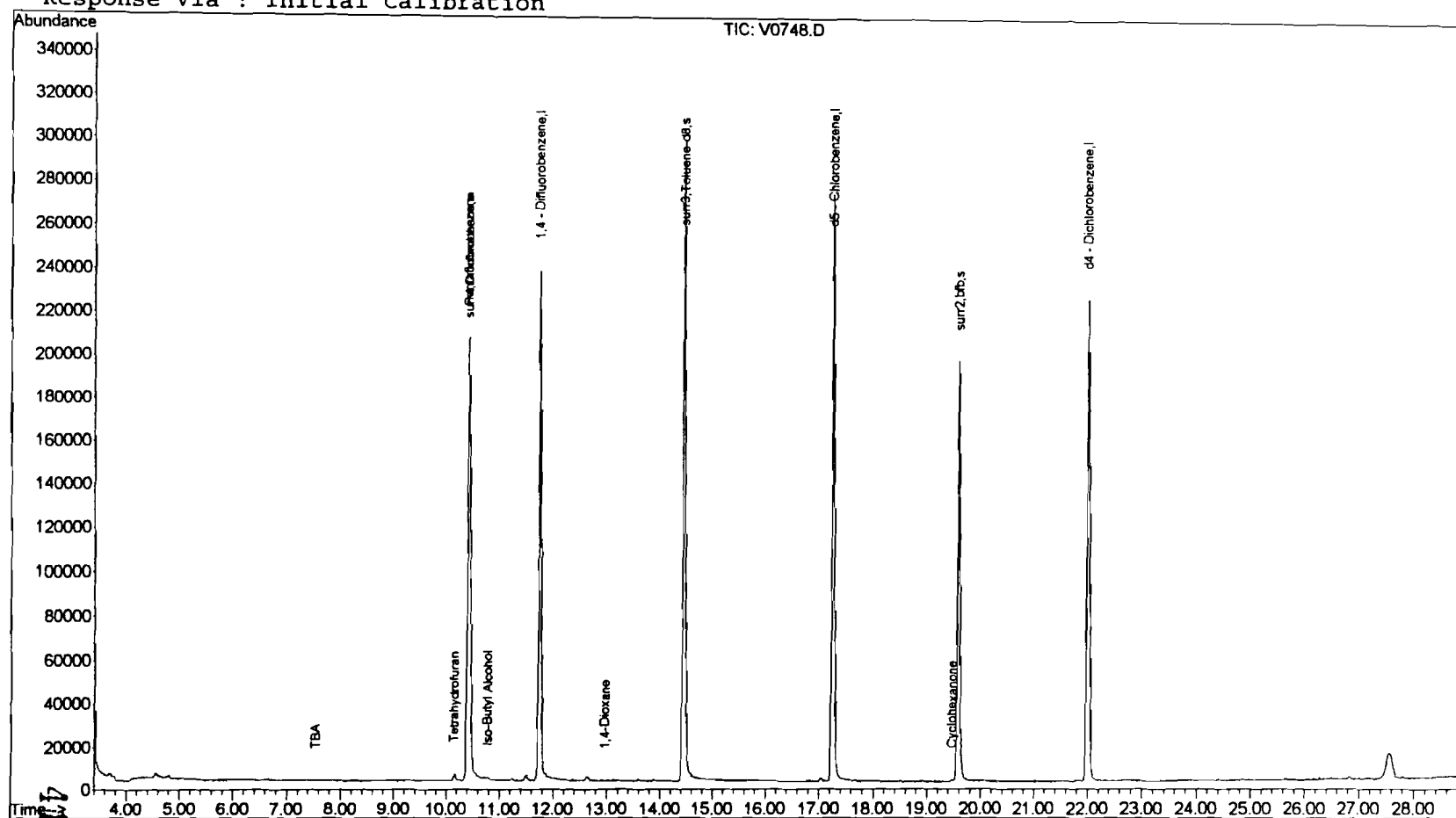
Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0748.D Vial: 7
 Acq On : 21 Sep 2001 1:21 pm Operator: herring
 Sample : met blk Inst : GC/MS Ins
 Misc : Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 13:50 2001

Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : Order #: 502803 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	94	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	97	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0808.D

Vial: 6

Acq On : 25 Sep 2001 3:10 pm

Operator: herring

Sample : met blk

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 16:41 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
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1) Pentafluorobenzene	10.42	168	170313	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	304321	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	244750	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	95611	50.00	ppb	0.00

System Monitoring Compounds

36) surr4,Dibrflmethane	10.45	113	113001	48.70	ppb	0.00
Spiked Amount	50.000		Recovery	=	97.40%	
58) surr3,Toluene-d8	14.46	98	314483	50.91	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.82%	
59) surr2,bfb	19.60	95	117213	46.76	ppb	0.00
Spiked Amount	50.000		Recovery	=	93.52%	

Target Compounds

33) Tetrahydrofuran	10.15	42	2727	2.63	ppb	Qvalue 90 NT
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RJH 9/24

(#) = qualifier out of range (m) = manual integration
V0808.D EXP0924.M Tue Sep 25 16:42:32 2001

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Page 1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0808.D

Vial: 6

Acq On : 25 Sep 2001 3:10 pm

Operator: herring

Sample : met blk

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 16:41 2001

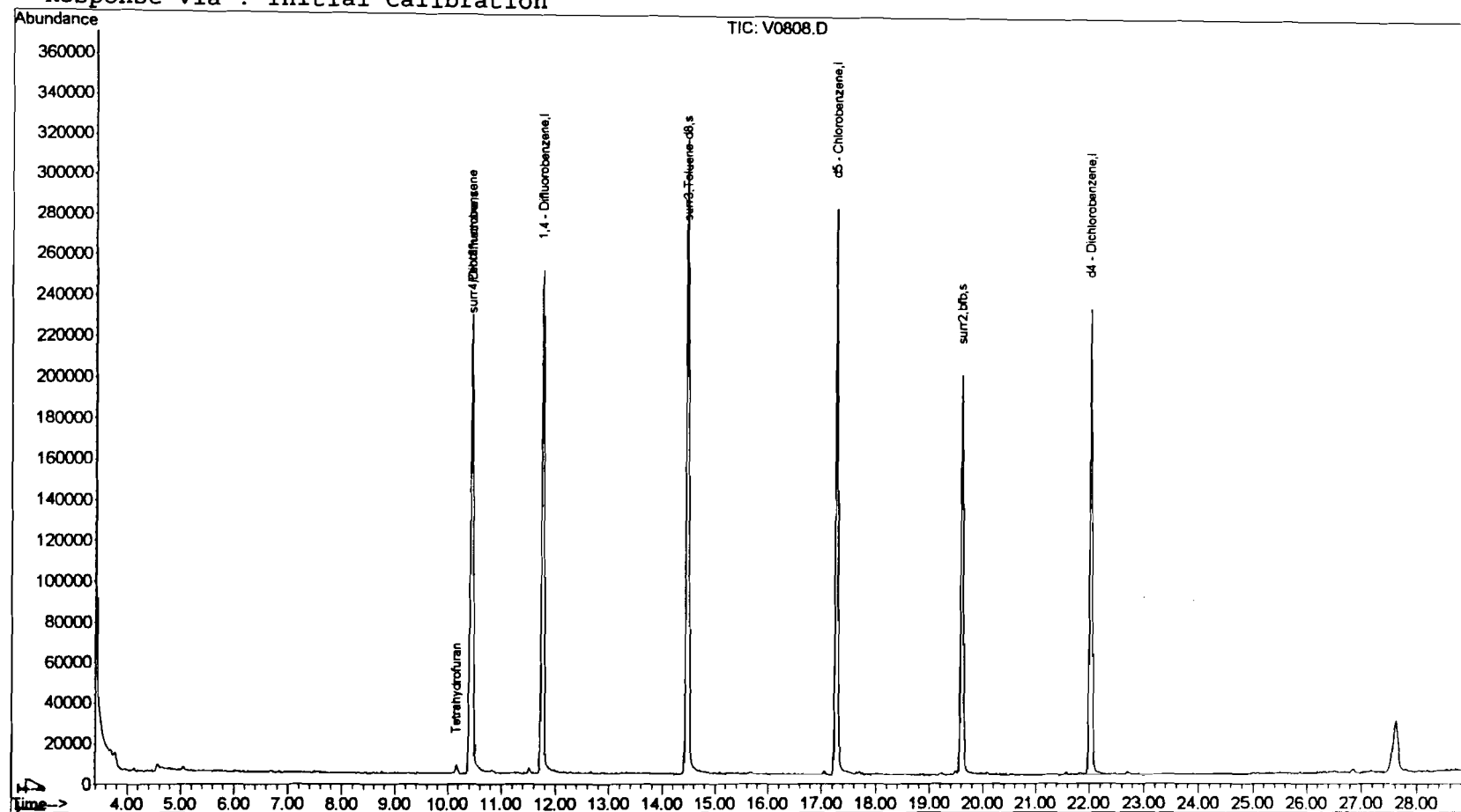
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 502807	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/26/01		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
FREON 113	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	98	%
TOLUENE-D8	(87 - 108 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	93	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0830.D

Vial: 6

Acq On : 26 Sep 2001 12:09 pm

Operator: herring

Sample : met blk

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 4 14:54 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	137666	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	235688	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.26	117	200062	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.01	152	80375	50.00	ppb	-0.02

System Monitoring Compounds

36) surr4, Dibrflmethane	10.45	113	83139	46.26	ppb	0.00
Spiked Amount 50.000			Recovery	=	92.52%	
58) surr3, Toluene-d8	14.45	98	254486	50.40	ppb	-0.02
Spiked Amount 50.000			Recovery	=	100.80%	
59) surr2, bfb	19.60	95	100136	48.87	ppb	0.00
Spiked Amount 50.000			Recovery	=	97.74%	

Target Compounds

33) Tetrahydrofuran	10.16	42	1819	2.17	ppb	Qvalue 96 NT
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RHH/1

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0830.D

Vial: 6

Acq On : 26 Sep 2001 12:09 pm

Operator: herring

Sample : met blk

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Oct 4 14:54 2001

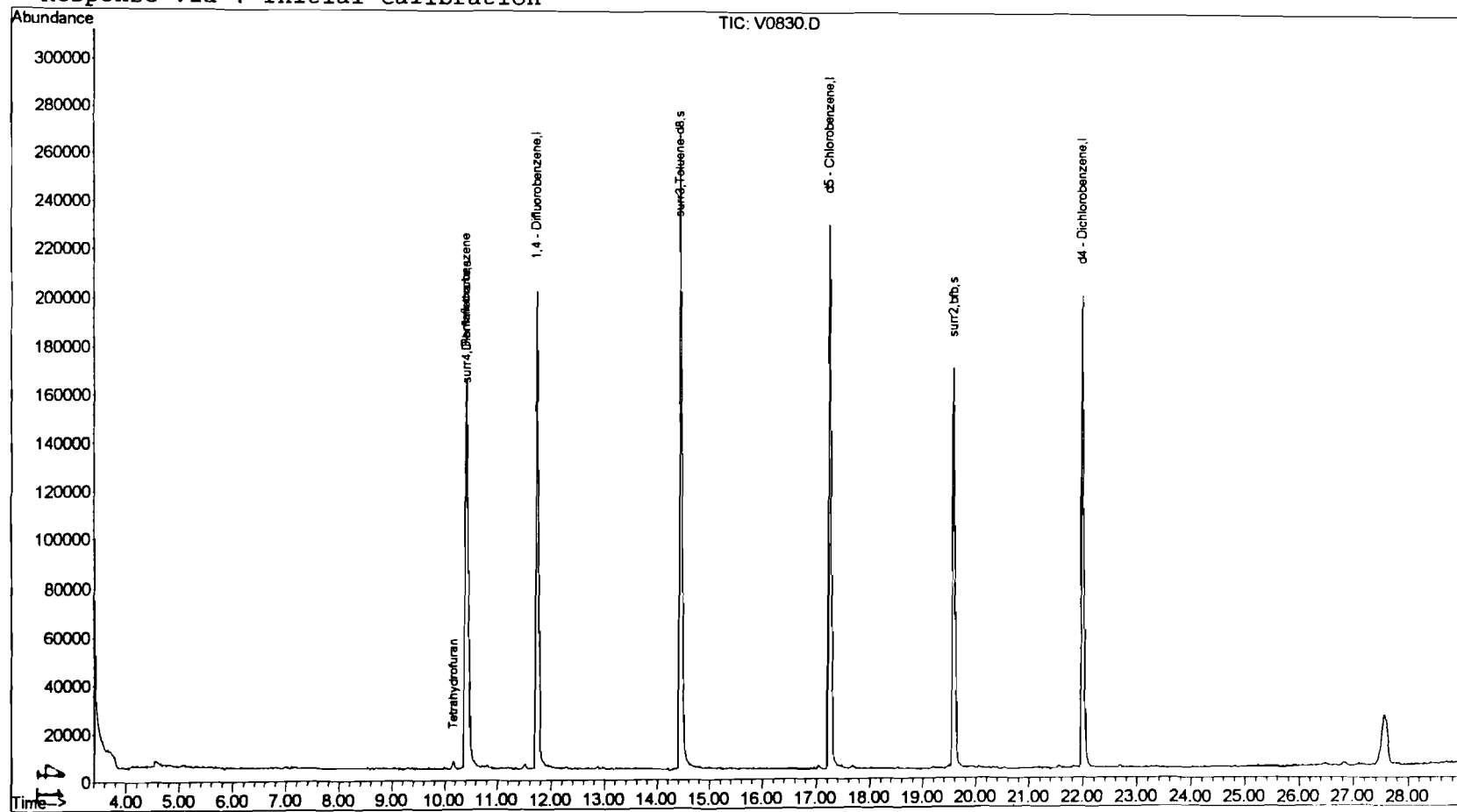
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Thu Oct 04 13:05:20 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01

Project Reference:

Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : Order #: 502723 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
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DATE ANALYZED : 09/18/01
ANALYTICAL DILUTION: 1.00

ACETONE	20	27	UG/L
BENZENE	5.0	20	UG/L
BROMODICHLOROMETHANE	5.0	19	UG/L
BROMOFORM	5.0	20	UG/L
BROMOMETHANE	5.0	12	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	18	UG/L
CARBON TETRACHLORIDE	5.0	16	UG/L
CHLOROBENZENE	5.0	20	UG/L
CHLOROETHANE	5.0	20	UG/L
CHLOROFORM	5.0	22	UG/L
CHLOROMETHANE	5.0	21	UG/L
DIBROMOCHLOROMETHANE	5.0	20	UG/L
1,1-DICHLOROETHANE	5.0	23	UG/L
1,2-DICHLOROETHANE	5.0	21	UG/L
1,1-DICHLOROETHENE	5.0	20	UG/L
CIS-1,2-DICHLOROETHENE	5.0	21	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	21	UG/L
1,2-DICHLOROPROPANE	5.0	20	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	19	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	21	UG/L
ETHYLBENZENE	5.0	21	UG/L
FREON 113	5.0	22	UG/L
2-HEXANONE	10	21	UG/L
METHYLENE CHLORIDE	5.0	22	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	21	UG/L
STYRENE	5.0	20	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	22	UG/L
TETRACHLOROETHENE	5.0	20	UG/L
TOLUENE	5.0	21	UG/L
1,1,1-TRICHLOROETHANE	5.0	19	UG/L
1,1,2-TRICHLOROETHANE	5.0	21	UG/L
TRICHLOROETHENE	5.0	20	UG/L
VINYL CHLORIDE	1.0	24	UG/L
O-XYLENE	5.0	20	UG/L
M+P-XYLENE	5.0	42	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	99	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0675.D

Vial: 7

Acq On : 18 Sep 2001 1:13 pm

Operator: herring

Sample : lcs20 502723 1.0

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 13:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

R/H 9/18

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.40	168	135261	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.74	114	234234	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.23	117	200979	50.00	ppb	0.03
73) d4 - Dichlorobenzene	21.99	152	85482	50.00	ppb	0.04

System Monitoring Compounds

35) surr4,Dibrflmethane	10.43	113	93292	50.58	ppb	0.03
Spiked Amount	50.000		Recovery	=	101.16%	
57) surr3,Toluene-d8	14.44	98	254327	49.21	ppb	0.03
Spiked Amount	50.000		Recovery	=	98.42%	
58) surr2,bfb	19.57	95	105853	49.46	ppb	0.03
Spiked Amount	50.000		Recovery	=	98.92%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	36207	19.22	ppb	96
3) Chloromethane	4.14	50	21976	21.44	ppb	98
4) Vinyl Chloride	4.35	62	17420	23.91	ppb	93
5) Bromomethane	5.05	94	11105	11.71	ppb	86
6) Chloroethane	5.23	64	25852	20.38	ppb	99
7) Trichlorofluoromethane	5.71	101	52807	22.62	ppb	99
8) Diethyl Ether	6.19	59	34981	22.91	ppb	98
9) Acrolein	6.43	56	27935	85.53	ppb	96
10) FREON 113	6.63	85	13553	21.78	ppb	87
11) 1,1-Dicethene	6.66	96	27480	19.79	ppb	92
12) Acetone	6.68	43	19817	27.17	ppb	100
13) Iodomethane	6.98	127	5632	10.79	ppb	100
14) Carbon Disulfide	7.12	76	101803	17.78	ppb	99
15) Acetonitrile	7.16	41	37667	118.22	ppb	99
16) Allyl Chloride	7.26	76	10418	15.19	ppb	93
17) Methylene Chloride	7.47	84	38425	21.59	ppb	94
18) TBA	7.55	59	73441	431.79	ppb	99
19) Acrylonitrile	7.85	53	91758	115.91	ppb	97
20) Methyl-t-Butyl Ether	7.91	73	89924	20.28	ppb	99
21) trans-1,2-Dichloroethene	7.96	96	34662	20.87	ppb	96
22) 1,1-Dicethane	8.67	63	71426	22.81	ppb	97
23) Vinyl Acetate	8.67	43	30233	8.27	ppb	# 96 N ⁻
24) 2-Chloro-1,3-butadiene	8.82	53	58791	19.97	ppb	95
25) 2,2-Dichloropropane	9.65	77	18208	8.36	ppb	# 84 N ⁻
26) 2-Butanone	9.59	43	24715	19.56	ppb	94
27) cis-1,2-Dichloroethene	9.64	96	38795	20.70	ppb	90
28) Propionitrile	9.70	54	33096	115.51	ppb	99
29) Methacrylonitrile	9.97	67	15482	21.07	ppb	97

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

V0675.D EXP0914.M Tue Sep 18 13:45:22 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0675.D

Vial: 7

Acq On : 18 Sep 2001 1:13 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 13:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.06	128	12320	18.17	ppb	89
31) Chloroform	10.15	83	67603	22.17	ppb	99
32) Tetrahydrofuran	10.14	42	18106	23.73	ppb	96
33) 1,1,1-Trichloroethane	10.53	97	47270	19.14	ppb	96
36) Carbontetrachloride	10.83	117	31291	15.96	ppb	100
37) 1,1-Dichloropropene	10.79	75	48305	20.54	ppb	98
38) Iso-Butyl Alcohol	10.79	43	46660	460.18	ppb	98
39) Benzene	11.17	78	131983	20.41	ppb	99
40) 1,2-Dichloroethane	11.17	62	55662	21.09	ppb	97
41) N-Heptane	11.49	43	78353	23.67	ppb	99
42) Trichloroethene	12.26	95	34176	19.91	ppb	98
43) 1,2-Dichloropropane	12.66	63	40382	20.35	ppb	95
44) Methyl Methacrylate	12.71	69	27351	22.57	ppb	99
45) 1,4-Dioxane	12.85	88	6952	434.35	ppb	90
46) Dibromomethane	12.90	93	18675	17.93	ppb	97
47) Bromodichloromethane	13.13	83	45516	19.31	ppb	99
48) 2-Nitropropane	13.49	43	26376	36.46	ppb	98
49) 2-Chloroethylvinyl Ether	13.56	63	1418	1.18	ppb	96
50) cis-1,3-Dichloropropene	13.92	75	52307	19.00	ppb	100
52) 4-Methyl-2-Pentanone	14.10	43	56737	20.82	ppb	96
53) Toluene	14.57	91	130677	20.97	ppb	98
54) trans-1,3-Dichloropropene	14.91	75	53111	20.83	ppb	99
55) Ethyl Methacrylate	14.97	69	51210	21.23	ppb	99
56) 1,1,2-Trichloroethane	15.28	83	28026	21.06	ppb	97
59) Tetrachloroethene	15.64	166	29777	19.88	ppb	97
60) 2-Hexanone	15.66	43	39299	20.85	ppb	92
61) 1,3-Dichloropropane	15.62	76	56850	19.39	ppb	96
62) Dibromochloromethane	16.10	129	31807	19.90	ppb	96
63) 1,2-Dibromoethane	16.37	107	34126	20.40	ppb	96
64) Chlorobenzene	17.29	112	81776	20.49	ppb	98
65) 1,1,1,2-Tetrachloroethane	17.42	131	28593	20.11	ppb	93
66) Ethylbenzene	17.44	91	148726	21.10	ppb	99
67) (m+p)Xylene	17.67	106	106356	41.75	ppb	99
68) o-Xylene	18.48	106	49369	19.79	ppb	97
69) Styrene	18.50	104	88231	20.29	ppb	99
70) Bromoform	18.97	173	21062	20.08	ppb	98
71) Isopropylbenzene	19.19	105	133138	20.95	ppb	97
72) Cyclohexanone	19.46	55	127847	538.63	ppb	99
74) 1,1,2,2-Tetrachloroethane	19.78	83	43453	22.55	ppb	99
75) Trans-1,4-Dichloro-2-buten	19.89	53	17001	21.38	ppb	99
76) 1,2,3-Trichloropropane	19.92	110	12867	21.69	ppb	97

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

V0675.D EXP0914.M Tue Sep 18 13:45:22 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0675.D

Vial: 7

Acq On : 18 Sep 2001 1:13 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 13:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.04	91	170652	21.48	ppb	98
78) Bromobenzene	19.94	156	31313	21.02	ppb	96
79) 1,3,5-Trimethylbenzene	20.37	105	107881	21.98	ppb	100
80) 2-Chlorotoluene	20.30	91	99881	20.67	ppb	99
81) 4-Chlorotoluene	20.50	91	103964	21.21	ppb	99
82) tert-Butylbenzene	21.07	119	82640	21.14	ppb	95
83) 1,2,4-Trimethylbenzene	21.17	105	105526	21.20	ppb	98
84) sec-Butylbenzene	21.53	105	140336	21.18	ppb	99
85) p-Isopropyltoluene	21.80	119	107282	21.33	ppb	98
86) 1,3-Dclbenz	21.86	146	54901	23.16	ppb	99
87) 1,4-Dclbenz	22.04	146	56052	21.29	ppb	98
88) n-Butylbenzene	22.67	91	117377	21.56	ppb	98
89) 1,2-Dclbenz	22.85	146	52142	21.44	ppb	97
90) 1,2-Dibromo-3-chloropropan	24.49	157	6423	21.04	ppb	97
92) 1,2,4-Tcbenzene	26.45	180	38109	21.15	ppb	99
93) Hexachlorobt	26.82	225	17806	20.98	ppb	95
94) Naphthalen	27.12	128	88663	21.75	ppb	96
95) 1,2,3-Tclbenzene	27.77	180	37403	21.98	ppb	89

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0675.D

Vial: 7

Acq On : 18 Sep 2001 1:13 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 13:44 2001

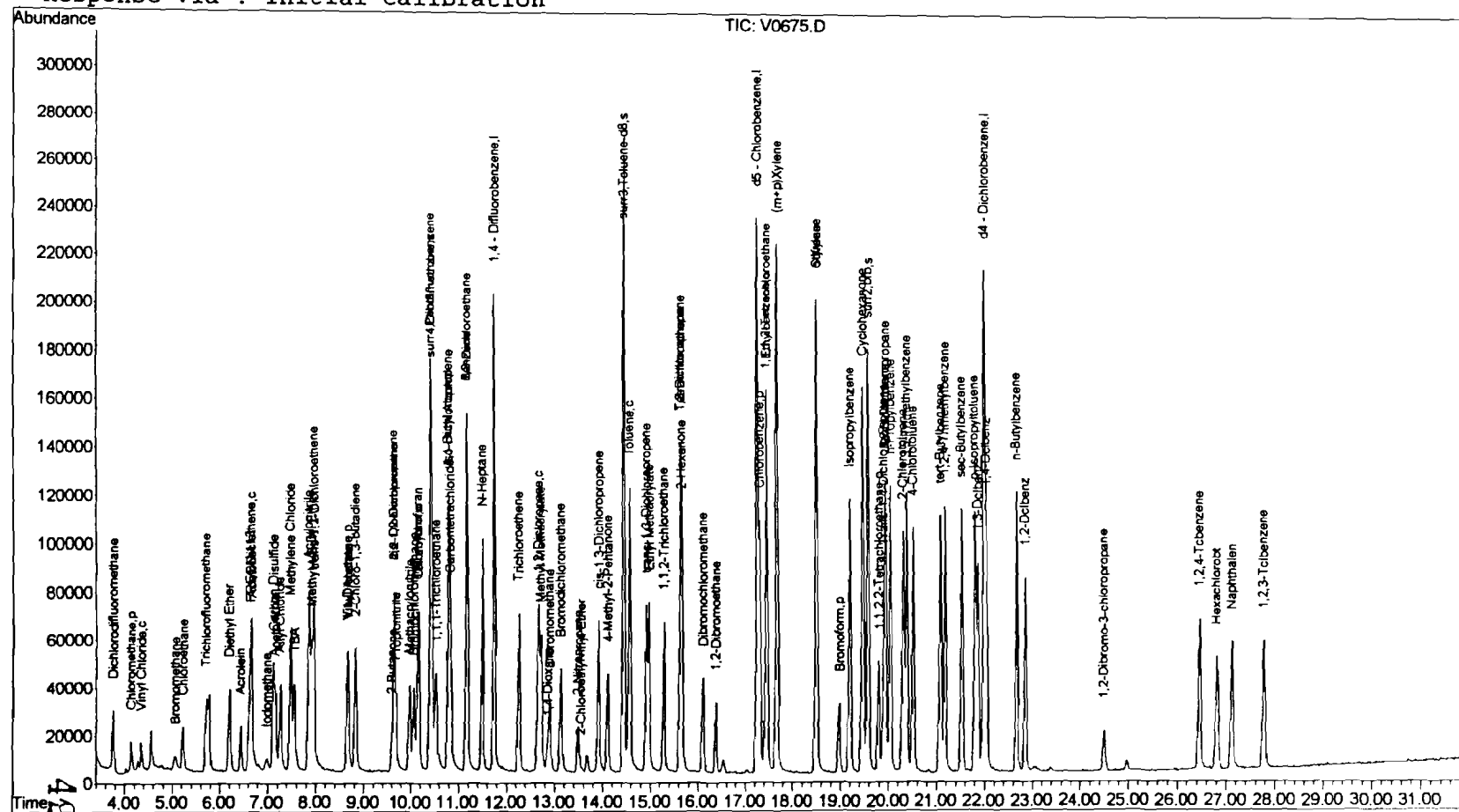
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Mon Sep 17 09:47:42 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled :	Order #: 502804	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	19	UG/L
BROMODICHLOROMETHANE	5.0	20	UG/L
BROMOFORM	5.0	18	UG/L
BROMOMETHANE	5.0	24	UG/L
2-BUTANONE (MEK)	10	16	UG/L
CARBON DISULFIDE	10	20	UG/L
CARBON TETRACHLORIDE	5.0	20	UG/L
CHLOROBENZENE	5.0	19	UG/L
CHLOROETHANE	5.0	19	UG/L
CHLOROFORM	5.0	20	UG/L
CHLOROMETHANE	5.0	19	UG/L
DIBROMOCHLOROMETHANE	5.0	20	UG/L
1,1-DICHLOROETHANE	5.0	21	UG/L
1,2-DICHLOROETHANE	5.0	19	UG/L
1,1-DICHLOROETHENE	5.0	18	UG/L
CIS-1,2-DICHLOROETHENE	5.0	20	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	20	UG/L
1,2-DICHLOROPROPANE	5.0	19	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	21	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	20	UG/L
ETHYLBENZENE	5.0	19	UG/L
FREON 113	5.0	22	UG/L
2-HEXANONE	10	16	UG/L
METHYLENE CHLORIDE	5.0	18	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	17	UG/L
STYRENE	5.0	18	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	19	UG/L
TETRACHLOROETHENE	5.0	20	UG/L
TOLUENE	5.0	20	UG/L
1,1,1-TRICHLOROETHANE	5.0	19	UG/L
1,1,2-TRICHLOROETHANE	5.0	19	UG/L
TRICHLOROETHENE	5.0	19	UG/L
VINYL CHLORIDE	1.0	21	UG/L
O-XYLENE	5.0	18	UG/L
M+P-XYLENE	5.0	38	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	97	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

423

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0810.D

Vial: 8

Acq On : 25 Sep 2001 5:18 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc : 502804 1.0

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 17:46 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

pH 9/24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	171637	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.76	114	305629	50.00	ppb	0.00
52) d5 - Chlorobenzene	17.27	117	244779	50.00	ppb	0.00
74) d4 - Dichlorobenzene	22.02	152	98917	50.00	ppb	0.00

System Monitoring Compounds

36) surr4, Dibrflmethane	10.45	113	117785	50.54	ppb	0.00
Spiked Amount	50.000		Recovery	=	101.08%	
58) surr3, Toluene-d8	14.46	98	319326	51.69	ppb	-0.01
Spiked Amount	50.000		Recovery	=	103.38%	
59) surr2, bfb	19.60	95	121122	48.31	ppb	0.00
Spiked Amount	50.000		Recovery	=	96.62%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	41134	19.12	ppb	100
3) Chloromethane	4.14	50	45280	19.37	ppb	97
4) Vinyl Chloride	4.36	62	21907	20.65	ppb	99
5) Bromomethane	5.05	94	20417	24.40	ppb	96
6) Chloroethane	5.23	64	30000	18.70	ppb	91
7) Trichlorofluoromethane	5.72	101	59014	19.50	ppb	97
8) Diethyl Ether	6.20	59	39515	19.20	ppb	95
9) Acrolein	6.45	56	40207	89.40	ppb	96
10) FREON 113	6.63	85	17911	22.17	ppb	95
11) 1,1-Dicethene	6.67	96	31753	18.40	ppb	92
12) Acetone	6.70	43	17159	13.08	ppb	94
13) Iodomethane	6.97	127	9510	25.39	ppb	87
14) Carbon Disulfide	7.13	76	138640	20.24	ppb	99
15) Acetonitrile	7.17	41	37628	88.16	ppb	# 80
16) Allyl Chloride	7.28	76	15757	20.61	ppb	96
17) Methylene Chloride	7.49	84	44132	18.21	ppb	96
18) TBA	7.56	59	83122	355.65	ppb	95
19) Acrylonitrile	7.86	53	93713	88.52	ppb	98
20) Methyl-t-Butyl Ether	7.92	73	116712	19.20	ppb	94
21) trans-1,2-Dichloroethene	7.97	96	43914	19.62	ppb	98
22) 1,1-Dicethene	8.68	63	87647	20.83	ppb	98
23) Vinyl Acetate	8.67	43	78541	33.06	ppb	98
24) 2-Chloro-1,3-butadiene	8.84	53	80398	20.82	ppb	91
25) 2,2-Dichloropropane	9.66	77	59145	23.33	ppb	98
26) 2-Butanone	9.60	43	24741	15.78	ppb	97
27) Ethyl Acetate	9.66	43	91303	28.43	ppb	# 91
28) cis-1,2-Dichloroethene	9.66	96	50842	20.01	ppb	97
29) Propionitrile	9.72	54	33462	87.94	ppb	98

(#) = qualifier out of range (m) = manual integration
 V0810.D EXP0924.M Tue Sep 25 17:47:15 2001

424

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0810.D

Vial: 8

Acq On : 25 Sep 2001 5:18 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 17:46 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	9.99	67	18129	18.43	ppb	100
31) Bromochloromethane	10.09	128	17349	20.48	ppb	98
32) Chloroform	10.17	83	82879	19.90	ppb	97
33) Tetrahydrofuran	10.15	42	19566	18.71	ppb	98
34) 1,1,1-Trichloroethane	10.55	97	63305	19.24	ppb	96
37) Carbontetrachloride	10.85	117	51648	19.60	ppb	97
38) 1,1-Dichloropropene	10.81	75	61559	19.44	ppb	100
39) Iso-Butyl Alcohol	10.80	43	50158	362.85	ppb	99
40) Benzene	11.19	78	168309	19.37	ppb	99
41) 1,2-Dichloroethane	11.19	62	70087	19.04	ppb	99
42) N-Heptane	11.51	43	95057	21.81	ppb	97
43) Trichloroethene	12.28	95	43586	18.93	ppb	98
44) 1,2-Diclp propane	12.69	63	50873	18.84	ppb	92
45) Methyl Methacrylate	12.74	69	30346	17.94	ppb	92
46) 1,4-Dioxane	12.87	88	6605	361.11	ppb	88
47) Dibromomethane	12.92	93	31232	19.17	ppb	93
48) Bromodichloromethane	13.15	83	65189	20.21	ppb	98
49) 2-Nitropropane	13.50	43	33641	38.68	ppb	99
50) 2-Chloroethylvinyl Ether	13.59	63	4445	28.00	ppb	# 80
51) cis-1,3-Dichloropropene	13.94	75	77766	20.75	ppb	99
53) 4-Methyl-2-Pentanone	14.13	43	60395	17.12	ppb	97
54) Toluene	14.60	91	162348	19.75	ppb	97
55) trans-1,3-Dichloropropene	14.93	75	67124	20.45	ppb	99
56) Ethyl Methacrylate	14.99	69	57948	18.42	ppb	96
57) 1,1,2-Trichloroethane	15.32	83	32830	18.61	ppb	90
60) Tetrachloroethene	15.66	166	38555	19.52	ppb	95
61) 2-Hexanone	15.68	43	39944	16.21	ppb	96
62) 1,3-Dichloropropane	15.65	76	70451	18.04	ppb	95
63) Dibromochloromethane	16.13	129	41293	19.52	ppb	96
64) 1,2-Dibromoethane	16.40	107	42148	18.97	ppb	97
65) Chlorobenzene	17.32	112	99154	19.19	ppb	98
66) 1,1,1,2-Tetrachloroethane	17.45	131	37134	19.82	ppb	99
67) Ethylbenzene	17.47	91	177072	19.33	ppb	98
68) (m+p)Xylene	17.70	106	125602	38.22	ppb	97
69) o-Xylene	18.52	106	59725	18.49	ppb	98
70) Styrene	18.54	104	103140	18.44	ppb	95
71) Bromoform	19.00	173	25512	18.31	ppb	97
72) Isopropylbenzene	19.22	105	154068	18.69	ppb	99
73) Cyclohexanone	19.49	55	132997	357.28	ppb	99
75) 1,1,2,2-Tetrachloroethane	19.82	83	47698	18.92	ppb	99
76) Trans-1,4-Dichloro-2-buten	19.92	53	19244	19.62	ppb	84

(#) = qualifier out of range (m) = manual integration
V0810.D EXP0924.M Tue Sep 25 17:47:15 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0810.D

Vial: 8

Acq On : 25 Sep 2001 5:18 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 17:46 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.95	110	14857	19.12	ppb	93
78) n-Propylbenzene	20.07	91	195602	19.56	ppb	98
79) Bromobenzene	19.97	156	36995	19.71	ppb	95
80) 1,3,5-Trimethylbenzene	20.41	105	118663	19.26	ppb	98
81) 2-Chlorotoluene	20.33	91	116867	19.07	ppb	99
82) 4-Chlorotoluene	20.53	91	118364	19.23	ppb	98
83) tert-Butylbenzene	21.11	119	96883	19.68	ppb	97
84) 1,2,4-Trimethylbenzene	21.20	105	119128	19.31	ppb	98
85) sec-Butylbenzene	21.57	105	158121	19.21	ppb	97
86) p-Isopropyltoluene	21.83	119	122245	19.64	ppb	100
87) 1,3-Dclbenz	21.89	146	61680	21.14	ppb	100
88) 1,4-Dclbenz	22.07	146	63458	19.37	ppb	98
89) n-Butylbenzene	22.70	91	126895	18.80	ppb	99
90) 1,2-Dclbenz	22.89	146	57978	19.40	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.54	157	7186	19.18	ppb	88
93) 1,2,4-Tcbenzene	26.50	180	41179	19.15	ppb	90
94) Hexachlorobt	26.86	225	19933	19.77	ppb	100
95) Naphthalen	27.17	128	89957	18.72	ppb	98
96) 1,2,3-Tclbenzene	27.82	180	40386	19.96	ppb	93

(#) = qualifier out of range (m) = manual integration
V0810.D EXP0924.M Tue Sep 25 17:47:16 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0810.D

Vial: 8

Acq On : 25 Sep 2001 5:18 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 17:46 2001

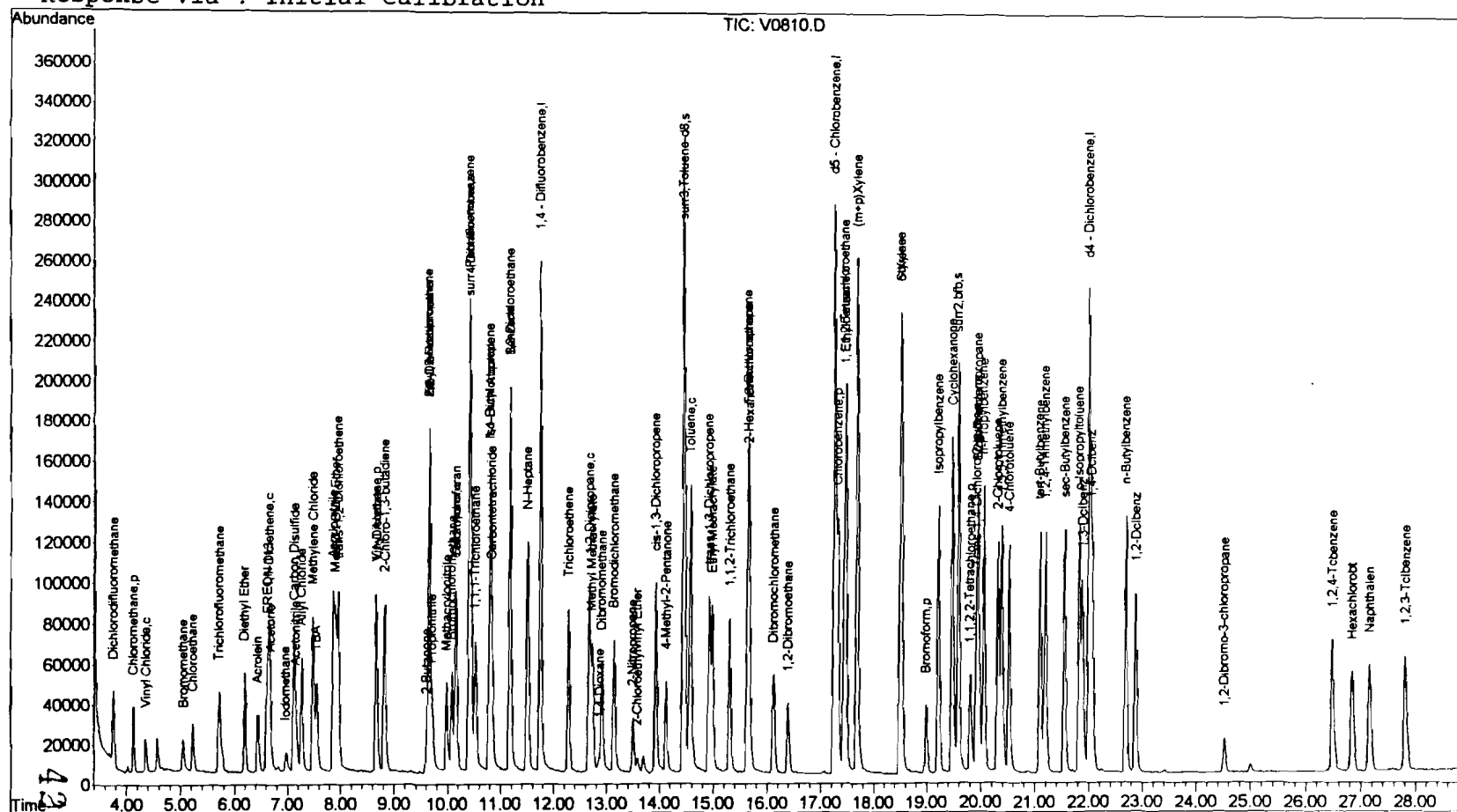
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled :	Order #: 502730	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
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DATE ANALYZED : 09/19/01
ANALYTICAL DILUTION: 1.00

ACETONE	20	21	UG/L
BENZENE	5.0	20	UG/L
BROMODICHLOROMETHANE	5.0	21	UG/L
BROMOFORM	5.0	20	UG/L
BROMOMETHANE	5.0	12	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	18	UG/L
CARBON TETRACHLORIDE	5.0	20	UG/L
CHLOROBENZENE	5.0	20	UG/L
CHLOROETHANE	5.0	19	UG/L
CHLOROFORM	5.0	20	UG/L
CHLOROMETHANE	5.0	20	UG/L
DIBROMOCHLOROMETHANE	5.0	20	UG/L
1,1-DICHLOROETHANE	5.0	21	UG/L
1,2-DICHLOROETHANE	5.0	20	UG/L
1,1-DICHLOROETHENE	5.0	18	UG/L
CIS-1,2-DICHLOROETHENE	5.0	20	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	20	UG/L
1,2-DICHLOROPROPANE	5.0	19	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	20	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	21	UG/L
ETHYLBENZENE	5.0	20	UG/L
FREON 113	5.0	22	UG/L
2-HEXANONE	10	19	UG/L
METHYLENE CHLORIDE	5.0	19	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	21	UG/L
STYRENE	5.0	19	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	20	UG/L
TETRACHLOROETHENE	5.0	20	UG/L
TOLUENE	5.0	20	UG/L
1,1,1-TRICHLOROETHANE	5.0	20	UG/L
1,1,2-TRICHLOROETHANE	5.0	19	UG/L
TRICHLOROETHENE	5.0	19	UG/L
VINYL CHLORIDE	1.0	22	UG/L
O-XYLENE	5.0	19	UG/L
M+P-XYLENE	5.0	39	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	97	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	99	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0699.D

Vial: 7

Acq On : 19 Sep 2001 1:23 pm

Operator: herring

Sample : lcs20 502730 1.0

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 13:54 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

RST 9/19

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.40	168	156441	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.73	114	274112	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.24	117	227149	50.00	ppb	0.03
73) d4 - Dichlorobenzene	22.00	152	97192	50.00	ppb	0.04

System Monitoring Compounds

35) surr4,Dibrflmethane	10.43	113	106469	49.32	ppb	0.03
Spiked Amount 50.000			Recovery	=	98.64%	
57) surr3,Toluene-d8	14.44	98	289786	49.35	ppb	0.03
Spiked Amount 50.000			Recovery	=	98.70%	
58) surr2,bfb	19.57	95	117819	48.70	ppb	0.03
Spiked Amount 50.000			Recovery	=	97.40%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	38358	17.61	ppb	98
3) Chloromethane	4.12	50	24258	20.46	ppb	95
4) Vinyl Chloride	4.35	62	18664	22.15	ppb	100
5) Bromomethane	5.05	94	12881	11.73	ppb	96
6) Chloroethane	5.22	64	28111	19.16	ppb	96
7) Trichlorofluoromethane	5.71	101	54227	20.08	ppb	97
8) Diethyl Ether	6.19	59	37200	21.07	ppb	98
9) Acrolein	6.43	56	30086	79.64	ppb	100
10) FREON 113	6.61	85	15729	21.85	ppb	91
11) 1,1-Dicethene	6.65	96	29363	18.28	ppb	98
12) Acetone	6.67	43	18711	21.49	ppb	# 87
13) Iodomethane	6.98	127	6884	11.40	ppb	93
14) Carbon Disulfide	7.11	76	120541	18.20	ppb	100
15) Acetonitrile	7.15	41	38615	104.79	ppb	96
16) Allyl Chloride	7.26	76	16082	20.27	ppb	93
17) Methylene Chloride	7.47	84	39514	19.20	ppb	95
18) TBA	7.55	59	86337	438.88	ppb	99
19) Acrylonitrile	7.84	53	94659	103.38	ppb	97
20) Methyl-t-Butyl Ether	7.89	73	104600	20.40	ppb	98
21) trans-1,2-Dichloroethene	7.95	96	37846	19.70	ppb	100
22) 1,1-Dicethane	8.66	63	76724	21.22	ppb	99
23) Vinyl Acetate	8.65	43	97618	23.10	ppb	97
24) 2-Chloro-1,3-butadiene	8.81	53	72675	21.35	ppb	97
25) 2,2-Dichloropropane	9.65	77	52566	21.30	ppb	98
26) 2-Butanone	9.59	43	29277	20.34	ppb	100
27) cis-1,2-Dichloroethene	9.64	96	42387	19.88	ppb	98
28) Propionitrile	9.70	54	32806	99.81	ppb	98
29) Methacrylonitrile	9.97	67	16860	19.89	ppb	99

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

V0699.D EXP0914.M Wed Sep 19 13:55:18 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0699.D Vial: 7
 Acq On : 19 Sep 2001 1:23 pm Operator: herring
 Sample : lcs20 Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 19 13:54 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.06	128	15273	19.48	ppb	89
31) Chloroform	10.15	83	72282	20.51	ppb	97
32) Tetrahydrofuran	10.14	42	18909	21.85	ppb	98
33) 1,1,1-Trichloroethane	10.52	97	57263	20.04	ppb	99
36) Carbontetrachloride	10.83	117	46390	20.22	ppb	97
37) 1,1-Dichloropropene	10.79	75	53798	19.55	ppb	95
38) Iso-Butyl Alcohol	10.79	43	50228	430.86	ppb	99
39) Benzene	11.16	78	147780	19.53	ppb	99
40) 1,2-Dichloroethane	11.16	62	62961	20.38	ppb	98
41) N-Heptane	11.50	43	83827	21.64	ppb	99
42) Trichloroethene	12.27	95	37717	18.77	ppb	94
43) 1,2-Diclp propane	12.66	63	44331	18.90	ppb	96
44) Methyl Methacrylate	12.72	69	26829	18.78	ppb	97
45) 1,4-Dioxane	12.86	88	7614	406.50	ppb	96
46) Dibromomethane	12.90	93	26168	21.47	ppb	95
47) Bromodichloromethane	13.12	83	57779	20.95	ppb	99
48) 2-Nitropropane	13.49	43	34827	41.14	ppb	97
49) 2-Chloroethylvinyl Ether	13.57	63	1452	1.04	ppb	93 NT
50) cis-1,3-Dichloropropene	13.92	75	64775	20.21	ppb	98
52) 4-Methyl-2-Pentanone	14.11	43	63869	20.74	ppb	97
53) Toluene	14.57	91	142811	20.28	ppb	99
54) trans-1,3-Dichloropropene	14.92	75	61647	21.39	ppb	99
55) Ethyl Methacrylate	14.97	69	54429	19.95	ppb	97
56) 1,1,2-Trichloroethane	15.29	83	29147	19.34	ppb	97
59) Tetrachloroethene	15.64	166	34348	20.16	ppb	97
60) 2-Hexanone	15.66	43	41173	19.33	ppb	100
61) 1,3-Dichloropropane	15.62	76	63943	19.29	ppb	97
62) Dibromochloromethane	16.11	129	35940	19.75	ppb	93
63) 1,2-Dibromoethane	16.37	107	36629	19.38	ppb	94
64) Chlorobenzene	17.30	112	88039	19.52	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.44	131	31780	19.78	ppb	97
66) Ethylbenzene	17.45	91	160135	20.10	ppb	99
67) (m+p)Xylene	17.67	106	113698	39.49	ppb	98
68) o-Xylene	18.49	106	55052	19.27	ppb	98
69) Styrene	18.51	104	92935	18.91	ppb	96
70) Bromoform	18.97	173	23344	19.69	ppb	93
71) Isopropylbenzene	19.20	105	142058	19.78	ppb	99
72) Cyclohexanone	19.46	55	121507	452.51	ppb	99
74) 1,1,2,2-Tetrachloroethane	19.80	83	45114	20.59	ppb	98
75) Trans-1,4-Dichloro-2-buten	19.90	53	17626	19.49	ppb	93
76) 1,2,3-Trichloropropane	19.94	110	14106	21.09	ppb	96

(#) = qualifier out of range (m) = manual integration
 V0699.D EXP0914.M Wed Sep 19 13:55:19 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0699.D

Vial: 7

Acq On : 19 Sep 2001 1:23 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 13:54 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.05	91	181574	20.07	ppb	99
78) Bromobenzene	19.95	156	33521	19.79	ppb	97
79) 1,3,5-Trimethylbenzene	20.38	105	112836	20.22	ppb	98
80) 2-Chlorotoluene	20.30	91	108604	19.77	ppb	100
81) 4-Chlorotoluene	20.51	91	110732	19.87	ppb	99
82) tert-Butylbenzene	21.08	119	88803	19.98	ppb	93
83) 1,2,4-Trimethylbenzene	21.18	105	110575	19.54	ppb	100
84) sec-Butylbenzene	21.54	105	149125	19.79	ppb	98
85) p-Isopropyltoluene	21.81	119	112559	19.68	ppb	99
86) 1,3-Dclbenz	21.87	146	58166	21.58	ppb	99
87) 1,4-Dclbenz	22.05	146	59577	19.95	ppb	95
88) n-Butylbenzene	22.68	91	123060	19.74	ppb	98
89) 1,2-Dclbenz	22.86	146	54763	19.80	ppb	97
90) 1,2-Dibromo-3-chloropropan	24.51	157	6706	19.32	ppb	95
92) 1,2,4-Tcbenzene	26.47	180	39745	19.40	ppb	99
93) Hexachlorobt	26.82	225	18291	18.96	ppb	99
94) Naphthalen	27.14	128	91098	19.66	ppb	99
95) 1,2,3-Tclbenzene	27.79	180	37823	19.54	ppb	97

(#) = qualifier out of range (m) = manual integration
V0699.D EXP0914.M Wed Sep 19 13:55:19 2001

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Page 3

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0699.D

Vial: 7

Acq On : 19 Sep 2001 1:23 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

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MS Integration Params: rteint.p
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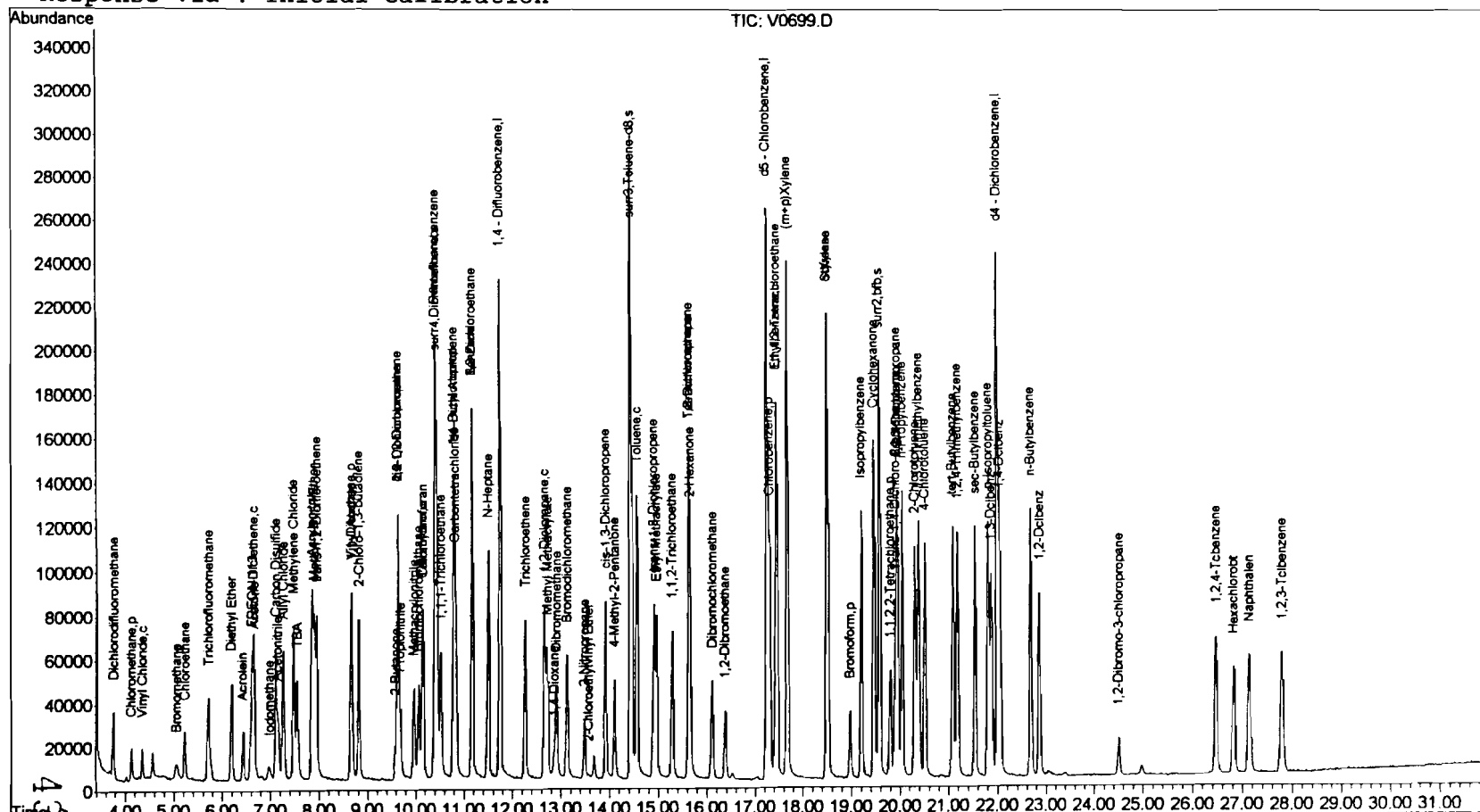
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled :	Order #: 502734	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	23	UG/L
BENZENE	5.0	19	UG/L
BROMODICHLOROMETHANE	5.0	17	UG/L
BROMOFORM	5.0	18	UG/L
BROMOMETHANE	5.0	11	UG/L
2-BUTANONE (MEK)	10	16	UG/L
CARBON DISULFIDE	10	16	UG/L
CARBON TETRACHLORIDE	5.0	14	UG/L
CHLOROBENZENE	5.0	19	UG/L
CHLOROETHANE	5.0	18	UG/L
CHLOROFORM	5.0	20	UG/L
CHLOROMETHANE	5.0	18	UG/L
DIBROMOCHLOROMETHANE	5.0	18	UG/L
1,1-DICHLOROETHANE	5.0	20	UG/L
1,2-DICHLOROETHANE	5.0	18	UG/L
1,1-DICHLOROETHENE	5.0	18	UG/L
CIS-1,2-DICHLOROETHENE	5.0	19	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	18	UG/L
1,2-DICHLOROPROPANE	5.0	18	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	14	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	17	UG/L
ETHYLBENZENE	5.0	19	UG/L
FREON 113	5.0	20	UG/L
2-HEXANONE	10	17	UG/L
METHYLENE CHLORIDE	5.0	19	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	17	UG/L
STYRENE	5.0	19	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	19	UG/L
TETRACHLOROETHENE	5.0	19	UG/L
TOLUENE	5.0	19	UG/L
1,1,1-TRICHLOROETHANE	5.0	17	UG/L
1,1,2-TRICHLOROETHANE	5.0	19	UG/L
TRICHLOROETHENE	5.0	18	UG/L
VINYL CHLORIDE	1.0	21	UG/L
O-XYLENE	5.0	19	UG/L
M+P-XYLENE	5.0	39	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	97	%
TOLUENE-D8	(87 - 108 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	96	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0747.D

Vial: 6

Acq On : 21 Sep 2001 12:45 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 13:17 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	156008	50.00	ppb	0.05
34) 1,4 - Difluorobenzene	11.75	114	272710	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	229173	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.00	152	97239	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	103512	48.20	ppb	0.04
Spiked Amount 50.000			Recovery	=	96.40%	
57) surr3,Toluene-d8	14.45	98	285363	48.16	ppb	0.04
Spiked Amount 50.000			Recovery	=	96.32%	
58) surr2,bfb	19.59	95	117786	48.26	ppb	0.05
Spiked Amount 50.000			Recovery	=	96.52%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.77	85	35287	16.24	ppb	99
3) Chloromethane	4.14	50	20731	17.53	ppb	96
4) Vinyl Chloride	4.36	62	17354	20.65	ppb	99
5) Bromomethane	5.07	94	12230m	11.34	ppb	99
6) Chloroethane	5.24	64	26437	18.07	ppb	99
7) Trichlorofluoromethane	5.72	101	51458	19.11	ppb	96
8) Diethyl Ether	6.20	59	34050	19.34	ppb	96
9) Acrolein	6.45	56	22586	59.96	ppb	96
10) FREON 113	6.64	85	14732	20.53	ppb	93
11) 1,1-Dicethene	6.67	96	29711	18.55	ppb	95
12) Acetone	6.68	43	19725	22.72	ppb	98
13) Iodomethane	7.00	127	4049	6.72	ppb	88
14) Carbon Disulfide	7.13	76	103595	15.69	ppb	98
15) Acetonitrile	7.17	41	35051	95.38	ppb	95
16) Allyl Chloride	7.27	76	10650	13.46	ppb	79
17) Methylene Chloride	7.48	84	38626	18.82	ppb	99
18) TBA	7.56	59	58529	298.35	ppb	97
19) Acrylonitrile	7.86	53	85737	93.90	ppb	99
20) Methyl-t-Butyl Ether	7.92	73	83754	16.38	ppb	98
21) trans-1,2-Dichloroethene	7.97	96	35300	18.43	ppb	97
22) 1,1-Dicethane	8.67	63	72876	20.22	ppb	100
23) Vinyl Acetate	8.67	43	24554	5.83	ppb	92
24) 2-Chloro-1,3-butadiene	8.83	53	59523	17.53	ppb	94
25) 2,2-Dichloropropane	9.66	77	12971	5.27	ppb	82
26) 2-Butanone	9.60	43	22731	15.84	ppb	100
27) cis-1,2-Dichloroethene	9.65	96	41135	19.34	ppb	91
28) Propionitrile	9.71	54	31149	95.03	ppb	99
29) Methacrylonitrile	9.98	67	15775	18.66	ppb	96

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

V0747.D EXP0914.M

Fri Sep 21 13:21:18 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0747.D

Vial: 6

Acq On : 21 Sep 2001 12:45 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 13:17 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.07	128	12752	16.31	ppb	90
31) Chloroform	10.16	83	68791	19.58	ppb	96
32) Tetrahydrofuran	10.15	42	17952	20.80	ppb	97
33) 1,1,1-Trichloroethane	10.54	97	48546	17.04	ppb	94
36) Carbontetrachloride	10.85	117	31839	13.95	ppb	94
37) 1,1-Dichloropropene	10.81	75	49687	18.15	ppb	99
38) Iso-Butyl Alcohol	10.80	43	43344	373.72	ppb	91
39) Benzene	11.18	78	140934	18.72	ppb	98
40) 1,2-Dichloroethane	11.19	62	56771	18.47	ppb	96
41) N-Heptane	11.50	43	84696	21.98	ppb	99
42) Trichloroethene	12.27	95	36468	18.24	ppb	94
43) 1,2-Dichloropropane	12.67	63	42969	18.42	ppb	97
44) Methyl Methacrylate	12.73	69	25594	18.01	ppb	96
45) 1,4-Dioxane	12.86	88	6486	348.06	ppb	97
46) Dibromomethane	12.92	93	18205	15.01	ppb	96
47) Bromodichloromethane	13.15	83	46993	17.13	ppb	97
48) 2-Nitropropane	13.50	43	23142	27.48	ppb	94
49) 2-Chloroethylvinyl Ether	13.58	63	4378	3.14	ppb	93
50) cis-1,3-Dichloropropene	13.92	75	46503	14.59	ppb	96
52) 4-Methyl-2-Pentanone	14.12	43	53248	17.13	ppb	95
53) Toluene	14.58	91	137245	19.32	ppb	98
54) trans-1,3-Dichloropropene	14.92	75	49743	17.11	ppb	99
55) Ethyl Methacrylate	14.98	69	53000	19.25	ppb	98
56) 1,1,2-Trichloroethane	15.30	83	28772	18.92	ppb	94
59) Tetrachloroethene	15.66	166	33166	19.29	ppb	95
60) 2-Hexanone	15.67	43	36028	16.76	ppb	98
61) 1,3-Dichloropropane	15.64	76	58593	17.52	ppb	96
62) Dibromochloromethane	16.11	129	32534	17.72	ppb	100
63) 1,2-Dibromoethane	16.39	107	35177	18.44	ppb	91
64) Chlorobenzene	17.31	112	85657	18.82	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.44	131	30221	18.64	ppb	99
66) Ethylbenzene	17.46	91	155229	19.31	ppb	99
67) (m+p)Xylene	17.68	106	113464	39.06	ppb	98
68) o-Xylene	18.49	106	54546	18.92	ppb	96
69) Styrene	18.51	104	93091	18.78	ppb	100
70) Bromoform	18.98	173	21178	17.71	ppb	94
71) Isopropylbenzene	19.21	105	139446	19.24	ppb	99
72) Cyclohexanone	19.47	55	122575	452.46	ppb	97
74) 1,1,2,2-Tetrachloroethane	19.81	83	41531	18.95	ppb	98
75) Trans-1,4-Dichloro-2-buten	19.90	53	16124	17.82	ppb	83
76) 1,2,3-Trichloropropane	19.93	110	12795	19.12	ppb	96

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

V0747.D EXP0914.M Fri Sep 21 13:21:18 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0747.D Vial: 6
 Acq On : 21 Sep 2001 12:45 pm Operator: herring
 Sample : lcs20 Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 21 13:17 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) n-Propylbenzene	20.05	91	176942	19.55	ppb	99
78) Bromobenzene	19.95	156	32646	19.26	ppb	94
79) 1,3,5-Trimethylbenzene	20.38	105	111574	19.99	ppb	99
80) 2-Chlorotoluene	20.31	91	106765	19.42	ppb	99
81) 4-Chlorotoluene	20.52	91	107098	19.21	ppb	98
82) tert-Butylbenzene	21.09	119	87555	19.69	ppb	95
83) 1,2,4-Trimethylbenzene	21.19	105	108960	19.24	ppb	98
84) sec-Butylbenzene	21.55	105	144623	19.18	ppb	100
85) p-Isopropyltoluene	21.81	119	111906	19.56	ppb	97
86) 1,3-Dclbenz	21.88	146	56128	20.82	ppb	95
87) 1,4-Dclbenz	22.06	146	58128	19.45	ppb	96
88) n-Butylbenzene	22.68	91	119967	19.24	ppb	99
89) 1,2-Dclbenz	22.87	146	53308	19.27	ppb	98
90) 1,2-Dibromo-3-chloropropan	24.51	157	6046	17.41	ppb	92
92) 1,2,4-Tcbenzene	26.47	180	39401	19.22	ppb	94
93) Hexachlorobt	26.82	225	18619	19.29	ppb	98
94) Naphthalen	27.15	128	83395	17.99	ppb	96
95) 1,2,3-Tclbenzene	27.80	180	36019	18.60	ppb	100

(#) = qualifier out of range (m) = manual integration
 V0747.D EXP0914.M Fri Sep 21 13:21:18 2001

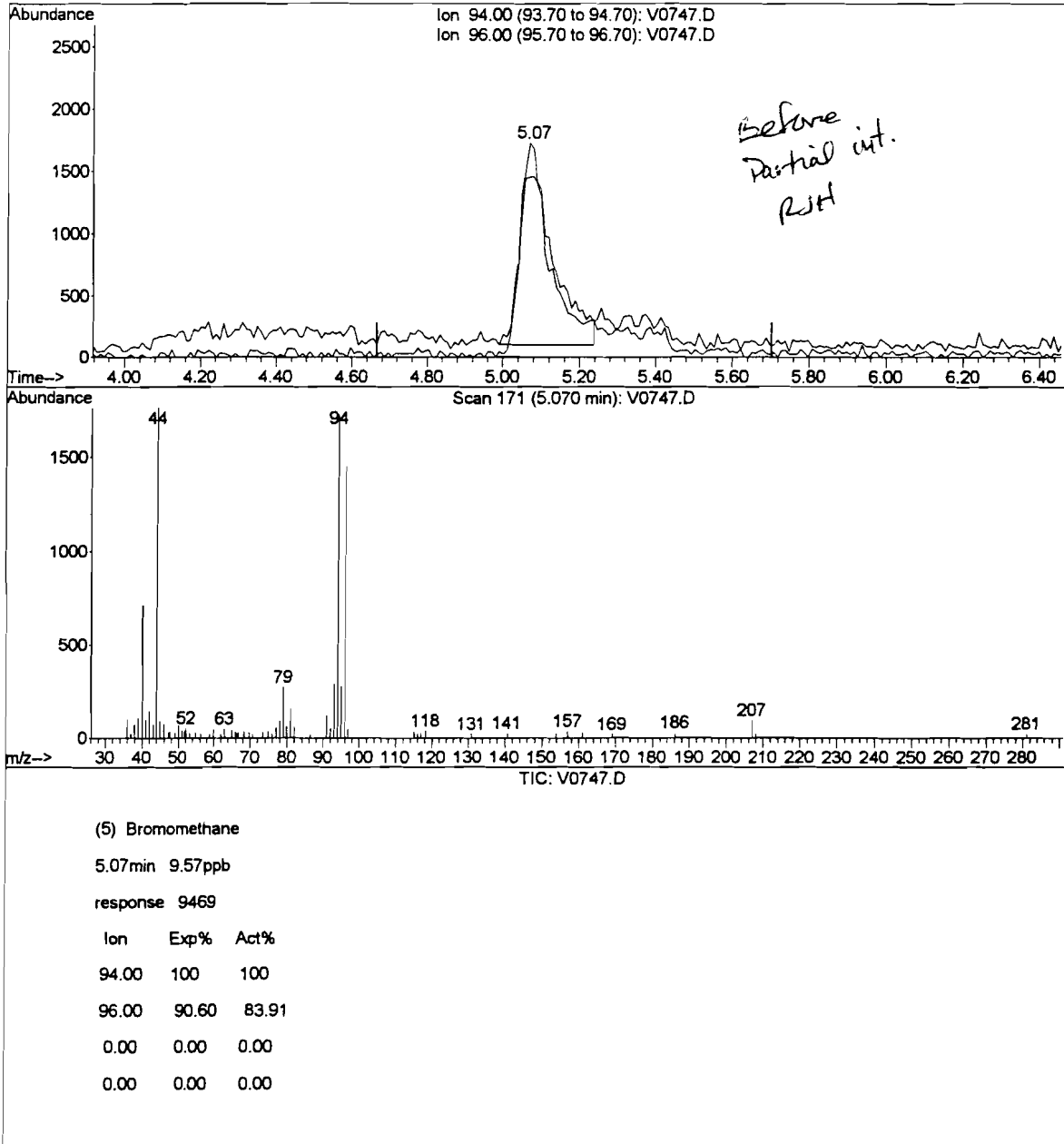
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0747.D
 Acq On : 21 Sep 2001 12:45 pm
 Sample : lcs20
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Sep 21 13:14 2001

Vial: 6
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Multiple Level Calibration



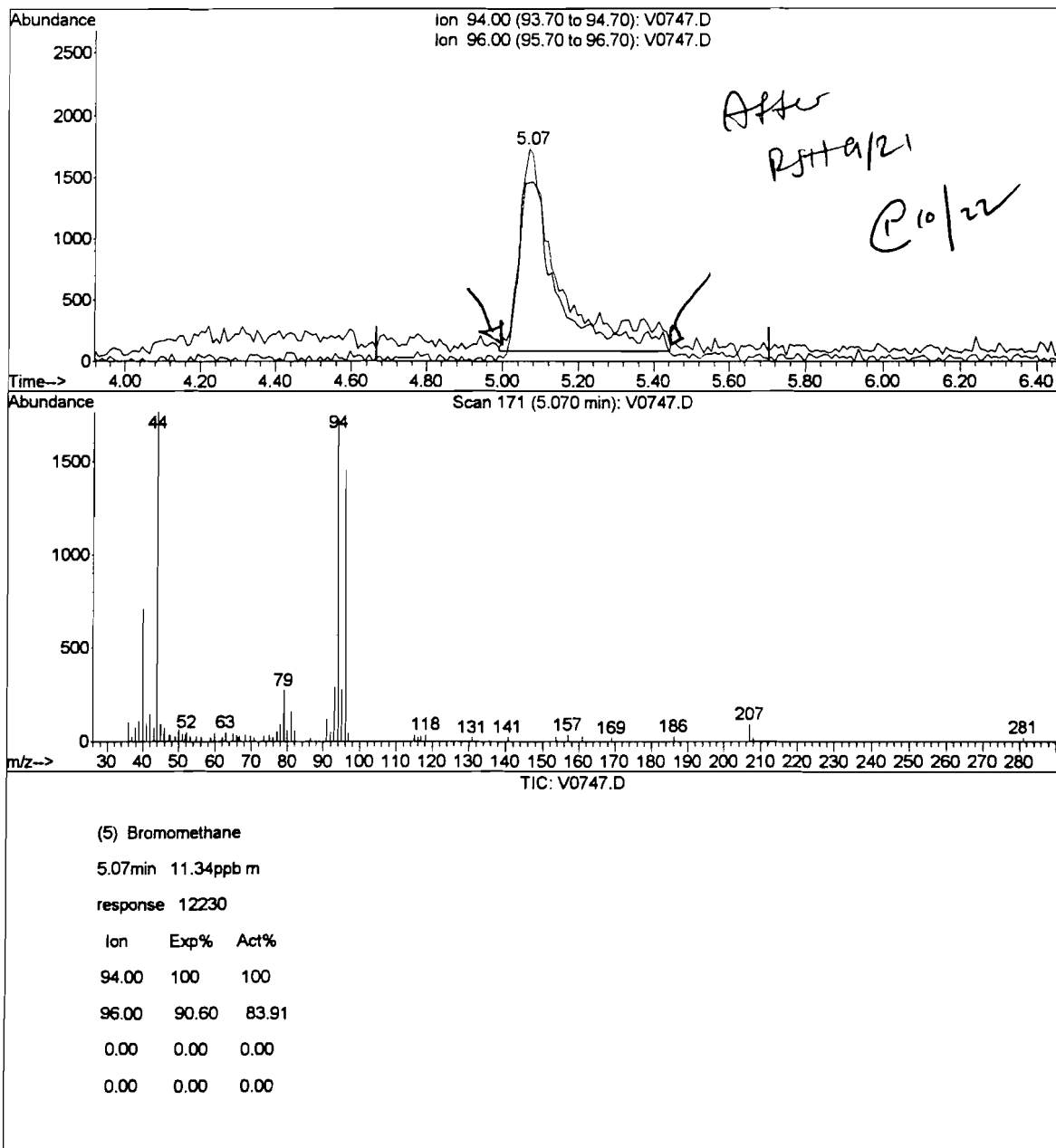
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0747.D
 Acq On : 21 Sep 2001 12:45 pm
 Sample : lcs20
 Misc :
 MS Integration Params: rteint.p
 Quant Time: Sep 21 13:17 2001

Vial: 6
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0747.D

Vial: 6

Acq On : 21 Sep 2001 12:45 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 13:17 2001

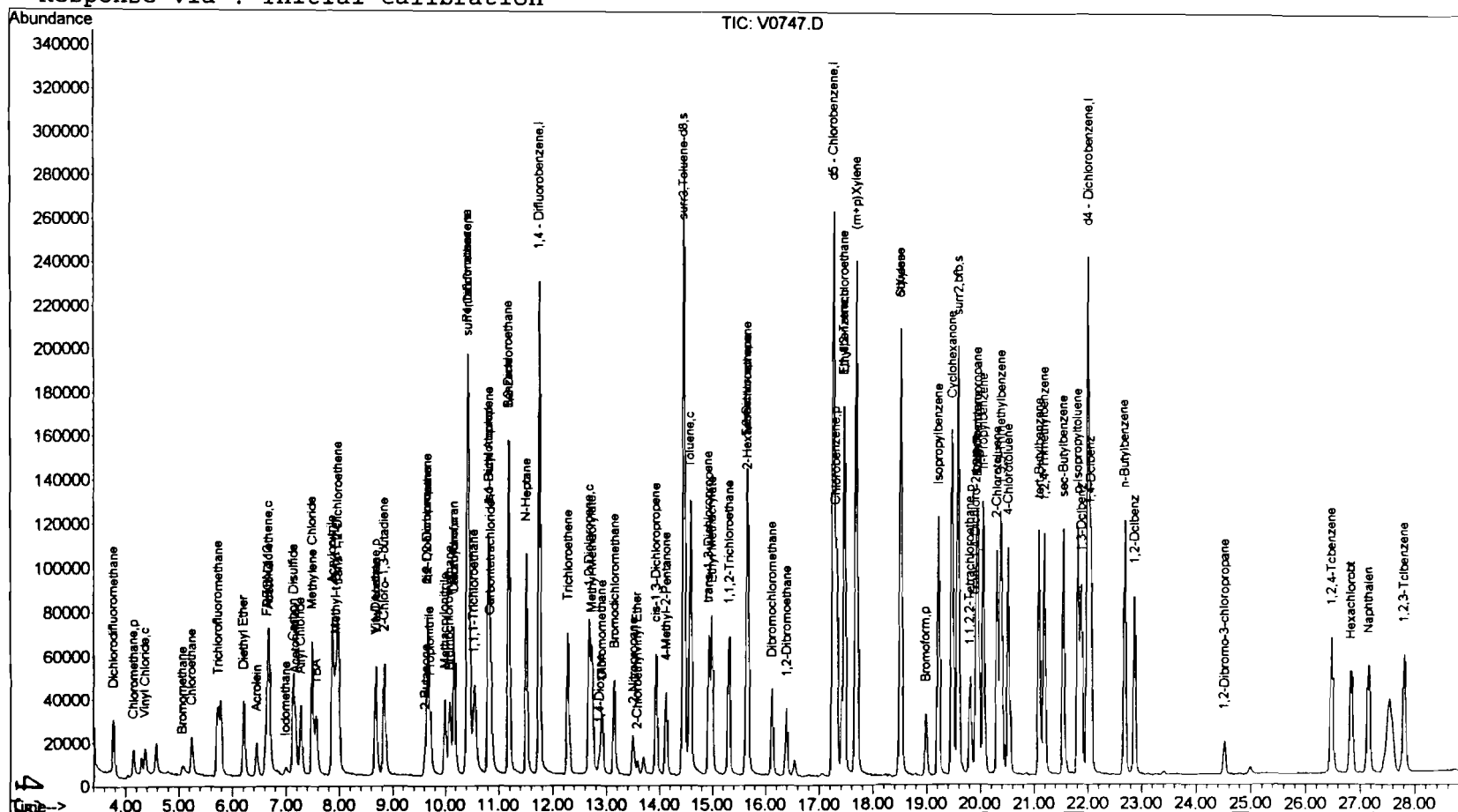
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

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Response via : Initial Calibration
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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : Order #: 502816 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
---------	-----	--------	-------

DATE ANALYZED : 09/26/01
ANALYTICAL DILUTION: 1.00

ACETONE	20	20 U	UG/L
BENZENE	5.0	19	UG/L
BROMODICHLOROMETHANE	5.0	19	UG/L
BROMOFORM	5.0	17	UG/L
BROMOMETHANE	5.0	25	UG/L
2-BUTANONE (MEK)	10	19	UG/L
CARBON DISULFIDE	10	19	UG/L
CARBON TETRACHLORIDE	5.0	19	UG/L
CHLOROBENZENE	5.0	18	UG/L
CHLOROETHANE	5.0	20	UG/L
CHLOROFORM	5.0	20	UG/L
CHLOROMETHANE	5.0	18	UG/L
DIBROMOCHLOROMETHANE	5.0	18	UG/L
1,1-DICHLOROETHANE	5.0	20	UG/L
1,2-DICHLOROETHANE	5.0	19	UG/L
1,1-DICHLOROETHENE	5.0	19	UG/L
CIS-1,2-DICHLOROETHENE	5.0	18	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	18	UG/L
1,2-DICHLOROPROPANE	5.0	18	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	19	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	19	UG/L
ETHYLBENZENE	5.0	18	UG/L
FREON 113	5.0	23	UG/L
2-HEXANONE	10	17	UG/L
METHYLENE CHLORIDE	5.0	18	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	18	UG/L
STYRENE	5.0	17	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	18	UG/L
TETRACHLOROETHENE	5.0	18	UG/L
TOLUENE	5.0	18	UG/L
1,1,1-TRICHLOROETHANE	5.0	19	UG/L
1,1,2-TRICHLOROETHANE	5.0	18	UG/L
TRICHLOROETHENE	5.0	19	UG/L
VINYL CHLORIDE	1.0	21	UG/L
O-XYLENE	5.0	18	UG/L
M+P-XYLENE	5.0	36	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	99	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	104	%

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0831.D

Vial: 7

Acq On : 26 Sep 2001 12:44 pm

Operator: herring

Sample : lcs20 502816 (1.0)

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 13:12 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

204 10/4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.42	168	142793	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	252863	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.25	117	206450	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.01	152	86286	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4, Dibrflmethane	10.44	113	100219	51.98	ppb	-0.01
Spiked Amount	50.000		Recovery	=	103.96%	
58) surr3, Toluene-d8	14.46	98	265469	50.95	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.90%	
59) surr2, bfb	19.59	95	104930	49.62	ppb	-0.01
Spiked Amount	50.000		Recovery	=	99.24%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.75	85	35626	19.90	ppb	99
3) Chloromethane	4.13	50	35671	18.34	ppb	97
4) Vinyl Chloride	4.35	62	18683	21.16	ppb	96
5) Bromomethane	5.04	94	17224	24.66	ppb	97
6) Chloroethane	5.23	64	26100	19.56	ppb	89
7) Trichlorofluoromethane	5.72	101	49997	19.86	ppb	98
8) Diethyl Ether	6.19	59	33693	19.68	ppb	93
9) Acrolein	6.44	56	20794	55.57	ppb	98
10) FREON 113	6.61	85	15365	22.86	ppb	85
11) 1,1-Dichloroethene	6.67	96	27506	19.16	ppb	97
12) Acetone	6.69	43	16227	14.87	ppb	94
13) Iodomethane	6.97	127	7230	23.55	ppb	97
14) Carbon Disulfide	7.12	76	109483	19.21	ppb	100
15) Acetonitrile	7.17	41	30695	86.44	ppb	# 77
16) Allyl Chloride	7.27	76	9726	15.29	ppb	98
17) Methylene Chloride	7.48	84	36828	18.26	ppb	96
18) TBA	7.55	59	60149	309.34	ppb	99
19) Acrylonitrile	7.86	53	78876	89.55	ppb	97
20) Methyl-t-Butyl Ether	7.91	73	93689	18.53	ppb	97
21) trans-1,2-Dichloroethene	7.96	96	34494	18.53	ppb	95
22) 1,1-Dichloroethane	8.67	63	71793	20.51	ppb	99
23) Vinyl Acetate	8.67	43	65687	33.21	ppb	97 NT
24) 2-Chloro-1,3-butadiene	8.82	53	70827	22.05	ppb	96
25) 2,2-Dichloropropane	9.65	77	45883	21.88	ppb	98
26) 2-Butanone	9.59	43	24903	19.09	ppb	95
27) Ethyl Acetate	9.59	43	25472	9.53	ppb	# 72 No Ad
28) cis-1,2-Dichloroethene	9.65	96	39017	18.46	ppb	93
29) Propionitrile	9.71	54	26840	84.79	ppb	96

(#) = qualifier out of range (m) = manual integration
 V0831.D EXP0924.M Wed Sep 26 13:13:37 2001

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 Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0831.D

Vial: 7

Acq On : 26 Sep 2001 12:44 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 13:12 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	9.99	67	14595	17.83	ppb	93
31) Bromochloromethane	10.07	128	13104	18.59	ppb	80
32) Chloroform	10.16	83	69061	19.94	ppb	100
33) Tetrahydrofuran	10.14	42	15933	18.32	ppb	98
34) 1,1,1-Trichloroethane	10.54	97	53246	19.45	ppb	96
37) Carbontetrachloride	10.84	117	41426	19.00	ppb	99
38) 1,1-Dichloropropene	10.80	75	49170	18.77	ppb	97
39) Iso-Butyl Alcohol	10.80	43	33287	291.05	ppb	95
40) Benzene	11.18	78	134086	18.65	ppb	98
41) 1,2-Dichloroethane	11.18	62	58532	19.22	ppb	100
42) N-Heptane	11.51	43	73732	20.44	ppb	98
43) Trichloroethene	12.28	95	35544	18.66	ppb	98
44) 1,2-Diclp propane	12.67	63	40394	18.08	ppb	99
45) Methyl Methacrylate	12.73	69	23419	16.73	ppb	98
46) 1,4-Dioxane	12.86	88	4671	308.67	ppb	86
47) Dibromomethane	12.91	93	25818	19.15	ppb	97
48) Bromodichloromethane	13.15	83	51801	19.41	ppb	95
49) 2-Nitropropane	13.49	43	25861	35.94	ppb	99
50) 2-Chloroethylvinyl Ether	13.58	63	4365	31.07	ppb	96 NT
51) cis-1,3-Dichloropropene	13.94	75	59368	19.14	ppb	97
53) 4-Methyl-2-Pentanone	14.12	43	52848	17.77	ppb	96
54) Toluene	14.59	91	126882	18.30	ppb	97
55) trans-1,3-Dichloropropene	14.93	75	52561	18.99	ppb	95
56) Ethyl Methacrylate	14.99	69	45197	17.03	ppb	100
57) 1,1,2-Trichloroethane	15.30	83	26324	17.69	ppb	98
60) Tetrachloroethene	15.66	166	29376	17.63	ppb	99
61) 2-Hexanone	15.67	43	35818	17.24	ppb	96
62) 1,3-Dichloropropane	15.64	76	55284	16.78	ppb	100
63) Dibromochloromethane	16.12	129	31616	17.72	ppb	98
64) 1,2-Dibromoethane	16.39	107	32505	17.34	ppb	99
65) Chlorobenzene	17.31	112	78425	17.99	ppb	98
66) 1,1,1,2-Tetrachloroethane	17.44	131	28390	17.97	ppb	99
67) Ethylbenzene	17.47	91	140807	18.22	ppb	99
68) (m+p)Xylene	17.69	106	98501	35.53	ppb	98
69) o-Xylene	18.50	106	47703	17.51	ppb	95
70) Styrene	18.52	104	81858	17.35	ppb	97
71) Bromoform	18.99	173	19900	16.93	ppb	96
72) Isopropylbenzene	19.21	105	122824	17.66	ppb	97
73) Cyclohexanone	19.48	55	89357	284.62	ppb	95
75) 1,1,2,2-Tetrachloroethane	19.81	83	38534	17.52	ppb	98
76) Trans-1,4-Dichloro-2-buten	19.91	53	14919	17.44	ppb	86

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

V0831.D EXP0924.M Wed Sep 26 13:13:38 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0831.D

Vial: 7

Acq On : 26 Sep 2001 12:44 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 13:12 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.95	110	11842	17.47	ppb	98
78) n-Propylbenzene	20.06	91	157136	18.01	ppb	99
79) Bromobenzene	19.96	156	28641	17.49	ppb	93
80) 1,3,5-Trimethylbenzene	20.40	105	96212	17.90	ppb	99
81) 2-Chlorotoluene	20.32	91	95213	17.81	ppb	99
82) 4-Chlorotoluene	20.52	91	95647	17.81	ppb	96
83) tert-Butylbenzene	21.09	119	76954	17.92	ppb	99
84) 1,2,4-Trimethylbenzene	21.19	105	94719	17.60	ppb	96
85) sec-Butylbenzene	21.55	105	126724	17.65	ppb	99
86) p-Isopropyltoluene	21.82	119	95678	17.63	ppb	99
87) 1,3-Dclbenz	21.89	146	49464	19.44	ppb	96
88) 1,4-Dclbenz	22.06	146	51315	17.96	ppb	97
89) n-Butylbenzene	22.69	91	105822	17.97	ppb	99
90) 1,2-Dclbenz	22.88	146	47412	18.19	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.51	157	5219	15.97	ppb	95
93) 1,2,4-Tcbenzene	26.48	180	32993	17.59	ppb	98
94) Hexachlorobt	26.85	225	15709	17.86	ppb	99
95) Naphthalen	27.16	128	68371	16.31	ppb	99
96) 1,2,3-Tclbenzene	27.81	180	31168	17.66	ppb	96

(#) = qualifier out of range (m) = manual integration
V0831.D EXP0924.M Wed Sep 26 13:13:38 2001

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Page 3

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092601\V0831.D

Vial: 7

Acq On : 26 Sep 2001 12:44 pm

Operator: herring

Sample : lcs20

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 13:12 2001

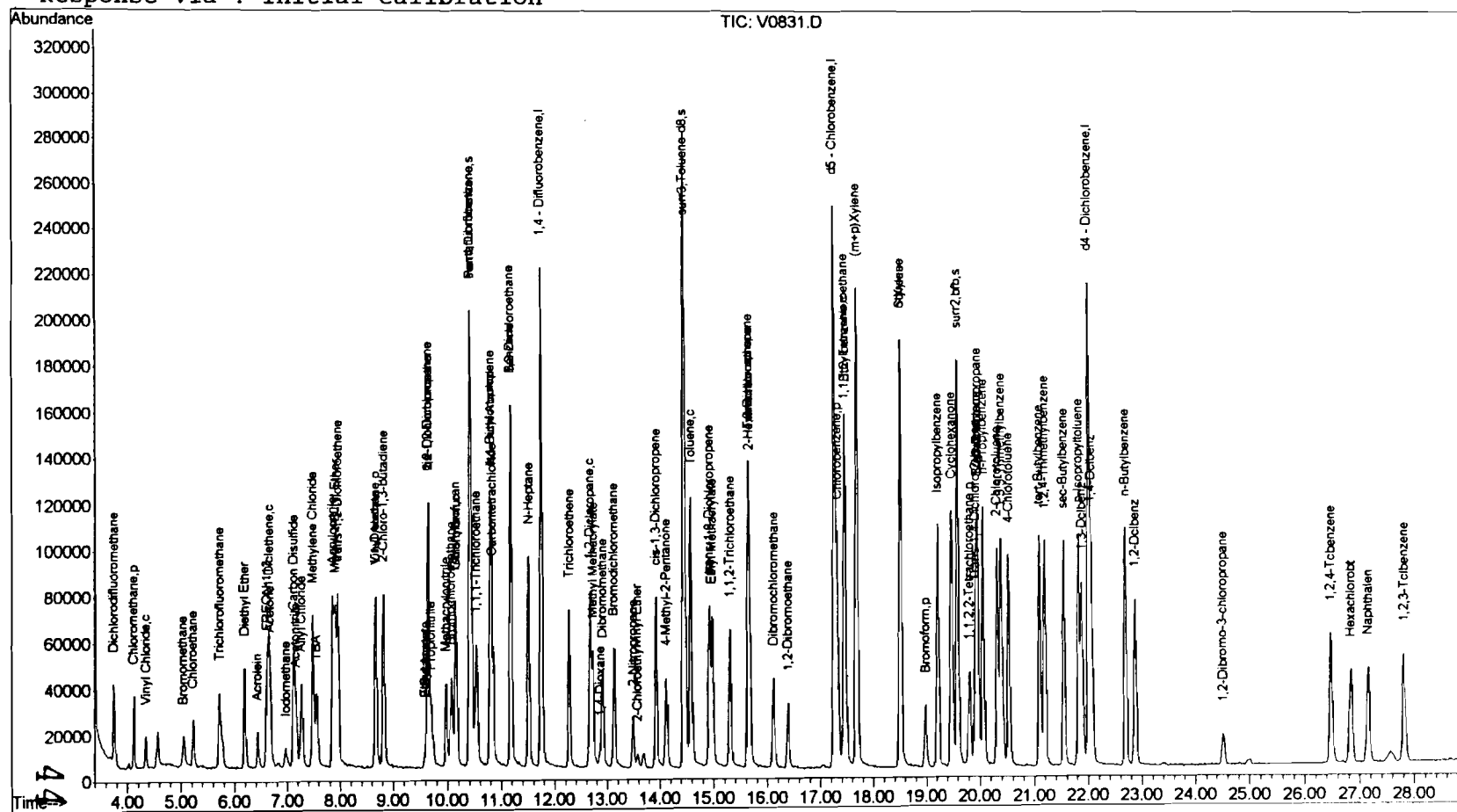
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Wed Sep 26 09:16:34 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01Project Reference:
Client Sample ID : MATRIX SPIKE

Date Sampled :	Order #: 502725	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/18/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	54	UG/L
BENZENE	5.0	51	UG/L
BROMODICHLOROMETHANE	5.0	54	UG/L
BROMOFORM	5.0	53	UG/L
BROMOMETHANE	5.0	28	UG/L
2-BUTANONE (MEK)	10	54	UG/L
CARBON DISULFIDE	10	51	UG/L
CARBON TETRACHLORIDE	5.0	54	UG/L
CHLOROBENZENE	5.0	51	UG/L
CHLOROETHANE	5.0	56	UG/L
CHLOROFORM	5.0	55	UG/L
CHLOROMETHANE	5.0	63	UG/L
DIBROMOCHLOROMETHANE	5.0	52	UG/L
1,1-DICHLOROETHANE	5.0	58	UG/L
1,2-DICHLOROETHANE	5.0	54	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	55	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	55	UG/L
1,2-DICHLOROPROPANE	5.0	49	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	54	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	54	UG/L
ETHYLBENZENE	5.0	53	UG/L
FREON 113	5.0	63	UG/L
2-HEXANONE	10	48	UG/L
METHYLENE CHLORIDE	5.0	53	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	49	UG/L
STYRENE	5.0	52	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	52	UG/L
TETRACHLOROETHENE	5.0	51	UG/L
TOLUENE	5.0	52	UG/L
1,1,1-TRICHLOROETHANE	5.0	54	UG/L
1,1,2-TRICHLOROETHANE	5.0	52	UG/L
TRICHLOROETHENE	5.0	51	UG/L
VINYL CHLORIDE	1.0	66	UG/L
O-XYLENE	5.0	51	UG/L
M+P-XYLENE	5.0	100	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	100	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0687.D Vial: 19
 Acq On : 18 Sep 2001 9:03 pm Operator: herring
 Sample : ~~492386~~ 1.0ms 502725 1.0ms Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 18 21:35 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Internal Standards R.T. QIon Response Conc Units Dev(Min)

1) Pentafluorobenzene	10.40	168	126289	50.00	ppb	0.03
34) 1,4 - Difluorobenzene	11.73	114	231782	50.00	ppb	0.03
51) d5 - Chlorobenzene	17.23	117	194944	50.00	ppb	0.03
73) d4 - Dichlorobenzene	21.98	152	88278	50.00	ppb	0.03

System Monitoring Compounds

35) surr4,Dibrflmethane	10.42	113	91487	50.12	ppb	0.02
Spiked Amount	50.000		Recovery	=	100.24%	
57) surr3,Toluene-d8	14.43	98	246752	48.96	ppb	0.02
Spiked Amount	50.000		Recovery	=	97.92%	
58) surr2,bfb	19.57	95	103627	49.91	ppb	0.03
Spiked Amount	50.000		Recovery	=	99.82%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
2) Dichlorodifluoromethane	3.74	85	89295	50.77	ppb		100
3) Chloromethane	4.12	50	60409	63.12	ppb		98
4) Vinyl Chloride	4.34	62	45292	66.57	ppb		94
5) Bromomethane	5.03	94	30915	27.99	ppb		95
6) Chloroethane	5.21	64	65769	55.52	ppb		97
7) Trichlorofluoromethane	5.70	101	129760	59.53	ppb		98
8) Diethyl Ether	6.17	59	82943	58.19	ppb		97
9) Acrolein	6.42	56	61156	200.54	ppb		93
10) FREON 113	6.61	85	36675	63.12	ppb		92
11) 1,1-Dicethene	6.65	96	65047	50.17	ppb		99
12) Acetone	6.67	43	38237	54.40	ppb		100
13) Iodomethane	6.95	127	29035	59.55	ppb		87
14) Carbon Disulfide	7.10	76	270535	50.61	ppb		100
15) Acetonitrile	7.15	41	84122	282.79	ppb		97
16) Allyl Chloride	7.25	76	38143	59.57	ppb		97
17) Methylene Chloride	7.46	84	88203	53.08	ppb		97
18) TBA	7.53	59	179727	1131.75	ppb		98
19) Acrylonitrile	7.84	53	210802	285.20	ppb		98
20) Methyl-t-Butyl Ether	7.89	73	230675	55.72	ppb		98
21) trans-1,2-Dichloroethene	7.95	96	84988	54.81	ppb		97
22) 1,1-Dicethane	8.66	63	170077	58.28	ppb		99
23) Vinyl Acetate	8.65	43	218222	63.96	ppb		100
24) 2-Chloro-1,3-butadiene	8.80	53	162996	59.31	ppb		94
25) 2,2-Dichloropropane	9.63	77	114602	57.53	ppb		100
26) 2-Butanone	9.58	43	62434	53.74	ppb		99
27) cis-1,2-Dichloroethene	9.63	96	94042	54.63	ppb		98
28) Propionitrile	9.69	54	73049	275.31	ppb		97
29) Methacrylonitrile	9.96	67	36906	53.94	ppb		92

(#) = qualifier out of range (m) = manual integration
 V0687.D EXP0914.M Tue Sep 18 21:36:06 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0687.D

Vial: 19

Acq On : 18 Sep 2001 9:03 pm

Operator: herring

Sample : 492386 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 21:35 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.05	128	35003	55.30	ppb	93
31) Chloroform	10.14	83	156400	54.99	ppb	97
32) Tetrahydrofuran	10.12	42	35626	51.00	ppb	96
33) 1,1,1-Trichloroethane	10.52	97	125065	54.23	ppb	99
36) Carbontetrachloride	10.82	117	104070	53.65	ppb	93
37) 1,1-Dichloropropene	10.78	75	118836	51.07	ppb	98
38) Iso-Butyl Alcohol	10.77	43	101687	1031.57	ppb	97
39) Benzene	11.16	78	325468	50.86	ppb	98
40) 1,2-Dichloroethane	11.16	62	142257	54.47	ppb	96
41) N-Heptane	11.48	43	173783	53.06	ppb	99
42) Trichloroethene	12.25	95	86901	51.15	ppb	96
43) 1,2-Diclpropane	12.65	63	97526	49.18	ppb	97
44) Methyl Methacrylate	12.70	69	60267	49.89	ppb	97
45) 1,4-Dioxane	12.84	88	14050	887.10	ppb	93
46) Dibromomethane	12.89	93	58728	56.98	ppb	95
47) Bromodichloromethane	13.12	83	127008	54.46	ppb	100
48) 2-Nitropropane	13.47	43	77128	107.74	ppb	98
50) cis-1,3-Dichloropropene	13.91	75	146268	53.98	ppb	98
52) 4-Methyl-2-Pentanone	14.10	43	129423	48.96	ppb	96
53) Toluene	14.56	91	316119	52.31	ppb	100
54) trans-1,3-Dichloropropene	14.90	75	134114	54.22	ppb	100
55) Ethyl Methacrylate	14.96	69	120135	51.31	ppb	99
56) 1,1,2-Trichloroethane	15.27	83	67622	52.27	ppb	96
59) Tetrachloroethene	15.63	166	74000	50.60	ppb	96
60) 2-Hexanone	15.65	43	88268	48.28	ppb	98
61) 1,3-Dichloropropane	15.62	76	140118	49.26	ppb	100
62) Dibromochloromethane	16.09	129	80467	51.53	ppb	94
63) 1,2-Dibromoethane	16.37	107	82239	50.69	ppb	91
64) Chlorobenzene	17.29	112	197803	51.09	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.41	131	70553	51.17	ppb	99
66) Ethylbenzene	17.44	91	361743	52.91	ppb	99
67) (m+p)Xylene	17.66	106	257029	104.03	ppb	98
68) o-Xylene	18.47	106	124984	50.97	ppb	97
69) Styrene	18.49	104	217829	51.65	ppb	99
70) Bromoform	18.96	173	53822	52.91	ppb	95
71) Isopropylbenzene	19.19	105	328551	53.29	ppb	100
72) Cyclohexanone	19.45	55	61784	268.11	ppb	98
74) 1,1,2,2-Tetrachloroethane	19.78	83	103463	52.00	ppb	98
75) Trans-1,4-Dichloro-2-buten	19.88	53	40232	48.99	ppb	88
76) 1,2,3-Trichloropropane	19.92	110	30679	50.50	ppb	95
77) n-Propylbenzene	20.03	91	421286	51.27	ppb	100

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

V0687.D EXP0914.M Tue Sep 18 21:36:06 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0687.D

Vial: 19

Acq On : 18 Sep 2001 9:03 pm

Operator: herring

Sample : 492386 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 21:35 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) Bromobenzene	19.93	156	76093	49.46	ppb	91
79) 1,3,5-Trimethylbenzene	20.37	105	261561	51.61	ppb	100
80) 2-Chlorotoluene	20.29	91	251429	50.38	ppb	99
81) 4-Chlorotoluene	20.49	91	256990	50.76	ppb	100
82) tert-Butylbenzene	21.07	119	203179	50.34	ppb	93
83) 1,2,4-Trimethylbenzene	21.16	105	257857	50.16	ppb	100
84) sec-Butylbenzene	21.53	105	344521	50.34	ppb	98
85) p-Isopropyltoluene	21.79	119	264488	50.91	ppb	99
86) 1,3-Dclbenz	21.86	146	134592	54.98	ppb	98
87) 1,4-Dclbenz	22.03	146	136931	50.48	ppb	97
88) n-Butylbenzene	22.66	91	286444	50.59	ppb	99
89) 1,2-Dclbenz	22.85	146	128979	51.35	ppb	98
90) 1,2-Dibromo-3-chloropropan	24.48	157	15596	49.48	ppb	89
92) 1,2,4-Tcbenzene	26.44	180	91803	49.33	ppb	96
93) Hexachlorobt	26.81	225	41376	47.23	ppb	99
94) Naphthalen	27.12	128	211580	50.27	ppb	99
95) 1,2,3-Tclbenzene	27.77	180	88254	50.21	ppb	97

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

V0687.D EXP0914.M

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Quantitation Report

Vial: 19

Operator: herring

Inst : GC/MS Ins

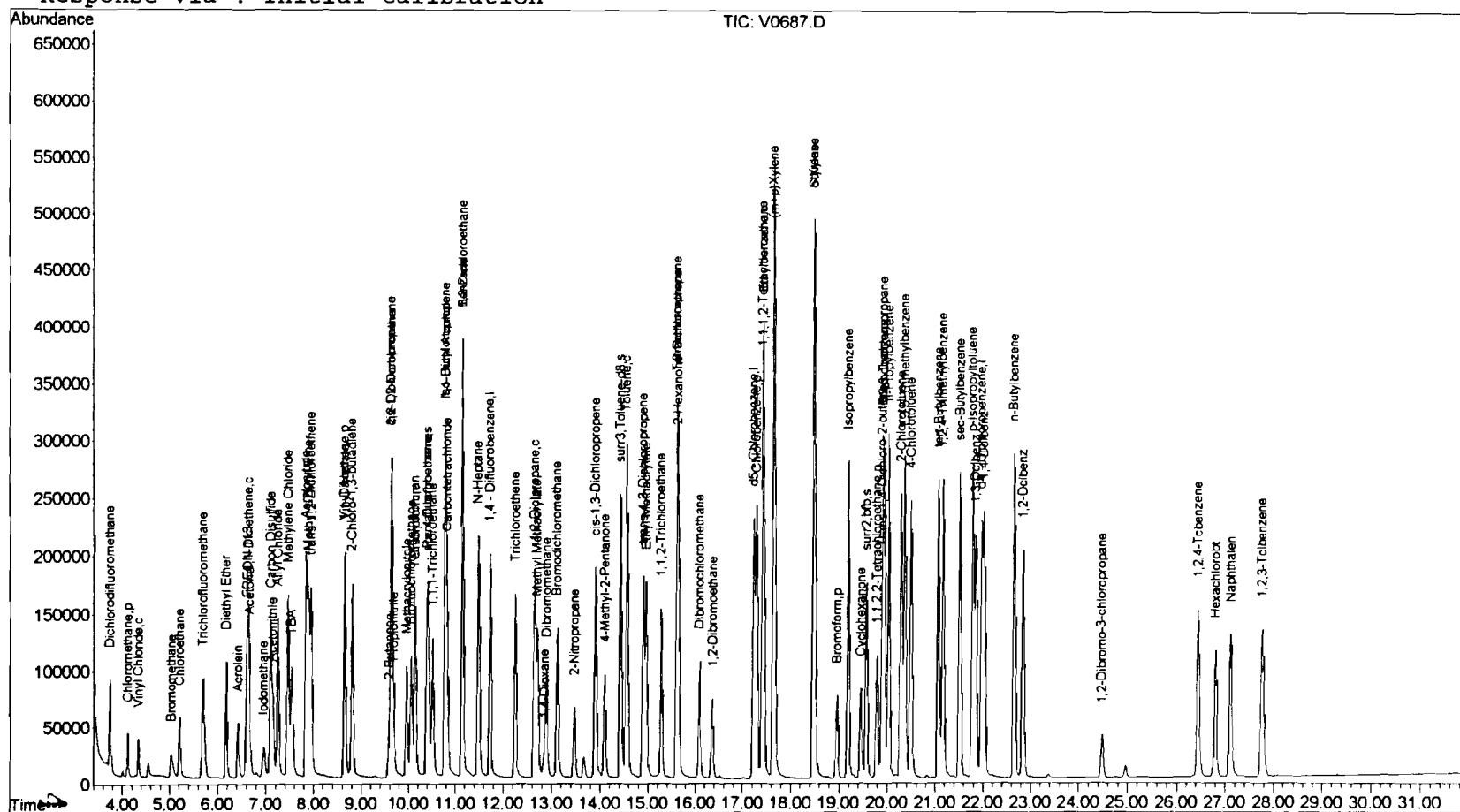
Multiplr: 1.00

Handwritten: 17.00

Quant Results File: EXP0914.RES

Title : 8260voa

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled :	Order #: 502726	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70375

ANALYTE	PQL	RESULT	UNITS
---------	-----	--------	-------

DATE ANALYZED : 09/18/01
ANALYTICAL DILUTION: 1.00

ACETONE	20	52	UG/L
BENZENE	5.0	52	UG/L
BROMODICHLOROMETHANE	5.0	56	UG/L
BROMOFORM	5.0	54	UG/L
BROMOMETHANE	5.0	29	UG/L
2-BUTANONE (MEK)	10	51	UG/L
CARBON DISULFIDE	10	47	UG/L
CARBON TETRACHLORIDE	5.0	54	UG/L
CHLOROBENZENE	5.0	51	UG/L
CHLOROETHANE	5.0	56	UG/L
CHLOROFORM	5.0	55	UG/L
CHLOROMETHANE	5.0	57	UG/L
DIBROMOCHLOROMETHANE	5.0	53	UG/L
1,1-DICHLOROETHANE	5.0	58	UG/L
1,2-DICHLOROETHANE	5.0	55	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	55	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	54	UG/L
1,2-DICHLOROPROPANE	5.0	51	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	56	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	55	UG/L
ETHYLBENZENE	5.0	55	UG/L
FREON 113	5.0	60	UG/L
2-HEXANONE	10	46	UG/L
METHYLENE CHLORIDE	5.0	53	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	47	UG/L
STYRENE	5.0	52	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	52	UG/L
TETRACHLOROETHENE	5.0	51	UG/L
TOLUENE	5.0	53	UG/L
1,1,1-TRICHLOROETHANE	5.0	55	UG/L
1,1,2-TRICHLOROETHANE	5.0	52	UG/L
TRICHLOROETHENE	5.0	51	UG/L
VINYL CHLORIDE	1.0	67	UG/L
O-XYLENE	5.0	52	UG/L
M+P-XYLENE	5.0	110	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	99	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0688.D

Vial: 20

Acq On : 18 Sep 2001 9:42 pm

Operator: herring

Sample : ~~492386-1.0msd~~ 502726 1.0MSD

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 22:14 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

24 10/1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.39	168	137037	50.00	ppb	0.02
34) 1,4 - Difluorobenzene	11.72	114	246402	50.00	ppb	0.02
51) d5 - Chlorobenzene	17.23	117	207945	50.00	ppb	0.02
73) d4 - Dichlorobenzene	21.98	152	92196	50.00	ppb	0.02

System Monitoring Compounds

35) surr4,Dibrflmethane	10.42	113	99352	51.20	ppb	0.02
Spiked Amount	50.000		Recovery	=	102.40%	
57) surr3,Toluene-d8	14.43	98	264336	49.17	ppb	0.02
Spiked Amount	50.000		Recovery	=	98.34%	
58) surr2,bfb	19.56	95	109815	49.59	ppb	0.02
Spiked Amount	50.000		Recovery	=	99.18%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.75	85	93379	48.93	ppb	100
3) Chloromethane	4.12	50	59434	57.23	ppb	96
4) Vinyl Chloride	4.34	62	49800	67.46	ppb	99
5) Bromomethane	5.04	94	34465	28.66	ppb	98
6) Chloroethane	5.21	64	71546	55.66	ppb	100
7) Trichlorofluoromethane	5.70	101	134819	57.00	ppb	97
8) Diethyl Ether	6.18	59	90305	58.39	ppb	99
9) Acrolein	6.43	56	61028	184.43	ppb	95
10) FREON 113	6.60	85	38084	60.41	ppb	87
11) 1,1-Dicethene	6.64	96	70424	50.06	ppb	97
12) Acetone	6.67	43	39556	51.86	ppb	98
13) Iodomethane	6.96	127	32628	61.68	ppb	99
14) Carbon Disulfide	7.11	76	274343	47.29	ppb	99
15) Acetonitrile	7.14	41	89267	276.55	ppb	98
16) Allyl Chloride	7.25	76	38620	55.58	ppb	98
17) Methylene Chloride	7.46	84	95146	52.77	ppb	96
18) TBA	7.54	59	200398	1162.94	ppb	99
19) Acrylonitrile	7.83	53	229133	285.68	ppb	99
20) Methyl-t-Butyl Ether	7.88	73	254453	56.64	ppb	99
21) trans-1,2-Dichloroethene	7.94	96	91035	54.10	ppb	98
22) 1,1-Dicethane	8.65	63	182508	57.64	ppb	99
23) Vinyl Acetate	8.64	43	221934	59.95	ppb	100
24) 2-Chloro-1,3-butadiene	8.80	53	166783	55.92	ppb	95
25) 2,2-Dichloropropane	9.64	77	121177	56.06	ppb	98
26) 2-Butanone	9.58	43	64324	51.03	ppb	98
27) cis-1,2-Dichloroethene	9.64	96	102029	54.62	ppb	99
28) Propionitrile	9.69	54	80520	279.66	ppb	99
29) Methacrylonitrile	9.96	67	40448	54.48	ppb	96

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

V0688.D EXP0914.M

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0688.D

Vial: 20

Acq On : 18 Sep 2001 9:42 pm

Operator: herring

Sample : 492386 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 22:14 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.06	128	38534	56.11	ppb	98
31) Chloroform	10.15	83	169654	54.97	ppb	99
32) Tetrahydrofuran	10.13	42	39291	51.83	ppb	94
33) 1,1,1-Trichloroethane	10.51	97	137939	55.12	ppb	98
36) Carbontetrachloride	10.82	117	111473	54.06	ppb	94
37) 1,1-Dichloropropene	10.78	75	127436	51.52	ppb	99
38) Iso-Butyl Alcohol	10.78	43	111894	1067.77	ppb	99
39) Benzene	11.15	78	357287	52.52	ppb	100
40) 1,2-Dichloroethane	11.16	62	152707	55.00	ppb	97
41) N-Heptane	11.49	43	189674	54.48	ppb	99
42) Trichloroethene	12.26	95	91639	50.74	ppb	96
43) 1,2-Dichloropropane	12.65	63	107464	50.98	ppb	99
44) Methyl Methacrylate	12.71	69	67589	52.63	ppb	99
45) 1,4-Dioxane	12.85	88	16392	973.57	ppb	98
46) Dibromomethane	12.90	93	64317	58.70	ppb	98
47) Bromodichloromethane	13.11	83	139943	56.44	ppb	97
48) 2-Nitropropane	13.48	43	85391	112.21	ppb	97
50) cis-1,3-Dichloropropene	13.91	75	162243	56.32	ppb	100
52) 4-Methyl-2-Pentanone	14.10	43	133340	47.29	ppb	99
53) Toluene	14.56	91	342929	53.20	ppb	99
54) trans-1,3-Dichloropropene	14.90	75	145273	55.06	ppb	98
55) Ethyl Methacrylate	14.95	69	131430	52.62	ppb	100
56) 1,1,2-Trichloroethane	15.28	83	72439	52.50	ppb	93
59) Tetrachloroethene	15.63	166	79867	51.20	ppb	97
60) 2-Hexanone	15.64	43	90822	46.57	ppb	98
61) 1,3-Dichloropropane	15.61	76	150404	49.57	ppb	98
62) Dibromochloromethane	16.10	129	88688	53.24	ppb	91
63) 1,2-Dibromoethane	16.36	107	91512	52.88	ppb	96
64) Chlorobenzene	17.29	112	212195	51.38	ppb	98
65) 1,1,1,2-Tetrachloroethane	17.42	131	78081	53.09	ppb	99
66) Ethylbenzene	17.44	91	399271	54.75	ppb	98
67) (m+p)Xylene	17.66	106	282936	107.35	ppb	99
68) o-Xylene	18.48	106	135893	51.96	ppb	95
69) Styrene	18.50	104	234622	52.16	ppb	98
70) Bromoform	18.96	173	58916	54.30	ppb	99
71) Isopropylbenzene	19.19	105	348495	52.99	ppb	99
72) Cyclohexanone	19.45	55	67730	275.53	ppb	96
74) 1,1,2,2-Tetrachloroethane	19.78	83	108488	52.21	ppb	98
75) Trans-1,4-Dichloro-2-buten	19.89	53	43888	51.17	ppb	97
76) 1,2,3-Trichloropropane	19.92	110	32658	51.47	ppb	97
77) n-Propylbenzene	20.04	91	444162	51.76	ppb	98

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

V0688.D EXP0914.M

Tue Sep 18 22:15:00 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0688.D

Vial: 20

Acq On : 18 Sep 2001 9:42 pm

Operator: herring

Sample : 492386 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 22:14 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) Bromobenzene	19.94	156	82357	51.25	ppb	95
79) 1,3,5-Trimethylbenzene	20.36	105	277332	52.40	ppb	99
80) 2-Chlorotoluene	20.29	91	265372	50.91	ppb	99
81) 4-Chlorotoluene	20.50	91	273566	51.74	ppb	99
82) tert-Butylbenzene	21.07	119	223659	53.06	ppb	94
83) 1,2,4-Trimethylbenzene	21.17	105	273497	50.94	ppb	99
84) sec-Butylbenzene	21.52	105	369297	51.67	ppb	99
85) p-Isopropyltoluene	21.80	119	281270	51.84	ppb	98
86) 1,3-Dclbenz	21.86	146	142918	55.90	ppb	98
87) 1,4-Dclbenz	22.03	146	146988	51.88	ppb	96
88) n-Butylbenzene	22.67	91	302893	51.22	ppb	99
89) 1,2-Dclbenz	22.84	146	136744	52.13	ppb	98
90) 1,2-Dibromo-3-chloropropan	24.49	157	16983	51.59	ppb	95
92) 1,2,4-Tcbenzene	26.45	180	98875	50.88	ppb	96
93) Hexachlorobt	26.81	225	45418	49.64	ppb	99
94) Naphthalen	27.12	128	227427	51.74	ppb	99
95) 1,2,3-Tclbenzene	27.78	180	93912	51.16	ppb	99

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

V0688.D EXP0914.M

Tue Sep 18 22:15:00 2001

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091801\V0688.D

Vial: 20

Acq On : 18 Sep 2001 9:42 pm

Operator: herring

Sample : 492386 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 18 22:14 2001

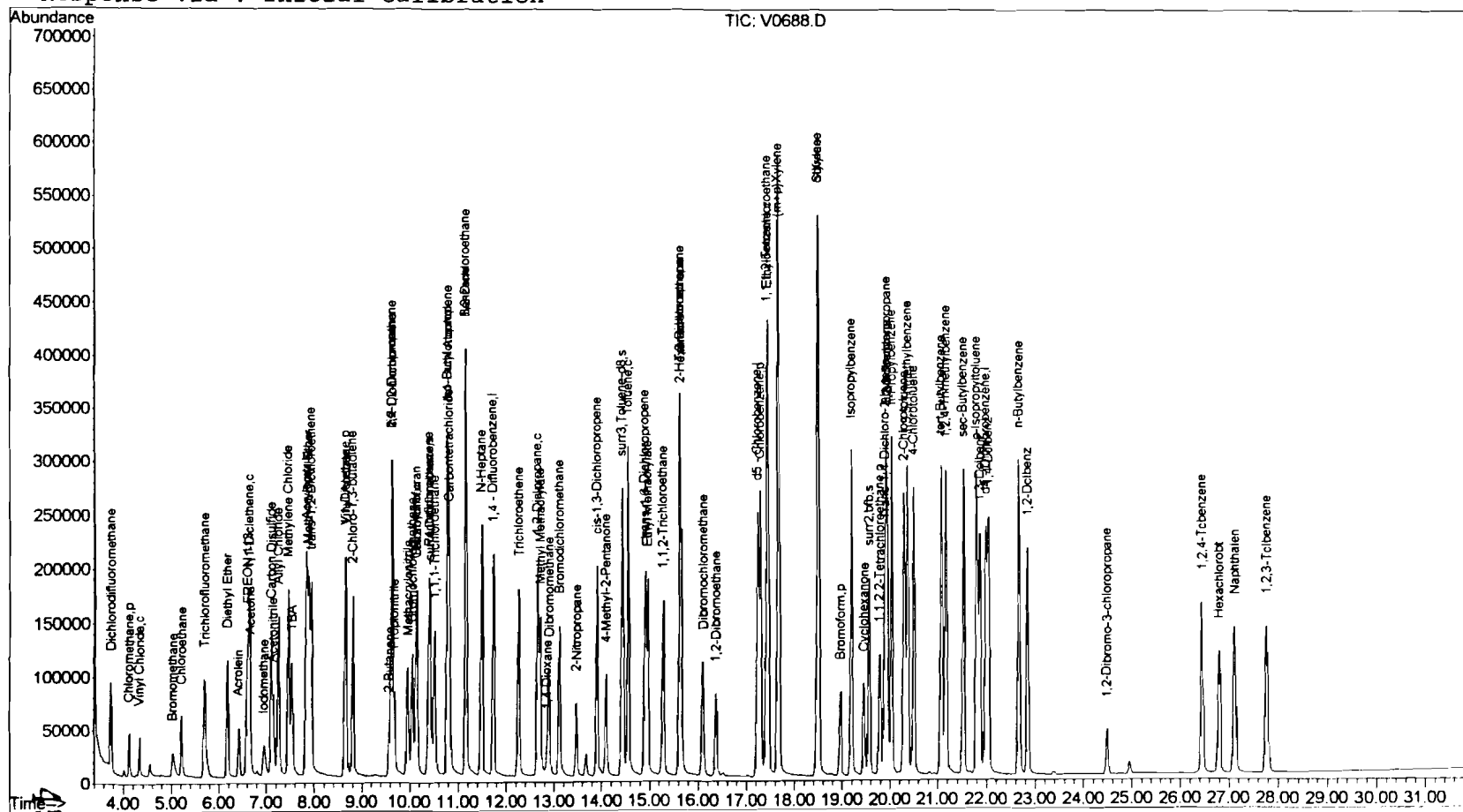
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE

Date Sampled :	Order #: 502731	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	65	UG/L
BENZENE	5.0	57	UG/L
BROMODICHLOROMETHANE	5.0	55	UG/L
BROMOFORM	5.0	53	UG/L
BROMOMETHANE	5.0	17	UG/L
2-BUTANONE (MEK)	10	63	UG/L
CARBON DISULFIDE	10	56	UG/L
CARBON TETRACHLORIDE	5.0	53	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	52	UG/L
CHLOROFORM	5.0	54	UG/L
CHLOROMETHANE	5.0	49	UG/L
DIBROMOCHLOROMETHANE	5.0	51	UG/L
1,1-DICHLOROETHANE	5.0	57	UG/L
1,2-DICHLOROETHANE	5.0	53	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	89	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	65	UG/L
1,2-DICHLOROPROPANE	5.0	49	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	53	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	54	UG/L
ETHYLBENZENE	5.0	53	UG/L
FREON 113	5.0	59	UG/L
2-HEXANONE	10	59	UG/L
METHYLENE CHLORIDE	5.0	52	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	59	UG/L
STYRENE	5.0	51	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	54	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	58	UG/L
1,1,1-TRICHLOROETHANE	5.0	54	UG/L
1,1,2-TRICHLOROETHANE	5.0	54	UG/L
TRICHLOROETHENE	5.0	56	UG/L
VINYL CHLORIDE	1.0	240	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	100	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0710.D

Vial: 18

Acq On : 19 Sep 2001 9:13 pm

Operator: herring

Sample : ~~493224-1.0ms~~ 502731 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 21:44 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

23+10/11

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	125834	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	226809	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	190235	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.00	152	87564	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	88941	49.80	ppb	0.04
Spiked Amount 50.000			Recovery	=	99.60%	
57) surr3,Toluene-d8	14.45	98	240610	48.92	ppb	0.04
Spiked Amount 50.000			Recovery	=	97.84%	
58) surr2,bfb	19.59	95	103971	51.32	ppb	0.05
Spiked Amount 50.000			Recovery	=	102.64%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	83556	47.68	ppb	100
3) Chloromethane	4.14	50	46468	48.73	ppb	100
4) Vinyl Chloride	4.35	62	161048	237.57	ppb	98
5) Bromomethane	5.06	94	17116	17.10	ppb	97
6) Chloroethane	5.23	64	61308	51.94	ppb	98
7) Trichlorofluoromethane	5.71	101	124861	57.49	ppb	97
8) Diethyl Ether	6.20	59	82171	57.86	ppb	97
9) Acrolein	6.44	56	108098	355.76	ppb	97
10) FREON 113	6.62	85	34402	59.42	ppb	81
11) 1,1-Dicethene	6.66	96	65178	50.46	ppb	95
12) Acetone	6.69	43	45834	65.44	ppb	94
13) Iodomethane	6.97	127	12154	25.02	ppb	83
14) Carbon Disulfide	7.12	76	297728	55.90	ppb	100
15) Acetonitrile	7.16	41	89394	301.60	ppb	98
16) Allyl Chloride	7.27	76	35610	55.81	ppb	95
17) Methylene Chloride	7.48	84	85841	51.85	ppb	95
18) TBA	7.55	59	210904	1332.87	ppb	99
19) Acrylonitrile	7.85	53	220635	299.58	ppb	99
20) Methyl-t-Butyl Ether	7.91	73	231318	56.08	ppb	98
21) trans-1,2-Dichloroethene	7.96	96	101166	65.47	ppb	97
22) 1,1-Dicethane	8.67	63	165526	56.93	ppb	100
23) Vinyl Acetate	8.66	43	273078	80.33	ppb	99
24) 2-Chloro-1,3-butadiene	8.82	53	167129	61.03	ppb	95
25) 2,2-Dichloropropane	9.65	77	107399	54.11	ppb	96
26) 2-Butanone	9.59	43	73060	63.12	ppb	100
27) cis-1,2-Dichloroethene	9.65	96	152322	88.81	ppb	99
28) Propionitrile	9.70	54	78506	296.95	ppb	96
29) Methacrylonitrile	9.98	67	37714	55.32	ppb	94

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

V0710.D EXP0914.M

Wed Sep 19 21:45:20 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0710.D
Acq On : 19 Sep 2001 9:13 pm
Sample : 493224 1.0ms
Misc : hla r-8550 8260b.tclf
MS Integration Params: rteint.p
Quant Time: Sep 19 21:44 2001

Vial: 18
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration
DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.08	128	32046	50.81	ppb	90
31) Chloroform	10.16	83	153831	54.28	ppb	97
32) Tetrahydrofuran	10.14	42	39279	56.43	ppb	99
33) 1,1,1-Trichloroethane	10.53	97	125358	54.55	ppb	98
36) Carbontetrachloride	10.83	117	101070	53.25	ppb	97
37) 1,1-Dichloropropene	10.80	75	113540	49.87	ppb	98
38) Iso-Butyl Alcohol	10.79	43	115102	1193.27	ppb	98
39) Benzene	11.18	78	359336	57.39	ppb	98
40) 1,2-Dichloroethane	11.18	62	136357	53.35	ppb	99
41) N-Heptane	11.50	43	165640	51.69	ppb	98
42) Trichloroethene	12.27	95	93375	56.17	ppb	96
43) 1,2-Diclpropane	12.68	63	95940	49.44	ppb	100
44) Methyl Methacrylate	12.73	69	64303	54.40	ppb	96
45) 1,4-Dioxane	12.86	88	16202	1045.41	ppb	99
46) Dibromomethane	12.91	93	58410	57.91	ppb	95
47) Bromodichloromethane	13.14	83	126101	55.25	ppb	98
48) 2-Nitropropane	13.49	43	82885	118.32	ppb	99
50) cis-1,3-Dichloropropene	13.93	75	140973	53.17	ppb	98
52) 4-Methyl-2-Pentanone	14.11	43	151207	58.62	ppb	98
53) Toluene	14.58	91	345022	58.51	ppb	99
54) trans-1,3-Dichloropropene	14.92	75	131479	54.47	ppb	98
55) Ethyl Methacrylate	14.98	69	123921	54.23	ppb	99
56) 1,1,2-Trichloroethane	15.30	83	67610	53.56	ppb	92
59) Tetrachloroethene	15.65	166	70816	49.62	ppb	98
60) 2-Hexanone	15.67	43	104690	58.68	ppb	99
61) 1,3-Dichloropropane	15.64	76	139207	50.15	ppb	99
62) Dibromochloromethane	16.11	129	77186	50.65	ppb	95
63) 1,2-Dibromoethane	16.39	107	83369	52.66	ppb	94
64) Chlorobenzene	17.31	112	188276	49.84	ppb	98
65) 1,1,1,2-Tetrachloroethane	17.44	131	70277	52.23	ppb	99
66) Ethylbenzene	17.46	91	353708	53.02	ppb	99
67) (m+p)Xylene	17.68	106	251323	104.24	ppb	98
68) o-Xylene	18.51	106	120982	50.56	ppb	98
69) Styrene	18.52	104	209386	50.88	ppb	98
70) Bromoform	18.98	173	52559	52.95	ppb	99
71) Isopropylbenzene	19.21	105	314543	52.28	ppb	100
72) Cyclohexanone	19.47	55	68834	306.09	ppb	96
74) 1,1,2,2-Tetrachloroethane	19.81	83	105611	53.51	ppb	100
75) Trans-1,4-Dichloro-2-buten	19.90	53	39459	48.44	ppb	77
76) 1,2,3-Trichloropropane	19.93	110	31190	51.76	ppb	99
77) n-Propylbenzene	20.05	91	409661	50.27	ppb	100

(#) = qualifier out of range (m) = manual integration
V0710.D EXP0914.M Wed Sep 19 21:45:20 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0710.D
Acq On : 19 Sep 2001 9:13 pm
Sample : 493224 1.0ms
Misc : hla r-8550 8260b.tclf
MS Integration Params: rteint.p
Quant Time: Sep 19 21:44 2001

Vial: 18
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration
DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) Bromobenzene	19.95	156	74395	48.75	ppb	91
79) 1,3,5-Trimethylbenzene	20.39	105	251043	49.94	ppb	98
80) 2-Chlorotoluene	20.31	91	248619	50.22	ppb	98
81) 4-Chlorotoluene	20.52	91	247621	49.31	ppb	100
82) tert-Butylbenzene	21.10	119	199713	49.88	ppb	98
83) 1,2,4-Trimethylbenzene	21.19	105	244066	47.86	ppb	100
84) sec-Butylbenzene	21.55	105	331949	48.90	ppb	98
85) p-Isopropyltoluene	21.81	119	251943	48.89	ppb	98
86) 1,3-Dclbenz	21.88	146	129962	53.52	ppb	98
87) 1,4-Dclbenz	22.06	146	132618	49.29	ppb	97
88) n-Butylbenzene	22.68	91	273715	48.74	ppb	98
89) 1,2-Dclbenz	22.87	146	123436	49.55	ppb	98
90) 1,2-Dibromo-3-chloropropan	24.51	157	16767	53.63	ppb	87
92) 1,2,4-Tcbenzene	26.47	180	88029	47.69	ppb	96
93) Hexachlorobt	26.84	225	39705	45.69	ppb	96
94) Naphthalen	27.15	128	214641	51.41	ppb	98
95) 1,2,3-Tclbenzene	27.80	180	84178	48.28	ppb	98

(#) = qualifier out of range (m) = manual integration
V0710.D EXP0914.M Wed Sep 19 21:45:20 2001

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0710.D

Vial: 18

Acq On : 19 Sep 2001 9:13 pm

Operator: herring

Sample : 493224 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclcf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 21:44 2001

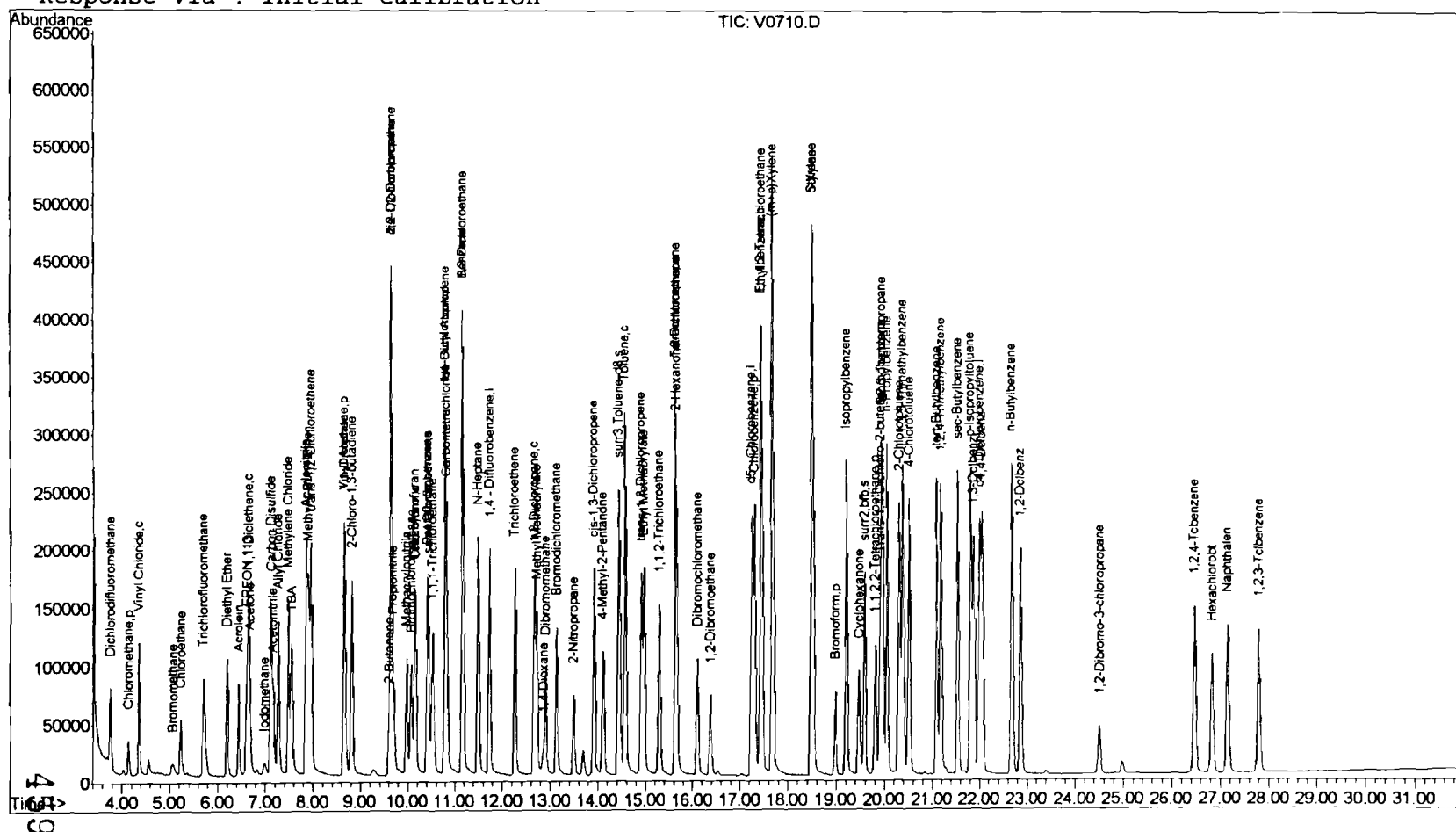
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled : Order #: 502732 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 70376

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/19/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	57	UG/L
BENZENE	5.0	56	UG/L
BROMODICHLOROMETHANE	5.0	53	UG/L
BROMOFORM	5.0	51	UG/L
BROMOMETHANE	5.0	19	UG/L
2-BUTANONE (MEK)	10	56	UG/L
CARBON DISULFIDE	10	51	UG/L
CARBON TETRACHLORIDE	5.0	51	UG/L
CHLOROBENZENE	5.0	48	UG/L
CHLOROETHANE	5.0	47	UG/L
CHLOROFORM	5.0	52	UG/L
CHLOROMETHANE	5.0	46	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	52	UG/L
1,2-DICHLOROETHANE	5.0	53	UG/L
1,1-DICHLOROETHENE	5.0	46	UG/L
CIS-1,2-DICHLOROETHENE	5.0	83	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	61	UG/L
1,2-DICHLOROPROPANE	5.0	48	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	52	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	52	UG/L
ETHYLBENZENE	5.0	50	UG/L
FREON 113	5.0	54	UG/L
2-HEXANONE	10	55	UG/L
METHYLENE CHLORIDE	5.0	48	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	55	UG/L
STYRENE	5.0	44	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	53	UG/L
TETRACHLOROETHENE	5.0	47	UG/L
TOLUENE	5.0	54	UG/L
1,1,1-TRICHLOROETHANE	5.0	49	UG/L
1,1,2-TRICHLOROETHANE	5.0	51	UG/L
TRICHLOROETHENE	5.0	55	UG/L
VINYL CHLORIDE	1.0	220	UG/L
O-XYLENE	5.0	48	UG/L
M+P-XYLENE	5.0	96	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	98	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0711.D

Vial: 19

Acq On : 19 Sep 2001 9:52 pm

Operator: herring

Sample : ~~493224-1.0msd~~ 502732 1.0 MSD

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 22:23 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	140077	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	243162	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	209007	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	90309	50.00	ppb	0.06

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	96820	50.56	ppb	0.04
Spiked Amount	50.000		Recovery	=	101.12%	
57) surr3, Toluene-d8	14.46	98	260895	48.28	ppb	0.05
Spiked Amount	50.000		Recovery	=	96.56%	
58) surr2, bfb	19.59	95	108894	48.92	ppb	0.05
Spiked Amount	50.000		Recovery	=	97.84%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	82218	42.15	ppb	99
3) Chloromethane	4.14	50	49053	46.21	ppb	99
4) Vinyl Chloride	4.35	62	163668	216.89	ppb	98
5) Bromomethane	5.05	94	21519	18.87	ppb	100
6) Chloroethane	5.23	64	62246	47.38	ppb	98
7) Trichlorofluoromethane	5.72	101	123073	50.90	ppb	99
8) Diethyl Ether	6.19	59	85774	54.25	ppb	98
9) Acrolein	6.44	56	111439	329.46	ppb	99
10) FREON 113	6.62	85	35049	54.39	ppb	84
11) 1,1-Dicethene	6.67	96	66776	46.44	ppb	93
12) Acetone	6.69	43	44785	57.44	ppb	95
13) Iodomethane	6.99	127	18928	35.00	ppb	87
14) Carbon Disulfide	7.12	76	303018	51.10	ppb	100
15) Acetonitrile	7.17	41	89706	271.88	ppb	100
16) Allyl Chloride	7.27	76	35451	49.91	ppb	97
17) Methylene Chloride	7.48	84	88639	48.09	ppb	96
18) TBA	7.55	59	209693	1190.47	ppb	99
19) Acrylonitrile	7.86	53	228929	279.23	ppb	99
20) Methyl-t-Butyl Ether	7.91	73	244262	53.19	ppb	98
21) trans-1,2-Dichloroethene	7.97	96	105561	61.37	ppb	97
22) 1,1-Dicethane	8.66	63	167474	51.74	ppb	98
23) Vinyl Acetate	8.66	43	282743	74.71	ppb	99
24) 2-Chloro-1,3-butadiene	8.82	53	160878	52.77	ppb	95
25) 2,2-Dichloropropane	9.65	77	106495	48.20	ppb	95
26) 2-Butanone	9.60	43	71558	55.53	ppb	98
27) cis-1,2-Dichloroethene	9.65	96	157927	82.71	ppb	99
28) Propionitrile	9.71	54	82487	280.28	ppb	98
29) Methacrylonitrile	9.97	67	41134	54.20	ppb	99

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

V0711.D EXP0914.M Wed Sep 19 22:24:32 2001

Page 1

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Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0711.D

Vial: 19

Acq On : 19 Sep 2001 9:52 pm

Operator: herring

Sample : 493224 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 22:23 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.07	128	32961	46.95	ppb	93
31) Chloroform	10.16	83	162700	51.57	ppb	99
32) Tetrahydrofuran	10.14	42	41222	53.20	ppb	98
33) 1,1,1-Trichloroethane	10.53	97	125794	49.17	ppb	99
36) Carbontetrachloride	10.84	117	103707	50.96	ppb	96
37) 1,1-Dichloropropene	10.80	75	116634	47.78	ppb	99
38) Iso-Butyl Alcohol	10.79	43	116389	1125.46	ppb	98
39) Benzene	11.18	78	378313	56.35	ppb	99
40) 1,2-Dichloroethane	11.18	62	146079	53.31	ppb	97
41) N-Heptane	11.51	43	172415	50.18	ppb	98
42) Trichloroethene	12.27	95	98205	55.10	ppb	98
43) 1,2-Dichloropropane	12.67	63	100518	48.32	ppb	95
44) Methyl Methacrylate	12.72	69	65201	51.45	ppb	97
45) 1,4-Dioxane	12.86	88	16570	997.25	ppb	99
46) Dibromomethane	12.91	93	61855	57.20	ppb	95
47) Bromodichloromethane	13.14	83	130205	53.22	ppb	98
48) 2-Nitropropane	13.49	43	86351	114.98	ppb	97
50) cis-1,3-Dichloropropene	13.92	75	148737	52.32	ppb	100
52) 4-Methyl-2-Pentanone	14.12	43	154913	54.66	ppb	100
53) Toluene	14.58	91	350207	54.05	ppb	98
54) trans-1,3-Dichloropropene	14.92	75	136803	51.59	ppb	98
55) Ethyl Methacrylate	14.98	69	130111	51.83	ppb	100
56) 1,1,2-Trichloroethane	15.30	83	71409	51.49	ppb	93
59) Tetrachloroethene	15.65	166	73688	47.00	ppb	96
60) 2-Hexanone	15.67	43	107238	54.71	ppb	99
61) 1,3-Dichloropropane	15.64	76	148398	48.66	ppb	98
62) Dibromochloromethane	16.11	129	82907	49.52	ppb	98
63) 1,2-Dibromoethane	16.39	107	86670	49.83	ppb	93
64) Chlorobenzene	17.31	112	199380	48.04	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.44	131	73028	49.40	ppb	100
66) Ethylbenzene	17.46	91	364908	49.78	ppb	98
67) (m+p)Xylene	17.68	106	255478	96.44	ppb	97
68) o-Xylene	18.50	106	125517	47.74	ppb	96
69) Styrene	18.51	104	198575	43.92	ppb	95
70) Bromoform	18.99	173	55584	50.96	ppb	96
71) Isopropylbenzene	19.21	105	318758	48.23	ppb	100
72) Cyclohexanone	19.47	55	70952	287.17	ppb	97
74) 1,1,2,2-Tetrachloroethane	19.80	83	107877	53.00	ppb	99
75) Trans-1,4-Dichloro-2-buten	19.91	53	39208	46.66	ppb	81
76) 1,2,3-Trichloropropane	19.94	110	32639	52.52	ppb	94
77) n-Propylbenzene	20.06	91	409250	48.69	ppb	99

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

V0711.D EXP0914.M

Wed Sep 19 22:24:33 2001

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Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0711.D

Vial: 19

Acq On : 19 Sep 2001 9:52 pm

Operator: herring

Sample : 493224 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 19 22:23 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) Bromobenzene	19.96	156	75719	48.11	ppb	97
79) 1,3,5-Trimethylbenzene	20.38	105	253279	48.85	ppb	100
80) 2-Chlorotoluene	20.31	91	249405	48.85	ppb	99
81) 4-Chlorotoluene	20.52	91	253605	48.97	ppb	100
82) tert-Butylbenzene	21.09	119	202010	48.92	ppb	96
83) 1,2,4-Trimethylbenzene	21.19	105	241710	45.96	ppb	98
84) sec-Butylbenzene	21.55	105	336804	48.11	ppb	100
85) p-Isopropyltoluene	21.81	119	253823	47.76	ppb	99
86) 1,3-Dclbenz	21.88	146	129290	51.63	ppb	98
87) 1,4-Dclbenz	22.06	146	135583	48.86	ppb	96
88) n-Butylbenzene	22.69	91	277191	47.86	ppb	99
89) 1,2-Dclbenz	22.87	146	125407	48.81	ppb	98
90) 1,2-Dibromo-3-chloropropan	24.51	157	16982	52.66	ppb	95
92) 1,2,4-Tcbenzene	26.48	180	89792	47.17	ppb	95
93) Hexachlorobt	26.83	225	41035	45.79	ppb	99
94) Naphthalen	27.15	128	217768	50.57	ppb	98
95) 1,2,3-Tclbenzene	27.80	180	86479	48.09	ppb	98

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

V0711.D EXP0914.M

Wed Sep 19 22:24:33 2001

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Page 3

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\091901\V0711.D

Vial: 19

Acq On : 19 Sep 2001 9:52 pm

Operator: herring

Sample : 493224 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclcf

Multiplr: 1.00

MS Integration Params: rteint.p

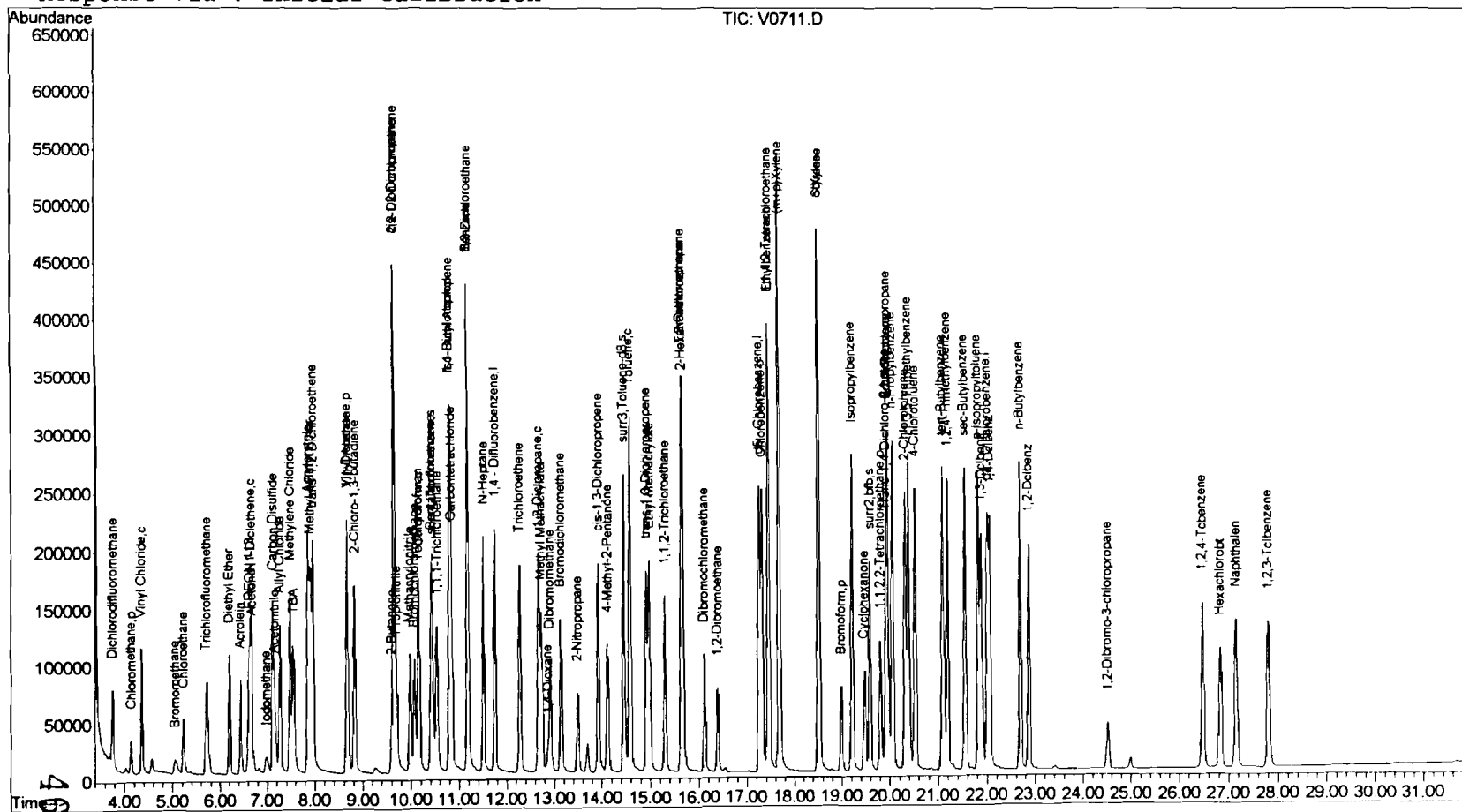
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE

Date Sampled :

Order #: 502735

Sample Matrix: WATER

Date Received:

Submission #:

Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	50	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	54	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	28	UG/L
2-BUTANONE (MEK)	10	55	UG/L
CARBON DISULFIDE	10	48	UG/L
CARBON TETRACHLORIDE	5.0	52	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	53	UG/L
CHLOROFORM	5.0	52	UG/L
CHLOROMETHANE	5.0	61	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	54	UG/L
1,2-DICHLOROETHANE	5.0	52	UG/L
1,1-DICHLOROETHENE	5.0	47	UG/L
CIS-1,2-DICHLOROETHENE	5.0	53	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	51	UG/L
1,2-DICHLOROPROPANE	5.0	49	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	52	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	52	UG/L
ETHYLBENZENE	5.0	51	UG/L
FREON 113	5.0	59	UG/L
2-HEXANONE	10	50	UG/L
METHYLENE CHLORIDE	5.0	51	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50	UG/L
STYRENE	5.0	51	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	51	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	52	UG/L
VINYL CHLORIDE	1.0	59	UG/L
O-XYLENE	5.0	49	UG/L
M+P-XYLENE	5.0	100	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	100	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0752.D

Vial: 11

Acq On : 21 Sep 2001 3:47 pm

Operator: herring

Sample : ~~493235~~ 1.0ms 502735 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 16:16 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.41	168	139412	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.74	114	246230	50.00	ppb	0.04
51) d5 - Chlorobenzene	17.25	117	208350	50.00	ppb	0.04
73) d4 - Dichlorobenzene	22.01	152	92306	50.00	ppb	0.05

System Monitoring Compounds

35) surr4,Dibrflmethane	10.44	113	97564	50.31	ppb	0.04
Spiked Amount 50.000			Recovery	=	100.62%	
57) surr3,Toluene-d8	14.45	98	263692	48.95	ppb	0.04
Spiked Amount 50.000			Recovery	=	97.90%	
58) surr2,bfb	19.58	95	110937	50.00	ppb	0.04
Spiked Amount 50.000			Recovery	=	100.00%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	87057	44.84	ppb	100
3) Chloromethane	4.13	50	64351	60.91	ppb	95
4) Vinyl Chloride	4.36	62	44490	59.24	ppb	96
5) Bromomethane	5.05	94	33956	27.87	ppb	92
6) Chloroethane	5.23	64	69208	52.93	ppb	97
7) Trichlorofluoromethane	5.72	101	127594	53.02	ppb	100
8) Diethyl Ether	6.19	59	84343	53.60	ppb	99
9) Acrolein	6.44	56	61660	183.16	ppb	99
10) FREON 113	6.61	85	37672	58.73	ppb	96
11) 1,1-Dicethene	6.66	96	67600	47.23	ppb	98
12) Acetone	6.68	43	38906	50.14	ppb	99
13) Iodomethane	6.97	127	19233	35.74	ppb	97
14) Carbon Disulfide	7.12	76	281754	47.74	ppb	99
15) Acetonitrile	7.16	41	84678	257.86	ppb	97
16) Allyl Chloride	7.27	76	37806	53.48	ppb	91
17) Methylene Chloride	7.48	84	94096	51.30	ppb	98
18) TBA	7.56	59	183694	1047.84	ppb	98
19) Acrylonitrile	7.85	53	215363	263.94	ppb	99
20) Methyl-t-Butyl Ether	7.90	73	243291	53.23	ppb	98
21) trans-1,2-Dichloroethene	7.96	96	87307	51.00	ppb	97
22) 1,1-Dicethane	8.67	63	173290	53.79	ppb	99
23) Vinyl Acetate	8.66	43	222272	59.01	ppb	100
24) 2-Chloro-1,3-butadiene	8.82	53	174178	57.41	ppb	96
25) 2,2-Dichloropropane	9.66	77	122206	55.58	ppb	99
26) 2-Butanone	9.60	43	70735	55.16	ppb	98
27) cis-1,2-Dichloroethene	9.66	96	100002	52.62	ppb	99
28) Propionitrile	9.71	54	74214	253.37	ppb	100
29) Methacrylonitrile	9.98	67	37942	50.23	ppb	98

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

V0752.D EXP0914.M

Fri Sep 21 16:16:42 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0752.D

Vial: 11

Acq On : 21 Sep 2001 3:47 pm

Operator: herring

Sample : 493235 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 16:16 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.07	128	34058	48.74	ppb	91
31) Chloroform	10.17	83	161703	51.50	ppb	98
32) Tetrahydrofuran	10.15	42	38092	49.39	ppb	97
33) 1,1,1-Trichloroethane	10.53	97	130020	51.07	ppb	99
36) Carbontetrachloride	10.84	117	107947	52.38	ppb	96
37) 1,1-Dichloropropene	10.80	75	122569	49.59	ppb	99
38) Iso-Butyl Alcohol	10.80	43	106704	1018.95	ppb	98
39) Benzene	11.17	78	338976	49.87	ppb	100
40) 1,2-Dichloroethane	11.17	62	143202	51.61	ppb	99
41) N-Heptane	11.51	43	194943	56.03	ppb	97
42) Trichloroethene	12.28	95	93484	51.80	ppb	97
43) 1,2-Diclpropane	12.67	63	103601	49.18	ppb	98
44) Methyl Methacrylate	12.73	69	65523	51.06	ppb	97
45) 1,4-Dioxane	12.87	88	14427	857.46	ppb	92
46) Dibromomethane	12.92	93	60916	55.63	ppb	95
47) Bromodichloromethane	13.14	83	134850	54.43	ppb	98
48) 2-Nitropropane	13.50	43	81246	106.84	ppb	98
50) cis-1,3-Dichloropropene	13.93	75	149111	51.80	ppb	100
52) 4-Methyl-2-Pentanone	14.12	43	140892	49.87	ppb	100
53) Toluene	14.58	91	326664	50.58	ppb	99
54) trans-1,3-Dichloropropene	14.93	75	139020	52.59	ppb	100
55) Ethyl Methacrylate	14.98	69	125835	50.28	ppb	97
56) 1,1,2-Trichloroethane	15.30	83	68807	49.77	ppb	100
59) Tetrachloroethene	15.65	166	77445	49.55	ppb	97
60) 2-Hexanone	15.66	43	98174	50.24	ppb	97
61) 1,3-Dichloropropane	15.63	76	142727	46.95	ppb	96
62) Dibromochloromethane	16.12	129	83745	50.18	ppb	98
63) 1,2-Dibromoethane	16.38	107	85769	49.46	ppb	98
64) Chlorobenzene	17.32	112	205205	49.60	ppb	96
65) 1,1,1,2-Tetrachloroethane	17.44	131	74148	50.32	ppb	98
66) Ethylbenzene	17.47	91	373301	51.09	ppb	99
67) (m+p)Xylene	17.68	106	265134	100.40	ppb	99
68) o-Xylene	18.50	106	129033	49.24	ppb	100
69) Styrene	18.52	104	229783	50.98	ppb	99
70) Bromoform	18.98	173	53980	49.65	ppb	94
71) Isopropylbenzene	19.22	105	334560	50.78	ppb	100
72) Cyclohexanone	19.47	55	62722	254.66	ppb	98
74) 1,1,2,2-Tetrachloroethane	19.81	83	105015	50.48	ppb	99
75) Trans-1,4-Dichloro-2-buten	19.91	53	41148	47.91	ppb	89
76) 1,2,3-Trichloropropane	19.94	110	30635	48.23	ppb	95
77) n-Propylbenzene	20.06	91	425836	49.57	ppb	99

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

V0752.D EXP0914.M Fri Sep 21 16:16:43 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0752.D Vial: 11
Acq On : 21 Sep 2001 3:47 pm Operator: herring
Sample : 493235 1.0ms Inst : GC/MS Ins
Misc : hla r-8550 8260b.tclf Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 21 16:16 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration
DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) Bromobenzene	19.96	156	78173	48.59	ppb	94
79) 1,3,5-Trimethylbenzene	20.39	105	267293	50.44	ppb	99
80) 2-Chlorotoluene	20.31	91	254392	48.75	ppb	99
81) 4-Chlorotoluene	20.53	91	260111	49.14	ppb	98
82) tert-Butylbenzene	21.10	119	206959	49.04	ppb	95
83) 1,2,4-Trimethylbenzene	21.19	105	260190	48.40	ppb	99
84) sec-Butylbenzene	21.55	105	350952	49.04	ppb	97
85) p-Isopropyltoluene	21.82	119	265199	48.82	ppb	99
86) 1,3-Dclbenz	21.89	146	134897	52.70	ppb	97
87) 1,4-Dclbenz	22.06	146	138367	48.78	ppb	95
88) n-Butylbenzene	22.69	91	290422	49.06	ppb	99
89) 1,2-Dclbenz	22.87	146	128477	48.92	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.52	157	15319	46.48	ppb	100
92) 1,2,4-Tcbenzene	26.48	180	91905	47.23	ppb	95
93) Hexachlorobt	26.84	225	41764	45.59	ppb	98
94) Naphthalen	27.15	128	204188	46.39	ppb	99
95) 1,2,3-Tclbenzene	27.81	180	85976	46.78	ppb	97

(#) = qualifier out of range (m) = manual integration
V0752.D EXP0914.M Fri Sep 21 16:16:43 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0752.D

Vial: 11

Acq On : 21 Sep 2001 3:47 pm

Operator: herring

Sample : 493235 1.0ms

Inst : GC/MS Ins

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Misc      : hla r-8550 8260b.tclcf
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Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 16:16 2001

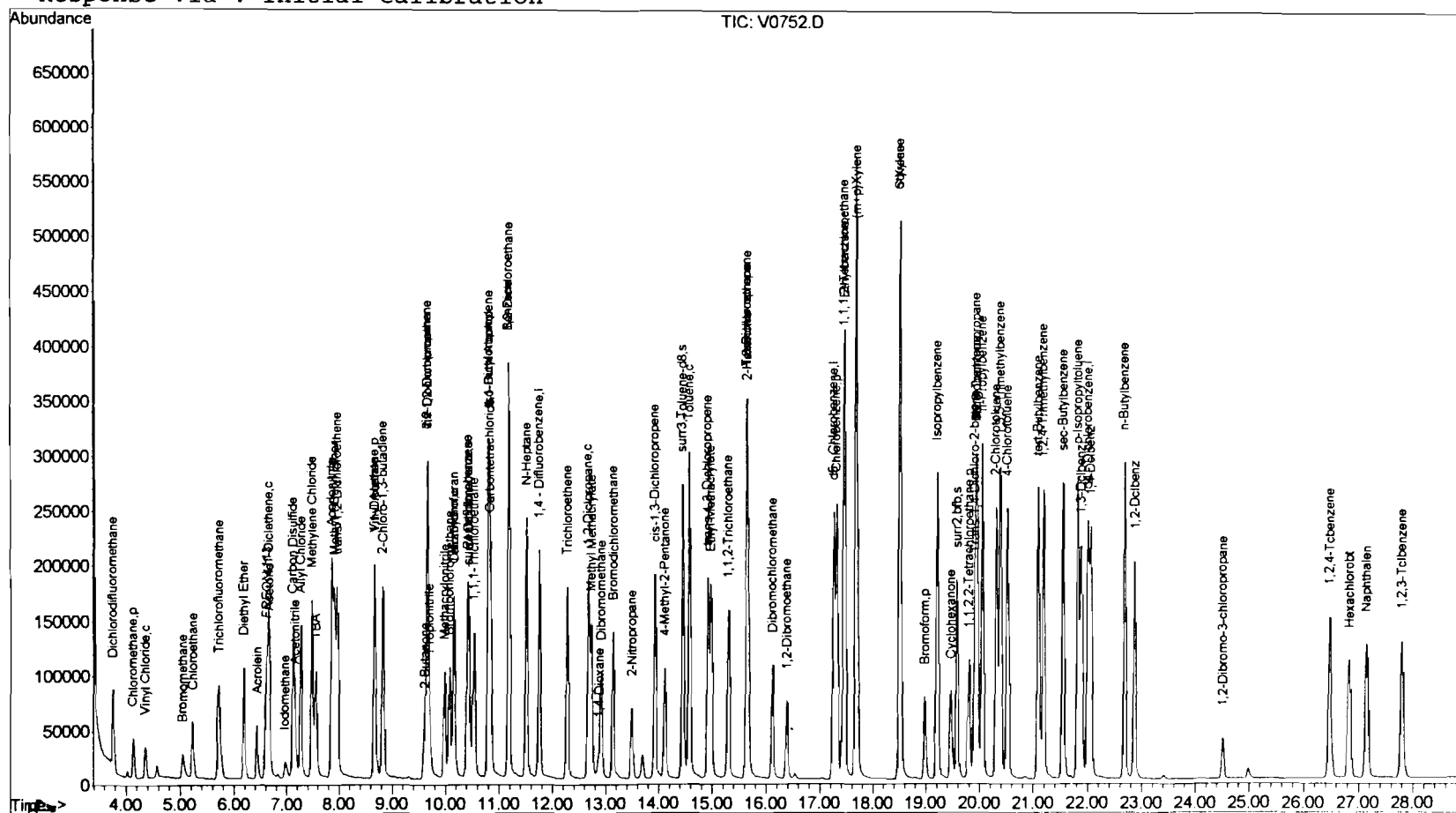
Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled :

Order #: 502736

Sample Matrix: WATER

Date Received:

Submission #:

Analytical Run 70377

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/21/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	50	UG/L
BENZENE	5.0	48	UG/L
BROMODICHLOROMETHANE	5.0	52	UG/L
BROMOFORM	5.0	48	UG/L
BROMOMETHANE	5.0	30	UG/L
2-BUTANONE (MEK)	10	56	UG/L
CARBON DISULFIDE	10	45	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	48	UG/L
CHLOROETHANE	5.0	49	UG/L
CHLOROFORM	5.0	49	UG/L
CHLOROMETHANE	5.0	56	UG/L
DIBROMOCHLOROMETHANE	5.0	48	UG/L
1,1-DICHLOROETHANE	5.0	52	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	45	UG/L
CIS-1,2-DICHLOROETHENE	5.0	50	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	48	UG/L
1,2-DICHLOROPROPANE	5.0	47	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	51	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	52	UG/L
ETHYLBENZENE	5.0	50	UG/L
FREON 113	5.0	55	UG/L
2-HEXANONE	10	50	UG/L
METHYLENE CHLORIDE	5.0	48	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50	UG/L
STYRENE	5.0	47	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	48	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	49	UG/L
1,1,2-TRICHLOROETHANE	5.0	49	UG/L
TRICHLOROETHENE	5.0	49	UG/L
VINYL CHLORIDE	1.0	56	UG/L
O-XYLENE	5.0	48	UG/L
M+P-XYLENE	5.0	98	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	97	%
TOLUENE-D8	(87 - 108 %)	96	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	98	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0753.D

Vial: 12

Acq On : 21 Sep 2001 4:23 pm

Operator: herring

Sample : ~~493235 1.0msd~~ 502736 1.0 msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Sep 21 16:52 2001

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 18 15:48:32 2001

Response via : Initial Calibration

DataAcq Meth : EXP0914

RJH 10/1/9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.41	168	147746	50.00	ppb	0.04
34) 1,4 - Difluorobenzene	11.75	114	258274	50.00	ppb	0.05
51) d5 - Chlorobenzene	17.25	117	217954	50.00	ppb	0.05
73) d4 - Dichlorobenzene	22.01	152	94548	50.00	ppb	0.06

System Monitoring Compounds

35) surr4, Dibrflmethane	10.44	113	99353	48.85	ppb	0.04
Spiked Amount	50.000		Recovery	=	97.70%	
57) surr3, Toluene-d8	14.45	98	270726	48.04	ppb	0.04
Spiked Amount	50.000		Recovery	=	96.08%	
58) surr2, bfb	19.59	95	112925	48.65	ppb	0.05
Spiked Amount	50.000		Recovery	=	97.30%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.76	85	86640	42.11	ppb	100
3) Chloromethane	4.14	50	63301	56.53	ppb	97
4) Vinyl Chloride	4.35	62	44549	55.97	ppb	99
5) Bromomethane	5.04	94	39335	30.14	ppb	99
6) Chloroethane	5.23	64	67594	48.78	ppb	99
7) Trichlorofluoromethane	5.72	101	128653	50.45	ppb	99
8) Diethyl Ether	6.20	59	86027	51.59	ppb	100
9) Acrolein	6.44	56	63438	177.81	ppb	94
10) FREON 113	6.62	85	37135	54.63	ppb	86
11) 1,1-Dichloroethene	6.66	96	68450	45.13	ppb	96
12) Acetone	6.69	43	40918	49.76	ppb	99
13) Iodomethane	6.97	127	23231	40.73	ppb	99
14) Carbon Disulfide	7.12	76	282802	45.22	ppb	100
15) Acetonitrile	7.16	41	88737	254.98	ppb	98
16) Allyl Chloride	7.28	76	38458	51.34	ppb	90
17) Methylene Chloride	7.49	84	93463	48.08	ppb	96
18) TBA	7.55	59	197346	1062.22	ppb	98
19) Acrylonitrile	7.86	53	223565	258.54	ppb	100
20) Methyl-t-Butyl Ether	7.91	73	247487	51.10	ppb	99
21) trans-1,2-Dichloroethene	7.97	96	88083	48.55	ppb	99
22) 1,1-Dichloroethane	8.67	63	175926	51.53	ppb	99
23) Vinyl Acetate	8.67	43	222996	55.87	ppb	98
24) 2-Chloro-1,3-butadiene	8.82	53	171602	53.37	ppb	96
25) 2,2-Dichloropropane	9.65	77	120374	51.66	ppb	97
26) 2-Butanone	9.59	43	76511	56.29	ppb	100
27) cis-1,2-Dichloroethene	9.65	96	100600	49.95	ppb	100
28) Propionitrile	9.71	54	79473	256.02	ppb	100
29) Methacrylonitrile	9.98	67	41466	51.80	ppb	96

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

V0753.D EXP0914.M

Fri Sep 21 16:52:44 2001

Page 1

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Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0753.D Vial: 12
 Acq On : 21 Sep 2001 4:23 pm Operator: herring
 Sample : 493235 1.0msd Inst : GC/MS Ins
 Misc : hla r-8550 8260b.tclf Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 21 16:52 2001 Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)

Title : 8260voa
 Last Update : Tue Sep 18 15:48:32 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Bromochloromethane	10.08	128	35388	47.79	ppb	94
31) Chloroform	10.16	83	162726	48.90	ppb	99
32) Tetrahydrofuran	10.14	42	39526	48.36	ppb	96
33) 1,1,1-Trichloroethane	10.54	97	133174	49.36	ppb	98
36) Carbontetrachloride	10.84	117	107989	49.96	ppb	93
37) 1,1-Dichloropropene	10.80	75	122449	47.23	ppb	98
38) Iso-Butyl Alcohol	10.79	43	114714	1044.36	ppb	99
39) Benzene	11.18	78	339121	47.56	ppb	99
40) 1,2-Dichloroethane	11.18	62	147229	50.59	ppb	97
41) N-Heptane	11.50	43	190597	52.23	ppb	99
42) Trichloroethene	12.28	95	93245	49.26	ppb	98
43) 1,2-Diclp propane	12.68	63	102975	46.60	ppb	99
44) Methyl Methacrylate	12.73	69	67643	50.26	ppb	97
45) 1,4-Dioxane	12.86	88	15926	902.41	ppb	96
46) Dibromomethane	12.91	93	60356	52.55	ppb	98
47) Bromodichloromethane	13.14	83	134992	51.94	ppb	99
48) 2-Nitropropane	13.49	43	83904	105.19	ppb	99
50) cis-1,3-Dichloropropene	13.93	75	155147	51.38	ppb	99
52) 4-Methyl-2-Pentanone	14.12	43	148597	50.28	ppb	100
53) Toluene	14.59	91	335863	49.71	ppb	98
54) trans-1,3-Dichloropropene	14.92	75	143078	51.74	ppb	99
55) Ethyl Methacrylate	14.98	69	130730	49.94	ppb	100
56) 1,1,2-Trichloroethane	15.30	83	71223	49.25	ppb	96
59) Tetrachloroethene	15.65	166	78751	48.17	ppb	97
60) 2-Hexanone	15.67	43	102002	49.90	ppb	100
61) 1,3-Dichloropropane	15.64	76	149741	47.09	ppb	99
62) Dibromochloromethane	16.11	129	83445	47.80	ppb	95
63) 1,2-Dibromoethane	16.39	107	88636	48.86	ppb	99
64) Chlorobenzene	17.31	112	209403	48.38	ppb	97
65) 1,1,1,2-Tetrachloroethane	17.44	131	75021	48.67	ppb	100
66) Ethylbenzene	17.46	91	382596	50.06	ppb	99
67) (m+p)Xylene	17.68	106	270683	97.99	ppb	99
68) o-Xylene	18.51	106	132150	48.20	ppb	93
69) Styrene	18.52	104	222779	47.25	ppb	98
70) Bromoform	18.99	173	55190	48.53	ppb	99
71) Isopropylbenzene	19.21	105	338056	49.05	ppb	98
72) Cyclohexanone	19.48	55	68316	265.15	ppb	95
74) 1,1,2,2-Tetrachloroethane	19.81	83	107125	50.27	ppb	98
75) Trans-1,4-Dichloro-2-buten	19.90	53	42747	48.60	ppb	77
76) 1,2,3-Trichloropropane	19.94	110	31634	48.62	ppb	95
77) n-Propylbenzene	20.06	91	436927	49.65	ppb	98

(#) = qualifier out of range (m) = manual integration
 V0753.D EXP0914.M Fri Sep 21 16:52:45 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0753.D
Acq On : 21 Sep 2001 4:23 pm
Sample : 493235 1.0msd
Misc : hla r-8550 8260b.tclf
MS Integration Params: rteint.p
Quant Time: Sep 21 16:52 2001

Vial: 12
Operator: herring
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: EXP0914.RES

Quant Method : J:\ACQUDATA\M...\EXP0914.M (RTE Integrator)
Title : 8260voa
Last Update : Tue Sep 18 15:48:32 2001
Response via : Initial Calibration
DataAcq Meth : EXP0914

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) Bromobenzene	19.96	156	79560	48.28	ppb	96
79) 1,3,5-Trimethylbenzene	20.39	105	266021	49.01	ppb	99
80) 2-Chlorotoluene	20.32	91	255142	47.73	ppb	99
81) 4-Chlorotoluene	20.52	91	262745	48.46	ppb	99
82) tert-Butylbenzene	21.10	119	208367	48.20	ppb	96
83) 1,2,4-Trimethylbenzene	21.19	105	260039	47.23	ppb	97
84) sec-Butylbenzene	21.55	105	354037	48.30	ppb	100
85) p-Isopropyltoluene	21.81	119	266923	47.97	ppb	100
86) 1,3-Dclbenz	21.88	146	137549	52.46	ppb	99
87) 1,4-Dclbenz	22.06	146	140079	48.21	ppb	98
88) n-Butylbenzene	22.69	91	292169	48.18	ppb	100
89) 1,2-Dclbenz	22.87	146	129555	48.16	ppb	99
90) 1,2-Dibromo-3-chloropropan	24.52	157	16081	47.63	ppb	90
92) 1,2,4-Tcbenzene	26.48	180	94997	47.66	ppb	93
93) Hexachlorobt	26.84	225	42414	45.20	ppb	98
94) Naphthalen	27.15	128	209554	46.48	ppb	97
95) 1,2,3-Tclbenzene	27.81	180	87496	46.48	ppb	95

(#) = qualifier out of range (m) = manual integration
V0753.D EXP0914.M Fri Sep 21 16:52:45 2001

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Page 3

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092101\V0753.D

Vial: 12

Acq On : 21 Sep 2001 4:23 pm

```
Operator: herring
```

Sample : 493235 1.0msd

Inst : GC/MS Ins

```
Misc      : hla r-8550 8260b.tclcf
```

Multiplr: 1.00

```
MS Integration Params: rteint.p
```

Quant Time: Sep 21 16:52 2001

Quant Results File: EXP0914.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0914.M (RTE Integrator)

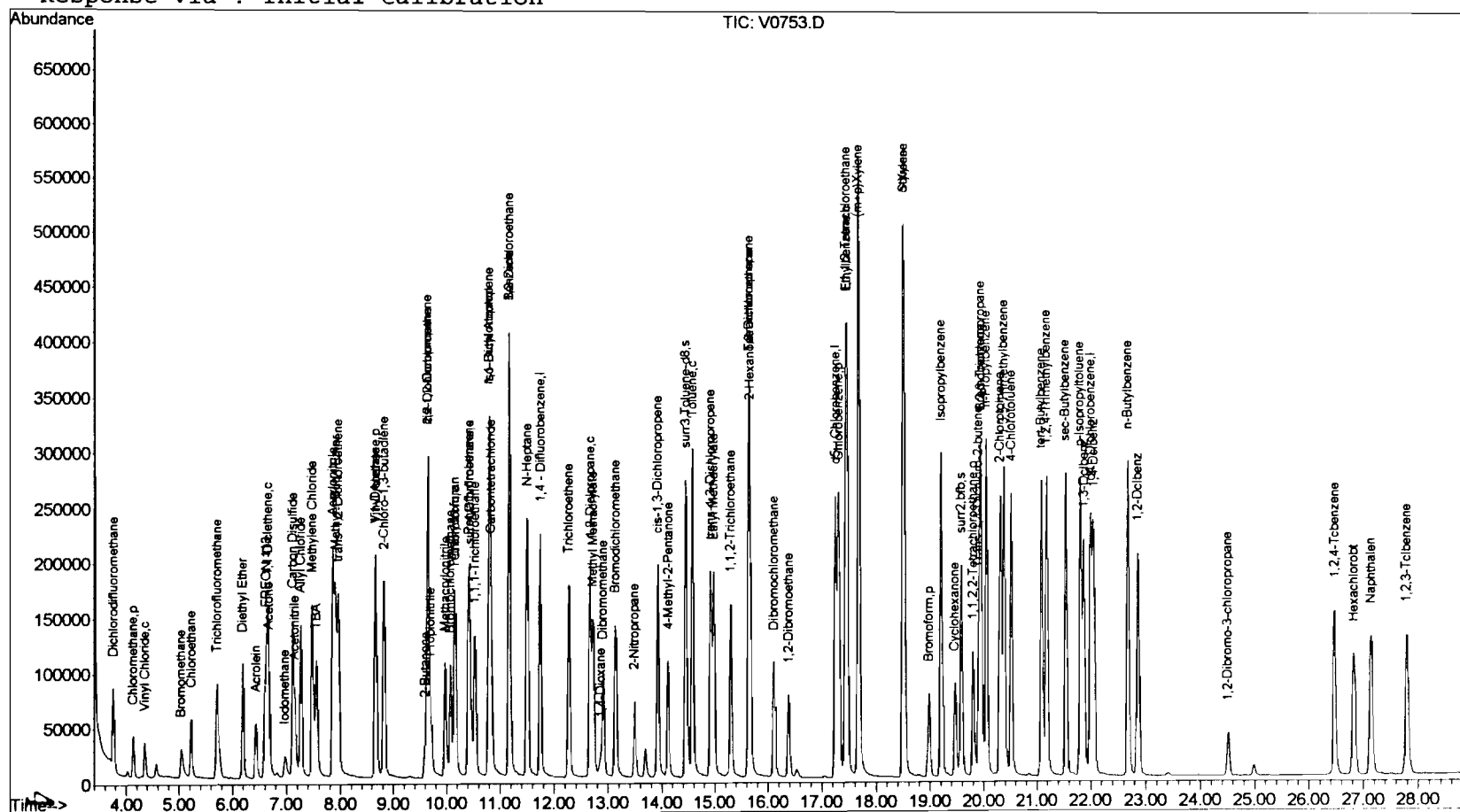
Title : 8260voa

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Last Update      : Tue Sep 18 15:48:32 2001

```

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B TCL+FREON 113

Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE

Date Sampled :	Order #: 502805	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
---------	-----	--------	-------

DATE ANALYZED : 09/25/01
ANALYTICAL DILUTION: 1.00

ACETONE	20	42	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	53	UG/L
BROMOFORM	5.0	46	UG/L
BROMOMETHANE	5.0	56	UG/L
2-BUTANONE (MEK)	10	33	UG/L
CARBON DISULFIDE	10	53	UG/L
CARBON TETRACHLORIDE	5.0	54	UG/L
CHLOROBENZENE	5.0	48	UG/L
CHLOROETHANE	5.0	52	UG/L
CHLOROFORM	5.0	51	UG/L
CHLOROMETHANE	5.0	49	UG/L
DIBROMOCHLOROMETHANE	5.0	47	UG/L
1,1-DICHLOROETHANE	5.0	55	UG/L
1,2-DICHLOROETHANE	5.0	52	UG/L
1,1-DICHLOROETHENE	5.0	49	UG/L
CIS-1,2-DICHLOROETHENE	5.0	53	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	52	UG/L
1,2-DICHLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	53	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	51	UG/L
ETHYLBENZENE	5.0	50	UG/L
FREON 113	5.0	69	UG/L
2-HEXANONE	10	42	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	43	UG/L
STYRENE	5.0	48	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	43	UG/L
TETRACHLOROETHENE	5.0	48	UG/L
TOLUENE	5.0	48	UG/L
1,1,1-TRICHLOROETHANE	5.0	53	UG/L
1,1,2-TRICHLOROETHANE	5.0	46	UG/L
TRICHLOROETHENE	5.0	67	UG/L
VINYL CHLORIDE	1.0	56	UG/L
O-XYLENE	5.0	48	UG/L
M+P-XYLENE	5.0	98	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	100	%
TOLUENE-D8	(87 - 108 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	107	%

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Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0820.D

Vial: 18

Acq On : 25 Sep 2001 11:28 pm

Operator: herring

Sample : ~~493949-1.0ms~~ 502805 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tcl

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 23:56 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

PJT 9/25

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.42	168	135400	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	238363	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.26	117	200630	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.01	152	85655	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4,Dibrflmethane	10.44	113	97681	53.74	ppb	-0.01
Spiked Amount	50.000		Recovery	=	107.48%	
58) surr3,Toluene-d8	14.46	98	256099	50.57	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.14%	
59) surr2,bfb	19.59	95	102362	49.81	ppb	-0.01
Spiked Amount	50.000		Recovery	=	99.62%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.75	85	91550	53.93	ppb	99
3) Chloromethane	4.13	50	90384	49.01	ppb	99
4) Vinyl Chloride	4.35	62	46548	55.61	ppb	96
5) Bromomethane	5.04	94	42781	55.52	ppb	98
6) Chloroethane	5.23	64	66353	52.44	ppb	94
7) Trichlorofluoromethane	5.72	101	131734	55.18	ppb	97
8) Diethyl Ether	6.20	59	86033	52.99	ppb	99
9) Acrolein	6.44	56	73115	206.07	ppb	95
10) FREON 113	6.62	85	43836	68.77	ppb	96
11) 1,1-Dicethene	6.66	96	67330	49.47	ppb	95
12) Acetone	6.69	43	43464	42.00	ppb	99
13) Iodomethane	6.97	127	20322	61.79	ppb	93
14) Carbon Disulfide	7.12	76	288850	53.45	ppb	99
15) Acetonitrile	7.17	41	74398	220.95	ppb	90
16) Allyl Chloride	7.27	76	29860	49.50	ppb	96
17) Methylene Chloride	7.49	84	95469	49.93	ppb	97
18) TBA	7.55	59	139513	756.68	ppb	98
19) Acrylonitrile	7.86	53	188370	225.54	ppb	100
20) Methyl-t-Butyl Ether	7.91	73	236040	49.22	ppb	97
21) trans-1,2-Dichloroethene	7.96	96	91410	51.78	ppb	99
22) 1,1-Dicethane	8.67	63	182370	54.95	ppb	98
23) Vinyl Acetate	8.67	43	168332	82.61	ppb	98
24) 2-Chloro-1,3-butadiene	8.83	53	170311	55.92	ppb	98
25) 2,2-Dichloropropane	9.65	77	114317	54.51	ppb	100
26) 2-Butanone	9.60	43	41085	33.22	ppb	99
27) Ethyl Acetate	9.65	43	126622	49.97	ppb	99
28) cis-1,2-Dichloroethene	9.65	96	105907	52.84	ppb	96
29) Propionitrile	9.71	54	63874	212.79	ppb	98

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

V0820.D EXP0924.M

Tue Sep 25 23:57:38 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0820.D

Vial: 18

Acq On : 25 Sep 2001 11:28 pm

Operator: herring

Sample : 493949 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 23:56 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	9.98	67	36008	46.40	ppb	96
31) Bromochloromethane	10.08	128	32067	47.99	ppb	95
32) Chloroform	10.16	83	167915	51.12	ppb	99
33) Tetrahydrofuran	10.14	42	32996	40.00	ppb	98
34) 1,1,1-Trichloroethane	10.54	97	136565	52.62	ppb	97
37) Carbontetrachloride	10.84	117	110015	53.53	ppb	98
38) 1,1-Dichloropropene	10.80	75	125612	50.85	ppb	97
39) Iso-Butyl Alcohol	10.79	43	81337	754.45	ppb	98
40) Benzene	11.18	78	340858	50.29	ppb	99
41) 1,2-Dichloroethane	11.18	62	147912	51.52	ppb	100
42) N-Heptane	11.51	43	185212	54.48	ppb	99
43) Trichloroethene	12.28	95	119582	66.60	ppb	98
44) 1,2-Diclpropane	12.68	63	105403	50.05	ppb	99
45) Methyl Methacrylate	12.73	69	59673	45.23	ppb	90
46) 1,4-Dioxane	12.86	88	10680	748.68	ppb	98
47) Dibromomethane	12.91	93	62603	49.26	ppb	99
48) Bromodichloromethane	13.14	83	132379	52.62	ppb	100
49) 2-Nitropropane	13.49	43	62161	91.64	ppb	99
51) cis-1,3-Dichloropropene	13.93	75	155151	53.07	ppb	99
53) 4-Methyl-2-Pentanone	14.12	43	125174	43.30	ppb	98
54) Toluene	14.59	91	327449	48.59	ppb	98
55) trans-1,3-Dichloropropene	14.92	75	136582	50.77	ppb	100
56) Ethyl Methacrylate	14.98	69	121002	46.93	ppb	97
57) 1,1,2-Trichloroethane	15.31	83	66266	45.82	ppb	95
60) Tetrachloroethene	15.66	166	77312	47.75	ppb	98
61) 2-Hexanone	15.67	43	83855	41.53	ppb	99
62) 1,3-Dichloropropane	15.64	76	141495	44.19	ppb	97
63) Dibromochloromethane	16.12	129	82307	47.46	ppb	98
64) 1,2-Dibromoethane	16.39	107	83107	45.63	ppb	97
65) Chlorobenzene	17.31	112	202572	47.82	ppb	96
66) 1,1,1,2-Tetrachloroethane	17.44	131	74958	48.81	ppb	99
67) Ethylbenzene	17.46	91	374021	49.81	ppb	98
68) (m+p)Xylene	17.69	106	263957	97.99	ppb	98
69) o-Xylene	18.51	106	128246	48.44	ppb	100
70) Styrene	18.53	104	217751	47.50	ppb	97
71) Bromoform	18.99	173	52290	45.78	ppb	95
72) Isopropylbenzene	19.21	105	331995	49.13	ppb	97
73) Cyclohexanone	19.48	55	44127	144.63	ppb	96
75) 1,1,2,2-Tetrachloroethane	19.82	83	94665	43.36	ppb	95
76) Trans-1,4-Dichloro-2-buten	19.90	53	36424	42.89	ppb	90
77) 1,2,3-Trichloropropane	19.94	110	28964	43.04	ppb	99

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

V0820.D EXP0924.M Tue Sep 25 23:57:38 2001

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Page 2

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0820.D

Vial: 18

Acq On : 25 Sep 2001 11:28 pm

Operator: herring

Sample : 493949 1.0ms

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 23:56 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) n-Propylbenzene	20.06	91	425583	49.15	ppb	100
79) Bromobenzene	19.96	156	78704	48.42	ppb	98
80) 1,3,5-Trimethylbenzene	20.40	105	264223	49.51	ppb	100
81) 2-Chlorotoluene	20.32	91	252951	47.67	ppb	99
82) 4-Chlorotoluene	20.52	91	257113	48.23	ppb	99
83) tert-Butylbenzene	21.10	119	208455	48.91	ppb	99
84) 1,2,4-Trimethylbenzene	21.19	105	258921	48.46	ppb	98
85) sec-Butylbenzene	21.55	105	342452	48.06	ppb	98
86) p-Isopropyltoluene	21.82	119	263114	48.83	ppb	99
87) 1,3-Dclbenz	21.88	146	133845	52.99	ppb	98
88) 1,4-Dclbenz	22.06	146	135666	47.83	ppb	100
89) n-Butylbenzene	22.69	91	282355	48.31	ppb	99
90) 1,2-Dclbenz	22.88	146	126076	48.72	ppb	99
91) 1,2-Dibromo-3-chloropropan	24.52	157	13467	41.51	ppb	89
93) 1,2,4-Tcbenzene	26.48	180	89188	47.91	ppb	98
94) Hexachlorobt	26.85	225	39734	45.52	ppb	99
95) Naphthalen	27.15	128	185504	44.57	ppb	98
96) 1,2,3-Tclbenzene	27.81	180	82901	47.31	ppb	98

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

V0820.D EXP0924.M

Tue Sep 25 23:57:39 2001

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Page 3

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0820.D

Vial: 18

Acq On : 25 Sep 2001 11:28 pm

Operator: herring

Sample : 493949 1.0ms

Inst : GC/MS Ins

```
Misc      : hla r-8550 8260b.tclrf
```

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 25 23:56 2001

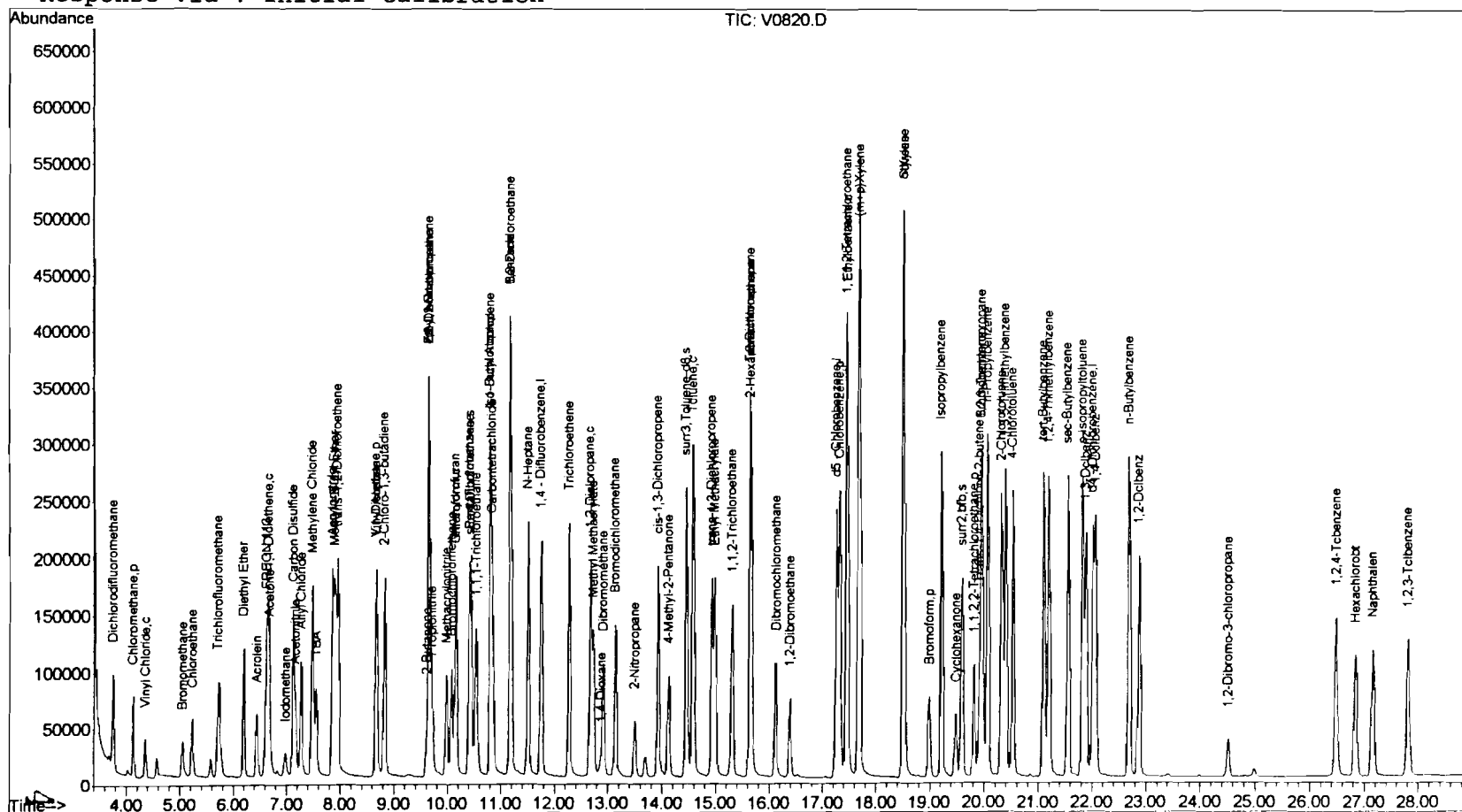
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

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Last Update      : Tue Sep 25 16:41:28 2001
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Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL+FREON 113
Reported: 10/23/01

Project Reference:

Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled : Order #: 502806 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 70380

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	45	UG/L
BENZENE	5.0	49	UG/L
BROMODICHLOROMETHANE	5.0	52	UG/L
BROMOFORM	5.0	49	UG/L
BROMOMETHANE	5.0	52	UG/L
2-BUTANONE (MEK)	10	39	UG/L
CARBON DISULFIDE	10	53	UG/L
CARBON TETRACHLORIDE	5.0	51	UG/L
CHLOROBENZENE	5.0	49	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	49	UG/L
CHLOROMETHANE	5.0	48	UG/L
DIBROMOCHLOROMETHANE	5.0	49	UG/L
1,1-DICHLOROETHANE	5.0	52	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	49	UG/L
CIS-1,2-DICHLOROETHENE	5.0	50	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	49	UG/L
1,2-DICHLOROPROPANE	5.0	49	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	52	UG/L
ETHYLBENZENE	5.0	50	UG/L
FREON 113	5.0	68	UG/L
2-HEXANONE	10	50	UG/L
METHYLENE CHLORIDE	5.0	49	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	52	UG/L
STYRENE	5.0	47	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	47	UG/L
TETRACHLOROETHENE	5.0	48	UG/L
TOLUENE	5.0	49	UG/L
1,1,1-TRICHLOROETHANE	5.0	51	UG/L
1,1,2-TRICHLOROETHANE	5.0	48	UG/L
TRICHLOROETHENE	5.0	66	UG/L
VINYL CHLORIDE	1.0	49	UG/L
O-XYLENE	5.0	48	UG/L
M+P-XYLENE	5.0	98	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(87 - 111 %)	101	%
TOLUENE-D8	(87 - 108 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

430

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0821.D

Vial: 19

Acq On : 26 Sep 2001 12:04 am

Operator: herring

Sample : ~~493949-1.0mgd~~ 502806 1.0mgd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 0:32 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

RSH 9/25

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.42	168	148173	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	11.75	114	259379	50.00	ppb	-0.01
52) d5 - Chlorobenzene	17.26	117	211602	50.00	ppb	-0.01
74) d4 - Dichlorobenzene	22.01	152	90636	50.00	ppb	-0.01

System Monitoring Compounds

36) surr4,Dibrflmethane	10.44	113	100517	50.82	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.64%	
58) surr3,Toluene-d8	14.45	98	269406	50.44	ppb	-0.02
Spiked Amount	50.000		Recovery	=	100.88%	
59) surr2,bfb	19.59	95	109471	50.51	ppb	-0.01
Spiked Amount	50.000		Recovery	=	101.02%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.76	85	92429	49.76	ppb	100
3) Chloromethane	4.13	50	96626	47.88	ppb	100
4) Vinyl Chloride	4.36	62	44826	48.94	ppb	97
5) Bromomethane	5.05	94	43268	51.74	ppb	96
6) Chloroethane	5.22	64	68546	49.50	ppb	95
7) Trichlorofluoromethane	5.72	101	137007	52.45	ppb	99
8) Diethyl Ether	6.19	59	94437	53.16	ppb	98
9) Acrolein	6.44	56	91837	236.53	ppb	98
10) FREON 113	6.62	85	47224	67.70	ppb	100
11) 1,1-Dicethene	6.66	96	72948	48.98	ppb	96
12) Acetone	6.69	43	51160	45.18	ppb	96
13) Iodomethane	6.98	127	18227	51.38	ppb	98
14) Carbon Disulfide	7.12	76	314644	53.21	ppb	100
15) Acetonitrile	7.16	41	88647	240.58	ppb	95
16) Allyl Chloride	7.27	76	27717	41.99	ppb	98
17) Methylene Chloride	7.48	84	102706	49.09	ppb	99
18) TBA	7.56	59	189542	939.40	ppb	99
19) Acrylonitrile	7.86	53	225069	246.26	ppb	99
20) Methyl-t-Butyl Ether	7.91	73	265330	50.56	ppb	99
21) trans-1,2-Dichloroethene	7.96	96	94230	48.78	ppb	99
22) 1,1-Dicethane	8.67	63	188905	52.01	ppb	98
23) Vinyl Acetate	8.66	43	193694	86.64	ppb	97
24) 2-Chloro-1,3-butadiene	8.83	53	180069	54.02	ppb	97
25) 2,2-Dichloropropane	9.66	77	117498	51.31	ppb	99
26) 2-Butanone	9.60	43	52669	38.91	ppb	97
27) Ethyl Acetate	9.66	43	165045	59.52	ppb	99
28) cis-1,2-Dichloroethene	9.66	96	110555	50.41	ppb	100
29) Propionitrile	9.70	54	76767	233.70	ppb	98

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

V0821.D EXP0924.M Wed Sep 26 00:33:33 2001

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Page 1

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0821.D

Vial: 19

Acq On : 26 Sep 2001 12:04 am

Operator: herring

Sample : 493949 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 0:32 2001

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration

DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Methacrylonitrile	9.98	67	42833	50.43	ppb	94
31) Bromochloromethane	10.08	128	34994	47.85	ppb	97
32) Chloroform	10.17	83	177509	49.38	ppb	99
33) Tetrahydrofuran	10.15	42	40764	45.16	ppb	100
34) 1,1,1-Trichloroethane	10.53	97	143891	50.66	ppb	98
37) Carbontetrachloride	10.84	117	114062	51.00	ppb	95
38) 1,1-Dichloropropene	10.81	75	133335	49.61	ppb	97
39) Iso-Butyl Alcohol	10.80	43	114720	977.88	ppb	99
40) Benzene	11.18	78	362535	49.15	ppb	99
41) 1,2-Dichloroethane	11.18	62	157395	50.38	ppb	99
42) N-Heptane	11.51	43	195660	52.89	ppb	100
43) Trichloroethene	12.27	95	128303	65.66	ppb	99
44) 1,2-Dichloropropane	12.68	63	111784	48.78	ppb	97
45) Methyl Methacrylate	12.74	69	68098	47.44	ppb	93
46) 1,4-Dioxane	12.87	88	14527	935.85	ppb	96
47) Dibromomethane	12.91	93	67293	48.66	ppb	98
48) Bromodichloromethane	13.14	83	142102	51.91	ppb	98
49) 2-Nitropropane	13.50	43	74616	101.09	ppb	96
50) 2-Chloroethylvinyl Ether	13.76	63	1482	18.01	ppb	# 72
51) cis-1,3-Dichloropropene	13.93	75	159994	50.30	ppb	98
53) 4-Methyl-2-Pentanone	14.13	43	159307	52.25	ppb	100
54) Toluene	14.59	91	350938	49.37	ppb	97
55) trans-1,3-Dichloropropene	14.92	75	147927	52.13	ppb	98
56) Ethyl Methacrylate	14.98	69	139739	51.38	ppb	99
57) 1,1,2-Trichloroethane	15.31	83	72462	47.50	ppb	97
60) Tetrachloroethene	15.65	166	81955	47.99	ppb	96
61) 2-Hexanone	15.67	43	106513	50.01	ppb	97
62) 1,3-Dichloropropane	15.64	76	155412	46.02	ppb	99
63) Dibromochloromethane	16.13	129	88885	48.60	ppb	98
64) 1,2-Dibromoethane	16.39	107	92631	48.22	ppb	100
65) Chlorobenzene	17.32	112	217728	48.73	ppb	99
66) 1,1,1,2-Tetrachloroethane	17.45	131	79199	48.90	ppb	98
67) Ethylbenzene	17.46	91	395294	49.91	ppb	98
68) (m+p)Xylene	17.68	106	279556	98.40	ppb	99
69) o-Xylene	18.51	106	135278	48.45	ppb	98
70) Styrene	18.53	104	228791	47.32	ppb	96
71) Bromoform	18.99	173	58860	48.86	ppb	92
72) Isopropylbenzene	19.22	105	345584	48.49	ppb	99
73) Cyclohexanone	19.47	55	59055	183.52	ppb	99
75) 1,1,2,2-Tetrachloroethane	19.82	83	109445	47.38	ppb	94
76) Trans-1,4-Dichloro-2-buten	19.92	53	43397	48.29	ppb	76

(#) = qualifier out of range (m) = manual integration
V0821.D EXP0924.M Wed Sep 26 00:33:33 2001

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0821.D
 Acq On : 26 Sep 2001 12:04 am
 Sample : 493949 1.0msd
 Misc : hla r-8550 8260b.tclf
 MS Integration Params: RTEINT.P
 Quant Time: Sep 26 0:32 2001

Vial: 19
 Operator: herring
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: EXP0924.RES

Quant Method : J:\ACQUDATA\M...\EXP0924.M (RTE Integrator)
 Title : 8260voa
 Last Update : Tue Sep 25 16:41:28 2001
 Response via : Initial Calibration
 DataAcq Meth : EXP0924

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,3-Trichloropropane	19.95	110	32237	45.27	ppb	100
78) n-Propylbenzene	20.06	91	438082	47.81	ppb	100
79) Bromobenzene	19.97	156	80780	46.96	ppb	99
80) 1,3,5-Trimethylbenzene	20.39	105	270455	47.90	ppb	100
81) 2-Chlorotoluene	20.32	91	267656	47.67	ppb	99
82) 4-Chlorotoluene	20.53	91	265831	47.12	ppb	99
83) tert-Butylbenzene	21.10	119	214876	47.64	ppb	99
84) 1,2,4-Trimethylbenzene	21.20	105	263848	46.67	ppb	98
85) sec-Butylbenzene	21.55	105	354743	47.04	ppb	100
86) p-Isopropyltoluene	21.83	119	269806	47.32	ppb	100
87) 1,3-Dclbenz	21.89	146	136899	51.22	ppb	99
88) 1,4-Dclbenz	22.06	146	140494	46.81	ppb	99
89) n-Butylbenzene	22.69	91	288276	46.62	ppb	100
90) 1,2-Dclbenz	22.87	146	130410	47.62	ppb	98
91) 1,2-Dibromo-3-chloropropan	24.53	157	16198	47.18	ppb	94
93) 1,2,4-Tcbenzene	26.49	180	92437	46.92	ppb	97
94) Hexachlorobt	26.84	225	40625	43.98	ppb	98
95) Naphthalen	27.16	128	206949	46.99	ppb	100
96) 1,2,3-Tclbenzene	27.82	180	87314	47.09	ppb	100

Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\092501\V0821.D

Vial: 19

Acq On : 26 Sep 2001 12:04 am

Operator: herring

Sample : 493949 1.0msd

Inst : GC/MS Ins

Misc : hla r-8550 8260b.tclf

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 26 0:32 2001

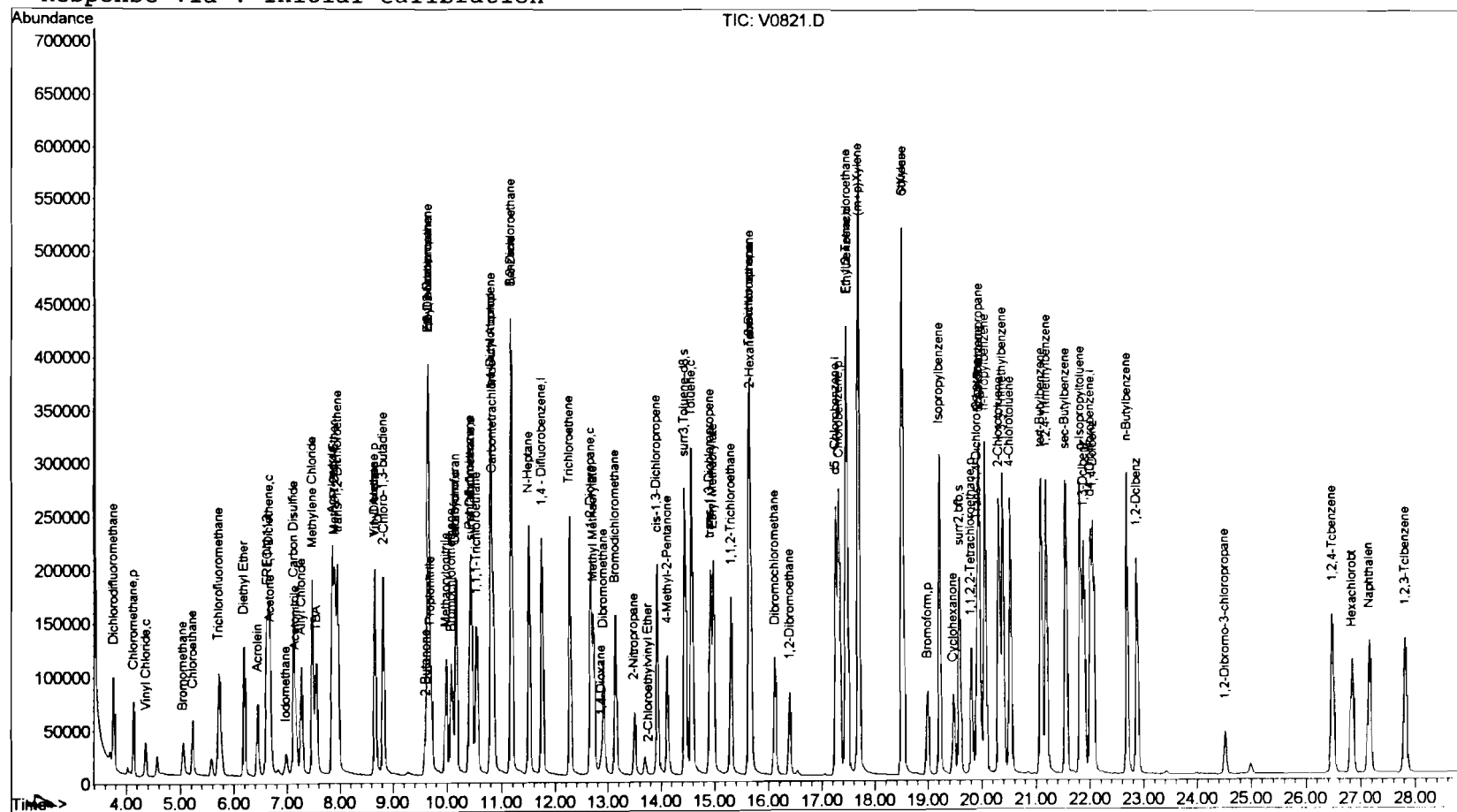
Quant Results File: EXP0924.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\EXP0924.M (RTE Integrator)

Title : 8260voa

Last Update : Tue Sep 25 16:41:28 2001

Response via : Initial Calibration



9/19/01

\091801\U...

TUNE0815.M

EXP0914.M

9/19/01

1	BLK		V0669	-		1	BLK
2	BLK		V0670	-		2	BLK
3	Tune Check (10:38)		V0671	Y		3	Tune Check
4	CCV		V0672	N	VC†	4	CCV
5	CCV		V0673	Y		5	CCV
6	met. BLK		V0674	Y		6	met. BLK
7	LCS20		V0675	Y		7	LCS20
8	491418 2.0 ^{25ml} (LEA R-8455 82603.V18)		V0676	Y		8	493227
9	418 2.0MS		V0677	YQ		9	228
9	418 2.0MSD		V0678	YQ		10	BLK
10	416 1.0 (5ml)		V0679	Y		11	229
11	417 1.0		V0680	Y		12	230
12	415 1.0		V0681	Y		13	231
13	419 1.0 (B)		V0682	Y		14	232
14	492383 1.0 (B) [HKA R-8550 8260, TCF]		V0683	Y		15	233
15	384 1.0 (B)		V0684	Y		16	234
16	385 1.0 (B)		V0685	Y		17	224
17	386 1.0		V0686	Y		18	224
18	386 1.0 MS		V0687	YQ		18	224
19	386 1.0MSD		V0688	YQ			
20	493225 1.0		V0689	Y			
21	226 1.0		V0690	N			
22	Test 50 ppb (primary)		V0691	-			
23	Test 50 ppb (second source)		V0692	-			

PHC2

PHC2

Non-targets 22-dep V. Art

N/A on line water

VC 116 (10:20) out of tune time

PHC2

PHC2

Bplich & Herin

Surr. MSV6014D
 Targets/Gases MSV6012C
 HSL/Acroline MSV6020A
 SS Targets MSV6017K
 SS HSL MSV6023D

Surr.
 Targets/
 HSL/A
 SS Targets
 SS HSL

185

24

9/19/01

\091801\U...

TUNE0815.M

EXP0914.M

9/19/01

1	BLK		V0669	-		1	BLK
2	BLK		V0670	-		2	BLK
3	Tune Check (10:38)		V0671	Y		3	Tune Check
4	CCV		V0672	N	VC†	4	CCV
5	CCV		V0673	Y		5	CCV
6	met. BLK		V0674	Y		6	met BLK
7	LCS20		V0675	Y		7	LCS20
8	491418 2.0 ^(25ml) _(50ml) [CRA R-8445 8260B.VIB]		V0676	Y		8	493227
9	418 2.0MS		V0677	YQ		9	228
9	418 2.0MSD		V0678	YQ		10	BLK
10	416 1.0 (5ml)		V0679	Y		11	229
11	417 1.0		V0680	Y		12	230
12	415 1.0		V0681	Y		13	231
13	419 1.0 (B)		V0682	Y		14	232
14	492383 1.0 (B) [HPL R-8550 8260, TCF]		V0683	Y		15	233
15	384 1.0 (B)		V0684	Y		16	234
16	385 1.0 (B)		V0685	Y		17	234
17	386 1.0		V0686	Y		18	224
18	386 1.0 MS		V0687	YQ			
19	386 1.0MSD		V0688	YQ			
20	493225 1.0		V0689	Y			
21	226 1.0		V0690	Y			
22	Test 50 ppb (primary)		V0691	Y			
23	Test 50 ppb (second source)		V0692	Y			

Non-targets 22-23
22-23 V. ArtN/A on
V. ArtVC 716 (10:21)
out of 1 (1:10)
LRI 110

Robert J. Loring

Surr. MSV6014D
 Targets/Gases MSV6012C
 HSL/Acrolein MSV6020A
 SS Targets MSV6017K
 SS HSL MSV6023D

Jedi

Surr.
 Targets
 HSL
 SS Targets
 SS HSL

185

9/19/01

/091901/V...

22-dep
V. ArtN/A - on
V. Art2.776 (10.20)
Hof + function
RPT 110

1	BLK		V0693	-
2	BLK		V0694	-
3	Tune Check	(10:18 am)	V0695	YT
4	CCV		V0696	NC - VL ↑
5	CCV		V0697	YC
6	met blk		V0698	YM
7	ICS 20		V0699	YQ
8	493227	5.0 (5ml/50ml) [HLA R-8550 82600, TCE]	V0700	N rpt 1.0
9	228	5.0	V0701	⑦ 1298 tce rpt 1/50
10	blk		V0702	- clean
11	229	10 (5ml/50ml)	V0703	Y 912 acrolein outflow TCE
12	230	50 (5ml/50ml)	V0704	N BL TCE rpt 1/25
13	231	1.0 (5ml)	V0705	Y
14	232	1.0	V0706	⑦ Acrolein 398 rpt 1/2
15	233	1.0	V0707	⑦ cis-dce 208 rpt 1/2
16	234	5.0	V0708	Y
17	224	1.0	V0709	Y v. 180
18	224	1.0 MS	V0710	YQ
19	224	1.0 MSD	V0711	YQ

reprints

493226
227
228
229
230
231*Reduced listing*

Surv. MSUB014D 8.75 ml/50ml DI → 5ml purge Tun Check
Targets/Gases MSUB012C, 5ml/50ml DI → 5ml purge
HSL/Acrolein MSUB020A, 5ml/50ml DI
SS Targets MSUB017K, 2ml/50ml DI
SS HSL MSUB023D, 2ml/50ml DI

9/21/01

1092101/V.

2914.M

8260B WATERS

	1	tune check	(11:31 am)	V0745	Y	
	2	CCV		V0746	Y	
	3	LC520		V0747	Y	
	4	met blk		V0748	Y	
AK2	5	493226 1.0 (5ml) [HLA R-8550 8260B TLF]		V0749	Y	
240.99 NT	6	227 1.0		V0750	Y	
	7	235 1.0		V0751	Y	
	8	235 1.0 MS		V0752	YQ	
	9	235 1.0 MSD		V0753	YQ	
	10	236 20 (2.5ml / 50ml)		V0754	N	pt 1.0
	11	237 5.0 (5ml / 50ml)		V0755	N	66 TCE pt 2.5
	12	238 1.0		V0756	Y	
	13	239 1.0		V0757	Y	
	14	354 10 (5ml / 50ml)		V0758	Y	863 TCE pt 1/100
	15	355 1.0		V0759	Y	
	16	356 1.0		V0760	Y	
	17	357 1.0		V0761	Y	
	18	360 1.0		V0762	Y	
	19	364 1.0		V0763	Y	367 COT, 222 R/H
at 7500 psi 6.5% report as per 1.4% ok MFW	20	365 20		V0764	Y	
	21	TUNE		V0765	-	
	22	CCV		V0766	-	VC. ↑
	23	CCV		V0767	-	
Just out	24	LC520		V0768	-	
	25	BLK		V0769	-	
	26	MET BLK		V0770	-	
	AK2 27	493366 20 (5ml) [HLA R-8550 8260B TLF]		V0771	pt 1/50 Screens only	
	28	367 1.0		V0772	good dil.	
	29	368 25 (2.5ml / 50ml)		V0773	pt 1/50	
spaced out + range ok. MFW	30	949 1.0		V0774	good dil.	acc. req'd
	31	950 1.0		V0775	good dil.	
	32	951 1.0		V0776	" "	
replicate reported	33	952 50 (1ml / 50ml)		V0777	" "	107 TCE
	34	953 50		V0778	pt 1/25	
	35	954 50		V0779	good dil. 116 TCE	
	36	955 200 (1ml / 50ml & 25ml / 50ml)		V0780	good dil. 146 TCE	
	37	956 20 (2.5ml / 50ml)		V0781	try 5% or 1000	382 TCE ??
	38	949 1.0 MS		V0782	-	
	39	949 1.0 MSD		V0783	-	

Robinson & Hering

Surv. MSUG014D

Targets/Gages MSUG012C

ASL/Acroleim MSUG020A

SS Targets MSUG017K

SS HSL MSUG023D

9/25/01

/092501/

TUNED 815.11
EXP 0924.11

29

82603 W

not used
A - Teknovo 2000

1	DLK		V0803	
1	DLK		V0804	
2	DLK		V0805	
3	Tune check	(1:47 pm)	V0806	Y
4	CCV		V0807	Y
5	MET BLC		V0808	Y
6	ICS20		V0809	N
7	ICS20		V0810	Y
PK 8	493228	50 ^(1ml) [HPLC R-7550 82603, TOLF]	V0811	N
9	230	25 ^(2ml) [HPLC R-7550 82603, TOLF]	V0812	Y
10	228	50	V0813	Y
11	232	2.0 ^(2.5ml)	V0814	Y
12	233	2.0	V0815	Y
13	236	1.0 ^(5ml)	V0816	Y
14	237	2.5 ^(2.5ml)	V0817	Y
15	354	100 ^(1ml)	V0818	Y
16	949	1.0	V0819	Y
17	949	1.0 MS	V0820	Y
18	949	1.0 MS	V0821	Y
19	366	40 ^(1.5ml)	V0822	Y
20	367	1.0	V0823	Y
21	368	50	V0824	Y

Surv 1st
AS REPL

AS REPL

AS REPL

1.51 out of the time
not 1/5

Dobson & Hui

5ml purge

Surv MS V6014D, 8.75 ml / 42.5 ml DI Tune check (5ml purge)

Targets / Gages MSUB019C, 5ml / 50ml DI → 5ml purge

HSL / Acrolein MSUB028C, 5ml / 50ml DI → 5ml purge

{ SS Targets MSUB017K, 2ml / 50ml DI → 5ml L purge

{ SS HSL MSUB029A, 2ml / 50ml DI → 5ml L purge

4.75 ml / 42.5 ml MS / MSD Wial.

488

9/26/01

(092601) V. . .

TUNE 0815.M
EXP 0924.M

9/27/01

(8260B WATERS)

	Time	Sample	Conc.	Dilution	Notes	Result	Status	Remarks
1	BK					V0825	-	
2	BK					V0826	-	
3	BK					V0827	-	
4	TUNE CHECK	(10:45am)				V0828	YT	
5	CCV					V0829	YC	
6	MET BK					V0830	YM	
7	LCS20					V0831	YQ	
8	PHCZ	494368	50	($\frac{1ml}{50ml}$)	[HLA R-8550 8260B.TLF]	V0832	Y	
9		950	1.0	(5ml purge)		V0833	Y	
10		951	1.0			V0834	Y	
11		952	50			V0835	Y	
12		953	25	($\frac{2ml}{50ml}$)		V0836	Y	
13		954	50			V0837	Y	
14	R.H. q(2)	9545	200	($\frac{1ml}{100ml} \times \frac{25ml}{50ml}$)		V0838	Y	
15		956	500	($\frac{1ml}{100ml} \times \frac{10ml}{50ml}$)		V0839	Y	
16	PHCZ	494568	1/5.0		[Geosyn. R-8696 8260B.TCLH]	V0840	Y	TCE 172 ppb
17		568	5.0MSD			V0841	YQ	TCE spiked out of range
18		568	5.0MSD	($\frac{100\mu l}{50ml}$)		V0842	NB	rpt on next run TCE rec = 62%
19		563	1.0			V0843	Y	
20		564	20	($\frac{2.5ml}{50ml}$)		V0844	Y	287.9 TCE rpt 1/50
21		565	1.0			V0845	Y	
22		566	1.0			V0846	Y	
23		567	1.0			V0847	Y	
24	TUNE	(11:05 am)				V0848	YT	
25	CCV					V0849	NC	KC just out of
26	CCV					V0850	YC	
27	BK					V0851	-	
28	MET BK					V0852	YM	
29	LCS20					V0853	YQ	
30	PHCZ	494848	10	($\frac{5ml}{50ml}$)	[Geosyn R-8709 .TCLH]	V0854	Y	
31		849	1.0	(5ml)		V0855	Y	
32		850	1.0			V0856	Y	261 TCE rpt 1/2
33		851	1.0			V0857	Y	
34		852	1.0			V0858	Y	
35		853	1.0			V0859	Y	655 TCE rpt 4/5
36		854	10	($\frac{5ml}{50ml}$)		V0860	Y	
37		855	10			V0861	Y	276 TCE rpt 1/20
38		856	10			V0862	Y	273 TCE rpt 1/20
39		857	1.0			V0863	Y	260 TCE rpt 1/2
40		858	1.0			V0864	Y	
41		495502	10		[bbel R-8727 8260B.TCLP]	V0865	Y	
42	PHCZ	493406	1.0		[Galsom R-8593 8260B.TCLP]	V0866	Y	
43	PHCZ	412	1.0			V0867	Y	
44		494568	5.0 MSD		[Geosyn R-8696 8260B.TCLH]	V0868	YQ	

Surf. (50) MSV6030D, 8.75µl/50 ml → 5ml purge Thru Check
 Targets / Gages MSV6019C, 5µl / 50 mL DI → 5ml purge
 HSL/Acrolem MSV6028C, 5µl / CCV
 SS Targets MSV6017R, 12µl / 50mL DI → 5ml purge
 1-SS-TCL MSV6023D, 12µl / CCV

4.25µl added to matrix like Vials

ASAP AS FOR TPT
1 vial + sediment

1. Trans Ch
2. CCV

TUNE V0671
CAL V0673
BLK 502722 V0674
LCS 502723 V0675

~~491118~~
~~502118~~
~~502118~~

492383 V0683
384 V0684
385 V0685
386 V0686
SPK1 502725 V0687
SPK2 502726 V0688
493225 V0689

RUN: 70375

TUNE V0695
CAL V0697
BLK 502729 V0698
LCS 502730 V0699

493228 V0701 + V0813
229 V0703
231 V0705
232 V0706 + V0814
233 V0707 + V0815
234 V0708
224 V0709
SPK1 502731 V0710
SPK2 502732 V0711

RUN: 70376

TUNE V0745
CAL V0746
BLK 502733 V0748
LCS 502734 V0747

493226 V0749
227 V0750
235 V0751
SPK1 502735 V0752
SPK2 502736 V0753

238 V0756
239 V0757
354 V0758 + V0818
355 V0759
356 V0760
357 V0761
360 V0762
364 V0763
365 V0764

RUN: 70377

TUNE V0806
CAL V0807
BLK 502803 V0808
LCS 502804 V0810

493230 V0812
236 V0816
237 V0817
949 V0819
SPK1 502805 V0820
SPK2 502806 V0821
366 V0822
367 V0823

TUNE V0828
CAL V0829
BLK 502807 V0830
LCS 502808 V0831

493368 V0832
950 V0833
951 V0834
952 V0835
953 V0836
954 V0837
955 V0838
956 V0839

Copied

RUN: 70380

NATURAL ATTENUATION ANALYSES

CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2108550

<u>Lab ID</u>	<u>Client ID</u>
492383	QATB01
492384	QAFB01
492385	QARB01
492386	BR-06
492387	W-2
493224	BR-07
493225	BR-07 (DUP)
493226	TW-13
493227	W-4
493228	OB-06
493229	BR-08
493230	BR-17
493231	BR-14
493232	W-6
493233	BR-01
493234	TW-17
493235	TW-20
493236	TW-04
493237	BR-03
493238	TW-07
493239	OB-09
493354	BR-02

All samples were received in good condition.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

CAS LIST OF QUALIFIERS

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. For further explanation see case narrative / cover letter.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)
- * - Inorganic Duplicate analysis not within control limits. Flag the entire batch - Inorganic analysis only
- * - Organics QC data outside limits.
- D - Spike diluted out.
- S - Reported value determined by Method of Standard Additions. (MSA)
- X - As specified in the case narrative.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
New York ID # 10145
Connecticut ID # PH0556
Massachusetts ID # M-NY032
American Industrial Hygiene Assoc. ID #:100314
Navy Facilities Engineering Service Center Approved

Delaware Accredited
New Jersey ID # 73004
Rhode Island ID # 158
New Hampshire ID # 294100 A/B
West Virginia ID # 292
Florida ID # Pending



COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-2

Date Sampled : 09/11/01 18:58

Order #: 492387

Sample Matrix: WATER

Date Received: 09/12/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
BICARBONATE ALKALINITY	310.1	2.00	238	MG/L	09/25/01	10:30	1.0
CHLORIDE	300.0	0.100	8.42	MG/L	09/22/01	00:33	10.0
FREE CARBON DIOXIDE CONTENT	4500B	0.100	11	MG/L			1.0
TOTAL ALKALINITY	310.1	2.00	250	MG/L	09/25/01	10:30	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	347	MG/L	09/13/01	10:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-17

Date Sampled : 09/14/01 10:10

Order #: 493234

Sample Matrix: WATER

Date Received: 09/14/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
BICARBONATE ALKALINITY	310.1	2.00	342	MG/L	09/25/01	10:30	1.0
CHLORIDE	300.0	0.100	16.2	MG/L	09/26/01	13:57	10.0
FERROUS IRON	FE+2	0.100	0.100 U	MG/L	09/15/01	12:40	1.0
FREE CARBON DIOXIDE CONTENT 4500B	0.100		50	MG/L			1.0
NITRATE NITROGEN	353.2	0.0500	1.74	MG/L			1.0
NITRATE/NITRITE NITROGEN	353+35	0.0500	1.74	MG/L	10/02/01	15:48	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/15/01	14:50	1.0
SULFATE	300.0	0.200	102	MG/L	09/26/01	13:57	10.0
TOTAL ALKALINITY	310.1	2.00	342	MG/L	09/25/01	10:30	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	522	MG/L	09/19/01	09:55	1.0
TOTAL ORGANIC CARBON	415.1	1.00	1.18	MG/L	09/25/01	13:24	1.0
TOTAL SULFIDE	376.1	1.00	1.00 U	MG/L	09/21/01	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-20

Date Sampled : 09/14/01 12:31

Order #: 493235

Sample Matrix: WATER

Date Received: 09/14/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
PH	150.1		7.05		09/14/01	12:31	1.0
TEMPERATURE	170.1		16.2	°C	09/14/01	12:31	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-20

Date Sampled : 09/14/01 12:31 Order #: 493235 Sample Matrix: WATER
Date Received: 09/14/01 Submission #: R2108550 Analytical Run 69771

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.00			
ETHANE	1.0	1.0 U	UG/L
ETHYLENE	1.0	1.0 U	UG/L
METHANE	2.0	2.0 U	UG/L
PROPANE	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-04

Date Sampled : 09/14/01 15:40

Order #: 493236

Sample Matrix: WATER

Date Received: 09/14/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
BICARBONATE ALKALINITY	310.1	2.00	265	MG/L	09/25/01	10:30	1.0
CHLORIDE	300.0	0.100	13.7	MG/L	09/26/01	14:22	10.0
FERROUS IRON	FE+2	0.100	0.156	MG/L	09/15/01	12:40	1.0
FREE CARBON DIOXIDE CONTENT	4500B	0.100	37	MG/L			1.0
NITRATE NITROGEN	353.2	0.0500	0.0500 U	MG/L			1.0
NITRATE/NITRITE NITROGEN	353+35	0.0500	0.0500 U	MG/L	10/02/01	15:48	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/15/01	14:50	1.0
SULFATE	300.0	0.200	275	MG/L	09/26/01	16:01	40.0
TOTAL ALKALINITY	310.1	2.00	265	MG/L	09/25/01	10:30	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	686	MG/L	09/19/01	09:55	1.0
TOTAL ORGANIC CARBON	415.1	1.00	1.38	MG/L	09/25/01	13:54	1.0
TOTAL SULFIDE	376.1	1.00	1.00 U	MG/L	09/21/01	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-07

Date Sampled : 09/15/01 08:45

Order #: 493238

Sample Matrix: WATER

Date Received: 09/15/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
PH	150.1		6.55		09/15/01	08:45	1.0
TEMPERATURE	170.1		16.5	°C	09/15/01	08:45	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-07

Date Sampled : 09/15/01 08:45 Order #: 493238 Sample Matrix: WATER
Date Received: 09/15/01 Submission #: R2108550 Analytical Run 69771

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.00			
ETHANE	1.0	1.0 U	UG/L
ETHYLENE	1.0	1.0 U	UG/L
METHANE	2.0	2.3	UG/L
PROPANE	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-09

Date Sampled : 09/15/01 11:03

Order #: 493239

Sample Matrix: WATER

Date Received: 09/15/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
BICARBONATE ALKALINITY	310.1	2.00	270	MG/L	09/25/01	10:30	1.0
CHLORIDE	300.0	0.100	38.1	MG/L	09/26/01	14:46	10.0
FERROUS IRON	FE+2	0.100	0.128	MG/L	09/15/01	12:40	1.0
FREE CARBON DIOXIDE CONTENT 4500B	0.100		58	MG/L			1.0
NITRATE NITROGEN	353.2	0.0500	0.283	MG/L			1.0
NITRATE/NITRITE NITROGEN	353+35	0.0500	0.283	MG/L	10/02/01	15:48	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/15/01	14:50	1.0
SULFATE	300.0	0.200	432	MG/L	09/26/01	16:50	100.0
TOTAL ALKALINITY	310.1	2.00	270	MG/L	09/25/01	10:30	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	974	MG/L	09/19/01	09:55	1.0
TOTAL ORGANIC CARBON	415.1	1.00	1.94	MG/L	09/25/01	14:24	1.0
TOTAL SULFIDE	376.1	1.00	1.00 U	MG/L	09/21/01	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-09

Date Sampled : 09/16/01 14:17

Order #: 493367

Sample Matrix: WATER

Date Received: 09/17/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
PH	150.1		6.76		09/16/01	14:17	1.0
TEMPERATURE	170.1		17.2	°C	09/16/01	14:17	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : TW-09

Date Sampled : 09/16/01 14:17 Order #: 493367 Sample Matrix: WATER
Date Received: 09/17/01 Submission #: R2108550 Analytical Run 69771

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 09/25/01		
ANALYTICAL DILUTION:	1.00		
ETHANE	1.0	2.7	UG/L
ETHYLENE	1.0	1.0 U	UG/L
METHANE	2.0	19	UG/L
PROPANE	1.0	1.2	UG/L

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : OB-07

Date Sampled : 09/17/01 13:48

Order #: 493949

Sample Matrix: WATER

Date Received: 09/18/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
BICARBONATE ALKALINITY	310.1	2.00	130	MG/L	09/25/01	10:30	1.0
CHLORIDE	300.0	0.100	126	MG/L	09/19/01	21:37	40.0
FERROUS IRON	FE+2	0.100	0.100 U	MG/L	09/18/01	17:00	1.0
FREE CARBON DIOXIDE CONTENT	4500B	0.100	3.8	MG/L			1.0
NITRATE NITROGEN	300.0	0.0500	17.6	MG/L	09/19/01	14:04	10.0
SULFATE	300.0	0.200	756	MG/L	09/19/01	21:49	100.0
TOTAL ALKALINITY	310.1	2.00	130	MG/L	09/25/01	10:30	1.0
TOTAL DISSOLVED SOLIDS	160.1	10.0	1460	MG/L	09/21/01	11:00	1.0
TOTAL ORGANIC CARBON	415.1	1.00	9.62	MG/L	10/09/01	12:45	1.0
TOTAL SULFIDE	376.1	1.00	1.00 U	MG/L	09/21/01	11:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-5

Date Sampled : 09/17/01 15:55

Order #: 493950

Sample Matrix: WATER

Date Received: 09/18/01

Submission #: R2108550

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
PH	150.1		6.77		09/17/01	15:55	1.0
TEMPERATURE	170.1		18.2	°C	09/17/01	15:55	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 10/23/01

Harding ESE

Project Reference: FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

Client Sample ID : W-5

Date Sampled : 09/17/01 15:55 Order #: 493950 Sample Matrix: WATER
Date Received: 09/18/01 Submission #: R2108550 Analytical Run 69771

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.00			
ETHANE	1.0	1.0 U	UG/L
ETHYLENE	1.0	1.0 U	UG/L
METHANE	2.0	2.0 U	UG/L
PROPANE	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/23/01
CAS Order # : 493949 - OB-07
Client : Harding ESE
FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY
Reported Units: MG/L
Run # : 69164

PRECISION

ACCURACY

SULFATE

ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
756	771	2	1240	500	97	73 - 123

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/23/01
CAS Order # : 493949 - OB-07
Client : Harding ESE
FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY
Reported Units: MG/L
Run # : 69237

PRECISION

ORIGINAL	DUPLICATE	RPD
1460	1460	0

TOTAL DISSOLVED SOLIDS

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/23/01
CAS Order # : 493238 - TW-07
Client : Harding ESE
FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY
Reported Units: MG/L
Run # : 69388

PRECISION

ACCURACY

ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
0.00000	350	0	451	100	101	79 - 118

TOTAL ALKALINITY

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/23/01
CAS Order # : 493949 - OB-07
Client : Harding ESE
FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY
Reported Units: MG/L
Run # : 69873

PRECISION

ORIGINAL	DUPLICATE	RPD
9.62	10.1	5

TOTAL ORGANIC CARBON

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2108550

Client: Harding ESE

FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
TOTAL DISSOLVED SOLIDS	10.0 U	898	906	99	80 - 120	68958	MG/L
CHLORIDE	0.100 U	2.50	2.50	100	90 - 110	69073	MG/L
FERROUS IRON	0.100 U	0.326	0.400	82	80 - 120	69114	MG/L
NITRATE NITROGEN	0.0500 U	1.26	1.25	101	90 - 110	69129	MG/L
NITRITE NITROGEN	0.0100 U	0.252	0.250	101	90 - 110	69138	MG/L
FERROUS IRON	0.100 U	0.311	0.400	78	80 - 120	69139	MG/L
TOTAL DISSOLVED SOLIDS	10.0 U	907	906	100	80 - 120	69154	MG/L
CHLORIDE	0.100 U	2.44	2.50	98	90 - 110	69163	MG/L
SULFATE	0.200 U	2.63	2.50	105	90 - 110	69164	MG/L
NITRATE NITROGEN	0.0500 U	1.24	1.25	99	90 - 110	69186	MG/L

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2108550
Client: Harding ESE
FORMER TAYLOR INSTRUMENTS SITE - QUARTERLY

BLANK SPIKES

BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
1.00 U	10.2	10.0	102	81 - 116	69873	MG/L

TOTAL ORGANIC CARBON

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8015B GASES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 498903 ANALYTICAL RUN # : 69771

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 09/25/01			
ANALYTICAL DILUTION: 1.0			
ETHANE	30.8	107	70 - 130
ETHYLENE	28.6	96	70 - 130
METHANE	16.5	93	70 - 130
PROPANE	45.6	113	70 - 130

**Monitoring Well TW-04 Split Sample,
analyzed by
Paradigm Environmental Services, Inc.**

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Laboratory Analysis Report For Non-Potable Water

Client: Harding ESE
Client Job Site: N/A

Lab Project No.: 01-2331
Lab Sample No.: 8685

Client Job No.: 51870.4

Sample Type: Water

Field Location: TW-04

Date Sampled: 09/14/01

Date Received: 09/14/01

Field ID No.: N/A

Date Analyzed: 09/19/01

VOLATILE HALOCARBONS		RESULTS (ug/L)	VOLATILE AROMATICS		RESULTS (ug/L)
Bromodichloromethane	ND<	2.00	Benzene	ND<	2.00
Bromomethane	ND<	2.00	Chlorobenzene	ND<	2.00
Bromoform	ND<	2.00	Ethylbenzene	ND<	2.00
Carbon tetrachloride	ND<	2.00	Toluene	ND<	2.00
Chloroethane	ND<	2.00	m,p - Xylene	ND<	2.00
Chloromethane	ND<	2.00	o - Xylene	ND<	2.00
2-Chloroethyl vinyl ether	ND<	2.00	Styrene	ND<	2.00
Chloroform	ND<	2.00			
Dibromochloromethane	ND<	2.00			
1,1-Dichloroethane	ND<	2.00			
1,2-Dichloroethane	ND<	2.00			
1,1-Dichloroethene	ND<	2.00			
cis-1,2-Dichloroethene		32.0			
trans-1,2-Dichloroethene	ND<	2.00			
1,2-Dichloropropane	ND<	2.00			
cis-1,3-Dichloropropene	ND<	2.00			
trans-1,3-Dichloropropene	ND<	2.00			
Methylene chloride	ND<	5.00			
1,1,2,2-Tetrachloroethane	ND<	2.00			
Tetrachloroethene	ND<	2.00			
1,1,1-Trichloroethane	ND<	2.00			
1,1,2-Trichloroethane	ND<	2.00			
Trichloroethene		24.6			
Vinyl Chloride	ND<	2.00			

Ketones & Misc.

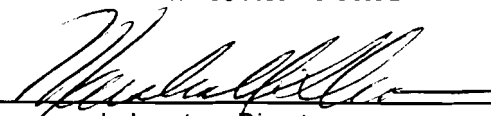
Acetone ND< 10.0
Vinyl acetate ND< 5.00
2-Butanone ND< 5.00
4-Methyl-2-pentanone ND< 5.00
2-Hexanone ND< 5.00
Carbon disulfide ND< 5.00

Analytical Method: EPA 8260

ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By



Laboratory Director

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(716) 647-2530 * (800) 724-1997
FAX: (716) 647-3311

CH 1 OF CUSTODY

REPORT TO:

INVOICE TO:

COMPANY: <u>Harding ESE</u>		COMPANY: <u>← SAME</u>		LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: <u>1400 Cumberland Blvd Suite 155</u>		ADDRESS:		<u>21-2331</u>	<u>57870.4</u>
CITY: <u>Knoxville</u>	STATE: <u>TN</u>	ZIP: <u>37932</u>	CITY:	STATE:	ZIP:
PHONE: <u>(865) 541-1922</u>	FAX: <u>(865) 571-8226</u>	PHONE:	FAX:	TURNAROUND TIME: (WORKING DAYS)	
ATTN: <u>Rick Ryan Rob Ellis</u>		ATTN:		☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐ OTHER	
PROJECT NAME/SITE NAME:		COMMENTS: <u>Please Call → 865-300-8585</u>			

REQUESTED ANALYSIS

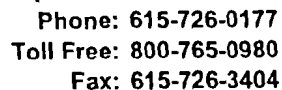
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINERS	VOL (3260)													REMARKS	PARADIGM LAB SAMPLE NUMBER
1 09/14/01	15:40		X	TN #4	GW	2	X														8685
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

****LAB USE ONLY****

SAMPLE CONDITION: Check box if acceptable or note deviation:	CONTAINER TYPE: ☒	PRESERVATIONS: ☒	HOLDING TIME: ☒	TEMPERATURE: ☒ <u>13°</u>
--	---	--	---	---

Sampled By: <u>RA/EA</u>	Date/Time: <u>09/14/01 15:40</u>	Relinquished By:	Date/Time:	Total Cost:
Relinquished By: <u>RA/EA</u>	Date/Time: <u>09/14/01 1741</u>	Received By:	Date/Time:	
Received By: <u>Heindel</u>	Date/Time: <u>9/14 1742</u>	Received @ Lab By: <u>Bill Brown</u>	Date/Time: <u>9-14-01 18:54</u>	P.I.F. <u>CC payment</u>

**Monitoring Well TW-04 Split Sample,
analyzed by
Test America Incorporated**



Project #: 57870.4

Enforcement Action?	Yes	No
---------------------	-----	----

[illegible]

TestAmerica

INCORPORATED

COOLER RECEIPT FORM

Client: Harding Lawson & Assoc. BC# 252804

Cooler Received On: 9.15.01 And Opened On: 9.15.01 By: CHRIS WILMOTH

C. Wilmoth
(Signature)

1. Temperature of Cooler when opened 15 DEGREES C
2. Were custody seals on outside of cooler and intact?.....YES ☒ NO
- a. If yes, what kind and where: _____
- b. Were the signature and date correct?.....YES NO
3. Were custody seals on containers intact?.....YES NO
4. Were custody papers inside cooler?.....☒ YES NO
5. Were custody papers properly filled out (ink, signed, etc)?.....☒ YES NO
6. Did you sign the custody papers in the appropriate place?.....☒ YES NO
7. What kind of packing material used? ☒ Bubblewrap ☐ Peanuts ☐ Other ☐ None
8. Was sufficient ice used (if appropriate)?.....☒ YES NO
9. Did all bottles arrive in good condition (unbroken)?.....☒ YES NO
10. Were all bottle labels complete (#, date, signed, pres, etc)?.....☒ YES NO
11. Did all bottle labels and tags agree with custody papers?.....☒ YES NO
12. Were correct bottles used for the analysis requested?.....☒ YES NO
13. If present, was any observable v.o.a. headspace present?.....YES ☒ NO
14. If present, were VOA vials checked for absence of air bubbles and noted if found?...☒ YES NO
15. Was sufficient amount of sample sent in each bottle?.....☒ YES NO
16. Were correct preservatives used?.....☒ YES NO
17. Was residual chlorine present (if appropriate)?.....YES NO
18. Corrective action taken, if necessary:
 - a. Name of person contacted: SEE ATTACHED FOR RESOLUTION
 - b. Date: _____

Cooler Receipt Form

LF-1

4/6/01

ANALYTICAL REPORT

HARDING LAWSON & ASSOCIATES 4997
BARBARA SPARKS
1400 CENTERPOINT BLVD, STE. 158
KNOXVILLE, TN 37932-1968

Lab Number: 01-A129083
Sample ID: TW-04
Sample Type: Ground water
Site ID:

Project: 51870.4
Project Name: FORMER TAYLOR INSTRUMENT
Sampler: ROBERT A. ELLIS

Date Collected: 9/14/01
Time Collected: 15:40
Date Received: 9/15/01
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	mg/l	0.0500	0.0500	1	9/19/01	2:14	N. Hurt	8260B	2130
Benzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Bromobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Bromochloromethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Bromoform	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Bromomethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
2-Butanone	ND	mg/l	0.0500	0.0500	1	9/19/01	2:14	N. Hurt	8260B	2130
n-Butylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
sec-Butylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
t-Butylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Carbon disulfide	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Carbon tetrachloride	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Chlorobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Chloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Chloroform	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Chloromethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
2-Chlorotoluene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
4-Chlorotoluene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2-Dibromo-3-chloropropane	ND	mg/l	0.0100	0.0100	1	9/19/01	2:14	N. Hurt	8260B	2130
Dibromochloromethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2-Dibromoethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Dibromomethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2-Dichlorobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,3-Dichlorobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,4-Dichlorobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Dichlorodifluoromethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1-Dichloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A129083
Sample ID: TW-04
Project: 51870.4
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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1-Dichloroethene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
cis-1,2-Dichloroethene	0.0331	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
trans-1,2-Dichloroethene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2-Dichloropropane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,3-Dichloropropane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
2,2-Dichloropropane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1-Dichloropropene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
cis-1,3-Dichloropropene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
trans-1,3-Dichloropropene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Ethylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Hexachlorobutadiene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
2-Hexanone	ND	mg/l	0.0100	0.0100	1	9/19/01	2:14	N. Hurt	8260B	2130
Isopropylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
4-Isopropyltoluene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
4-Methyl-2-pentanone	ND	mg/l	0.0100	0.0100	1	9/19/01	2:14	N. Hurt	8260B	2130
Methylene chloride	ND	mg/l	0.0050	0.0050	1	9/19/01	2:14	N. Hurt	8260B	2130
Naphthalene	ND	mg/l	0.0050	0.0050	1	9/19/01	2:14	N. Hurt	8260B	2130
n-Propylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Styrene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1,1,2-Tetrachloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1,2,2-Tetrachloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Tetrachloroethene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Toluene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2,3-Trichlorobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2,4-Trichlorobenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1,1-Trichloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,1,2-Trichloroethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Trichloroethene	0.0261	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2,3-Trichloropropane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,2,4-Trimethylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
1,3,5-Trimethylbenzene	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Vinyl chloride	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Xylenes, Total	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Bromodichloromethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130
Trichlorofluoromethane	ND	mg/l	0.0020	0.0020	1	9/19/01	2:14	N. Hurt	8260B	2130

mple report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A129083
Sample ID: TW-04
Project: 51870.4
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TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike		Date	Method
				Recovery (%)			
-----	-----	-----	-----	-----	-----	-----	-----

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr 1,2-DCA-d4	86.	68. - 143.
VOA Surr Toluene-d8	101.	78. - 127.
VOA Surr, 4-BFB	110.	73. - 127.
VOA Surr, DBFM	83.	76. - 135.

- Recovery outside Laboratory historical or method prescribed limits.

These results relate only to the items tested.
This report shall not be reproduced except in full and with
permission of the laboratory.

Report Approved By: Gail A. Lage

Report Date: 9/20/01

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 02008

End of Sample Report.

PROJECT QUALITY CONTROL DATA

Project Number: 51870.4

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
-----	-----	-----	-----	-----	-----	-----	-----	-----
VOA PARAMETERS								
Benzene	mg/l	< 0.00060	0.04830	0.05000	97	70. - 136.	2130	blank
Chlorobenzene	mg/l	< 0.00070	0.04670	0.05000	93	70. - 132.	2130	blank
1,1-Dichloroethene	mg/l	< 0.00060	0.04420	0.05000	88	60. - 145.	2130	blank
Toluene	mg/l	< 0.00050	0.04650	0.05000	93	69. - 137.	2130	blank
Trichloroethene	mg/l	< 0.00050	0.04640	0.05000	93	63. - 149.	2130	blank
VOA Surr 1,2-DCA-d4	% Rec				83	68. - 143.	2130	
VOA Surr Toluene-d8	% Rec				97	78. - 127.	2130	
VOA Surr, 4-BFB	% Rec				90	73. - 127.	2130	
VOA Surr, DBFM	% Rec				89	76. - 135.	2130	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----
VOA PARAMETERS						
Benzene	mg/l	0.04830	0.04750	1.67	21.	2130
Chlorobenzene	mg/l	0.04670	0.04730	1.28	25.	2130
1,1-Dichloroethene	mg/l	0.04420	0.04510	2.02	26.	2130
Toluene	mg/l	0.04650	0.04510	3.06	22.	2130
Trichloroethene	mg/l	0.04640	0.05040	8.26	28.	2130
VOA Surr 1,2-DCA-d4	% Rec		83.			2130
VOA Surr Toluene-d8	% Rec		95.			2130
VOA Surr, 4-BFB	% Rec		91.			2130
VOA Surr, DBFM	% Rec		88.			2130

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number: 51870.4

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----
VOA PARAMETERS						
Acetone	mg/l	0.2500	0.2180	87	54 - 153	2130
Benzene	mg/l	0.05000	0.04820	96	79 - 124	2130
Bromobenzene	mg/l	0.0500	0.0473	95	76 - 122	2130
Bromochloromethane	mg/l	0.0500	0.0577	115	71 - 134	2130
Bromoform	mg/l	0.0500	0.0425	85	66 - 124	2130
Bromomethane	mg/l	0.0500	0.0580	116	51 - 145	2130
2-Butanone	mg/l	0.2500	0.2320	93	62 - 134	2130
n-Butylbenzene	mg/l	0.0500	0.0452	90	61 - 136	2130
sec-Butylbenzene	mg/l	0.0500	0.0485	97	69 - 130	2130
t-Butylbenzene	mg/l	0.0500	0.0476	95	66 - 129	2130
Carbon disulfide	mg/l	0.0500	0.0476	95	71 - 129	2130
Carbon tetrachloride	mg/l	0.05000	0.04340	87	70 - 130	2130
Chlorobenzene	mg/l	0.05000	0.04610	92	80 - 118	2130
Chloroethane	mg/l	0.0500	0.0573	115	59 - 144	2130
Chloroform	mg/l	0.0500	0.0452	90	74 - 123	2130
Chloromethane	mg/l	0.0500	0.0559	112	47 - 155	2130
2-Chlorotoluene	mg/l	0.0500	0.0481	96	74 - 126	2130
4-Chlorotoluene	mg/l	0.0500	0.0472	94	75 - 125	2130
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0428	86	58 - 133	2130
Dibromochloromethane	mg/l	0.0500	0.0441	88	73 - 125	2130
1,2-Dibromoethane	mg/l	0.0500	0.0479	96	74 - 125	2130
Dibromomethane	mg/l	0.0500	0.0552	110	71 - 130	2130
1,2-Dichlorobenzene	mg/l	0.0500	0.0477	95	76 - 122	2130
1,3-Dichlorobenzene	mg/l	0.0500	0.0463	93	75 - 122	2130
1,4-Dichlorobenzene	mg/l	0.0500	0.0466	93	76 - 119	2130
Dichlorodifluoromethane	mg/l	0.0500	0.0554	111	53 - 151	2130
1,1-Dichloroethane	mg/l	0.05000	0.04590	92	76 - 127	2130
1,2-Dichloroethane	mg/l	0.0500	0.0438	88	66 - 133	2130
1,1-Dichloroethene	mg/l	0.05000	0.04700	94	72 - 127	2130
cis-1,2-Dichloroethene	mg/l	0.0500	0.0448	90	74 - 127	2130
trans-1,2-Dichloroethene	mg/l	0.0500	0.0456	91	70 - 132	2130
1,2-Dichloropropane	mg/l	0.0500	0.0465	93	76 - 124	2130

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number: 51870.4

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,3-Dichloropropane	mg/l	0.0500	0.0470	94	72 - 129	2130
2,2-Dichloropropane	mg/l	0.0500	0.0472	94	33 - 152	2130
1,1-Dichloropropene	mg/l	0.0500	0.0455	91	73 - 127	2130
cis-1,3-Dichloropropene	mg/l	0.0500	0.0491	98	58 - 131	2130
trans-1,3-Dichloropropene	mg/l	0.0500	0.0480	96	53 - 133	2130
Ethylbenzene	mg/l	0.05000	0.04480	90	77 - 126	2130
Hexachlorobutadiene	mg/l	0.0500	0.0428	86	52 - 139	2130
2-Hexanone	mg/l	0.2500	0.2290	92	61 - 136	2130
Isopropylbenzene	mg/l	0.0500	0.0476	95	74 - 127	2130
4-Isopropyltoluene	mg/l	0.0500	0.0473	95	69 - 1130	2130
4-Methyl-2-pentanone	mg/l	0.2500	0.2280	91	63 - 135	2130
Methylene chloride	mg/l	0.0500	0.0511	102	70 - 130	2130
Naphthalene	mg/l	0.0500	0.0346	69	57 - 143	2130
n-Propylbenzene	mg/l	0.0500	0.0480	96	71 - 130	2130
Styrene	mg/l	0.0500	0.0456	91	77 - 122	2130
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0450	90	71 - 130	2130
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0452	90	57 - 136	2130
Tetrachloroethene	mg/l	0.05000	0.04450	89	72 - 126	2130
Toluene	mg/l	0.05000	0.04620	92	78 - 124	2130
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0368	74	58 - 139	2130
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0382	76	60 - 132	2130
1,1,1-Trichloroethane	mg/l	0.05000	0.04320	86	70 - 130	2130
1,1,2-Trichloroethane	mg/l	0.0500	0.0470	94	75 - 124	2130
Trichloroethene	mg/l	0.05000	0.04580	92	70 - 136	2130
1,2,3-Trichloropropane	mg/l	0.0500	0.0481	96	63 - 132	2130
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0469	94	73 - 127	2130
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0477	95	72 - 128	2130
Vinyl chloride	mg/l	0.0500	0.0554	111	62 - 144	2130
Xylenes, Total	mg/l	0.1500	0.1354	90	76 - 127	2130
Bromodichloromethane	mg/l	0.0500	0.0433	87	69 - 130	2130
Trichlorofluoromethane	mg/l	0.0500	0.0482	96	64 - 136	2130
VOA Surr 1,2-DCA-d4	% Rec			81	64 - 136	2130
VOA Surr Toluene-d8	% Rec			99	64 - 136	2130
VOA Surr, 4-BFB	% Rec			94	64 - 136	2130

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number: 51870.4

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA Surr, DBFM	% Rec			87	64 - 136	2130

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Acetone	< 0.0066	mg/l	2130	9/17/01	14:17
Benzene	< 0.00060	mg/l	2130	9/17/01	14:17
Bromobenzene	< 0.0005	mg/l	2130	9/17/01	14:17
Bromochloromethane	< 0.0008	mg/l	2130	9/17/01	14:17
Bromoform	< 0.0005	mg/l	2130	9/17/01	14:17
Bromomethane	< 0.0007	mg/l	2130	9/17/01	14:17
2-Butanone	< 0.0059	mg/l	2130	9/17/01	14:17
n-Butylbenzene	< 0.0006	mg/l	2130	9/17/01	14:17
sec-Butylbenzene	< 0.0005	mg/l	2130	9/17/01	14:17
t-Butylbenzene	< 0.0006	mg/l	2130	9/17/01	14:17
Carbon disulfide	< 0.0005	mg/l	2130	9/17/01	14:17
Carbon tetrachloride	< 0.00040	mg/l	2130	9/17/01	14:17
Chlorobenzene	< 0.00070	mg/l	2130	9/17/01	14:17
Chloroethane	< 0.0007	mg/l	2130	9/17/01	14:17
Chloroform	< 0.0006	mg/l	2130	9/17/01	14:17
Chloromethane	< 0.0009	mg/l	2130	9/17/01	14:17
2-Chlorotoluene	< 0.0006	mg/l	2130	9/17/01	14:17
4-Chlorotoluene	< 0.0006	mg/l	2130	9/17/01	14:17
1,2-Dibromo-3-chloropropane	< 0.0009	mg/l	2130	9/17/01	14:17
Dibromochloromethane	< 0.0005	mg/l	2130	9/17/01	14:17
1,2-Dibromoethane	< 0.0003	mg/l	2130	9/17/01	14:17
Dibromomethane	< 0.0003	mg/l	2130	9/17/01	14:17
1,2-Dichlorobenzene	< 0.0003	mg/l	2130	9/17/01	14:17
1,3-Dichlorobenzene	< 0.0006	mg/l	2130	9/17/01	14:17
1,4-Dichlorobenzene	< 0.0005	mg/l	2130	9/17/01	14:17
Dichlorodifluoromethane	< 0.0006	mg/l	2130	9/17/01	14:17

PROJECT QUALITY CONTROL DATA

Project Number: 51870.4

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,1-Dichloroethane	< 0.00070	mg/l	2130	9/17/01	14:17
1,2-Dichloroethane	< 0.0004	mg/l	2130	9/17/01	14:17
1,1-Dichloroethene	< 0.00060	mg/l	2130	9/17/01	14:17
cis-1,2-Dichloroethene	< 0.0006	mg/l	2130	9/17/01	14:17
trans-1,2-Dichloroethene	< 0.0007	mg/l	2130	9/17/01	14:17
1,2-Dichloropropane	< 0.0006	mg/l	2130	9/17/01	14:17
1,3-Dichloropropane	< 0.0004	mg/l	2130	9/17/01	14:17
2,2-Dichloropropane	< 0.0007	mg/l	2130	9/17/01	14:17
1,1-Dichloropropene	< 0.0005	mg/l	2130	9/17/01	14:17
cis-1,3-Dichloropropene	< 0.0005	mg/l	2130	9/17/01	14:17
trans-1,3-Dichloropropene	< 0.0003	mg/l	2130	9/17/01	14:17
Ethylbenzene	< 0.00070	mg/l	2130	9/17/01	14:17
Hexachlorobutadiene	< 0.0004	mg/l	2130	9/17/01	14:17
2-Hexanone	< 0.0058	mg/l	2130	9/17/01	14:17
Isopropylbenzene	< 0.0005	mg/l	2130	9/17/01	14:17
4-Isopropyltoluene	< 0.0005	mg/l	2130	9/17/01	14:17
4-Methyl-2-pentanone	< 0.0034	mg/l	2130	9/17/01	14:17
Methylene chloride	< 0.0005	mg/l	2130	9/17/01	14:17
Naphthalene	< 0.0006	mg/l	2130	9/17/01	14:17
n-Propylbenzene	< 0.0006	mg/l	2130	9/17/01	14:17
Styrene	< 0.0005	mg/l	2130	9/17/01	14:17
1,1,1,2-Tetrachloroethane	< 0.0008	mg/l	2130	9/17/01	14:17
1,1,2,2-Tetrachloroethane	< 0.0006	mg/l	2130	9/17/01	14:17
Tetrachloroethene	< 0.00070	mg/l	2130	9/17/01	14:17
Toluene	< 0.00050	mg/l	2130	9/17/01	14:17
1,2,3-Trichlorobenzene	< 0.0007	mg/l	2130	9/17/01	14:17
1,2,4-Trichlorobenzene	< 0.0007	mg/l	2130	9/17/01	14:17
1,1,1-Trichloroethane	< 0.00040	mg/l	2130	9/17/01	14:17
1,1,2-Trichloroethane	< 0.0006	mg/l	2130	9/17/01	14:17
Trichloroethene	< 0.00050	mg/l	2130	9/17/01	14:17
1,2,3-Trichloropropane	< 0.0006	mg/l	2130	9/17/01	14:17
1,2,4-Trimethylbenzene	< 0.0005	mg/l	2130	9/17/01	14:17
1,3,5-Trimethylbenzene	< 0.0006	mg/l	2130	9/17/01	14:17
Vinyl chloride	< 0.0007	mg/l	2130	9/17/01	14:17

PROJECT QUALITY CONTROL DATA

Project Number: 51870.4

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Xylenes, Total	< 0.00080	mg/l	2130	9/17/01	14:17
Bromodichloromethane	< 0.0004	mg/l	2130	9/17/01	14:17
Trichlorofluoromethane	< 0.0006	mg/l	2130	9/17/01	14:17
VOA Surr 1,2-DCA-d4	80.	% Rec	2130	9/17/01	14:17
VOA Surr Toluene-d8	96.	% Rec	2130	9/17/01	14:17
VOA Surr, 4-BFB	94.	% Rec	2130	9/17/01	14:17
VOA Surr, DBFM	87.	% Rec	2130	9/17/01	14:17

- Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 252804

APPENDIX C

CHAIN-OF-CUSTODY FORMS

[illegible]

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(716) 647-2530 * (800) 724-1997
FAX: (716) 647-3311

CHAIN OF CUSTODY

REPORT TO:

INVOICE TO:

COMPANY: <u>Harding ESE</u>		COMPANY: <u>← SAME</u>		LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: <u>1400 Centurypoint Blvd Suite 155</u>		ADDRESS:		<u>01-2331</u>	<u>57870.4</u>
CITY: <u>Knoxville</u>	STATE: <u>TN</u>	ZIP: <u>37932</u>	CITY:	STATE:	ZIP:
PHONE: <u>(865) 531-1922</u>	FAX: <u>(865) 531-8226</u>	PHONE:	FAX:	TURNAROUND TIME: (WORKING DAYS)	
ATTN: <u>Rick Ryan Rob Ellis</u>		ATTN:		☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐ OTHER	

PROJECT NAME/SITE NAME:

Please Call → 865-300-8585

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINERS	VOC (3260)													REMARKS	PARADIGM LAB SAMPLE NUMBER
1 09/14/01	15:40		X	TW-04	GW	2	X														8685
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

LAB USE ONLY

SAMPLE CONDITION: Check box if acceptable or note deviation:	CONTAINER TYPE: ☒	PRESERVATIONS: ☒	HOLDING TIME: ☒	TEMPERATURE: ☒ 13°
--	---	--	---	--

Sampled By: <u>[Signature]</u>	Date/Time: <u>09/14/01 15:40</u>	Relinquished By:	Date/Time:	Total Cost:
Relinquished By: <u>[Signature]</u>	Date/Time: <u>09/14/01 1741</u>	Received By:	Date/Time:	
Received By: <u>[Signature]</u>	Date/Time: <u>9/14 1742</u>	Received @ Lab By: <u>[Signature]</u>	Date/Time: <u>9-14-01 18:54</u>	P.I.F. <u>CC payment</u>

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Harding - Lawson Submission Number 8550

Cooler received on 9-12-01 by: KE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 4°

Is the temperature within 0° - 6° C?: Yes ☒ No ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-12-01 @ 10:10

Thermometer ID: IR-6un Temp Blank Sample Bottle Cooler Temp. IR. Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9/12/01 by: MMG

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475

PAGE 1 OF 2

SR #

CAS Contact

Project Name Former Taylor Instruments		Project Number 51870.4		ANALYSIS REQUESTED (Include Method Number and Container Preservative)															
Project Manager Rick Ryan		Report CC Ronny Fields		PRESERVATIVE 1															
Company/Address Harding ESE 1400 Centerpoint Blvd. Suite 158 Knoxville, TN 37932				NUMBER OF CONTAINERS	GC/MS VOA's ☒ 8260 ☐ 824 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 825 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCBs ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 VOA's ☐ TOTAL ☐ TCLP	TCLP ☐ VOA's ☐ METALS	WASTE CHARACTERIZATION ☐ React ☐ H/P	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION				
Phone # (865) 531-1922		FAX# (865) 531-8226																	
Sampler's Signature Robert A Ellis		Sampler's Printed Name Robert A Ellis																	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE TIME		MATRIX															
BR-07		09/12/01	1406	GW	3	3													
BR-07 (DUP)		09/12/01	1407	GW	3	3	Duplicate												
TN-13		09/12/01	1724	GW	3	3													
W-4		09/13/01	1037	GW	3	3													
DB-06		09/13/01	1228	GW	3	3													
BR-08		09/13/01	1436	GW	3	3													
BR-17		09/13/01	1545	GW	3	3													
BR-14		09/13/01	1728	GW	3	3													
W-6		09/13/01	1825	GW	3	3													
BR-01		09/14/01	0850	GW	3	3													
SPECIAL INSTRUCTIONS/COMMENTS Metals					TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 24 hr 48 hr 5 day ☒ STANDARD				REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data V. Specialized Forms / Custom Report				INVOICE INFORMATION 6599						
					REQUESTED FAX DATE				REQUESTED REPORT DATE				Edata Yes No				SUBMISSION #: R21-8550		
See QAPP ☐					SAMPLE RECEIPT: CONDITION/COOLER TEMP: 40°C					CUSTODY SEALS: Y N									
RELINQUISHED BY Robert A Ellis		RECEIVED BY MANDA SNOW		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY					
Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature					
Printed Name Harding ESE		Printed Name CAS		Printed Name		Printed Name Gregory P. Esmerian		Printed Name		Printed Name		Printed Name		Printed Name					
Firm 09/14/01 1721		Firm 09/14/01 1721		Firm		Firm CAS		Firm		Firm		Firm		Firm					
Date/Time		Date/Time		Date/Time		Date/Time 9-15-01 8:00		Date/Time		Date/Time		Date/Time		Date/Time					

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Hawding-K Submission Number R2108550

Cooler received on 9-15-01 by: HE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES (NO)
2. Were custody papers properly filled out (ink, signed, etc.)? (YES) NO
3. Did all bottles arrive in good condition (unbroken)? (YES) NO
4. Did any VOA vials have significant air bubbles? YES (NO) N/A
5. Were Ice or Ice packs present? (YES) NO
6. Where did the bottles originate? (CAS/ROC) CLIENT
7. Temperature of cooler(s) upon receipt: 4°

Is the temperature within 0° - 6° C?: Yes ☒ Yes ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-15-01 @ 8:05

Thermometer ID: IR Gun Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-17-01 by: UNC

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO

Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Harding-K

Submission Number RA108550

Cooler received on 9-15-01 by: NE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 9e

Is the temperature within 0° - 6° C?: Yes ☐ No ☒ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐

If No, Explain Below No ☒ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-15-01 @ 12:00

Thermometer ID: IR Gun Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-17-01 by: Ymc

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO

Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2			

Other Comments:

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475 PAGE 1 OF 1

SR # _____
CAS Contact _____

Project Name Former Taylor Instruments		Project Number 57870.4		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																																																																																																																																																																																																																																																													
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SPECIAL INSTRUCTIONS/COMMENTS Metals				TURNAROUND REQUIREMENTS ____ RUSH (SURCHARGES APPLY) ____ 24 hr ____ 48 hr ____ 5 day ☒ STANDARD REQUESTED FAX DATE _____ REQUESTED REPORT DATE _____				REPORT REQUIREMENTS I. Results Only ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) ____ III. Results + QC and Calibration Summaries ☒ only for 8260's IV. Data Validation Report with Raw Data ____ V. Specialized Forms / Custom Report Edata ____ Yes ____ No				INVOICE INFORMATION PO# 6599 BILL TO: _____ SUBMISSION #:																																																																																																																																																																																																																																																																					
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RELINQUISHED BY <i>[Signature]</i> Robert A Ellis		RECEIVED BY <i>[Signature]</i> WANDA SNOW		RELINQUISHED BY <i>[Signature]</i> MA GELFER		RECEIVED BY <i>[Signature]</i> MA GELFER		RELINQUISHED BY <i>[Signature]</i> MA GELFER		RECEIVED BY <i>[Signature]</i> MA GELFER		RELINQUISHED BY <i>[Signature]</i> MA GELFER		RECEIVED BY <i>[Signature]</i> MA GELFER																																																																																																																																																																																																																																																																			
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Firm 09/17/01 11:13		Firm 09/17/01 11:13		Firm 9/17/01 11:13		Firm 9/17/01 11:13		Firm 9/17/01 11:13		Firm 9/17/01 11:13		Firm 9/17/01 11:13		Firm 9/17/01 11:13																																																																																																																																																																																																																																																																			
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**Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form**

Project/Client Harding-K Submission Number R2108550

Cooler received on 9-17-01 by: HE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 1°

Is the temperature within 0° - 6° C?: Yes ☒ Yes ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-17-01 @ 11:24

Thermometer ID: IR-6um Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-17-01 by: KMC

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO

Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A
Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2					

Other Comments:

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client Harding - K Submission Number R2-8550

Cooler received on 9-18-01 by: ICMC COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES/NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 4°C

Is the temperature within 0° - 6° C?: Yes ☒ No ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 9-18-01 1615

Thermometer ID: IR-600N Temp Blank Sample Bottle Cooler Temp. IR Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 9-19-01 by: He

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO

Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample ID.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2					

Other Comments:

INTERNAL CHAINS

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/12/01 10:02:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	492383	3	PH	BA	9/12/01	1140	<2	C-1	10/12/01
8260B	492384	3	↓	↓	↓	↓	↓	↓	10/12/01
8260B	492385	3	↓	↓	↓	↓	↓	↓	10/12/01
8260B	492386 QC	9	↓	↓	↓	↓	↓	↓	10/12/01

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/14/01 17:01:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	493224 QC	3	KMC	DR	9-17-01 1500	<2	C-1	10/14/01
8260B	493225	3						10/14/01
8260B	493226	3						10/14/01
8260B	493227	3						10/14/01
8260B	493228	3						10/14/01
8260B	493229	3						10/14/01
8260B	493230	3						10/14/01
8260B	493231	3						10/14/01
8260B	493232	3						10/14/01
8260B	493233	3						10/14/01
8260B	493234	3						10/14/01
8260B	493235	3						10/14/01
8260B	493236	3						10/14/01
8260B	493237	3						10/15/01
8260B	493238	3						10/15/01
8260B	493239	3						10/15/01

INTERNAL CHAINS

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/17/01 11:13:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	493354	3	unc	BA	9-17-01 1600	<2	C-1	10/17/01
8260B	493355	3	↓	↓	↓	↓	↓	10/17/01
8260B	493356	3						10/17/01
8260B	493357	3						10/17/01
8260B	493360	3						10/17/01
8260B	493364	3						10/17/01
8260B	493365	3						10/17/01
8260B	493366	3						10/17/01
8260B	493367	3						10/17/01
8260B	493368	3	↓	↓	↓	↓	↓	10/17/01

CLIENT NAME: Harding ESE

SDG#: SUBMISSION: R2108550 DATE REC'D: 09/18/01 16:04:

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
8260B	493949 QC	9	HE	DL	9-17-01	8:30	<2	C - 1	10/18/01
8260B	493950	3							10/18/01
8260B	493951	3							10/18/01
8260B	493952	3							10/18/01
8260B	493953	3							10/18/01
8260B	493954	3							10/18/01
8260B	493955	3							10/18/01
8260B	493956	3							10/18/01

APPENDIX D

FIELD SAMPLE RECORDS

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/11/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) **2.33** FT

PROTECTIVE CASING / WELL DIFFERENCE	-0.17	FT
---	-------	----

WELL DIAMETER	2	IN
------------------	---	----

WELL	YES	NO	N/A
INTEGRITY: CAP	X		

CASING	<u>X</u>	<u> </u>	<u> </u>
LOCKED	<u>X</u>	<u> </u>	<u> </u>
COLLAR	<u>X</u>	<u> </u>	<u> </u>

TOTAL VOL. PURGED ≈ 2.02 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Das-Wel / Heriba

EQUIPMENT DOCUMENTATION

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

NOTES

18:04 - DTW = 12.80'
18:22 - DTW = 12.72'
18:29 - DTW = 12.43'
18:37 - DTW = 12.31'
18:45 - DTW = 12.24'
18:53 - DTW = 12.22'

Robert A. EHA

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/11/01

SITE TYPE ~~Monitor Well~~ **QA/QC**

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	FT
---	----

PROTECTIVE CASING / WELL DIFFERENCE	
---	--

WELL DIAMETER	

WELL	YES	NO	N/A
INTEGRITY: CAP	_____	_____	_____
CASING	_____	_____	_____
LOCKED	_____	_____	_____
COLLAR	_____	_____	_____

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

TOTAL VOL. PURGED	GAL
----------------------	-----

(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER _____

PURGE OBSERVATIONS

SIGNATURE:

NOTES

Collected 16:37

Collected over probe of WL Indicator

Robert A. Latta

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 04/11/01

SITE TYPE Monitor Well QA/QC

JOB NUMBER	51870.4
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MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	FT
---	----

PROTECTIVE CASING / WELL DIFFERENCE	
---	--

WELL DEPTH FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	
------------------	--

SCREEN LENGTH		FT
---------------	--	----

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	—	—	—
CASING	—	—	—
LOCKED	—	—	—
COLLAR	—	—	—

DRAWDOWN VOLUME		GAL
--------------------	--	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ {2-inch}}) \text{ or } \times 0.65 \text{ {4-inch}} \text{ or } \times 1.5 \text{ {6-inch}})$$

BEGIN PURGING	
------------------	--

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER _____

PURGE OBSERVATIONS

NOTES

Collected 16:29

SIGNATURE: [Signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 02/11/01

SITE TYPE Monitor Well QA/QC

JOB NUMBER	51870.4
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MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	FT
---	----

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH	
	FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	IN
------------------	----

SCREEN LENGTH	FT
---------------	----

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	___	___	___
CASING	___	___	___
LOCKED	___	___	___
COLLAR	___	___	___

DRAWDOWN VOLUME	GAL
--------------------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ \{2-inch\}} \text{ or } \times 0.65 \text{ \{4-inch\}} \text{ or } \times 1.5 \text{ \{6-inch\}})$$

BEGIN PURGING	
------------------	--

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

NOTES

Collected 00:00

SIGNATURE: [Signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/12/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	flush	FT
---	-------	----

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH	
	FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	IN
------------------	----

SCREEN LENGTH	FT
------------------	----

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME	GAL
--------------------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

BEGIN
PURGING

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Down-Well / Florida

[illegible]

TYPE OF PUMP

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

NOTES

9/12
1241 - DTW = 8.89'

9/13
1508 - DTW = 8.57'

SIGNATURE: _____

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT		PROTECTIVE CASING STICKUP (FROM GROUND)		PROTECTIVE CASING / WELL DIFFERENCE	
☒ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING ☐ OTHER _____		☒ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING ☐ OTHER _____		☒ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING ☐ OTHER _____		☒ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING ☐ OTHER _____	
INITIAL DEPTH TO WATER	11.66 ^{7/11} FT	WELL DEPTH	28.66 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	14.25 ^{7/12} FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	PPM	WELL INTEGRITY: CAP	YES NO N/A
DRAWDOWN	_____ FT	SCREEN VOLUME	_____ GAL	PRODUCT THICKNESS	FT	CASING	☒ _____
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))						LOCKED	☒ _____
PURGE RATE	_____ L/MIN	BEGIN PURGING	1440 1021	END PURGING	1508	COLLAR	_____ ☒
						TOTAL VOL. PURGED	_____ GAL
						(purge rate (L/min) x duration (mn) x 0.26 gal/L)	

[illegible]

EQUIPMENT DOCUMENTATION			
<u>TYPE OF PUMP</u>	<u>TYPE OF TUBING</u>	<u>TYPE OF PUMP MATERIAL</u>	<u>TYPE OF BLADDER MATERIAL</u> (if applicable)
☐ PERISTALTIC	☐ TEFLON OR TEFLON LINED	☐ POLYVINYL CHLORIDE	☐ TEFLON
☐ SUBMERSIBLE	☐ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ OTHER _____
☐ OTHER _____	☐ OTHER _____	☐ OTHER _____	

PURGE OBSERVATIONS	NOTES
	9/12 1457 - DTU = 13.97'
	9/13 1020 - DTW = 12.58'
SIGNATURE: 	

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 01/12/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
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MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH 15.1 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	2	IN
------------------	---	----

FINAL DEPTH TO WATER	9.97	FT
-------------------------	------	----

SCREEN LENGTH 5 FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN	1.69	FT
----------	------	----

DRAWDOWN VOLUME	0.27	GAL
--------------------	------	-----

PRODUCT THICKNESS		FT
-------------------	--	----

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

PURGE RATE $\approx 103 \text{ mL/MIN}$
 $\approx 0.103 \text{ L/min}$

BEGIN
PURGING

END
PURGING

1730

TOTAL VOL. PURGED 1.15 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC☐ SUBMERSIBLE☐ OTHER

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED

☒ HIGH DENSITY POLYETHYLENE

☐ OTHER

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE

☐ STAINLESS STEEL

☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

 TEFLON

☐ OTHER _____

PURGE OBSERVATIONS

Draindown stabilized after flowrate was adjusted

NOTES

1658 - DTW = 9.00'
1705 - DTW = 9.23'
1711 - DTW = 9.48'
1720 - DTW = 9.87'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER	51870.4
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TOTAL VOL. PURGED 1.27 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

1336 - DTW = 25.64'
1347 - DTW = 25.70'
1353 - DTW = 25.92'
1403 - DTW = 26.02'

SIGNATURE:

Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
3rd Quarter GW Sampling (9/01)

DATE 09/12/01

SITE ID BR-06

SITE TYPE Monitor Well

SITE ACTIVITY START 0800 END 0926

JOB NUMBER 51870.4

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☒ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2.17 FT

PROTECTIVE CASING / WELL DIFFERENCE NA FT

INITIAL DEPTH TO WATER 15.59 FT

WELL DEPTH 45.1 FT

PID AMBIENT AIR PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 16.09 FT

SCREEN LENGTH open boring FT

PID WELL MOUTH PPM

WELL INTEGRITY: YES NO N/A
CAP ☒ ☐ ☐
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☐

DRAWDOWN 0.5 FT

DRAWDOWN VOLUME 0.33 GAL

PRODUCT THICKNESS FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE ≈ 85 mL/MIN
≈ 0.085 L/min

BEGIN PURGING 0814

END PURGING 0914

TOTAL VOL. PURGED 1.33 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
0834	≈ 1.46	7.25	1.35	42.0	0.21	0.47	15.17	-141 ≈ 73 mL/min
0840	≈ 1.99	7.25	1.36	40.3	0.18	2.92	15.12	-143 ≈ 88 mL/min
0846	≈ 2.54	7.26	1.36	41.1	0.19	3.65	15.10	-143 ≈ 91 mL/min
0852	≈ 3.07	7.27	1.36	42.3	0.16	0.51	15.11	-144 ≈ 88 mL/min
0900	≈ 3.74	7.27	1.36	44.6	0.16	1.83	15.20	-140 ≈ 84 mL/min
0903	Collect sample BR-06 for 8260							
0905	Collect sample BR-06 (MS) for 8260							
0906	Collect sample BR-06 (MSD) for 8260							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING
☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER

TYPE OF PUMP MATERIAL
☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)
☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

► water is black

NOTES

0835 - DTW = 15.58'
0841 - DTW = 16.03'
0847 - DTW = 16.09'
0852 - DTW = 15.59'
0900 - DTW = 15.00'

SIGNATURE: [Signature]

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/13/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) flush FT

PROTECTIVE CASING / WELL DIFFERENCE		F1
---	--	----

WELL DIAMETER 6 IN

WELL	YES	NO	N/A
INTEGRITY: CAP	☒	☐	☐

LOCKED	X	—	—
COLLAR	X	—	—

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

TOTAL VOL. PURGED 1.24 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER _____

PURGE OBSERVATIONS

NOTES

1520 - DTW = 24.62'
1526 - DTW = 24.63'
1532 - DTW = 24.63'
1540 - DTW = 24.64'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 3rd Quarter GW Sampling (9/01)
---------	---

DATE 09/13/01

SITE ID B2-14

SITE TYPE	Monitor Well
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SITE ACTIVITY	START 1630	END 1732
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JOB NUMBER	51870.4
------------	---------

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	FT
---	----

PROTECTIVE CASING / WELL DIFFERENCE		F1
---	--	----

INITIAL DEPTH TO WATER	22.41	FT
---------------------------	-------	----

WELL DEPTH 75.0 FT

PID	Flush	PPM
AMBIENT AIR		

WELL DIAMETER	4	IN
------------------	---	----

FINAL DEPTH TO WATER	24.47	FT
-------------------------	-------	----

SCREEN LENGTH open boring FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	<u>X</u>	—	—
CASING	<u>X</u>	—	—
LOCKED	<u>X</u>	—	—
COLLAR	<u>X</u>	—	—

DRAWDOWN	2.06	FT
----------	------	----

DRAWDOWN VOLUME	1.34	GAL
--------------------	------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

PURGE RATE $= 83 \text{ mL/MIN}$
 $= 0.083 \text{ L/min}$

BEGIN
PURGING

END
PURGING

1735

TOTAL VOL. PURGED 1.17 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Downhill | Horizon

[illegible]

EQUIPMENT DOCUMENTATION

<u>TYPE OF PUMP</u>	<u>TYPE OF TUBING</u>	<u>TYPE OF PUMP MATERIAL</u>	<u>TYPE OF BLADDER MATERIAL (if applicable)</u>
☒ PERISTALTIC	☐ TEFLON OR TEFLON LINED	☐ POLYVINYL CHLORIDE	☐ TEFLON
☐ SUBMERSIBLE	☒ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ OTHER _____
☐ OTHER _____	☐ OTHER _____	☐ OTHER _____	

PURGE OBSERVATIONS

- black flecks in water

NOTES

1658 - DTW = 23.19'
1707 - DTW = 23.72'
1716 - DTW = 23.84'
1724 - DTW = 24.19'

SIGNATURE:

DA N. AH

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/13/01

JOB NUMBER	51870.4
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PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DIAMETER	4	IN
------------------	---	----

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

PRODUCT THICKNESS FT

TOTAL VOL. PURGED 1.04 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

NOTES

SIGNATURE:

1409 - DTW = 24.66'
1415 - DTW = 24.91'
1424 - DTW = 25.11'
1431 - DTW = 25.26'

Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
3rd Quarter GW Sampling (9/01)

DATE 09/14/01

SITE ID TW-20

SITE TYPE Monitor Well

SITE ACTIVITY START 1140 END 1320

JOB NUMBER 51870.4

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE 0.26 FT

INITIAL DEPTH TO WATER 14.76 FT

WELL DEPTH 17.35 FT

PID AMBIENT AIR PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 17.31 FT

SCREEN LENGTH 5 FT

PID WELL MOUTH PPM

WELL INTEGRITY: CAP ☒ YES ☐ NO ☐ N/A
CASING ☒
LOCKED ☒
COLLAR ☒

DRAWDOWN 2.55 FT

DRAWDOWN VOLUME 0.41 GAL

PRODUCT THICKNESS FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE ~103 mL/MIN
~0.103 L/min

BEGIN PURGING 1148

END PURGING 1301

TOTAL VOL. PURGED 1.95 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)		TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1203	≈ 1.77	7.00	0.866	22.7	7.34	2.20	16.30	-3	≈ 118 ^{ml} /min
1209	≈ 2.41	7.03	0.871	20.5	7.70	1.14	16.74	-42	≈ 107 ^{ml} /min
1218	≈ 3.37	7.04	0.872	20.3	7.94	0.98	16.88	-56	≈ 107 ^{ml} /min
1227	≈ 4.12	7.05	0.873	16.8	8.13	0.34	16.16	-55	≈ 83 ^{ml} / _{hour} *
1231	Collect sample TW-20 for 8260 + NA parameters								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

* starting pumping some air

NOTES

1203 - DTW = 15.13'
1213 - DTW = 15.37'
1220 - DTW = 15.65'
1227 - DTW = 15.76'
Final - 17.31' } ?
Don't understand why so much drawdown occurred all of a sudden

SIGNATURE: [Signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/14/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	2.6	FT
---	-----	----

PROTECTIVE CASING / WELL DIFFERENCE	a2	F
---	----	---

WELL DEPTH 20.66 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	2	IN
------------------	---	----

SCREEN LENGTH 5 FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

RAWDOWN VOLUME	0.33	GAL
-------------------	------	-----

PRODUCT THICKNESS FT

$$((\text{initial}) - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)}$$

PURGE RATE ≈ 80 mL/MIN
 ≈ 0.080

BEGIN PURGING 1447

END
PURGING

1610

TOTAL VOL. PURGED 1.73 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Doyanwell | Hariba

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

TYPE OF TUBING

TYPE OF PUMP MATERIAL

TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC☐ TEFLON OR TEFLON LINED

☐ POLYVINYL CHLORIDE

☐ TEFLON☐ SUBMERSIBLE HIGH DENSITY POLYETHYLENE

☐ STAINLESS STEEL

☐ OTHER☐ OTHER☐ OTHER☐ OTHER**PURGE OBSERVATIONS**

NOTES

1501 - DTW = 15.90'
1510 - DTW = 16.11'
1523 - DTW = 16.34'
1532 - DTW = 16.55'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER 51870.4

MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	0.4	FT
---	-----	----

WELL DEPTH 17.53 FT

PID	
AMBIENT AIR	PPM

WELL DIAMETER	2	IN
------------------	---	----

SCREEN LENGTH 5 FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME	GAL
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
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41	41
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43	43
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54	54
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62	62
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68	68
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70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ \{2-inch\}} \text{ or } \times 0.65 \text{ \{4-inch\}} \text{ or } \times 1.5 \text{ \{6-inch\}}))$$

BEGIN PURGING 0929

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Down-Well | Horiba

[illegible]

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER _____**PURGE OBSERVATIONS**

- 3/15 ▶ couldn't get flowrate any lower
well purged dry despite lowest flow rate possible
- 3/16 ▶ well goes dry very quickly despite lowest flowrates
- ▶ well keeps going dry during sampling - can't fill bottles before well goes dry
- ▶ collected samples, but some were very dark

NOTES

9/15
0952 - DTW = 17.53'

9/16
1414 - DTW = 15.66'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT

SITE ID	TW-07
---------	-------

SITE ACTIVITY	START 0758	END 0911
---------------	------------	----------

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

DATE 09/15/01

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT

☒	TOP OF WELL RISER
☐	TOP OF PROTECTIVE CASING
☐	OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	flush	F
---	-------	---

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

INITIAL DEPTH TO WATER	14.21	FT
---------------------------	-------	----

WELL DEPTH 18.12 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	2	IN
------------------	---	----

FINAL DEPTH TO WATER	16.25	FT
-------------------------	-------	----

SCREEN LENGTH 5 FT

PID WELL	PPM
MOUTH	

WELL	YES	NO	N/A
INTEGRITY: CAP	<u>X</u>	—	—
CASING	<u>X</u>	—	—
LOCKED	<u>X</u>	—	—
COLLAR	<u>X</u>	—	—

DRAWDOWN	2.04	FT
----------	------	----

DRAWDOWN VOLUME	0.33	GAL
--------------------	------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

PURGE RATE $\approx 87 \text{ mL/MIN}$
 $\approx 0.087 \text{ L/min}$

BEGIN PURGING	0802
------------------	------

END
PURGING

TOTAL VOL. PURGED 1.47 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Down-Well / Horizon

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER _____

PURGE OBSERVATIONS

NOTES

0819 - DTW = 14.76'
0826 - DTW = 14.93'
0832 - DTW = 15.18'
0840 - DTW = 15.49'

SIGNATURE:

[Handwritten signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH 23.0 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	2	IN
------------------	---	----

SCREEN LENGTH 10 FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME	0.09	GAL
--------------------	------	-----

PRODUCT THICKNESS		FT
-------------------	--	----

$$((\text{initial} - \text{final}) \times 0.16 \text{ \{2-inch\}} \text{ or } \times 0.65 \text{ \{4-inch\}} \text{ or } \times 1.5 \text{ \{6-inch\}})$$

PURGE RATE 2.8 l/min
2.08 l/min

BEGIN PURGING 1018

END
PURGING

TOTAL VOL. PURGED ≈ 1.45 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

[illegible]

TYPE OF PUMP

TYPE OF TUBING

TYPE OF PUMP MATERIAL

TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC☐ TEFLON OR TEFLON LINED

☐ POLYVINYL CHLORIDE

☐ TEFELON☐ SUBMERSIBLE

☒ HIGH DENSITY POLYETHYLENE

☐ STAINLESS STEEL

☐ OTHER _____☐ OTHER☐ OTHER☐ OTHER

PURGE OBSERVATIONS

NOTES

1036 - DTW = 15.67'
1044 - DTW = 15.76'
1052 - DTW = 15.78'
1059 - DTW = 15.78'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 02/15/01

JOB NUMBER	51870.4
------------	---------

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT

☒	TOP OF WELL RISER
☐	TOP OF PROTECTIVE CASING
☐	OTHER

PROTECTIVE
CASING STICKUP
(FROM GROUND) flush

PROTECTIVE CASING / WELL DIFFERENCE	FT

INITIAL DEPTH TO WATER	23.66	FT
---------------------------	-------	----

WELL DEPTH 55.0 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	6	IN
------------------	---	----

FINAL DEPTH TO WATER	24.03	FT
-------------------------	-------	----

SCREEN LENGTH	open boring	FT
------------------	-------------	----

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN	0.37	FT
----------	------	----

DRAWDOWN VOLUME	0.56	GAL
--------------------	------	-----

PRODUCT THICKNESS		FT
-------------------	--	----

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

PURGE RATE $\approx 90 \text{ mL/MIN}$
 $\approx 0.090 \text{ L/min}$

BEGIN PURGING	1620
------------------	------

END
PURGING

TOTAL VOL. PURGED 1.15 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Downy Wood | Horiba

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

TYPE OF TUBING

TYPE OF PUMP MATERIAL

TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC☐ TEFLON OR TEFLON LINED

☐ POLYVINYL CHLORIDE

 TEFLON

☐ SUBMERSIBLE HIGH DENSITY POLYETHYLENE

☐ STAINLESS STEEL

☐ OTHER _____☐ OTHER☐ OTHER☐ OTHER**PURGE OBSERVATIONS**

NOTES

1636 - DTW = 23.89'
1644 - DTW = 23.98'
1650 - DTW = 24.02'
1658 - DTW = 24.03'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/14/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	2.4	FT
---	-----	----

PROTECTIVE CASING / WELL DIFFERENCE		F
---	--	---

WELL DEPTH 42.0 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	4
------------------	---

SCREEN LENGTH open boring FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME	0.87	GAL
--------------------	------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

BEGIN PURGING 1818

END PURGING	1916
----------------	------

TOTAL VOL. PURGED 0.98 GAL
(purge rate (L/min) x duration (min)) x 0.26 gal/L

[illegible]

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

► Initially very "rusty" colored

NOTES

1842 - DTW = 16.15'
1850 - DTW = 16.38'
1858 - DTW = 16.57'
1909 - DTW = 16.74'

SIGNATURE: _____

Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
3rd Quarter GW Sampling (9/01)

DATE 09/14/01

SITE ID BL-01

SITE TYPE Monitor Well

SITE ACTIVITY START 0754 END 0859

JOB NUMBER 51870.4

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2.33 FT

PROTECTIVE CASING / WELL DIFFERENCE FT

INITIAL DEPTH TO WATER 21.74 FT

WELL DEPTH 38 FT

PID AMBIENT AIR PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 21.83 FT

SCREEN LENGTH open boring FT

PID WELL MOUTH PPM

WELL INTEGRITY: CAP X YES NO N/A
CASING X
LOCKED X
COLLAR X

DRAWDOWN 0.09 FT

DRAWDOWN VOLUME 0.06 GAL

PRODUCT THICKNESS FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE ≈ 78 mL/MIN
≈ 0.078 L/min

BEGIN PURGING 0803

END PURGING 0857

TOTAL VOL. PURGED 1.10 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
0824	≈ 1.58	7.20	1.17	50.7	0.16	2.93	14.22	≈ 75 mL/min
0832	≈ 2.18	7.19	1.17	42.5	0.18	3.51	14.27	≈ 75 mL/min
0839	≈ 2.74	7.19	1.17	39.9	0.15	3.24	14.21	≈ 80 mL/min
0846	≈ 3.30	7.19	1.17	66.1	0.17	2.08	14.37	≈ 80 mL/min
0850	Collect sample BL-01 for 8260							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING
☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER

TYPE OF PUMP MATERIAL
☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)
☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

NOTES

0825 - DTW = 21.85'
0833 - DTW = 21.82'
0840 - DTW = 21.84'
0846 - DTW = 21.79'

SIGNATURE: W. A. G. A.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

SITE ID	BE-15	SITE TYPE	Monitor Well
SITE ACTIVITY	START 1114 END 1229	JOB NUMBER	51870.4

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DIAMETER 6 IN

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	Y	—	—

PRODUCT THICKNESS		FT
-------------------	--	----

TOTAL VOL. PURGED 1.27 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

NOTES

1146 - DTW = 23.61'
1154 - DTW = 23.63'
1202 - DTW = 23.72'
1210 - DTW = 23.78'
1219 - DTW = 23.85'

SIGNATURE:

Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT **Former Taylor Instruments
3rd Quarter GW Sampling (9/01)**

DATE **09/16/01**

SITE ID **BR-13**

SITE TYPE **Monitor Well**

SITE ACTIVITY **START 0948 END 1106**

JOB NUMBER **51870.4**

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) **flush** FT

PROTECTIVE CASING / WELL DIFFERENCE FT

INITIAL DEPTH TO WATER **24.54** FT

WELL DEPTH **67.5** FT

PID AMBIENT AIR PPM

WELL DIAMETER **6** IN

FINAL DEPTH TO WATER **24.56** FT

SCREEN LENGTH **open boring** FT

PID WELL MOUTH PPM

WELL INTEGRITY: YES NO N/A
 CAP ☒ ☐ ☐
 CASING ☒ ☐ ☐
 LOCKED ☒ ☐ ☐
 COLLAR ☒ ☐ ☐

DRAWDOWN **0.02** FT

DRAWDOWN VOLUME **0.03** GAL

PRODUCT THICKNESS FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE **= 60 m L/MIN
= 0.060 L/min**

BEGIN PURGING **1001**

END PURGING **1102**

TOTAL VOL. PURGED **0.95** GAL
 (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1022	= 1.22	6.93	1.76	9.5	0.42	0.76	17.25	-152 ≈ 58 ml/min
1033	= 1.86	6.95	1.76	11.5	0.22	0.49	17.32	-151 ≈ 58 ml/min
1042	= 2.41	6.97	1.76	11.0	0.22	0.40	17.37	-151 ≈ 61 ml/min
1052	= 3.02	6.98	1.77	12.1	0.25	0.32	17.58	-50 ≈ 61 ml/min
1055	Collect sample BR-13 for 8260							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ OTHER

TYPE OF TUBING ☐ TEFLON OR TEFLON LINED ☒ HIGH DENSITY POLYETHYLENE ☐ OTHER

TYPE OF PUMP MATERIAL ☐ POLYVINYL CHLORIDE ☐ STAINLESS STEEL ☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable) ☐ TEFLON ☐ OTHER

PURGE OBSERVATIONS

NOTES

1023 - DTW = 24.56'
 1033 - DTW = 24.56'
 1042 - DTW = 24.56'
 1052 - DTW = 24.56'

SIGNATURE: 

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH 42.0 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	6	IN
------------------	---	----

SCREEN LENGTH open boring FT

PID WELL MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME	0.78	GAL
--------------------	------	-----

PRODUCT THICKNESS	FT
-------------------	----

$$\{(\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)}\}$$

PURGE RATE $\approx 67 \text{ mL/MIN}$
 $\approx 0.067 \text{ L/min}$

BEGIN PURGING 1743

END
PURGING

1832

TOTAL VOL. PURGED 0.85 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

PURGE OBSERVATIONS

NOTES

1758 - DTW = 20.76'
1807 - DTW = 20.91'
1816 - DTW = 20.92'
1824 - DTW = 21.03'

SIGNATURE:

Low Flow Sample Forms.xls

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	flush	FT
---	-------	----

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH **42.23** FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER 4 IN

SCREEN LENGTH open boring FT

PID WELL	PPM
MOUTH	

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME 0.17 GAL

PRODUCT THICKNESS		ET
-------------------	--	----

$$((\text{initial} - \text{final}) \times 0.16 \text{ {2-inch}}) \text{ or } \times 0.65 \text{ {4-inch}} \text{ or } \times 1.5 \text{ {6-inch}})$$

BEGIN PURGING 1355-1403

END
PURGING

TOTAL VOL. PURGED 1.02 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Down-Well | Horizon

[illegible]

TYPE OF PUMP

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

NOTES

1428 - DTW = 25.07'
1437 - DTW = 25.15'
1447 - DTW = 25.16'
1457 - DTW = 25.24'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	
---	--

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH	
	FT

PID	
AMBIENT AIR	PPM

WELL DIAMETER	IN
------------------	----

SCREEN LENGTH	FT
---------------	----

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	_____	_____	_____
CASING	_____	_____	_____
LOCKED	_____	_____	_____
COLLAR	_____	_____	_____

DRAWDOWN VOLUME	GAL
--------------------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

BEGIN PURGING	
------------------	--

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

NOTES

Collected 15:46

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
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MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	
---	--

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DIAMETER	IN
------------------	----

WELL	YES	NO	N/A
INTEGRITY: CAP			

LOCKED _____
COLLAR _____

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

TOTAL VOL. PURGED	GAL
----------------------	-----

(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

PURGE OBSERVATIONS

NOTES

collected 15:39

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/15/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER 51870.4

MEASUREMENT POINT

PROTECTIVE CASING STICKUP (FROM GROUND)	FT
---	----

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

PID	PPM
AMBIENT AIR	

WELL DIAMETER	
------------------	--

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	_____	_____	_____
CASING	_____	_____	_____
LOCKED	_____	_____	_____
COLLAR	_____	_____	_____

PRODUCT THICKNESS	FT
-------------------	----

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch}))

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

NOTES

Collected 00:00

SIGNATURE:

BAQH

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 02/17/01

SITE TYPE	Monitor Well
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JOB NUMBER	51870.4
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MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) flush FT

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DIAMETER	2 IN
------------------	------

WELL INTEGRITY: CAP YES NO N/A
X

CHASSIS	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch}))

TOTAL VOL. PURGED 1.50 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Dawn-Well | Horizon

[illegible]

TYPE OF PUMP

TYPE OF TUBING

TYPE OF PUMP MATERIAL

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER _____

PURGE OBSERVATIONS

NOTES

1316 - DTW = 11.32'
1325 - DTW = 11.48'
1335 - DTW = 11.58'
1343 - DTW = 11.75'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/17/01
09/18/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT	
☒	TOP OF WELL RISER
☐	TOP OF PROTECTIVE CASING
☐	OTHER

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	
---	--

WELL DEPTH 17.5 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	2	IN
------------------	---	----

SCREEN LENGTH 15 FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	<u>X</u>	—	—
CASING	<u>X</u>	—	—
LOCKED	<u>X</u>	—	—
COLLAR	<u>X</u>	—	—

DRAWDOWN VOLUME	GAL
--------------------	-----

PRODUCT THICKNESS FT

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

PURGE RATE	L/MIN
------------	-------

BEGIN
PURGING

END
PURGING

1021

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Down-Well	Horiba
-----------	--------

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

TYPE OF TUBING

TYPE OF PUMP MATERIAL

TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

☐ TEFLON

☐ OTHER

PURGE OBSERVATIONS

NOTES

1017 - DTW = 16.34'

9/18
0757 - DTW = 16.01'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/17/01

SITE TYPE	Monitor Well
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JOB NUMBER	51870.4
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MEASUREMENT POINT

☒	TOP OF WELL RISER
☐	TOP OF PROTECTIVE CASING
☐	OTHER

PROTECTIVE
CASING STICKUP
(FROM GROUND) flush FT

PROTECTIVE CASING / WELL DIFFERENCE		F7
---	--	----

WELL DEPTH 47 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER 6 IN

SCREEN LENGTH open boring FT

PID WELL MOUTH	PPM
1	100
2	100
3	100
4	100
5	100
6	100
7	100
8	100
9	100
10	100
11	100
12	100
13	100
14	100
15	100
16	100
17	100
18	100
19	100
20	100
21	100
22	100
23	100
24	100
25	100
26	100
27	100
28	100
29	100
30	100
31	100
32	100
33	100
34	100
35	100
36	100
37	100
38	100
39	100
40	100
41	100
42	100
43	100
44	100
45	100
46	100
47	100
48	100
49	100
50	100
51	100
52	100
53	100
54	100
55	100
56	100
57	100
58	100
59	100
60	100
61	100
62	100
63	100
64	100
65	100
66	100
67	100
68	100
69	100
70	100
71	100
72	100
73	100
74	100
75	100
76	100
77	100
78	100
79	100
80	100
81	100
82	100
83	100
84	100
85	100
86	100
87	100
88	100
89	100
90	100
91	100
92	100
93	100
94	100
95	100
96	100
97	100
98	100
99	100
100	100

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	—	X	—
COLLAR	X	—	—

DRAWDOWN VOLUME	0.17	GAL
--------------------	------	-----

PRODUCT THICKNESS		FT
-------------------	--	----

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

PURGE RATE $\approx 68 \text{ mL/MIN}$
 $\approx 0.068 \text{ L/min}$

BEGIN
PURGING

END
PURGING

TOTAL VOL. PURGED 1.13 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

PURGE OBSERVATIONS

NOTES

0844 - DTW = 23.87'
0853 - DTW = 23.87'
0901 - DTW = 23.87'
0910 - DTW = 23.97'

SIGNATURE:

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/17/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
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MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	
---	--

WELL DIAMETER	4	IN
------------------	---	----

WELL	YES	NO	N/A
INTEGRITY: CAP	☒	☐	☐

CASING		—	—
LOCKED		—	—
COLLAR		—	—

TOTAL VOL. PURGED 1.32 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Rainwell	Horizon
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EQUIPMENT DOCUMENTATION

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON

☐ OTHER

NOTES

[Handwritten signature]

Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
3rd Quarter GW Sampling (9/01)

DATE 07/18/01

SITE ID OB-08

SITE TYPE Monitor Well

SITE ACTIVITY START 1140 END 1258

JOB NUMBER 51870.4

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) flush FT

PROTECTIVE CASING / WELL DIFFERENCE FT

INITIAL DEPTH TO WATER 19.08 FT

WELL DEPTH 25 FT

PID AMBIENT AIR PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 20.02 FT

SCREEN LENGTH 10 FT

PID WELL MOUTH PPM

WELL INTEGRITY: YES NO N/A
CAP ☒ ☐ ☐
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☐

DRAWDOWN 0.94 FT

DRAWDOWN VOLUME 0.15 GAL

PRODUCT THICKNESS FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE = 75 L/MIN
= 0.075 ml/min

BEGIN PURGING 1147

END PURGING 1253

TOTAL VOL. PURGED 1.29 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1219	= 2.4	7.10	1.26	40.4	0.48 0.79	18.21	-101	= 75 ml/min
1227	= 3.0	7.10	1.26	24.6	0.53 0.58	18.58	-101	= 75 ml/min
1235	= 3.6	7.10	1.26	13.8	0.51 0.59	18.81	-100	= 75 ml/min
1244	= 4.3	7.11	1.29	12.6	0.65 0.58	18.93	-105	= 75 ml/min
1247	Collect sample OB-08 for 8260							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING
☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER

TYPE OF PUMP MATERIAL
☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)
☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

NOTES

R19 - DTW = 19.75'
1227 - DTW = 19.89'
1235 - DTW = 20.00'
1244 - DTW = 20.18'

SIGNATURE: [Signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/18/01

SITE TYPE	Monitor Well
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JOB NUMBER 51870.4

MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) *flush* FT

PROTECTIVE CASING / WELL DIFFERENCE	FT
---	----

WELL DEPTH 18.0 FT

PID	PPM
AMBIENT AIR	

WELL DIAMETER	2	IN
------------------	---	----

SCREEN LENGTH 15 FT

PID WELL	
MOUTH	PPM

WELL	YES	NO	N/A
INTEGRITY: CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN VOLUME		GAL
--------------------	--	-----

PRODUCT THICKNESS	FT
-------------------	----

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

BEGIN PURGING	
------------------	--

END
PURGING

TOTAL VOL. PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

TYPE OF PUMP

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER _____

NOTES

SIGNATURE:



Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
3rd Quarter GW Sampling (9/01)

DATE 09/18/01

SITE ID BR-11

SITE TYPE Monitor Well

SITE ACTIVITY START 1420 END 1535

JOB NUMBER 51870.4

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) FT

PROTECTIVE CASING / WELL DIFFERENCE FT

INITIAL DEPTH TO WATER 24.19 FT

WELL DEPTH 52 FT

PID AMBIENT AIR PPM

WELL DIAMETER IN

FINAL DEPTH TO WATER 24.19 FT

SCREEN LENGTH open boring FT

PID WELL MOUTH PPM

WELL INTEGRITY: CAP YES NO N/A
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☐

DRAWDOWN 0 FT

DRAWDOWN VOLUME 0 GAL

PRODUCT THICKNESS FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE ≈ 61 mL/MIN
= 0.061 L/min

BEGIN PURGING 1427

END PURGING 1526

TOTAL VOL. PURGED 0.94 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1450	≈ 1.40	7.08	1.98	87.7	0.66	19.57	-57	≈ 61 mL/min
1459	≈ 1.95	7.08	1.99	75.8	0.59	19.54	-58	≈ 61 mL/min
1509	≈ 2.56	7.09	1.99	66.6	0.57	19.37	-60	≈ 61 mL/min
1518	≈ 3.09	7.09	1.99	72.2	0.57	19.51	-58	≈ 59 mL/min
1522	Collect Sample BR-11 for 8260							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER

PURGE OBSERVATIONS

NOTES

1450 - DTW = 24.19'
1459 - DTW = 24.18'
1509 - DTW = 24.19'
1518 - DTW = 24.19'

SIGNATURE: [Signature]

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

DATE 09/18/01

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	51870.4
------------	---------

MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) *Flush*

PROTECTIVE CASING / WELL DIFFERENCE	
---	--

WELL DIAMETER	6	IN
------------------	---	----

WELL	YES	NO	N/A
INTEGRITY: CAP	X		

CASING	$\frac{X}{X}$	—	—
LOCKED	$\frac{X}{X}$	—	—
COLLAR	$\frac{X}{X}$	—	—

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

TOTAL VOL. PURGED 0.81 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Down-Well | HOKIBA

[illegible]

TYPE OF PUMP

TYPE OF TUBING

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER**PURGE OBSERVATIONS**

NOTES

1046 DTW = 24.33'
1056 DTW = 24.34'
1114 DTW = 24.32'

SIGNATURE:

Harding ESE

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
3rd Quarter GW Sampling (9/01)

DATE 09/18/01

SITE ID BR-05

SITE TYPE Monitor Well

SITE ACTIVITY START 0816 END 0957

JOB NUMBER 51870.4

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT

☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND) flush FT

PROTECTIVE CASING / WELL DIFFERENCE _____ FT

INITIAL DEPTH TO WATER 23.67 FT

WELL DEPTH 49.9 FT

PID AMBIENT AIR _____ PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 23.72 FT

SCREEN LENGTH open boring FT

PID WELL MOUTH _____ PPM

WELL INTEGRITY: YES NO N/A
CAP ☒ _____
CASING ☒ _____
LOCKED ☒ _____
COLLAR ☒ _____

DRAWDOWN 0.05 FT

DRAWDOWN VOLUME 0.03 GAL

PRODUCT THICKNESS _____ FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE = 57 mL/MIN
= 0.057 L/min

BEGIN PURGING 0828

END PURGING 0951

TOTAL VOL. PURGED 1.23 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Down-Well | Horiba

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O ₂ (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
0852	= 1.34	7.06	0.733	4.5	0.05	17.70	-197	= 56 mL/min
0902	= 1.90	7.04	0.814	4.2	0.05	17.69	-193	= 56 mL/min
0913	= 2.52	6.97	0.952	2.0	0.04	17.66	-184	= 56 mL/min
0922	= 3.04	6.94	1.28	0.5	0.04	17.65	-177	= 58 mL/min
0932	= 3.62	6.93	1.41	0.0	0.04	17.86	-171	= 58 mL/min
0942	= 4.20	6.93	1.50	0.0	0.04	17.88	-168	= 58 mL/min
0946	Collect sample BR-05 for 8260							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☒ PERISTALTIC
☐ SUBMERSIBLE
☐ OTHER _____

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☒ HIGH DENSITY POLYETHYLENE
☐ OTHER _____

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☐ OTHER _____

PURGE OBSERVATIONS

NOTES

0852 - DTW = 23.72'
0902 - DTW = 23.72'
0913 - DTW = 23.72'
0923 - DTW = 23.72'
0932 - DTW = 23.72'
0942 - DTW = 23.72'

SIGNATURE: _____

[Handwritten Signature]

APPENDIX E

WELL CONSTRUCTION INFORMATION

Appendix E Well Construction Information

Quarterly Progress Report
Third Quarter 2001
Former Taylor Instruments Site
Rochester, New York

Well ID	Date Installed	Boring Depth	Well Depth	Screen Interval		Coordinates			Well Material	Completion		
				Top	Bottom	Easting	Northing	Elevation		Flush-mount	Vault	Stick-up
BR-01	09/02/97	42.2	42.2	NA	NA	750363.33	1150087.01	529.5	Stainless / Open	X		
BR-02	09/02/97	44.0	44.0	NA	NA	750541.81	1149964.51	532.39	Stainless / Open	X		
BR-03	09/02/97	40.1	40.1	NA	NA	750552.93	1149641.68	533.8	Stainless / Open			X
BR-04	09/03/97	44.2	44.2	NA	NA	750322.96	1149422.13	532.68	Stainless / Open	X		
BR-05	09/03/97	49.9	49.9	NA	NA	750216.62	1149958.67	531.76	Stainless / Open	X		
BR-06	09/03/97	42.6	42.6	NA	NA	749939.91	1149145.54	537	Stainless / Open	X		
BR-07	09/03/97	53.3	53.3	NA	NA	749983.5	1149989.76	532.1	Stainless / Open			X
BR-08	07/28/00	73.0	73.0	NA	NA	750340.94	1149482.41	533.13	Iron / Open	X		
BR-09	07/28/00	47.0	47.0	NA	NA	750400.72	1149438.67	532.72	Iron / Open	X		
BR-10	07/28/00	47.0	47.0	NA	NA	750426.9	1149411.76	532.29	Iron / Open	X		
BR-11	07/28/00	52.0	52.0	NA	NA	750387.82	1149546.25	532.53	Iron / Open	X		
BR-12	07/28/00	42.0	42.0	NA	NA	750195.19	1150010.12	531.9	Iron / Open	X		
BR-13	07/28/00	67.5	67.5	NA	NA	750197.49	1150044.27	532.01	Iron / Open	X		
BR-14	07/28/00	75.3	75.3	NA	NA	750260.61	1150052.2	531.67	Iron / Open	X		
BR-15	07/26/00	72.0	72.0	NA	NA	750293.39	1149980.43	531.69	Iron / Open	X		
BR-16	07/26/00	55.0	55.0	NA	NA	750223.79	1150013.71	531.32	Iron / Open	X		
BR-17	07/28/00	52.0	52.0	NA	NA	750333.76	1149478.26	533.16	Iron / Open	X		
EW-N-1	08/15/00	27.0	27.0	5.2	26.0	750198.77	1149956.96	529.28	Stainless / PVC		X	
EW-N-2	08/23/00	27.0	27.0	5.5	26.0	750225.81	1149942.16	528.76	Stainless / PVC		X	
EW-N-3	08/22/00	26.8	26.8	5.2	25.8	750217.16	1149980.06	528.69	Stainless / PVC		X	
EW-N-4	08/23/00	26.0	26.0	7.2	25.0	750259.43	1149928.84	529.32	Stainless / PVC		X	
EW-N-5	08/16/00	27.0	27.0	5.5	26.0	750257.98	1149972.33	528.26	Stainless / PVC		X	
EW-N-6	08/18/00	25.5	25.0	6.1	24.0	750293.49	1149957.98	529.18	Stainless / PVC		X	
EW-S-1S	10/01/98	14.0	13.7	4.3	13.7	750332.8	1149428.08	529.41	Stainless		X	
EW-S-1D	10/01/98	18.3	18.3	4.3	17.9	750327.22	1149428.49	529.41	Stainless		X	
EW-S-2	07/26/00	23.1	22.0	5.5	21.0	750256.26	1149404.38	528.68	Stainless / PVC		X	
EW-S-3	07/28/00	23.5	22.0	5.5	21.0	750301.18	1149370.46	529.55	Stainless / PVC		X	
EW-S-4	07/26/00	23.5	22.0	5.5	21.0	750293.94	1149418.71	532.41	Stainless / PVC		X	
EW-S-5	08/01/00	23.5	22.5	5.8	21.5	750325.14	1149386.52	529.53	Stainless / PVC		X	

Appendix E Well Construction Information

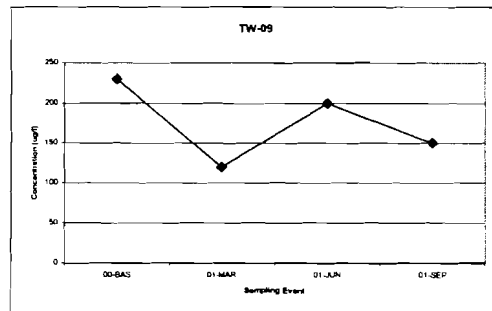
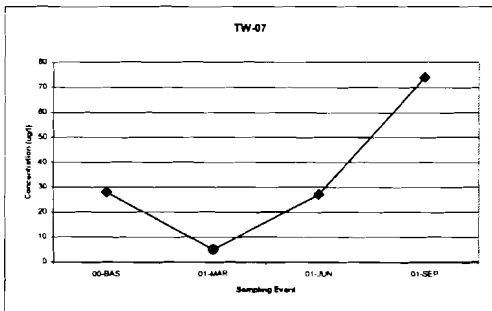
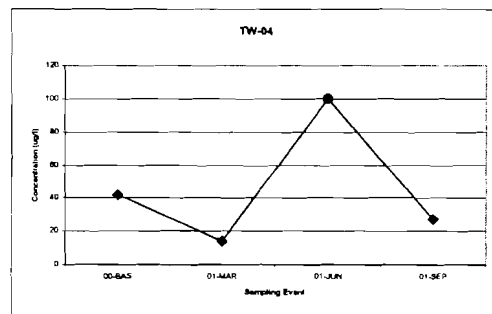
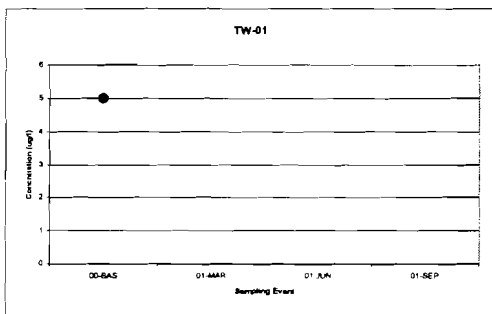
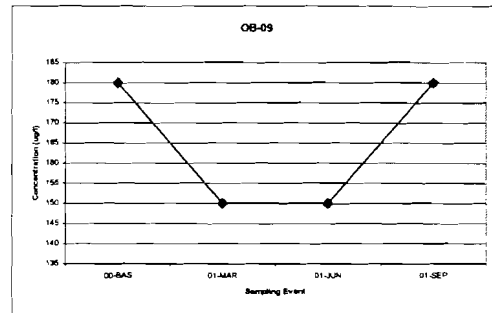
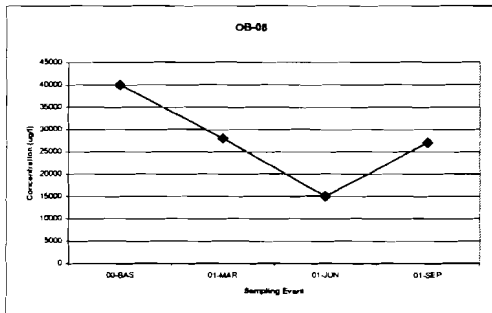
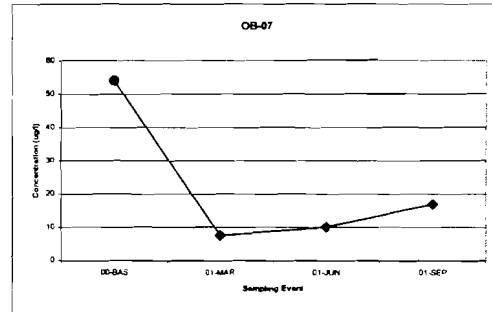
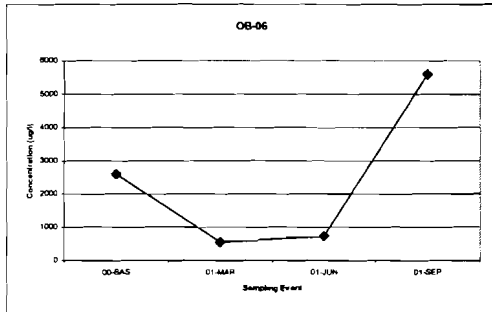
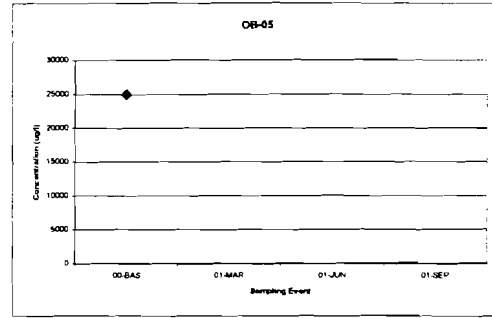
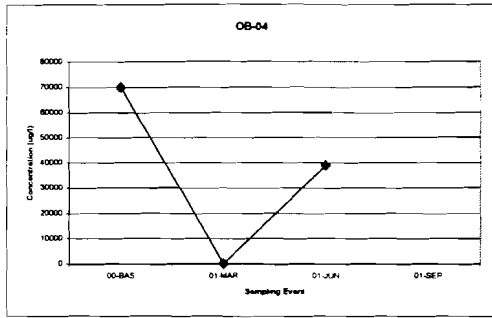
Quarterly Progress Report
Third Quarter 2001
Former Taylor Instruments Site
Rochester, New York

				Screen Interval		Coordinates			Well Material	Completion		
Well ID	Date Installed	Boring Depth	Well Depth	Top	Bottom	Easting	Northing	Elevation	Riser/Screen	Flush-mount	Vault	Stick-up
EW-S-6	07/31/00	22.9	22.4	5.9	20.9	750341.87	1149362.58	529.27	Stainless / PVC		X	
EW-S-7	08/07/00	23.1	22.5	5.9	21.6	750339.03	1149413.8	529.59	Stainless / PVC		X	
EW-S-8	08/02/00	23.0	22.5	5.8	21.5	750359.86	1149402.69	529.65	Stainless / PVC		X	
EW-S-9	08/03/00	23.0	22.5	6.0	21.5	750355.07	1149440.13	532.99	Stainless / PVC		X	
EW-S-10	08/09/00	22.6	22.5	6.0	21.5	750381.3	1149367.65	529.43	Stainless / PVC		X	
EW-S-11	08/08/00	22.6	22.5	5.9	22.0	750377.04	1149418.02	529.5	Stainless / PVC		X	
EW-S-12	08/04/00	22.3	22.3	5.8	21.3	750375.38	1149466.45	529.96	Stainless / PVC		X	
EW-S-13	08/10/00	22.0	22.0	6.0	21.0	750399.16	1149448.68	529.53	Stainless / PVC		X	
EW-S-14	08/11/00	22.0	22.0	5.6	21.0	750406.59	1149410.24	529.37	Stainless / PVC		X	
EW-S-15	08/14/00	22.0	21.8	5.2	20.8	750414.78	1149480.34	529.96	Stainless / PVC		X	
EW-S-16	08/10/00	21.3	21.3	5.2	20.3	750433.72	1149448.95	529.57	Stainless / PVC		X	
OB-04	09/05/97	17.5	17.5	2.5	17.5	750329.65	1149422.19	532.8	PVC	X		
OB-05	09/05/97	18.0	18.0	4.0	18.0	750223.51	1149958.83	531.5	PVC	X		
OB-06	07/19/00	17.0	17.0	6.8	16.8	750421.89	1149461.5	532.6	PVC	X		
OB-07	07/19/00	20.5	20.5	10.2	20.2	750461.13	1149512.6	533.03	PVC	X		
OB-08	07/28/00	25.5	25.3	15.3	25.1	750279	1149957.45	531.64	PVC	X		
OB-09	07/28/00	23.5	23.3	13.3	23.1	750312.26	1149992.94	531.85	PVC	X		
TW-01	03/12/96	22.0	22.0	17.0	22.0	750548.13	1149471.23	533	PVC	X		
TW-04	03/15/96	17.5	17.3	12.3	17.3	750552.18	1149648.54	532.6	PVC			X
TW-07	03/15/96	17.5	17.5	12.5	17.5	750546.69	1149830.01	531.4	PVC	X		
TW-09	03/30/96	16.0	16.0	11.0	16.0	750542.22	1149971.84	530.54	PVC	X		
TW-13	03/12/96	15.0	15.0	10.0	15.0	750086.24	1150016.03	532	PVC	X		
TW-17	03/13/96	15.0	15.0	10.0	15.0	750373.39	1150088.34	529.7	PVC			X
TW-20	03/13/96	15.0	15.0	10.0	15.0	750547.88	1150118.75	530.2	PVC			X
W-2	09/15/82	21.0	18.0	13.0	18.0	749940.43	1149136.77	537	PVC			X
W-4	09/22/82	29.0	26.0	21.0	26.0	749977.63	1149996.42	531.8	PVC			X
W-5	09/15/82	24.0	20.5	15.5	20.5	750248.88	1150056.27	531.9	PVC	X		
W-6	09/15/82	16.5	15.0	13.0	15.0	750288.78	1149332.79	532.55	PVC	X		

APPENDIX F

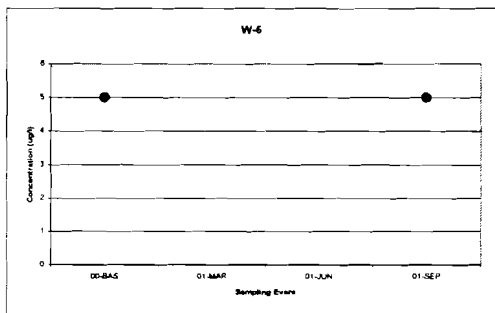
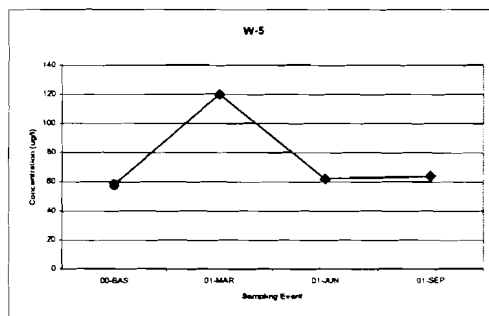
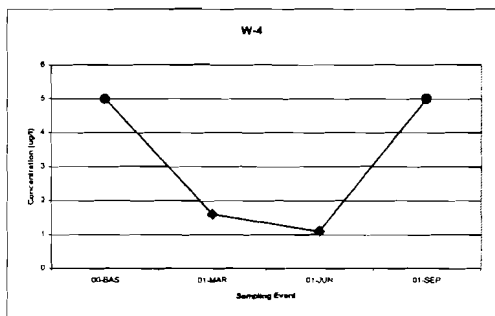
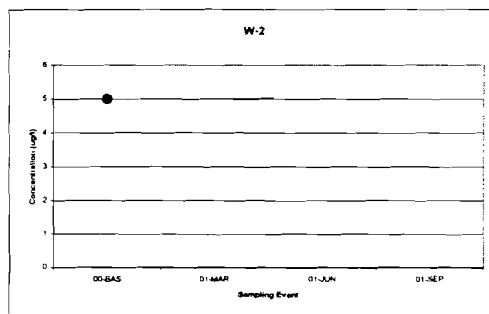
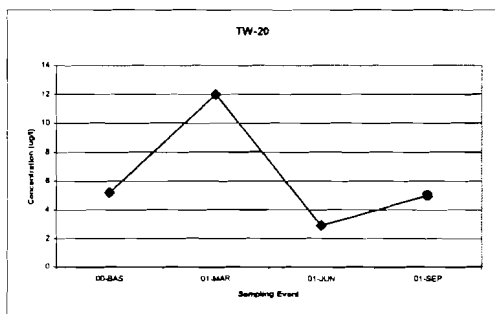
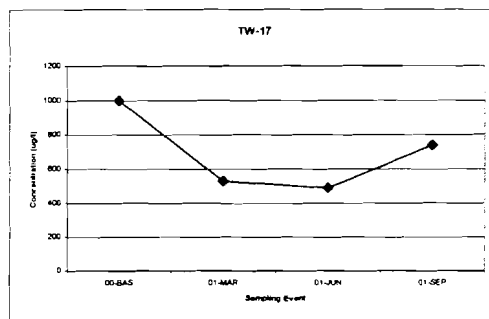
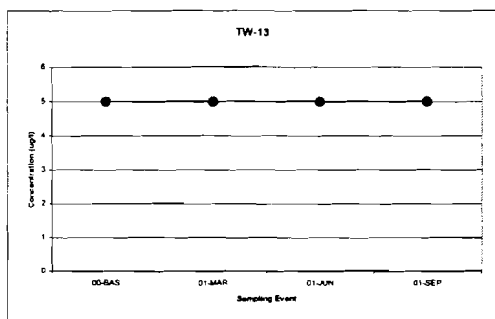
MONITOR WELL CONCENTRATION TREND GRAPHS

Overburden Wells
TCE Concentration Trends
Former Taylor Instruments Site
Rochester, NY



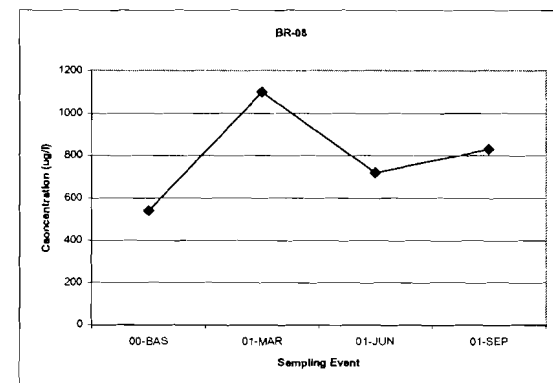
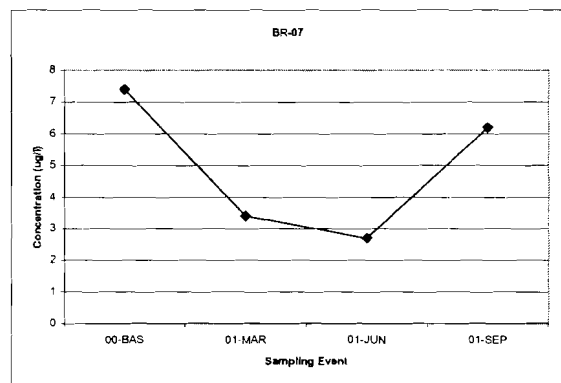
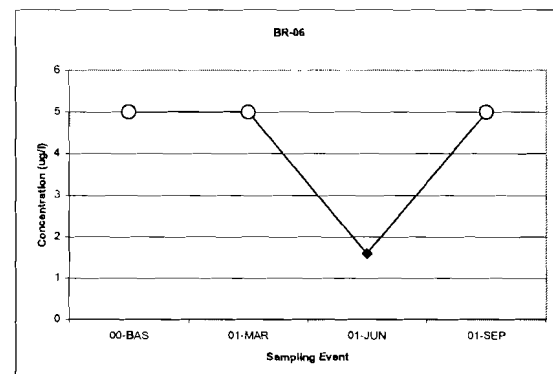
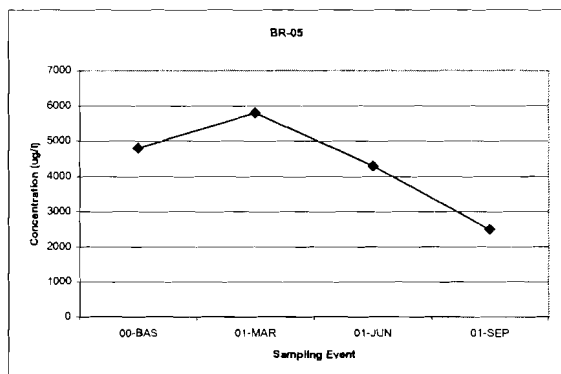
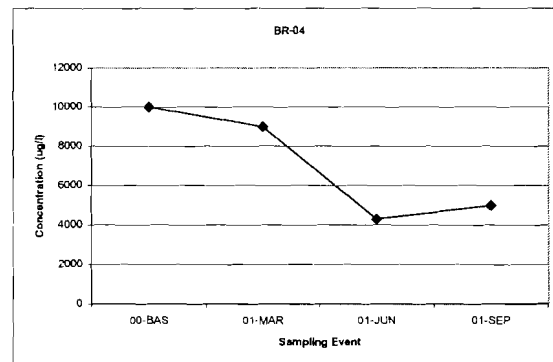
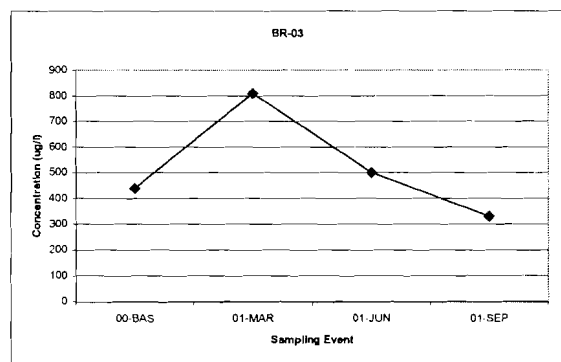
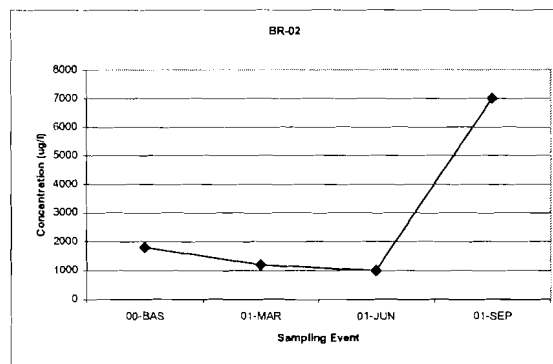
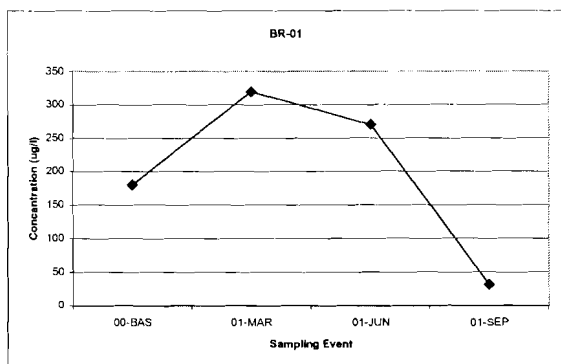
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circle = value below graphed detection limit

Overburden Wells
TCE Concentration Trends
Former Taylor Instruments Site
Rochester, NY



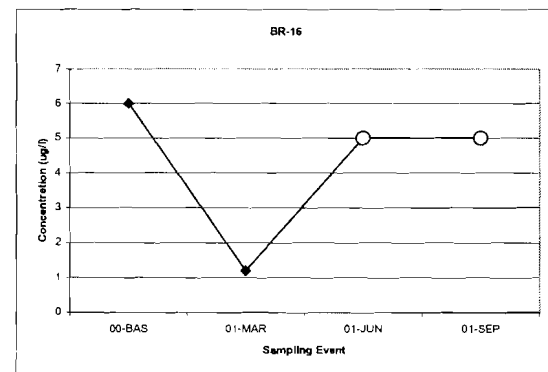
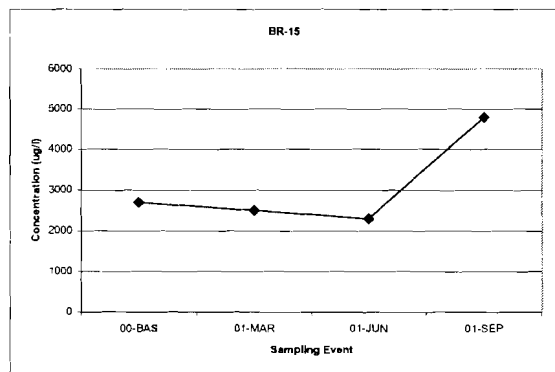
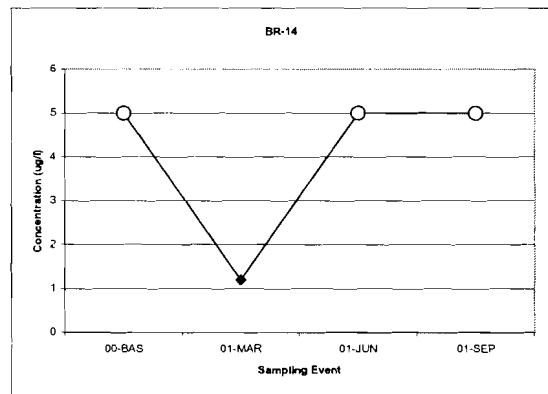
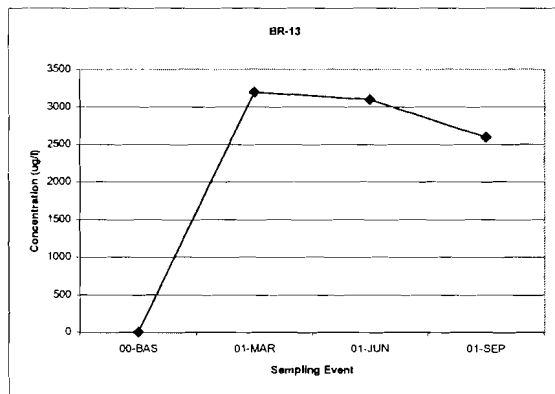
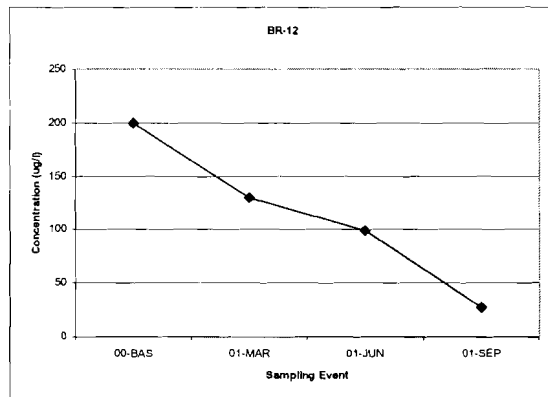
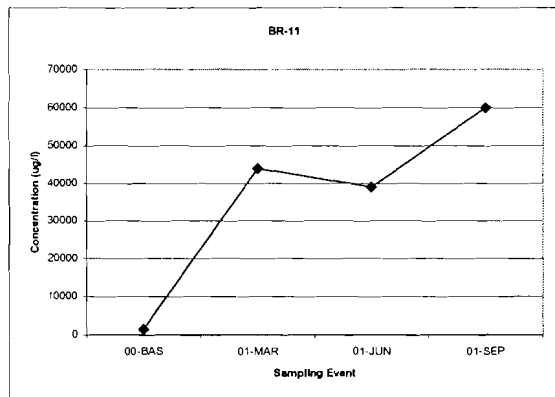
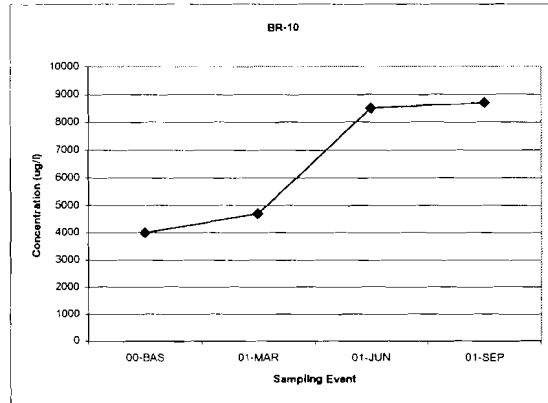
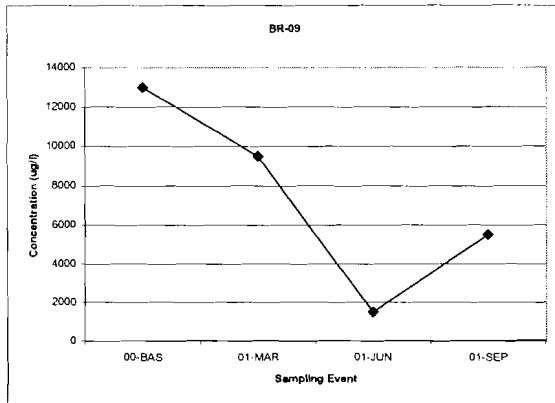
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circle = value below graphed detection limit

Bedrock Wells
TCE Concentration Trends
Former Taylor Instruments Site
Rochester, NY



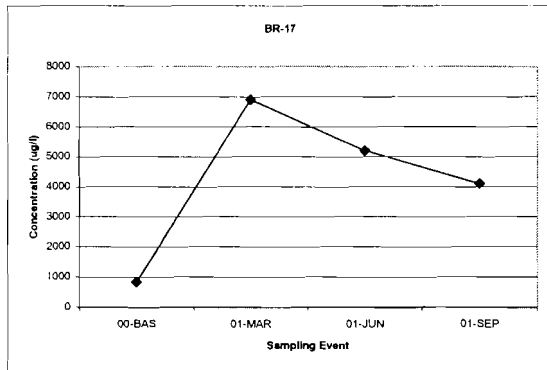
diamond = actual value
circle = value below graphed detection limit

Bedrock Wells
TCE Concentration Trends
Former Taylor Instruments Site
Rochester, NY



diamond = actual value
circle = value below graphed detection limit

Bedrock Wells
TCE Concentration Trends
Former Taylor Instruments Site
Rochester, NY



diamond = actual value
circle = value below graphed detection limit