

GW - 114

MONITORING REPORTS

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**1999 ANNUAL REPORT
SCHLUMBERGER OILFIELD SERVICES
HOBBS, NEW MEXICO**

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TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 GROUND-WATER MONITORING	2
2.1 Static Water Level	2
2.2 Ground-water Sampling	2
3.0 SOIL VAPOR EXTRACTION SYSTEM MONITORING	4
4.0 DISCUSSION	5
5.0 RECOMMENDATIONS	7

LIST OF FIGURES

Figure

1 – Monitoring Well Locations	8
2 – Site Map and Location of Monitoring and Remediation Wells	9
3 – Potentiometric Surface Map	10
4 – Total Halocarbons Concentration Map (10/21/99)	11
5 – SVE Operation Timeline (01/01/99 thru 06/30/99)	12
6 – SVE Operation Timeline (07/01/99 thru 10/31/99)	13

LIST OF TABLES

Table

1 – Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico..	14
2 – Chemicals Detected in Ground-water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico	18
3 – SVE System Air Sample Data from the Schlumberger Oilfield Services Facility Hobbs, New Mexico	22

LIST OF APPENDICES

Appendix

- A – Laboratory Analytical Reports
- B – Halocarbons and Ground-water Levels
- C – SVE Air Emissions

1.0 INTRODUCTION

1.0 INTRODUCTION

This report documents monitoring and remedial activities performed in 1999 at the Schlumberger Oilfield Services facility in Hobbs, New Mexico (Figures 1 and 2). Field work conducted by Western Water Consultants, Inc. (WWC) during the four quarters of 1999 consisted of air and ground-water monitoring, and routine remediation system operation and maintenance. The following sections provide an overview of the field work performed, discussion of the data, and recommendations for 2000.

2.0 GROUND-WATER MONITORING

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Ground-water monitoring was performed quarterly in 1999 by WWC personnel. The fourth quarter monitoring event was performed October 18-21, 1999. Results of the previous sampling events for 1999 were presented in reports to the New Mexico Oil and Conservation Division (NMOCD) dated March 15, 1999; May 28, 1999; and September 13, 1999.

2.1 Static Water Level

Static water levels were measured quarterly in 1999 using an oil/water interface probe. The probe was decontaminated between wells with Simple Green and a distilled water rinse. Fourth quarter water level measurements are presented in Table 1, along with historic water level data for comparison. Free product has never been detected at this site.

A map of the potentiometric surface generated from the fourth quarter water level elevations is presented as Figure 3. The ground-water flow direction continues to flow to the northeast with a hydraulic gradient of 0.006 consistent with earlier determinations of ground-water flow. Ground-water elevations decreased an average of 0.99 feet over the past year.

2.2 Ground-water Sampling

Ground-water samples were collected from monitoring wells MW-2, 4, 6, 7, 8, 9, 13, 14, 15, and the Shell Station monitoring well (MW-4) the first three quarters in 1999. During the fourth quarter monitoring event, ground-water samples were collected from all monitoring wells. Three well volumes of ground-water were purged from each well using a Redi-flow submersible pump. The submersible pump was decontaminated with a Simple Green solution and clean water rinse between wells. Purge water was placed into two galvanized steel stock tanks on site and allowed to evaporate.

Ground-water samples were collected using disposable polyethylene bailers and analyzed for volatile organic compounds by EPA Method 8260. During the fourth quarter monitoring event duplicate samples were collected from MW-11 and MW-14. The analytical results for the fourth quarter monitoring event are provided in Table 2 along with historical data for comparison. Laboratory analytical reports for the fourth quarter monitoring event are presented as Appendix A.

3.0 SOIL VAPOR EXTRACTION SYSTEM MONITORING

3.0 SOIL VAPOR EXTRACTION SYSTEM MONITORING

Air samples were collected quarterly from the three soil vapor extraction (SVE) systems in 1999 and analyzed for volatile organics by EPA Methods 8260. Results of the air quality monitoring are provided on Table 3 along with historical data for comparison. Laboratory data reports are presented as Appendix A.

4.0 DISCUSSION

4.0 DISCUSSION

Some constituents detected in the ground-water at the Hobbs facility are declining, others appear to have stabilized in each monitoring well. Concentrations of aromatic hydrocarbon have declined to the extent that ground-water at monitoring well MW-5 is the only location with BTEX constituents above the maximum contaminant level. BTEX constituents in the area of the former wastewater collection pond were not detected in the ground-water at MW-2 during 1999.

As shown on Table 2, halocarbons remain consistent with historic trends in most monitoring wells. Halocarbon concentrations have shown a decline in the ground-water at monitoring wells MW-2, MW-5, MW-7, and MW-9. Low concentrations of halocarbons continue to be detected in MW-12 and MW-13 upgradient and cross-gradient of the facility. Plots were constructed for static water level versus various halocarbon concentrations to illustrate the declines and/or stabilization of constituents at individual wells (Appendix B). An isoconcentration map for total halocarbons (Figure 4.) was constructed with the fourth quarter water quality data. As shown the highest concentrations remain in the area of MW-8 consistent with previous distribution patterns.

SVE systems at the Hobbs facility have run essentially 100 percent of the time during 1999 as shown on Figures 5 and 6. Plots depicting SVE air emissions of total halocarbons are provided as Appendix C. Air quality monitoring indicates both BTEX and halocarbon constituents continue to be removed in the former wastewater collection area. As shown on Table 3, total concentrations have declined from high levels of 425.8 parts per million (ppm) BTEX and 680.7 ppm halocarbons in 1995 to 101.9 ppm BTEX and 44.2 ppm halocarbons in 1999. The decline of these constituents in air samples and in the water quality monitoring at MW-2 indicates the area is being successfully remediated.

BTEX constituents detected in air samples from the former UST area remain at nondetect levels, while halocarbons have declined from a high level of 1379.58 ppm in 1995 to 37 ppm in 1999 (Table 3). As shown on Table 2, halocarbons in MW-4 have declined from a high level of 5.9 ppm in 1996 to a low of 0.508 ppm in 1999. Continued SVE and air sparging of the soil and water should facilitate further declines of halocarbon constituents in the ground-water at this area.

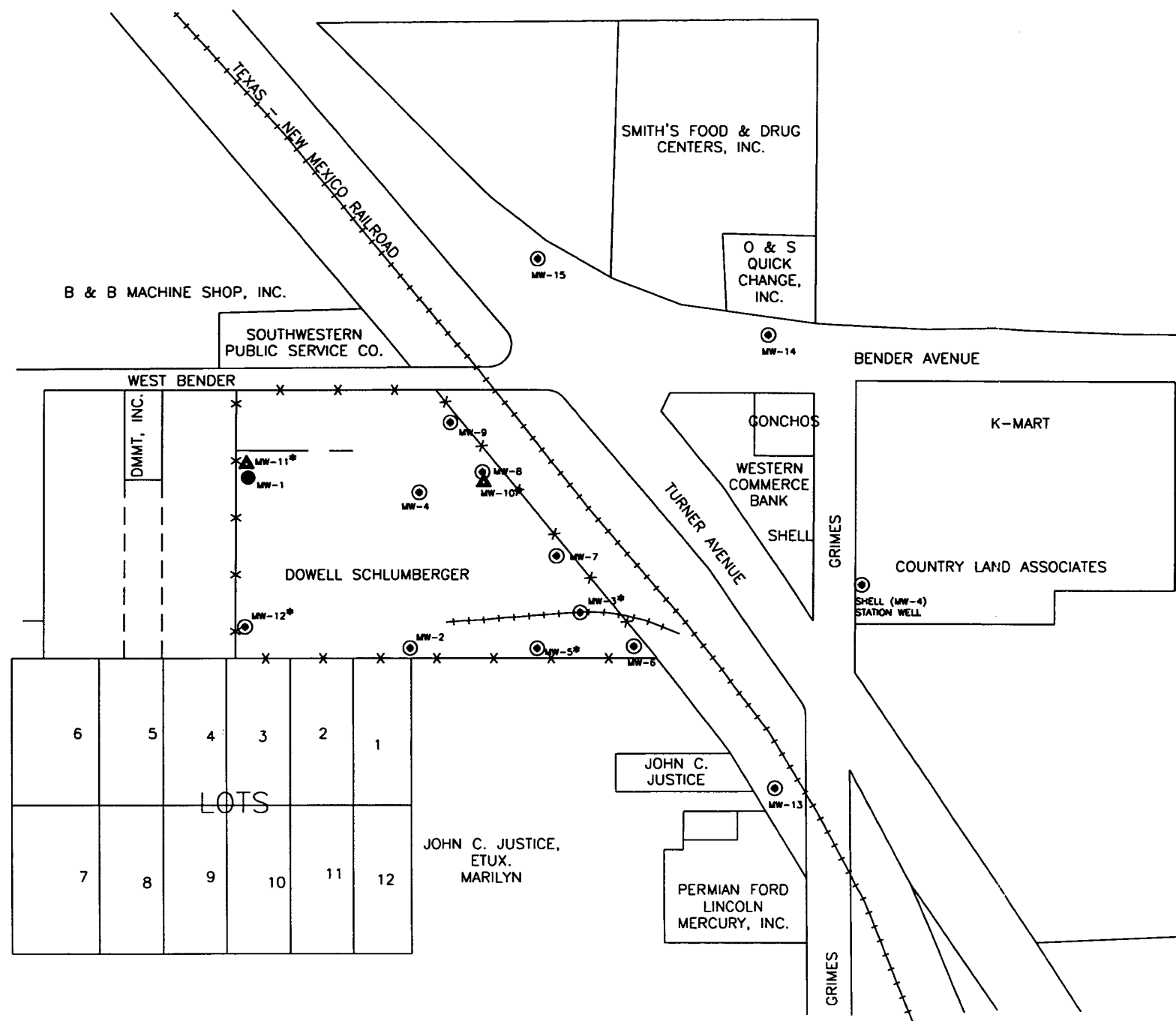
Air samples collected from the acid plant SVE system were nondetect for both BTEX and halocarbon constituents the last three quarters of 1999. However constituents detected in the ground-water at monitoring wells MW-3, MW-5, MW-6, and MW-7 have either declined or remained relatively stable.

5.0 RECOMMENDATIONS

5.0 RECOMMENDATIONS

As mentioned previously, hydrocarbons remain essentially undetected in the ground-water at monitoring wells MW-14 and MW-15. Hydrocarbons and chlorocarbons have been declining in the former wastewater collection area and have either declined or stabilized in the former UST and acid plant areas. Dowell recommends that the ground-water monitoring schedule remain unchanged with regard to monitoring wells MW-3, MW-5, MW-10, MW-11, and MW-12 to be sampled only during the fourth quarter. Static water levels are proposed to be collected from all monitoring wells on a quarterly basis.

FIGURES



EXPLANATION

- MW-4 ● SHALLOW MONITORING WELL LOCATION AND IDENTIFICATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 ▲ DEEP MONITORING WELL LOCATION
- MW-5* SAMPLED DURING 4TH QUARTER ONLY

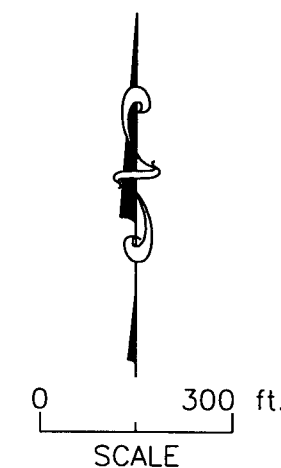
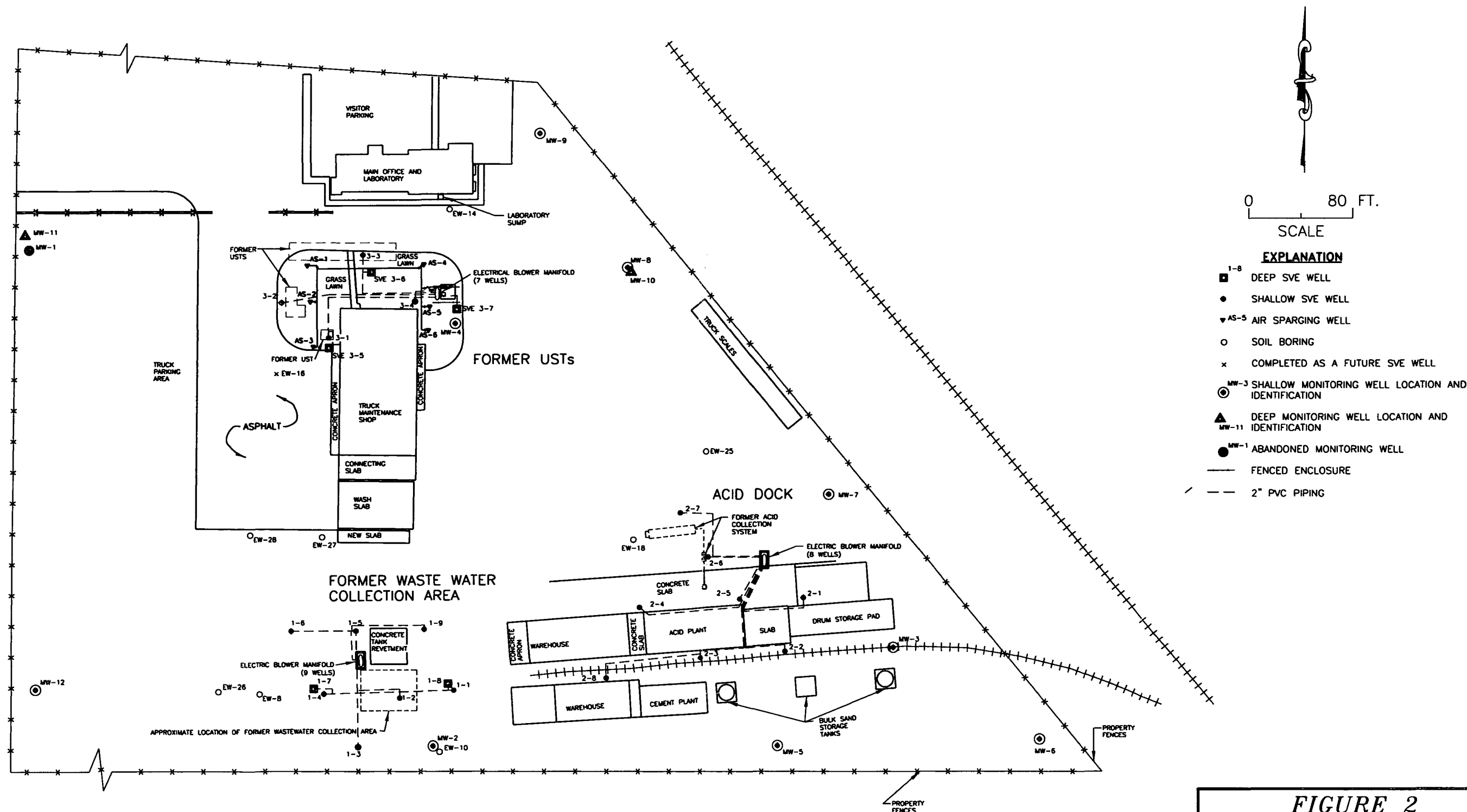
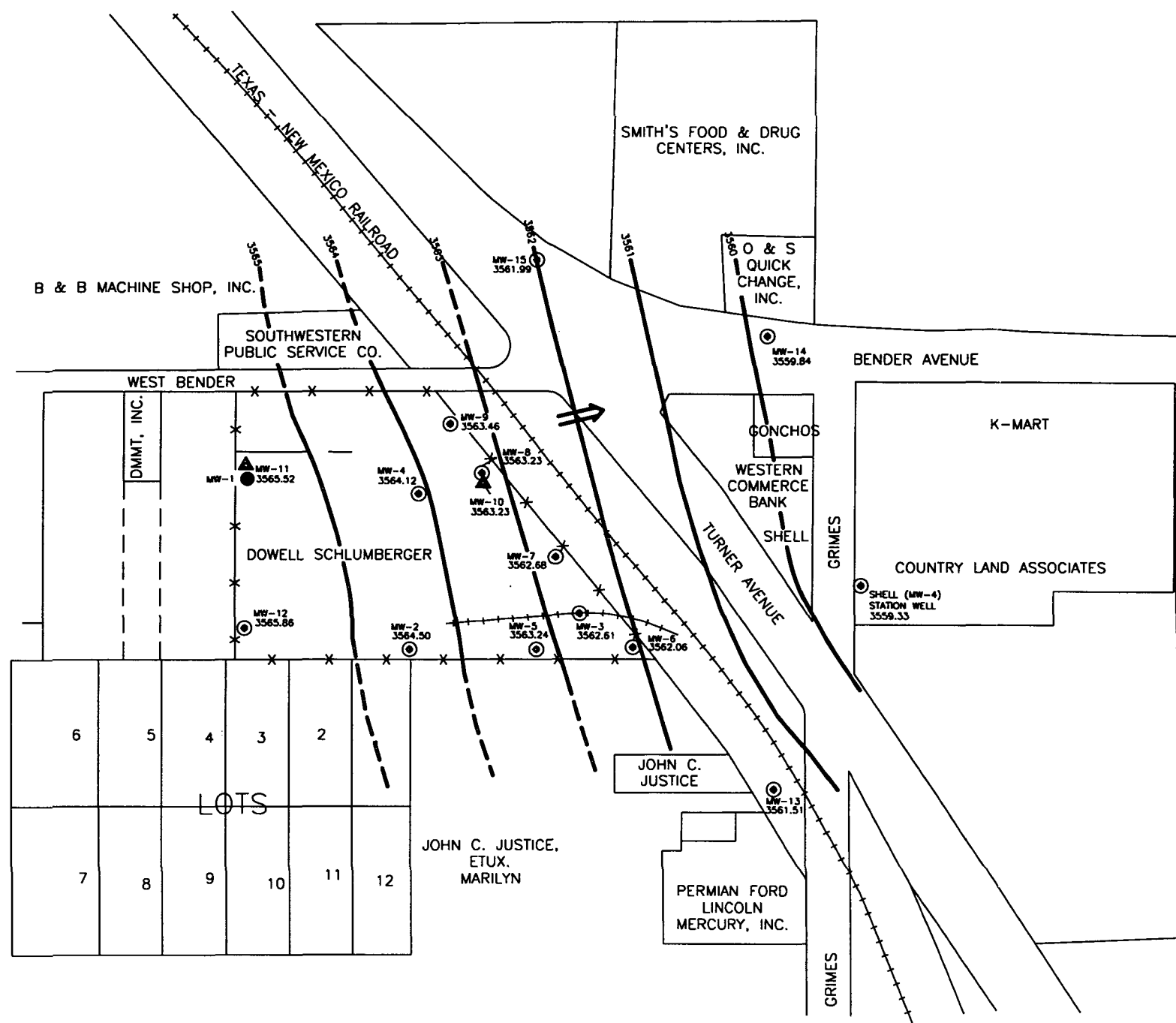


FIGURE 1
MONITORING WELL LOCATIONS

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM





EXPLANATION

- MW-14 3560.62 ● SHALLOW MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 3566.33 ▲ DEEP MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE ELEVATION
- 3563.00 ——— POTENTIOMETRIC SURFACE CONTOURS AND ELEVATION (DASHED WHERE INFERRED)
- ← GROUND-WATER FLOW DIRECTION

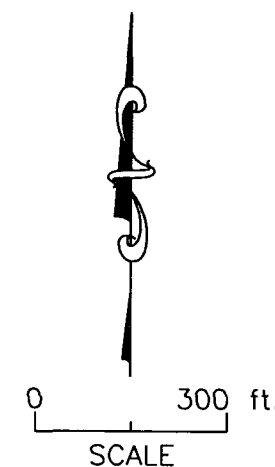
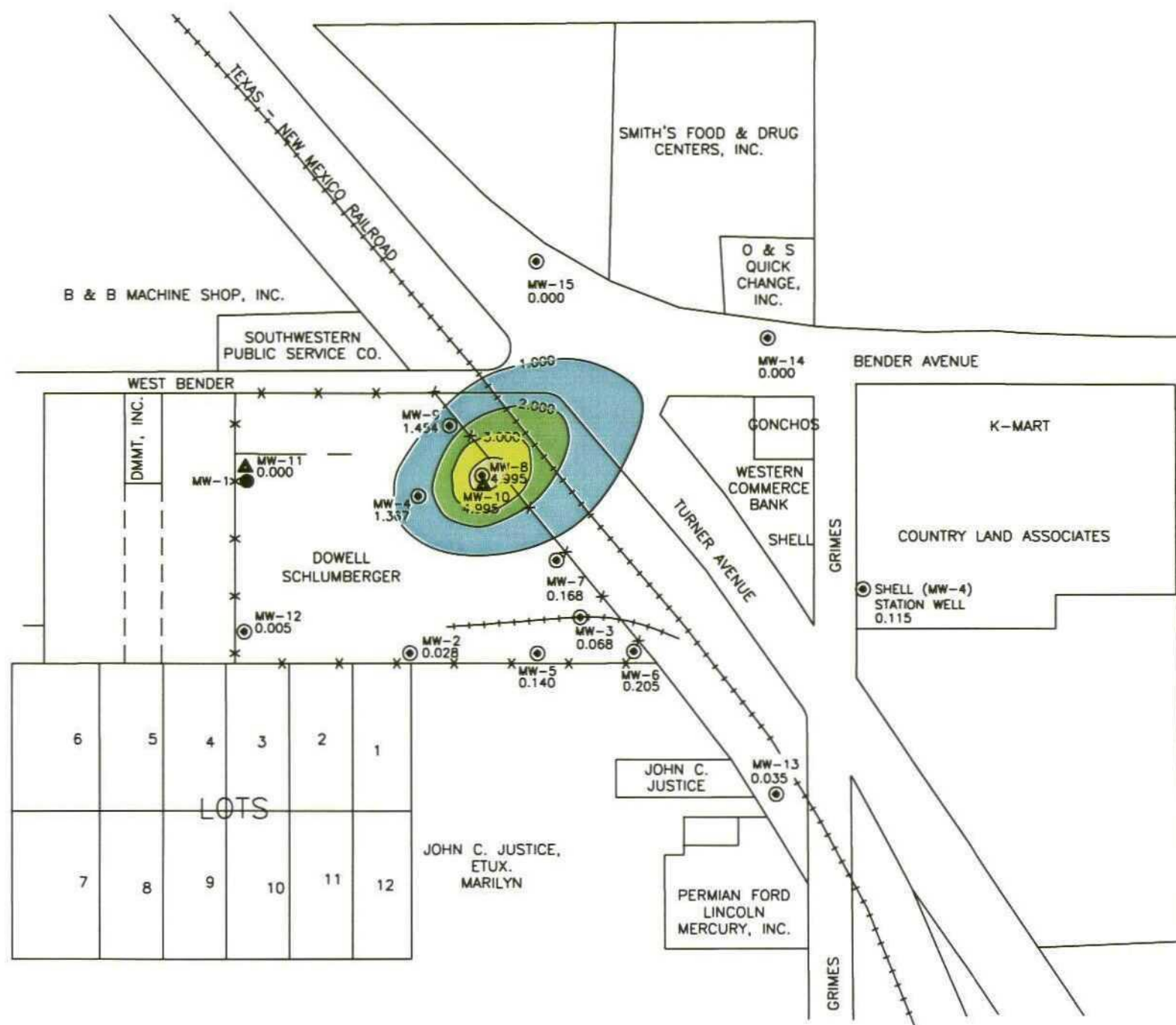


FIGURE 3
POTENTIOMETRIC SURFACE MAP
(10/20/99)

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western
Water
Consultants, Inc.  Engineering
Engineering Environmental Mining Water Resources



EXPLANATION

- MW-8 5.388 ● SHALLOW MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- MW-1 ● ABANDONED MONITORING WELL
- MW-11 NS ▲ DEEP MONITORING WELL LOCATION, IDENTIFICATION AND TOTAL HALOCARBONS CONCENTRATIONS
- 1.00' TOTAL HALOCARBONS CONTOURS
- NS NOT SAMPLED

TOTAL HALOCARBONS CONCENTRATIONS (mg/L)

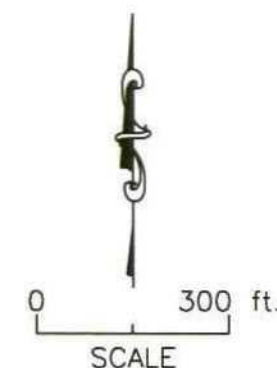
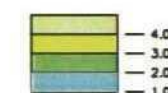
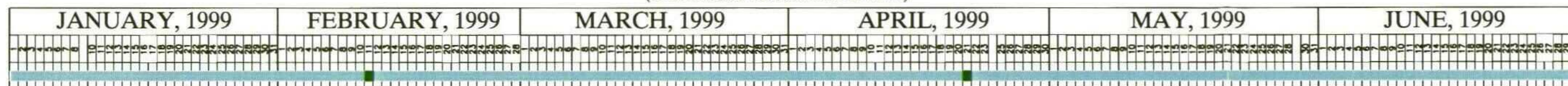


FIGURE 4
TOTAL HALOCARBONS
CONCENTRATION MAP
10/21/99

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

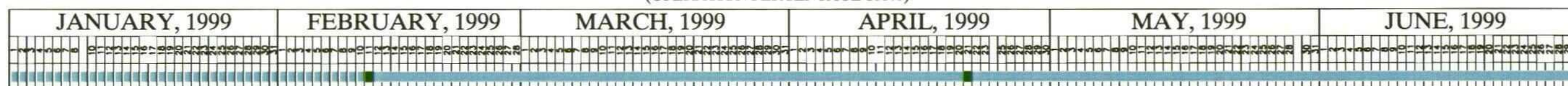
FORMER WASTE WATER LAGOON, UNIT 1

(OPERATION PERCENTAGE 100%)



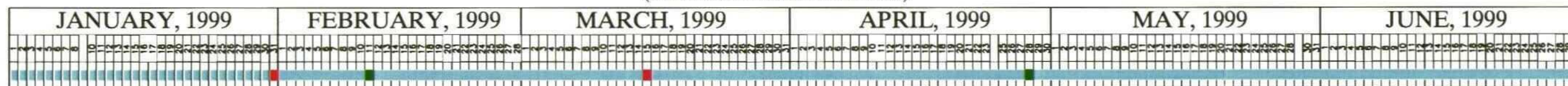
ACID DOCK, UNIT 2

(OPERATION PERCENTAGE 100%)



FORMER USTs, UNIT 3

(OPERATION PERCENTAGE 100%)



EXPLANATION

- UNIT IS RUNNING EXCEPT FOR BRIEF SHUTDOWNS FOR ROUTINE MAINTENANCE
- UNIT IS NOT OPERATING
- AIR SAMPLES COLLECTED

FIGURE 5

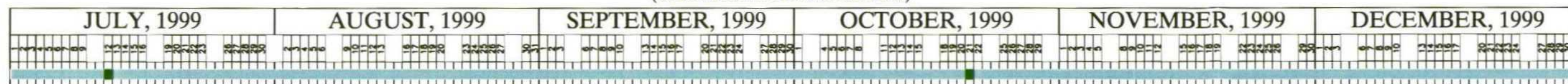
SVE OPERATION TIMELINE
01/01/99 THRU 06/30/99SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western
Water
Consultants, Inc.  WWC Engineering

Engineering Environmental Mining Water Resources

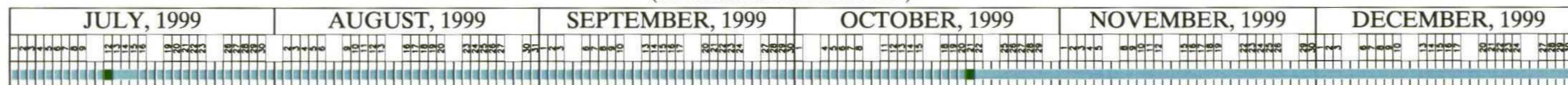
FORMER LAGOON, UNIT 1

(OPERATION PERCENTAGE 100%)



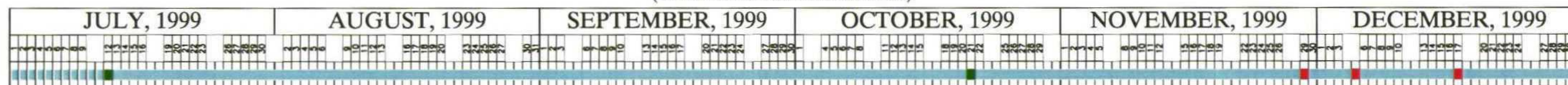
ACID PLANT, UNIT 2

(OPERATION PERCENTAGE 100%)



FORMER UST, UNIT 3

(OPERATION PERCENTAGE 100%)



EXPLANATION

-  UNIT IS RUNNING EXCEPT FOR BRIEF SHUTDOWNS FOR ROUTINE MAINTENANCE
-  UNIT IS NOT OPERATING
-  AIR SAMPLES COLLECTED

FIGURE 6

SVE OPERATION TIMELINE
07/01/99 THRU 10/31/99

SCHLUMBERGER OILFIELD SERVICES
HOBBS, NM

Western
Water
Consultants, Inc.  Engineering
Engineering Environmental Mining Water Resources

TABLES

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-1	3638.52	10/25/96	84	70.22	3568.30		13.78
		11/21/96		70.17	3568.35	0.05	13.83
		01/22/97		70.44	3568.08	-0.27	13.56
		05/22/97					
Abandoned							
MW-2	3637.26	10/25/96	85	70.03	3567.23		14.97
		11/21/96		70.03	3567.23	0.00	14.97
		01/22/97		70.26	3567.00	-0.23	14.74
		05/21/97		70.53	3566.73	-0.27	14.47
		07/28/97		70.69	3566.57	-0.16	14.31
		10/15/97		70.80	3566.46	-0.11	14.20
		01/05/98		71.05	3566.21	-0.25	13.95
		04/16/98		71.27	3565.99	-0.22	13.73
		07/16/98		71.61	3565.65	-0.34	13.39
		10/25/98		71.84	3565.42	-0.23	13.16
		02/10/99		72.02	3565.24	-0.18	12.98
		04/21/99		72.25	3565.01	-0.23	12.75
		07/13/99		72.50	3564.76	-0.25	12.50
		10/21/99		72.76	3564.50	-0.26	12.24
MW-3	3638.28	10/25/96	85	72.88	3565.40		12.12
		11/21/96		72.89	3565.39	-0.01	12.11
		01/22/97		73.10	3565.18	-0.21	11.90
		05/21/97		73.40	3564.88	-0.30	11.60
		07/28/97		73.54	3564.74	-0.14	11.46
		10/15/97		73.67	3564.61	-0.13	11.33
		01/05/98		73.92	3564.36	-0.25	11.08
		04/16/98		74.13	3564.15	-0.21	10.87
		07/16/98		74.46	3563.82	-0.33	10.54
		10/25/98		74.74	3563.54	-0.28	10.26
		02/10/99		75.00	3563.28	-0.26	10.00
		04/21/99		75.21	3563.07	-0.21	9.79
		07/13/99		75.50	3562.78	-0.29	9.50
		10/20/99		75.67	3562.61	-0.17	9.33
MW-4	3639.20	10/25/96	85	72.41	3566.79		12.59
		11/21/96		72.37	3566.83	0.04	12.63
		01/22/97		72.60	3566.60	-0.23	12.40
		05/21/97		72.87	3566.33	-0.27	12.13
		07/28/97		72.93	3566.27	-0.06	12.07
		10/15/97		73.03	3566.17	-0.10	11.97
		01/05/98		73.24	3565.96	-0.21	11.76
		04/16/98		73.67	3565.53	-0.43	11.33
		07/16/98		73.68	3565.52	-0.01	11.32
		10/25/98		74.21	3564.99	-0.53	10.79
		02/10/99		74.32	3564.88	-0.11	10.68
		04/21/99		74.58	3564.62	-0.26	10.42
		07/13/99		74.87	3564.33	-0.29	10.13
		10/21/99		75.08	3564.12	-0.21	9.92
MW-5	3637.70	01/22/97	85	71.90	3565.80		13.10
		05/21/97		72.21	3565.49	-0.31	12.79
		07/28/97		72.36	3565.34	-0.15	12.64
		10/15/97		72.44	3565.26	-0.08	12.56
		01/05/98		72.71	3564.99	-0.27	12.29
		04/16/98		72.92	3564.78	-0.21	12.08
		07/16/98		73.25	3564.45	-0.33	11.75
		10/25/98		73.53	3564.17	-0.28	11.47
		02/10/99		73.77	3563.93	-0.24	11.23
		04/21/99		73.98	3563.72	-0.21	11.02

Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-5 Cont.		07/13/99		74.15	3563.55	-0.17	10.85
		10/20/99		74.46	3563.24	-0.31	10.54
MW-6	3637.52	01/22/97	85	72.88	3564.64		12.12
		05/21/97		73.22	3564.30	-0.34	11.78
		07/28/97		73.44	3564.08	-0.22	11.56
		10/15/97		73.48	3564.04	-0.04	11.52
		01/05/98		73.72	3563.80	-0.24	11.28
		04/16/98		73.94	3563.58	-0.22	11.06
		07/16/98		74.26	3563.26	-0.32	10.74
		10/25/98		74.55	3562.97	-0.29	10.45
		02/10/99		74.78	3562.74	-0.23	10.22
		04/21/99		75.04	3562.48	-0.26	9.96
		07/13/99		75.22	3562.30	-0.18	9.78
		10/20/99		75.46	3562.06	-0.24	9.54
MW-7	3638.62	01/22/97	85	73.31	3565.31		11.69
		05/21/97		73.63	3564.99	-0.32	11.37
		07/28/97		73.80	3564.82	-0.17	11.20
		10/15/97		73.93	3564.69	-0.13	11.07
		01/05/98		74.17	3564.45	-0.24	10.83
		04/16/98		74.39	3564.23	-0.22	10.61
		07/16/98		74.71	3563.91	-0.32	10.29
		10/25/98		74.98	3563.64	-0.27	10.02
		02/10/99		75.22	3563.40	-0.24	9.78
		04/21/99		75.47	3563.15	-0.25	9.53
		07/13/99		75.68	3562.94	-0.21	9.32
		10/20/99		75.94	3562.68	-0.26	9.06
MW-8	3638.71	01/22/97	85	72.78	3565.93		12.22
		05/21/97		73.12	3565.59	-0.34	11.88
		07/28/97		73.31	3565.40	-0.19	11.69
		10/15/97		73.44	3565.27	-0.13	11.56
		01/05/98		73.63	3565.08	-0.19	11.37
		04/16/98		74.00	3564.71	-0.37	11.00
		07/16/98		74.21	3564.50	-0.21	10.79
		10/25/98		74.48	3564.23	-0.27	10.52
		02/10/99		74.72	3563.99	-0.24	10.28
		04/21/99		74.95	3563.76	-0.23	10.05
		07/13/99		75.19	3563.52	-0.24	9.81
		10/21/99		75.48	3563.23	-0.29	9.52
MW-9	3638.76	01/22/97	85	72.57	3566.19		12.43
		05/21/97		72.89	3565.87	-0.32	12.11
		07/28/97		73.08	3565.68	-0.19	11.92
		10/15/97		73.24	3565.52	-0.16	11.76
		01/05/98		73.47	3565.29	-0.23	11.53
		04/16/98		73.70	3565.06	-0.23	11.30
		07/16/98		73.99	3564.77	-0.29	11.01
		10/25/98		74.27	3564.49	-0.28	10.73
		02/10/99		74.52	3564.24	-0.25	10.48
		04/21/99		74.74	3564.02	-0.22	10.26
		07/13/99		74.98	3563.78	-0.24	10.02
		10/21/99		75.30	3563.46	-0.32	9.70
MW-10	3638.86	05/27/97	130.5	73.33	3565.53		57.17
		07/28/97		73.49	3565.37	-0.16	57.01
		10/15/97		73.61	3565.25	-0.12	56.89
		01/05/98		73.83	3565.03	-0.22	56.67
		04/16/98		74.08	3564.78	-0.25	56.42

**Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility,
Hobbs, New Mexico**

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-10 Cont.		07/16/98		74.38	3564.48	-0.30	56.12
		10/25/98		74.64	3564.22	-0.26	55.86
		02/10/99		74.92	3563.94	-0.28	55.58
		04/21/99		75.14	3563.72	-0.22	55.36
		07/13/99		75.31	3563.55	-0.17	55.19
		10/18/99		75.65	3563.21	-0.34	54.85
MW-11	3638.55	05/26/97	208	70.70	3567.85		137.30
		07/28/97		70.89	3567.66	-0.19	137.11
		10/15/97		70.85	3567.70	0.04	137.15
		01/05/98		71.21	3567.34	-0.36	136.79
		04/16/98		71.45	3567.10	-0.24	136.55
		07/16/98		71.76	3566.79	-0.31	136.24
		10/25/98		71.95	3566.60	-0.19	136.05
		02/10/99		72.22	3566.33	-0.27	135.78
		04/21/99		72.47	3566.08	-0.25	135.53
		07/13/99		72.74	3565.81	-0.27	135.26
		10/18/99		73.03	3565.52	-0.29	134.97
MW-12	3636.15	05/26/97	85	68.05	3568.10		16.95
		07/28/97		68.14	3568.01	-0.09	16.86
		10/15/97		68.24	3567.91	-0.10	16.76
		01/05/98		68.52	3567.63	-0.28	16.48
		04/16/98		68.78	3567.37	-0.26	16.22
		07/16/98		69.10	3567.05	-0.32	15.90
		10/25/98		69.26	3566.89	-0.16	15.74
		02/10/99		69.53	3566.62	-0.27	15.47
		04/21/99		69.76	3566.39	-0.23	15.24
		07/13/99		69.95	3566.20	-0.19	15.05
		10/18/99		70.29	3565.86	-0.34	14.71
MW-13	3635.39	05/21/97	84	72.31	3563.08		11.69
		07/28/97		72.39	3563.00	-0.08	11.61
		10/15/97		72.63	3562.76	-0.24	11.37
		01/05/98		72.79	3562.60	-0.16	11.21
		04/16/98		72.93	3562.46	-0.14	11.07
		07/16/98		73.32	3562.07	-0.39	10.68
		10/25/98		73.62	3561.77	-0.30	10.38
		02/10/99		73.88	3561.51	-0.26	10.12
		04/21/99		74.11	3561.28	-0.23	9.89
		07/12/99		74.17	3561.22	-0.06	9.83
		10/20/99		73.88	3561.51	0.29	10.12
MW-14	3637.19	05/21/97	85	74.86	3562.33		10.14
		07/28/97		75.06	3562.13	-0.20	9.94
		10/15/97		75.28	3561.91	-0.22	9.72
		01/05/98		75.44	3561.75	-0.16	9.56
		04/16/98		75.61	3561.58	-0.17	9.39
		07/16/98		75.98	3561.21	-0.37	9.02
		10/25/98		76.26	3560.93	-0.28	8.74
		02/10/99		76.57	3560.62	-0.31	8.43
		04/21/99		76.81	3560.38	-0.24	8.19
		07/12/99		77.08	3560.11	-0.27	7.92
		10/20/99		77.35	3559.84	-0.27	7.65
MW-15	3636.57	05/21/97	85	72.09	3564.48		12.91
		07/28/97		72.28	3564.29	-0.19	12.72
		10/15/97		72.52	3564.05	-0.24	12.48
		01/05/98		72.70	3563.87	-0.18	12.30
		04/16/98		72.87	3563.70	-0.17	12.13

**Table 1. Static Water Levels for the Schlumberger Oilfield Services Facility,
Hobbs, New Mexico**

Well Number	Top of Casing Elevations (ft)	Date Measured	Total Depth (ft)	Depth to Water (ft)	*Static Water Elevation (ft)	Difference From Prior Level (ft)	Water Column (ft)
MW-15 Cont.		07/16/98		73.24	3563.33	-0.37	11.76
		10/25/98		73.47	3563.10	-0.23	11.53
		02/10/99		73.76	3562.81	-0.29	11.24
		04/21/99		74.00	3562.57	-0.24	11.00
		07/12/99		74.27	3562.30	-0.27	10.73
		10/20/99		74.58	3561.99	-0.31	10.42
Shell Station MW-4	3637.69	05/25/97	82.6	75.97	3561.72		6.63
		07/28/97		76.15	3561.54	-0.18	6.45
		10/15/97		76.26	3561.43	-0.11	6.34
		01/05/98		76.52	3561.17	-0.26	6.08
		04/16/98		76.67	3561.02	-0.15	5.93
		07/16/98		78.03	3559.66	-1.36	4.57
		10/25/98		77.33	3560.36	0.70	5.27
		02/10/99		77.62	3560.07	-0.29	4.98
		04/21/99		77.48	3560.21	0.14	5.12
		07/12/99		78.08	3559.61	-0.60	4.52
		10/21/99		78.36	3559.33	-0.28	4.24

Note: Top of casing survey elevations are based on the "City of Hobbs Control Datum" and the North American Vertical Datum

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHA-LENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.000
abandoned	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.015
	01/22/97	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.008
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007	0.134	0.331
duplicate	10/25/96	0.266	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006	0.135	0.353
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008	0.193	0.648
	01/22/97	0.082	ND(0.005)	0.011	0.017	0.083	ND(0.005)	0.019	0.009	0.014	0.016	ND(0.005)	0.058	0.193
	05/23/97	0.039	ND(0.001)	0.007	0.014	0.057	ND(0.001)	0.009	0.004	0.003	0.005	0.001	0.021	0.117
	08/25/97	0.590	ND(0.002)	0.009	0.027	0.180	ND(0.002)	0.011	0.005	0.007	0.007	0.001	0.030	0.806
	07/28/97	0.031	ND(0.002)	0.004	0.011	0.097	ND(0.002)	0.004	0.001	0.001	0.001	ND(0.002)	0.007	0.143
	10/16/97	0.012	ND(0.002)	0.002	0.012	0.023	ND(0.002)	0.002	0.001	0.001	0.001	ND(0.002)	0.005	0.049
	01/06/98	0.023	ND(0.002)	0.002	0.007	0.043	ND(0.002)	0.004	0.002	0.001	0.001	ND(0.002)	0.008	0.075
duplicate	04/16/98	0.053	ND(0.002)	0.008	0.058	0.130	ND(0.002)	0.010	ND(0.002)	0.002	0.001	ND(0.002)	0.013	0.249
	04/16/98	0.058	ND(0.01)	0.008	0.064	0.142	ND(0.01)	0.010	ND(0.01)	ND(0.01)	0.010	ND(0.01)	0.010	0.272
	07/17/98	0.006	ND(0.002)	0.001	0.034	0.013	ND(0.002)	0.001	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.001	0.054
	10/27/98	0.020	ND(0.002)	0.003	0.018	0.011	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.002	0.052
	02/10/99	0.018	ND(0.001)	0.003	0.035	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.060
	02/10/99	0.016	ND(0.001)	0.003	0.034	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.057
	04/21/99	0.037	ND(0.001)	0.005	0.084	0.007	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.144
	07/13/99	0.011	ND(0.001)	0.002	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000	0.034
	10/21/99	0.006	ND(0.001)	0.001	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.028
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006	0.002	0.049
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.001	0.000	0.071
	01/22/97	0.027	ND(0.002)	0.010	0.016	0.014	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.067
	05/22/97	0.026	0.001	0.015	0.016	0.015	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	0.002	0.073
	07/28/97	0.033	0.002	0.012	0.012	0.008	ND(0.002)	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.005	0.003	0.067
	10/16/97	0.022	ND(0.002)	0.008	0.022	0.011	ND(0.002)	0.001	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.001	0.063
	01/06/98	0.023	ND(0.002)	0.023	0.026	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	0.103
	04/16/98	0.030	ND(0.002)	0.014	0.025	0.012	0.003	0.003	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.003	0.064
	07/17/98	0.034	ND(0.002)	0.015	0.026	0.013	0.003	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.091
	10/27/98	0.035	ND(0.002)	0.012	0.016	0.005	0.002	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.070
	10/20/99	0.025	ND(0.001)	0.023	0.020	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.002	ND(0.002)	ND(0.001)	0.004	0.068
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.000	4.294
duplicate	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	5.200
	01/22/97	0.089	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.902
	05/23/97	0.062	0.037	0.509	3.100	0.557	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	4.292
	08/25/97	0.047	0.022	0.423	1.720	0.550	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.777
	06/25/97	0.044	0.017	0.175	1.250	0.349	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.838
	07/28/97	0.037	0.015	0.124	1.060	0.267	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.750
	10/16/97	0.031	0.011	0.103	1.170	0.225	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.503
	01/06/98	0.021	ND(0.02)	0.087	0.970	0.148	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	0.024	0.000	1.226
	01/06/98	0.021	0.006	0.077	0.907	0.138	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.019	0.000	1.149
	04/16/98	0.019	ND(0.05)	0.116	0.651	0.114	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	0.900
duplicate	07/17/98	0.031	ND(0.01)	0.206	1.120	0.194	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.551
	07/17/98	0.031	ND(0.02)	0.240	0.843	0.216	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.330
	10/27/98	0.031	ND(0.05)	0.201	1.080	0.209	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)	0.000	1.521
	02/10/99	0.019	ND(0.01)	0.118	0.511	0.090	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.738
	04/21/99	0.031	ND(0.01)	0.151	0.375	0.186	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.223
	07/13/99	0.014	ND(0.01)	0.086	0.386	0.058	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.539
duplicate	07/13/99	0.015	0.004	0.084	0.350	0.055	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.508
	10/21/99	0.059	0.027	0.149	0.977	0.155	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.367
MW-5	01/23/97	0.180	0.002	0.020	0.012	0.036	0.001	0.018	0.004	ND(0.001)	0.001	ND(0.001)	0.023	0.251
duplicate	01/23/97	0.190	0.002	0.018	0.009	0.034	0.001	0.018	0.004	ND(0.001)	0.001	ND(0.001)	0.023	0.254
	05/23/97	0.191	0.003	0.055	0.079	0.059	0.002	0.029	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.029	0.369
	07/28/97	0.241	0.004	0.072	0.058	0.051	0.002	0.051	0.023	ND(0.002)	0.007	0.009	0.081	0.428
duplicate	07/28/97	0.258	0.004	0.072	0.052	0.050	ND(0.005)	0.052	0.023	ND(0.005)	0.007	0.011	0.082	0.433

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCF (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-5 Cont.	10/16/97	0.214	0.004	0.066	0.070	0.039	ND(0.01)	0.059	0.027	ND(0.01)	0.008	0.011	0.094	0.393
	01/06/98	0.215	0.004	0.080	0.055	0.029	ND(0.01)	0.048	0.016	ND(0.01)	0.006	0.005	0.070	0.363
	04/16/98	0.136	0.002	0.033	0.031	0.008	ND(0.005)	0.034	0.011	ND(0.005)	ND(0.01)	0.009	0.045	0.210
	07/17/98	0.106	0.002	0.023	0.029	0.007	0.002	0.025	0.007	ND(0.002)	0.001	0.005	0.033	0.169
	10/27/98	0.080	ND(0.01)	0.042	0.033	0.016	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	0.171
duplicate	10/27/98	0.053	ND(0.002)	0.011	0.011	0.002	ND(0.002)	0.011	0.002	ND(0.002)	ND(0.004)	0.002	0.013	0.077
	10/20/99	0.113	ND(0.0025)	0.022	0.005	ND(0.0025)	ND(0.0025)	0.027	0.009	ND(0.0025)	ND(0.005)	ND(0.0025)	0.038	0.140
MW-6	01/23/97	0.041	0.001	0.004	0.003	0.004	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.001	0.001	0.053
	05/22/97	0.085	0.002	0.034	0.023	0.017	0.002	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.002	0.004	0.163
	07/28/97	0.081	0.002	0.027	0.021	0.008	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.004	0.003	0.141
	10/16/97	0.082	0.002	0.025	0.019	0.006	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.136
	01/06/98	0.113	0.003	0.038	0.024	0.012	0.002	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.003	0.192
	04/16/98	0.088	0.003	0.027	0.017	0.008	0.002	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.003	0.002	0.145
	07/17/98	0.091	0.004	0.051	0.032	0.022	0.002	0.002	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	0.002	0.202
	10/26/98	0.055	ND(0.01)	0.011	0.011	ND(0.01)	0.003	0.011	0.002	ND(0.01)	ND(0.02)	0.002	0.013	0.077
	02/10/99	0.113	0.005	0.056	0.039	0.016	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.232
	04/21/99	0.133	0.006	0.081	0.047	0.023	0.003	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.273
	07/13/99	0.108	0.004	0.088	0.062	0.021	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.263
	10/20/99	0.066	0.003	0.058	0.046	0.032	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.002	ND(0.005)	ND(0.0025)	0.002	0.205
MW-7	01/23/97	0.047	0.001	0.009	0.014	ND(0.001)	0.004	0.001	ND(0.001)	ND(0.001)	0.001	0.013	0.002	0.075
	05/22/97	0.087	0.002	0.066	0.116	0.002	0.014	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.062	0.003	0.287
	06/25/97	0.077	0.002	0.081	0.073	ND(0.002)	0.021	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.055	0.004	0.267
	10/16/97	0.065	ND(0.005)	0.050	0.091	ND(0.005)	0.018	0.003	ND(0.005)	ND(0.005)	ND(0.01)	0.058	0.003	0.224
	01/06/98	0.076	ND(0.005)	0.054	0.111	ND(0.005)	0.018	0.003	ND(0.005)	ND(0.005)	ND(0.01)	0.048	0.003	0.259
	04/16/98	0.055	ND(0.005)	0.035	0.078	ND(0.005)	0.020	0.003	ND(0.005)	ND(0.005)	ND(0.01)	0.040	0.003	0.188
	07/17/98	0.085	ND(0.005)	0.038	0.085	ND(0.005)	0.024	0.003	ND(0.005)	ND(0.005)	ND(0.01)	0.010	0.003	0.200
	10/26/98	0.047	ND(0.005)	0.030	0.073	ND(0.005)	0.019	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	0.014	0.000	0.169
	02/10/99	0.050	ND(0.001)	0.032	0.066	0.002	0.014	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.006	0.002	0.164
	04/21/99	0.047	ND(0.001)	0.029	0.071	0.002	0.011	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.160
	07/13/99	0.034	ND(0.001)	0.027	0.066	ND(0.001)	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.134
	10/20/99	0.046	ND(0.001)	0.035	0.081	ND(0.001)	0.006	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	0.002	0.168
MW-8	01/23/97	0.068	0.005	0.280	0.810	0.480	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.823
	05/22/97	0.082	ND(0.01)	1.380	4.150	0.805	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	6.397
	06/25/97	0.077	ND(0.02)	0.975	3.600	0.774	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	5.426
	07/28/97	ND(0.1)	ND(0.1)	1.120	4.520	0.798	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	6.438
	10/16/97	ND(0.2)	ND(0.2)	0.858	4.570	0.596	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	0.000	6.024
	01/06/98	ND(0.2)	ND(0.2)	1.230	4.650	0.798	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	0.166	0.000	6.678
	04/16/98	ND(0.2)	ND(0.2)	1.050	4.620	0.658	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	0.142	0.000	6.328
	07/17/98	ND(0.2)	ND(0.2)	1.200	5.080	0.740	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	7.030
	10/27/98	0.060	ND(0.2)	0.780	4.160	0.522	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	0.000	5.522
	02/10/99	0.083	ND(0.025)	0.936	3.870	0.569	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.458
	04/21/99	0.080	ND(0.025)	0.808	3.900	0.600	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	5.388
	07/13/99	0.058	ND(0.025)	0.634	2.970	0.341	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.003
	10/21/99	0.081	ND(0.025)	0.857	3.610	0.447	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	0.000	4.995
MW-9	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/22/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489
	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	0.019	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.561
	01/06/98	0.023	ND(0.02)	0.321	1.160	0.141	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.845
	04/16/98	0.033	ND(0.1)	0.502	1.350	0.174	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	0.000	2.059
	07/17/98	0.042	ND(0.05)	0.444	1.290	0.144	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.1)	ND(0.05)	0.000	1.907
	10/27/98	0.030	ND(0.1)	0.507	1.770	0.242	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.744
	02/10/99	0.031	ND(0.01)	0.487	1.400	0.193	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2)	ND(0.1)	0.000	2.470
	04/21/99	0.026	ND(0.01)	0.368	1.320	0.159	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.077
	07/13/99	0.021	ND(0.01)	0.353	1.100	0.161	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.875
	10/21/99	0.018	ND(0.01)	0.261	1.090	0.085	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	1.584
													0.000	1.454
duplicate	01/23/97	0.011	ND(0.001)	0.063	0.090	0.045	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.209
	05/22/97	0.026	ND(0.01)	0.322	1.550	0.147	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	0.000	2.045
	06/25/97	0.033	ND(0.02)	0.326	1.130	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.489
	07/28/97	0.021	ND(0.02)	0.278	1.020	0.121	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.440
	10/16/97	0.019	ND(0.02)	0.278	1.160	0.104	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)	0.000	1.561

Table 2. Chemicals Detected in Ground-Water Samples, Schlumberger Oilfield Services Facility, Hobbs, New Mexico

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	1,1,1-TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENES (mg/L)	NAPHTHALENE (mg/L)	TOTAL BTEX (mg/L)	TOTAL HALOCARBONS (mg/L)
MW-15	05/25/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/28/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/18/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/08/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	01/08/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	04/16/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	07/17/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	10/28/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
	02/10/99	ND(0.0005)	ND(0.0005)	<0.001	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	02/10/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.000	0.000
*SO4	04/21/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	0.000	0.000
	07/12/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	0.001	0.000
	10/20/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.002)	ND(0.001)	0.001	0.000
	05/25/97	0.021	ND(0.001)	0.024	ND(0.001)	0.005	ND(0.001)	ND(0.001)	0.489	0.470	1.936	0.107	2.875	0.050
	07/28/97	0.020	ND(0.002)	0.020	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.411	0.138	0.905	0.125	1.454	0.040
	10/18/97	0.018	ND(0.002)	0.022	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.322	0.039	0.713	0.102	1.074	0.040
	01/08/98	0.051	ND(0.002)	0.075	0.004	0.014	ND(0.002)	0.002	0.042	0.001	0.019	0.024	0.064	0.144
	04/16/98	0.049	ND(0.005)	0.087	0.005	0.015	ND(0.005)	0.002	0.008	ND(0.005)	ND(0.001)	0.024	0.010	0.156
	07/17/98	0.038	ND(0.005)	0.075	0.005	0.015	ND(0.005)	ND(0.005)	0.016	ND(0.005)	ND(0.001)	0.028	0.016	0.133
	10/28/98	0.010	ND(0.002)	0.024	0.002	0.005	ND(0.002)	ND(0.002)	0.003	ND(0.002)	ND(0.004)	0.004	0.003	0.041
duplicate	02/10/99	0.025	ND(0.001)	0.079	0.005	0.016	ND(0.001)	0.001	0.013	ND(0.001)	ND(0.002)	0.013	0.014	0.125
	04/21/99	0.025	ND(0.001)	0.089	0.006	0.028	ND(0.001)	ND(0.001)	0.006	ND(0.001)	ND(0.002)	0.004	0.006	0.146
	07/12/99	0.021	ND(0.0025)	0.096	0.008	0.021	ND(0.0025)	ND(0.0025)	0.003	ND(0.0025)	ND(0.005)	ND(0.0025)	0.003	0.146
	10/21/99	0.025	ND(0.0025)	0.073	0.005	0.012	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	0.000	0.115

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.

ND - Not Detected at detection limit shown in parentheses.

italicized value - is below the method detection limit

< - analyte detected above the method detection limit but table is reported only to 1 part per billion

*SO4 = Shell Service Station monitoring well MW-4

1,1-DCA - 1,1-Dichloroethane

1,2-DCA - 1,2-Dichloroethane

1,1-DCE - 1,1-Dichloroethene

PCE - Tetrachloroethane

TCA - 1,1,1-Trichloroethane

TCE - Trichloroethene

TABLE 3. SVE System Air Sample Data from the Schlumberger Oilfield Services Facility, Hobbs, New Mexico.

FORMER WASTEWATER COLLECTION AREA													
Sample I.D.	Date Sampled	Sample Location	Benzene (mg/m ³)	Toluene (mg/m ³)	Ethyl-Benzene (mg/m ³)	Total Xylene (mg/m ³)	1,1-DCE (mg/m ³)	1,1-DCA (mg/m ³)	Chloromethane (mg/m ³)	1,1,1-TCA (mg/m ³)	Vinyl Chloride (mg/m ³)	TCE (mg/m ³)	PCE (mg/m ³)
007-AREA 1	11/02/94	Pilot	ND(0.1)	1	0.35	29.80	0.487			20.7	ND(0.2)	1.23	36.5
Unit 1 (7/95) Input	07/13/95	Input	28	256	30.6	111.2	46.2	48.3	ND(0.2)	450	ND(0.2)	1.23	135
Unit 1 (7/95) Exhaust	07/13/95	Exhaust	0.83	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Unit 1 (8/95) Input	08/12/95	Input	18.3	46.4	20	51.4	23.9	35.2	ND(0.2)	216.6	ND(0.2)	1.3	19
Unit 1 (8/95) Exhaust	08/12/95	Exhaust	1.9	ND(0.2)	ND(0.2)	ND(0.2)	5	ND(0.2)	12.8	ND(0.2)	35.7	ND(0.2)	3.7
Unit 1 Input 9/95-1	09/07/95	Input	19.1	118.3	16.6	91.2	56.7	34.8	ND(0.2)	283	ND(0.2)	2.73	111.8
Unit 1 Input 9/95-2	09/07/95	Exhaust	6.5	2.9	0.6	3.4	ND(0.2)	ND(0.2)	6.8	ND(0.2)	8.6	ND(0.2)	6
Unit 1 Output 9/95-2	09/07/95	Exhaust 2	1.3	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Unit 1 Int	11/29/95	Before Cat	1.01	ND(0.43)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Unit 1 Output	04/11/96	After Cat	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	15.3	ND(0.2)	ND(0.2)	ND(0.2)	1.01
93007-WatPDP-Input	04/11/96	Input	ND(0.2)	114	19.1	81.5	9.7	11.4	ND(0.2)	116	ND(0.2)	ND(0.2)	120
93007-WatPDP-Exh. 4/96	04/11/96	Exhaust	1	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	4.1	ND(0.2)	1.2	ND(0.2)	0.5
93007-WP-INP-UT 7/96	07/23/96	Input	2.8	49.5	2.6	11.2	6.9	6.1	ND(0.5)	64.6	ND(0.5)	0.4	17.9
93007-WP-EXHST 7/96	07/23/96	Exhaust	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	2.4	ND(0.3)	0.7	ND(0.3)	0.6
WP-INPUT-10/96	10/24/96	Input	2.07	44	12.1	77.1	4.9	ND(0.2)	ND(0.2)	74.4	ND(0.2)	1.02	51.9
WP-OUTPUT-10/96	10/24/96	Exhaust	1.02	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	3.02	ND(0.2)	2.97	ND(0.2)	0.832
93-007-WP-INP-5/97	05/13/97	Input	5.7	95.5	19.7	109.4	9.1	10.2	ND(5.0)	74.1	ND(5.0)	ND(5.0)	66.3
93007-WP-10/97	10/14/97	Input	10.6	90.2	26.4	150.4	5.4	9.05	ND(5.0)	125	ND(5.0)	ND(5.0)	81
93007-WP-1/98	01/06/98	Input	8.92	58	19.2	103.3	4.86	8.54	ND(2.0)	125	ND(2.0)	ND(2.0)	68.4
93007-WP-4/98	04/28/98	Input	10.9	73.6	20.7	114.6	7.2	12.6	ND(5.0)	228	ND(5.0)	ND(5.0)	117
93007-WP-7/98	07/16/98	Input	8.40J	66.5	19.5	116.3	ND(0.10)	7.80J	ND(10.0)	175	ND(10.0)	ND(10.0)	105
93007-WP-10/98	10/28/98	Input	6.38	62.8	18	80.1	ND(2.5)	4.35	ND(2.5)	78.1	ND(2.5)	ND(2.5)	50.5
93007-WP-11/98	11/12/98	Input	7.0J	80.9	34.6	249	ND(10.0)	ND(10.0)	ND(10.0)	72.7	ND(10.0)	ND(10.0)	121
93007-WP-2/99	02/10/99	Input	4.35	68.8	42.8	270	ND(2.5)	ND(2.5)	ND(2.5)	43.9	ND(2.5)	ND(2.5)	87.3
93007-WP-4/99	04/21/99	Input	2.2J	39.2	19.2	114.3	ND(2.5)	ND(2.5)	ND(2.5)	28.1	ND(2.5)	ND(2.5)	51.6
93007-WP-7/99	07/12/99	Input	ND(2.5)	33.1	14.8	88.2	ND(2.5)	ND(2.5)	ND(2.5)	14.5	ND(2.5)	ND(2.5)	40
93007-WP-10/99	10/21/99	Input	ND(2.5)	22.9	11.7	67.3	ND(2.5)	ND(2.5)	ND(2.5)	9.35	ND(2.5)	ND(2.5)	34.9
													101.9
													132.22
													1.02
													6.822
													230.3
													277.6
													220.45
													206.8
													384.8
													280
													132.95
													193.7
													131.2
													385.95
													172.7
													54.5
													44.25

ACID PLANT													
Sample I.D.	Date Sampled	Sample Location	Benzene (mg/m ³)	Toluene (mg/m ³)	Ethyl-Benzene (mg/m ³)	Total Xylene (mg/m ³)	1,1-DCE (mg/m ³)	1,1-DCA (mg/m ³)	Chloromethane (mg/m ³)	1,1,1-TCA (mg/m ³)	Vinyl Chloride (mg/m ³)	TCE (mg/m ³)	PCE (mg/m ³)
007-AREA 2	11/02/94	Pilot	4.5	23.2	11.4	46.18	4.4	12.2		88.5	ND(0.2)	ND(0.2)	30.5
Unit 2 (7/95) Input	07/13/95	Input	3.13	27.2	12.9	46.18	1.52	1.53	ND(0.2)	3.39	ND(0.2)	ND(0.2)	6.91
Unit 2 (7/95) Exhaust	07/13/95	Exhaust	ND(0.2)	0.26	ND(0.2)	1.5	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Unit 2 (8/95) Input	08/12/95	Input	1.42	24.8	10.4	48.5	5.1	1.6	ND(0.2)	7	ND(0.2)	ND(0.2)	8.9
Unit 2 (8/95) Exhaust	08/12/95	Exhaust	ND(0.2)	0.5	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Unit 2 Output 9/95	09/07/95	Exhaust	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
93007-ACDKINPT 4/96	04/11/96	Input	0.7	17.7	5.6	30.3	1.9	0.6	ND(0.2)	5.5	ND(0.2)	0.3	19
93007-ACDKExh. 4/96	04/11/96	Exhaust	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
93007ADINP-UT 7/96	07/23/96	Input	ND(0.3)	1	ND(0.3)	1.1	0.8	ND(0.3)	ND(0.5)	0.9	ND(0.5)	ND(0.3)	1.6
93007ADEXHST 7/96	07/23/96	Exhaust	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.3)	ND(0.3)
AD-INPUT-10/96	10/24/96	Input	0.61	4.51	0.88	5.62	1.69	0.55	ND(0.2)	1.48	ND(0.2)	ND(0.2)	3.33
AD-OUTPUT-10/96	10/24/96	Exhaust	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	0.477	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
93007-AD-INP-1/97	01/21/97	Input	ND(1.0)	5.67	ND(1.0)	2.38	ND(1.0)	ND(1.0)	ND(1.0)	1.34	ND(1.0)	ND(1.0)	8.86
93007-AD-EXH-1/97	01/21/97	Exhaust	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
93-007-AD-INP-5/97	05/13/97	Input	ND(1.0)	4.06	ND(1.0)	3.88	2.19	ND(1.0)	ND(1.0)	2.09	ND(1.0)	ND(1.0)	10.3
93007-AD-10/97	10/14/97	Input	ND(1.0)	1.31	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	3.98	ND(1.0)	ND(1.0)	1.74
93007-AD-1/98	01/06/98	Input	ND(1.0)	6.4	2.46	16.36	ND(1.0)	ND(1.0)	ND(1.0)	0.56J	ND(1.0)	ND(1.0)	1.4
93007-AD-4/98	04/28/98	Input	ND(1.0)	ND(1.0)	ND(1.0)	0.75J	ND(1.0)	ND(1.0)	ND(1.0)	0.69J	ND(1.0)	ND(1.0)	2.26
93007-AD-7/98	07/16/98	Input	ND(1.0)	2.08	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	ND(1.0)	0.77J	ND(1.0)	ND(1.0)	0
93007-AD-11/98	11/12/98	Input	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	0
93007-AD-2/99	02/10/99	Input	ND(0.5)	2.38	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1.0)	ND(0.5)	ND(0.5)	0.63
93007-AD-4/99	04/21/99	Input	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	0
93007-AD-7/99	07/12/99	Input	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0
93007-AD-10/99	10/21/99	Input	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1.0)	ND(0.5)	ND(0.5)	0
													0
													0
													0.477
													0
													0
													14.58
													1.74
													11.27
													0
													2.38
													0
													0
													0

TABLE 3. SVE System Air Sample Data from the Schlumberger Oilfield Services Facility, Hobbs, New Mexico.

FORMER UST

Sample I.D.	Date Sampled	Sample Location	Benzene (mg/m ³)	Toluene (mg/m ³)	Ethyl-Benzene (mg/m ³)	Total Xylene (mg/m ³)	1,1-DCE (mg/m ³)	1,1-DCA (mg/m ³)	Chloromethane (mg/m ³)	1,1,1-TCA (mg/m ³)	Vinyl Chloride (mg/m ³)	TCE (mg/m ³)	PCE (mg/m ³)	Input BTEX (mg/m ³)	Output BTEX (mg/m ³)	Input Halocarbons (mg/m ³)	Output Halocarbons (mg/m ³)
007-AREA 3	11/02/94	Pilot	1.2	5.7	5.5		ND(0.1)	ND(0.1)		ND(0.1)			0.49				
Unit 3 (7/95) Input	7/13/95	Input	2.08	5.95	1.17	6.64	281	10.9	ND(0.2)	215	ND(0.2)	2.68	870	15.84		1379.58	
Unit 3 (7/95) Exhaust		Exhaust	2.89	1.41	0.72	7.88	0.27	ND(0.2)	17.2	ND(0.2)	0.87	ND(0.2)	2.76		12.9		21.1
Unit 3 (8/95) Input	8/12/95	Input	0.4	1.9	0.9	4.9	506	15.6	ND(0.2)	579	ND(0.2)	2.1	636	8.1		1738.7	
Unit 3 (8/95) Exhaust		Exhaust	4.9	ND(0.2)	ND(0.2)	ND(0.2)	2.8	ND(0.2)	48	ND(0.2)	35	0.8	21.5		4.9		108.1
Unit 3 Input 9/95-1	09/07/95	Input	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	593.4	13.3	ND(0.2)	492	ND(0.2)	2	444.4	0		1545.1	
Unit 3 Output 9/95-1		Exhaust	1.1	0.5	ND(0.2)	ND(0.2)	56.2	ND(0.2)	ND(0.2)	31.9	ND(0.2)	0.9	81.4		1.6		170.4
Unit 3 Int	11/29/95	Before Cat	1.01	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	13	ND(0.2)	ND(0.2)	35.6	ND(0.2)	9.7	1.01		58.3	
Unit 3 Output		After Cat	1.01	ND(0.2)	ND(0.2)	ND(0.2)	3.21	ND(0.2)	13	ND(0.2)	10.5	ND(0.2)	14.5		1.01		41.21
93007-TKShpInpt	04/11/96	Input	ND(0.2)	0.9	0.5	3.4	99.4	ND(0.2)	ND(0.2)	254	ND(0.2)	1	611	4.8		965.4	
93007-TKShpExh	4/96	Exhaust	0.6	ND(0.2)	ND(0.2)	ND(0.2)	0.9	ND(0.2)	10.1	ND(0.2)	6.8	0.4	8.5		0.6		26.7
93007-TSINP	7/96	Input	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)	47.1	4.8	ND(0.5)	ND(0.3)	ND(0.5)	0.5	46.2	0		98.6	
93007-TSEXHST	7/96	Exhaust	0.4	ND(0.3)	ND(0.3)	ND(0.3)	1.3	ND(0.3)	6.6	ND(0.3)	2.2	ND(0.3)	2.8		0.4		12.9
UST-INPUT-10/96	10/24/96	Input	0.35	0.35	0.24	1.01	57.6	4.37	ND(0.2)	97.7	ND(0.2)	ND(0.2)	179	1.95		338.67	
UST-OUTPUT-10/96		Exhaust	4.83	ND(0.2)	ND(0.2)	ND(0.4)	ND(0.2)	ND(0.2)	4.66	ND(0.2)	2.59	ND(0.2)	1.62		4.83		8.87
93007-UST-INP-1/97	1/21/97	Input	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	30	2.8	ND(1.0)	63.3	ND(1.0)	0.58J	205	0		301.1	
93007-UST-EXH-1/97		Exhaust	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	2.5	ND(1.0)	ND(1.0)	ND(1.0)	6.19	0	0		8.69
93-007-UST-INP-5/97	05/13/97	Input	ND(25.0)	ND(25.0)	ND(25.0)	ND(25.0)	21.3J	ND(25.0)	ND(25.0)	41.8	ND(25.0)	ND(25.0)	155	0		196.8	
93007-UST-1/98	01/06/98	Input	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	3.85J	ND(5.0)	ND(5.0)	8.25	ND(5.0)	ND(5.0)	102	0		110.25	
93007-UST-4/98	04/28/98	Input	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	2.15J	ND(5.0)	ND(5.0)	4.15J	ND(5.0)	ND(5.0)	121	0		121	
93007-UST-10/98	10/28/98	Input	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	2.80J	ND(5.0)	ND(5.0)	104	0		104	
93007-UST-2/99	02/11/99	Input	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	46.8	0		46.8	
93007-UST-4/99	04/21/99	Input	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	37.9	0		37.9	
93007-UST-7/99	07/12/99	Input	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	36.6	0		36.6	
93007-UST-10/99	10/21/99	Input	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	37	0		37	

Notes: mg/m³ = milligrams per cubic meter

DCA=Dichloroethane

ND=Not Detected at detection limit shown in parentheses.

DCE= Dichloroethene

APPENDIX A

Laboratory Analytical Reports



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-2.10/99
Laboratory ID: 99-33915-14
Matrix: Water
Dilution Factor: 2

mw-2

Date Sampled: 10-21-99
Time Sampled: 09:00
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	1.10	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	6.36	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	20.5	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO
33915R00027



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-2.10/99
Laboratory ID: 99-33915-14

mw-2

Date Sampled: 10-21-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1269173	1384143	91.7%	50 - 200 %
Fluorobenzene	2055851	2174935	94.5%	50 - 200 %
1,4 - Difluorobenzene	1920384	2041118	94.1%	50 - 200 %
Chlorobenzene - d5	1294309	1369298	94.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	456272	507400	89.9%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.79	97.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.98	99.8%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



Billings • Casper • Gillette
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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-3.10/99
Laboratory ID: 99-33915-10
Matrix: Water
Dilution Factor: 2

mw-3

Date Sampled: 10-20-99
Time Sampled: 16:50
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	22.7	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	25.0	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	1.14	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	4.06	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	1.46	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	2.04	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	20.3	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE

33915R0001



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-3.10/99
Laboratory ID: 99-33915-10

mw-3

Date Sampled: 10-20-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	REPORT
		(µg/L)	LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1317582	1384143	95.2%	50 - 200 %
Fluorobenzene	2009392	2174935	92.4%	50 - 200 %
1,4 - Difluorobenzene	1864952	2041118	91.4%	50 - 200 %
Chlorobenzene - d5	1255385	1369298	91.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	442669	507400	87.2%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.2	102%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.76	97.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.96	99.6%	80 - 120 %

METHODS USED IN THIS ANALYSIS:
EPA 5030B, EPA 8260B

see: r:\reports\clients\99\western_water_consultants\casper_org\33915-1-18_8260_w.xls

Analyst: wen

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33915R00021



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-4.10/99
Laboratory ID: 99-33915-15
Matrix: Water
Dilution Factor: 20

Date Sampled: 10-21-99
Time Sampled: 09:20
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	1,1 - Dichloroethene	149	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	1,1 - Dichloroethane	58.8	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	26.8	10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	1,1,1 - Trichloroethane	155	10.0
107-06-2	1,2 - Dichloroethane	27.0	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	21.8	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	Tetrachloroethene	977	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

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33915R00029



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-4.10/99
Laboratory ID: 99-33915-15

mw-A

Date Sampled: 10-21-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1245348	1384143	90.0%	50 - 200 %
Fluorobenzene	2063696	2174935	94.9%	50 - 200 %
1,4 - Difluorobenzene	1944027	2041118	95.2%	50 - 200 %
Chlorobenzene - d5	1323183	1369298	96.6%	50 - 200 %
1,4 - Dichlorobenzene - d4	460625	507400	90.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.99	99.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.99	99.9%	80 - 120 %

METHODS USED IN THIS ANALYSIS:
EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-5.10/99
Laboratory ID: 99-33915-12
Matrix: Water
Dilution Factor: 5

Date Sampled: 10-20-99
Time Sampled: 17:50
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

mw-5

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	2.85	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	21.5	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	113	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	6.60	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	ND	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	1,1,1 - Trichloroethane	ND	2.5
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	26.9	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	4.90	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	8.45	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

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33915R00021



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-5.10/99
Laboratory ID: 99-33915-12

mw-5

Date Sampled: 10-20-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1257427	1384143	90.8 %	50 - 200 %
Fluorobenzene	2016449	2174935	92.7 %	50 - 200 %
1,4 - Difluorobenzene	1896832	2041118	92.9 %	50 - 200 %
Chlorobenzene - d5	1297970	1369298	94.8 %	50 - 200 %
1,4 - Dichlorobenzene - d4	455168	507400	89.7 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104 %	86 - 118 %
Toluene - d8	10.1	101 %	88 - 110 %
4 - Bromofluorobenzene	9.88	98.8 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-6.10/99
Laboratory ID: 99-33915-11
Matrix: Water
Dilution Factor: 5

mw-b

Date Sampled: 10-20-99
Time Sampled: 17:20
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	58.3	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	66.2	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	10.0	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	1,1,1 - Trichloroethane	31.8	2.5
107-06-2	1,2 - Dichloroethane	2.85	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	2.25	J 2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	46.3	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

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33915R0002



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-6.10/99
Laboratory ID: 99-33915-11

mw-6

Date Sampled: 10-20-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1323274	1384143	95.6%	50 - 200 %
Fluorobenzene	2117131	2174935	97.3%	50 - 200 %
1,4 - Difluorobenzene	1981568	2041118	97.1%	50 - 200 %
Chlorobenzene - d5	1324926	1369298	96.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	465797	507400	91.8%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	9.93	99.3%	88 - 110 %
4 - Bromofluorobenzene	9.66	96.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-7.10/99
Laboratory ID: 99-33915-9
Matrix: Water
Dilution Factor: 2

mw-7

Date Sampled: 10-20-99
Time Sampled: 16:20
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	34.8	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	45.6	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	1.22	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	6.44	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	1.56	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	80.9	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE

33915R0001



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-7.10/99
Laboratory ID: 99-33915-9

mw-7

Date Sampled: 10-20-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1308768	1384143	94.6 %	50 - 200 %
Fluorobenzene	2115258	2174935	97.3 %	50 - 200 %
1,4 - Difluorobenzene	1966700	2041118	96.4 %	50 - 200 %
Chlorobenzene - d5	1358831	1369298	99.2 %	50 - 200 %
1,4 - Dichlorobenzene - d4	476072	507400	93.8 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103 %	86 - 118 %
Toluene - d8	10.3	103 %	88 - 110 %
4 - Bromofluorobenzene	9.88	98.8 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

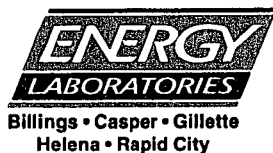
EPA 5030B, EPA 8260B

sec: r:\reports\clients\99\western_water_consultants\casper_org\33915-1-18_8260_w.xls

Analyst: wen

TRACKING NO. PAGE 1

33915R0001

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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-8.10/99
Laboratory ID: 99-33915-17
Matrix: Water
Dilution Factor: 50

Date Sampled: 10-21-99
Time Sampled: 10:25
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

mw-8

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	25.0
74-87-3	Chloromethane	ND	25.0
75-01-4	Vinyl chloride (Chloroethene)	ND	25.0
74-83-9	Bromomethane	ND	25.0
75-00-3	Chloroethane	ND	25.0
75-69-4	Trichlorofluoromethane	ND	25.0
75-35-4	1,1 - Dichloroethene	857	25.0
75-09-2	Methylene chloride (Dichloromethane)	ND	25.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	25.0
75-34-3	1,1 - Dichloroethane	81.0	25.0
78-93-3	2 -Butanone (MEK)	ND	500
156-59-2	cis - 1,2 - Dichloroethene	ND	25.0
74-97-5	Bromochloromethane	ND	25.0
67-66-3	Chloroform (Trichloromethane)	ND	25.0
594-20-7	2,2 - Dichloropropane	ND	25.0
71-55-6	1,1,1 - Trichloroethane	447	25.0
107-06-2	1,2 - Dichloroethane	ND	25.0
563-58-6	1,1 - Dichloropropene	ND	25.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	25.0
71-43-2	Benzene	ND	25.0
74-95-3	Dibromomethane	ND	25.0
78-87-5	1,2 - Dichloropropane	ND	25.0
79-01-6	Trichloroethene	ND	25.0
75-27-4	Bromodichloromethane	ND	25.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	25.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	25.0
79-00-5	1,1,2 - Trichloroethane	ND	25.0
108-88-3	Toluene	ND	25.0
106-93-4	1,2 - Dibromoethane	ND	25.0
142-28-9	1,3 - Dichloropropane	ND	25.0
124-48-1	Dibromochloromethane	ND	25.0
127-18-4	Tetrachloroethene	3,610	25.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	25.0
108-90-7	Chlorobenzene	ND	25.0
100-41-4	Ethylbenzene	ND	25.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	50.0
75-25-2	Bromoform (Tribromomethane)	ND	25.0
100-42-5	Styrene (Ethenylbenzene)	ND	25.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	25.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	25.0
96-18-4	1,2,3 - Trichloropropane	ND	25.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE N

33915R0003



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-8.10/99
Laboratory ID: 99-33915-17

mw-8

Date Sampled: 10-21-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	25.0
108-86-1	Bromobenzene	ND	25.0
103-65-1	n - Propylbenzene	ND	25.0
95-49-8	2 - Chlorotoluene	ND	25.0
106-43-4	4 - Chlorotoluene	ND	25.0
108-67-8	1,3,5 - Trimethylbenzene	ND	25.0
98-06-6	tert - Butylbenzene	ND	25.0
95-63-6	1,2,4 - Trimethylbenzene	ND	25.0
135-98-8	sec - Butylbenzene	ND	25.0
541-73-1	1,3 - Dichlorobenzene	ND	25.0
106-46-7	1,4 - Dichlorobenzene	ND	25.0
99-87-6	4-Isopropyltoluene	ND	25.0
95-50-1	1,2 - Dichlorobenzene	ND	25.0
104-51-8	n - Butylbenzene	ND	25.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	125
120-82-1	1,2,4 - Trichlorobenzene	ND	25.0
91-20-3	Naphthalene	ND	25.0
87-68-3	Hexachlorobutadiene	ND	25.0
87-61-6	1,2 3 - Trichlorobenzene	ND	25.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1263451	1384143	91.3 %	50 - 200 %
Fluorobenzene	2028054	2174935	93.2 %	50 - 200 %
1,4 - Difluorobenzene	1892603	2041118	92.7 %	50 - 200 %
Chlorobenzene - d5	1269946	1369298	92.7 %	50 - 200 %
1,4 - Dichlorobenzene - d4	443813	507400	87.5 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104 %	86 - 118 %
Toluene - d8	9.84	98.4 %	88 - 110 %
4 - Bromofluorobenzene	9.89	98.9 %	86 - 115 %
1,2 - Dichlorobenzene - d4	9.94	99.4 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-9.10/99
Laboratory ID: 99-33915-16
Matrix: Water
Dilution Factor: 20

mw-9

Date Sampled: 10-21-99
Time Sampled: 09:50
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	10.0
74-87-3	Chloromethane	ND	10.0
75-01-4	Vinyl chloride (Chloroethene)	ND	10.0
74-83-9	Bromomethane	ND	10.0
75-00-3	Chloroethane	ND	10.0
75-69-4	Trichlorofluoromethane	ND	10.0
75-35-4	1,1 - Dichloroethene	261	10.0
75-09-2	Methylene chloride (Dichloromethane)	ND	10.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	10.0
75-34-3	1,1 - Dichloroethane	17.8	10.0
78-93-3	2 -Butanone (MEK)	ND	200
156-59-2	cis - 1,2 - Dichloroethene	ND	10.0
74-97-5	Bromochloromethane	ND	10.0
67-66-3	Chloroform (Trichloromethane)	5.80	J 10.0
594-20-7	2,2 - Dichloropropane	ND	10.0
71-55-6	1,1,1 - Trichloroethane	85.2	10.0
107-06-2	1,2 - Dichloroethane	ND	10.0
563-58-6	1,1 - Dichloropropene	ND	10.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	10.0
71-43-2	Benzene	ND	10.0
74-95-3	Dibromomethane	ND	10.0
78-87-5	1,2 - Dichloropropane	ND	10.0
79-01-6	Trichloroethene	ND	10.0
75-27-4	Bromodichloromethane	ND	10.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	10.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	10.0
79-00-5	1,1,2 - Trichloroethane	ND	10.0
108-88-3	Toluene	ND	10.0
106-93-4	1,2 - Dibromoethane	ND	10.0
142-28-9	1,3 - Dichloropropane	ND	10.0
124-48-1	Dibromochloromethane	ND	10.0
127-18-4	Tetrachloroethene	1,090	10.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	10.0
108-90-7	Chlorobenzene	ND	10.0
100-41-4	Ethylbenzene	ND	10.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	20.0
75-25-2	Bromoform (Tribromomethane)	ND	10.0
100-42-5	Styrene (Ethenylbenzene)	ND	10.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	10.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	10.0
96-18-4	1,2,3 - Trichloropropane	ND	10.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

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33915R00031



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-9.10/99
Laboratory ID: 99-33915-16

mw-9

Date Sampled: 10-21-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	10.0
108-86-1	Bromobenzene	ND	10.0
103-65-1	n - Propylbenzene	ND	10.0
95-49-8	2 - Chlorotoluene	ND	10.0
106-43-4	4 - Chlorotoluene	ND	10.0
108-67-8	1,3,5 - Trimethylbenzene	ND	10.0
98-06-6	tert - Butylbenzene	ND	10.0
95-63-6	1,2,4 - Trimethylbenzene	ND	10.0
135-98-8	sec - Butylbenzene	ND	10.0
541-73-1	1,3 - Dichlorobenzene	ND	10.0
106-46-7	1,4 - Dichlorobenzene	ND	10.0
99-87-6	4-Isopropyltoluene	ND	10.0
95-50-1	1,2 - Dichlorobenzene	ND	10.0
104-51-8	n - Butylbenzene	ND	10.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	50.0
120-82-1	1,2,4 - Trichlorobenzene	ND	10.0
91-20-3	Naphthalene	ND	10.0
87-68-3	Hexachlorobutadiene	ND	10.0
87-61-6	1,2 3 - Trichlorobenzene	ND	10.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

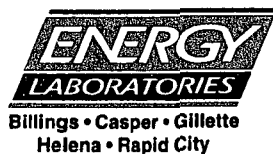
RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1302840	1384143	94.1 %	50 - 200 %
Fluorobenzene	2132261	2174935	98.0 %	50 - 200 %
1,4 - Difluorobenzene	1991318	2041118	97.6 %	50 - 200 %
Chlorobenzene - d5	1274453	1369298	93.1 %	50 - 200 %
1,4 - Dichlorobenzene - d4	437732	507400	86.3 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104 %	86 - 118 %
Toluene - d8	9.49	94.9 %	88 - 110 %
4 - Bromofluorobenzene	9.70	97.0 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-10.10/99
Laboratory ID: 99-33915-3
Matrix: Water
Dilution Factor: 2

mw-10

Date Sampled: 10-18-99
Time Sampled: 11:35
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	3.68	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

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33915R00005



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-10.10/99
Laboratory ID: 99-33915-3

mw-10

Date Sampled: 10-18-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1325187	1384143	95.7%	50 - 200 %
Fluorobenzene	2015807	2174935	92.7%	50 - 200 %
1,4 - Difluorobenzene	1877329	2041118	92.0%	50 - 200 %
Chlorobenzene - d5	1284452	1369298	93.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	448845	507400	88.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.97	99.7%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.80	98.0%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.98	99.8%	80 - 120 %

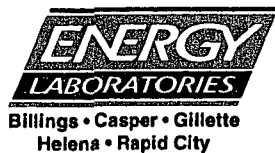
METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

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Analyst: wen

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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-11.10/99
Laboratory ID: 99-33915-1
Matrix: Water
Dilution Factor: 2

MW-11

Date Sampled: 10-18-99
Time Sampled: 10:15
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	1.48	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	1.12	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

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33915R00001



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-11.10/99
Laboratory ID: 99-33915-1

mw-11

Date Sampled: 10-18-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	13.0	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	1.94	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	1.56	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1229271	1384143	88.8 %	50 - 200 %
Fluorobenzene	1891863	2174935	87.0 %	50 - 200 %
1,4 - Difluorobenzene	1766513	2041118	86.5 %	50 - 200 %
Chlorobenzene - d5	1218424	1369298	89.0 %	50 - 200 %
1,4 - Dichlorobenzene - d4	435008	507400	85.7 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.8	108 %	86 - 118 %
Toluene - d8	10.2	102 %	88 - 110 %
4 - Bromofluorobenzene	9.82	98.2 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

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PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-A.10/99
Laboratory ID: 99-33915-5
Matrix: Water
Dilution Factor: 2

Date Sampled: 10-18-99
Time Sampled: 12:00
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

*Duplicate of
MW-11*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	1.44	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	1.14	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO

33915R00009



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-A.10/99
Laboratory ID: 99-33915-5

*Duplicate of
MW-11*

Date Sampled: 10-18-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	13.3	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	2.00	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	1.64	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1278462	1384143	92.4 %	50 - 200 %
Fluorobenzene	1988645	2174935	91.4 %	50 - 200 %
1,4 - Difluorobenzene	1853907	2041118	90.8 %	50 - 200 %
Chlorobenzene - d5	1269368	1369298	92.7 %	50 - 200 %
1,4 - Dichlorobenzene - d4	452668	507400	89.2 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.0	100 %	86 - 118 %
Toluene - d8	10.2	102 %	88 - 110 %
4 - Bromofluorobenzene	9.74	97.4 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

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Analyst: wen

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33915R0001



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-12.10/99
Laboratory ID: 99-33915-2
Matrix: Water
Dilution Factor: 2

mw-12

Date Sampled: 10-18-99
Time Sampled: 11:00
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	1.74	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	2.50	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE 1

33915R0000



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-12.10/99
Laboratory ID: 99-33915-2

mw-12

Date Sampled: 10-18-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1320050	1384143	95.4%	50 - 200 %
Fluorobenzene	1999948	2174935	92.0%	50 - 200 %
1,4 - Difluorobenzene	1863807	2041118	91.3%	50 - 200 %
Chlorobenzene - d5	1257236	1369298	91.8%	50 - 200 %
1,4 - Dichlorobenzene - d4	442634	507400	87.2%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.72	97.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.81	98.1%	80 - 120 %

METHODS USED IN THIS ANALYSIS:

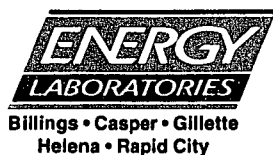
EPA 5030B, EPA 8260B

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Analyst: wen

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33915R0000



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-13.10/99
Laboratory ID: 99-33915-8
Matrix: Water
Dilution Factor: 2

mw-13

Date Sampled: 10-20-99
Time Sampled: 15:55
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	17.7	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	1.62	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	15.0	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE NO

33915R00015



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-13.10/99
Laboratory ID: 99-33915-8

MW-13

Date Sampled: 10-20-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1321274	1384143	95.5 %	50 - 200 %
Fluorobenzene	2095160	2174935	96.3 %	50 - 200 %
1,4 - Difluorobenzene	1949453	2041118	95.5 %	50 - 200 %
Chlorobenzene - d5	1365843	1369298	99.7 %	50 - 200 %
1,4 - Dichlorobenzene - d4	476929	507400	94.0 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101 %	86 - 118 %
Toluene - d8	10.3	103 %	88 - 110 %
4 - Bromofluorobenzene	9.84	98.4 %	86 - 115 %
1,2 - Dichlorobenzene - d4	9.95	99.5 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

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Analyst: wen

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33915R00016



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MAILING: P.O. BOX 3258 • CASPER, WY 82602

E-mail: energy@trib.com • FAX: (307) 234-1639

PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-14.10/99
Laboratory ID: 99-33915-4
Matrix: Water
Dilution Factor: 2

MW-14

Date Sampled: 10-18-99
Time Sampled: 13:10
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	1.82	1.0
96-18-4	1,2,3 - Trichloropropane	2.02	1.0

ND - Analyte not detected at stated limit of detection

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33915R0000



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-14.10/99
Laboratory ID: 99-33915-4

mw-14

Date Sampled: 10-18-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	2.26	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	7.70	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	5.84	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1325187	1384143	95.7 %	50 - 200 %
Fluorobenzene	2015807	2174935	92.7 %	50 - 200 %
1,4 - Difluorobenzene	1877329	2041118	92.0 %	50 - 200 %
Chlorobenzene - d5	1284452	1369298	93.8 %	50 - 200 %
1,4 - Dichlorobenzene - d4	448845	507400	88.5 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.97	99.7 %	86 - 118 %
Toluene - d8	10.2	102 %	88 - 110 %
4 - Bromofluorobenzene	9.80	98.0 %	86 - 115 %
1,2 - Dichlorobenzene - d4	9.98	99.8 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-B.10/99
Laboratory ID: 99-33915-6
Matrix: Water
Dilution Factor: 2

*duplicate of
mw-14*

Date Sampled: 10-18-99
Time Sampled: 14:30
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	0.96	J 1.0
96-18-4	1,2,3 - Trichloropropane	1.18	1.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

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33915R0001



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-B.10/99
Laboratory ID: 99-33915-6

*Duplicate of
mw-14*

Date Sampled: 10-18-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	1.02	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	5.56	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	3.52	1.0

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1459084	1384143	105 %	50 - 200 %
Fluorobenzene	2230972	2174935	103 %	50 - 200 %
1,4 - Difluorobenzene	2069069	2041118	101 %	50 - 200 %
Chlorobenzene - d5	1413150	1369298	103 %	50 - 200 %
1,4 - Dichlorobenzene - d4	502682	507400	99.1 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.83	98.3 %	86 - 118 %
Toluene - d8	10.1	101 %	88 - 110 %
4 - Bromofluorobenzene	9.71	97.1 %	86 - 115 %
1,2 - Dichlorobenzene - d4	9.85	98.5 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-15.10/99
Laboratory ID: 99-33915-7
Matrix: Water
Dilution Factor: 2

mw-15

Date Sampled: 10-20-99
Time Sampled: 15:15
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	1.24	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

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33915R0001



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-15.10/99
Laboratory ID: 99-33915-7

MW-15

Date Sampled: 10-20-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1339445	1384143	96.8 %	50 - 200 %
Fluorobenzene	2103696	2174935	96.7 %	50 - 200 %
1,4 - Difluorobenzene	1961089	2041118	96.1 %	50 - 200 %
Chlorobenzene - d5	1328214	1369298	97.0 %	50 - 200 %
1,4 - Dichlorobenzene - d4	458080	507400	90.3 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.96	99.6 %	86 - 118 %
Toluene - d8	10.1	101 %	88 - 110 %
4 - Bromofluorobenzene	9.56	95.6 %	86 - 115 %
1,2 - Dichlorobenzene - d4	9.90	99.0 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-504.10/99
Laboratory ID: 99-33915-13
Matrix: Water
Dilution Factor: 5

*Shell Station
Monitoring Well (mw-4)*

Date Sampled: 10-21-99
Time Sampled: 08:25
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	73.0	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	24.8	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	1.55 J	2.5
74-97-5	Bromochloromethane	ND	2.5
67-66-3	Chloroform (Trichloromethane)	3.85	2.5
594-20-7	2,2 - Dichloropropane	ND	2.5
71-55-6	1,1,1 - Trichloroethane	12.4	2.5
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	5.10	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

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33915R0000



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-504.10/99
Laboratory ID: 99-33915-13

Date Sampled: 10-21-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

*Shell station
Monitoring Well (mw-4)*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION ($\mu\text{g/L}$)	REPORT LIMIT ($\mu\text{g/L}$)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2,3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Analyte passes MS identification criteria, but is less than stated detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1293425	1384143	93.4%	50 - 200 %
Fluorobenzene	2108366	2174935	96.9%	50 - 200 %
1,4 - Difluorobenzene	1970880	2041118	96.6%	50 - 200 %
Chlorobenzene - d5	1350989	1369298	98.7%	50 - 200 %
1,4 - Dichlorobenzene - d4	478917	507400	94.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.89	98.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

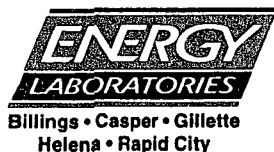
METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

see: r:\reports\clients\99\western_water_consultants\casper_org\33915-1-18_8260_w.xls

Analyst: wen

TRACKING NO. PAGE 1
33915R0002

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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: TRIP BLANK
Laboratory ID: 99-33915-18
Matrix: Water
Dilution Factor: 1

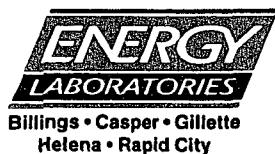
Date Sampled: 10-12-99
Time Sampled: 12:00
Date Received: 10-22-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	REPORT
		(µg/L)	LIMIT (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE 1

33915R0003!



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: TRIP BLANK
Laboratory ID: 99-33915-18

Date Sampled: 10-12-99
Date Analyzed: 10-27-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	REPORT LIMIT (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1260833	1384143	91.1 %	50 - 200 %
Fluorobenzene	2049413	2174935	94.2 %	50 - 200 %
1,4 - Difluorobenzene	1905939	2041118	93.4 %	50 - 200 %
Chlorobenzene - d5	1284747	1369298	93.8 %	50 - 200 %
1,4 - Dichlorobenzene - d4	443694	507400	87.4 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103 %	86 - 118 %
Toluene - d8	10.0	100 %	88 - 110 %
4 - Bromofluorobenzene	9.72	97.2 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

sec: r:\reports\clients\99\western_water_consultants\casper_org\33915-1-18_8260_w.xls

Analyst: wen

TRACKING NO. PAGE N

33915R00036

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EPA METHOD 8260

Client: Western Water Consultants
Project: NONE
Sample ID: 93007UST.2/99
Laboratory ID: C99-15585
Matrix: Air
Dilution Factor: 5

*former WST Area
SVE system*

Date Sampled: 02-10-99
Time Sampled: 15:20
Date Received: 02-11-99
Date Analyzed: 02-11-98
Date Reported: February 16, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	ND	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	46.8	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007UST.2/99
Laboratory ID: C99-15585

Date Sampled: 02-10-99
Date Analyzed: 02/11/98
Date Reported: February 16, 1999

*Former UST Area
SVE System*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

<u>INTERNAL STANDARDS</u>	<u>AREA</u>	<u>ICAL / CCAL</u> <u>AREA</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>ACCEPTANCE</u> <u>RANGE</u>
Pentafluorobenzene	1942457	1883456	103 %	50 - 200 %
Fluorobenzene	3207957	3182800	101 %	50 - 200 %
1,4 - Difluorobenzene	2503465	2396303	104 %	50 - 200 %
Chlorobenzene - d5	1838016	1683100	109 %	50 - 200 %
1,4 - Dichlorobenzene - d4	869210	803090	108 %	50 - 200 %

<u>SYSTEM MONITORING COMPOUNDS</u>	<u>CONCENTRATION</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>ACCEPTANCE</u> <u>RANGE</u>
Dibromofluoromethane	9.66	96.6 %	86 - 118 %
Toluene - d8	10.1	101 %	88 - 110 %
4 - Bromofluorobenzene	9.77	97.7 %	86 - 115 %
1,2 - Dichlorobenzene - d4	9.98	99.8 %	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients\99\western_water_consultants\99_15585_8260_a.xls

Analyst: yw
Reviewed: sec

EPA METHOD 8260

Client: Western Water Consultants
 Project: NONE
 Sample ID: 93007WP.2/99
 Laboratory ID: C99-15586
 Matrix: Air
 Dilution Factor: 5

*Former wastewater
pond SVS system*

Date Sampled: 02-10-99
 Time Sampled: 15:25
 Date Received: 02-11-99
 Date Analyzed: 02-11-98
 Date Reported: February 16, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	43.9	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	4.35	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	68.8	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	87.3	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	42.8	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	139	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	131	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	5.70	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007WP.2/99
Laboratory ID: C99-15586

Date Sampled: 02-10-99
Date Analyzed: 02/11/98
Date Reported: February 16, 1999

*Former Wastewater
Pond SVE System*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	27.5	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	51.8	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	287	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	197	2.5
135-98-8	sec - Butylbenzene	9.10	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	8.75	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1918523	1883456	102%	50 - 200 %
Fluorobenzene	3093592	3182800	97.2%	50 - 200 %
1,4 - Difluorobenzene	2474768	2396303	103%	50 - 200 %
Chlorobenzene - d5	1774209	1683100	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	838798	803090	104%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.59	95.9%	86 - 118 %
Toluene - d8	10.0	100%	88 - 110 %
4 - Bromofluorobenzene	10.1	101%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.73	97.3%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients\99\western_water_consultants\99_15585_8260_a.xls

Analyst: yw
Reviewed: sec

EPA METHOD 8260

Client: Western Water Consultants
 Project: NONE
 Sample ID: 93007AD.2/99
 Laboratory ID: C99-15587
 Matrix: Air
 Dilution Factor: 1

*Acid Wash 3/99
 System*

Date Sampled: 02-10-99
 Time Sampled: 15:40
 Date Received: 02-11-99
 Date Analyzed: 02-11-98
 Date Reported: February 16, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	0.5
74-87-3	Chloromethane	ND	0.5
75-01-4	Vinyl chloride (Chloroethene)	ND	0.5
74-83-9	Bromomethane	ND	0.5
75-00-3	Chloroethane	ND	0.5
75-69-4	Trichlorofluoromethane	ND	0.5
75-35-4	1,1 - Dichloroethene	ND	0.5
75-09-2	Methylene chloride (Dichloromethane)	ND	0.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.5
75-34-3	1,1 - Dichloroethane	ND	0.5
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	0.5
563-58-6	1,1 - Dichloropropene	ND	0.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.5
71-43-2	Benzene	ND	0.5
74-95-3	Dibromomethane	ND	0.5
78-87-5	1,2 - Dichloropropane	ND	0.5
79-01-6	Trichloroethene	ND	0.5
75-27-4	Bromodichloromethane	ND	0.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.5
79-00-5	1,1,2 - Trichloroethane	ND	0.5
108-88-3	Toluene	2.38	0.5
106-93-4	1,2 - Dibromoethane	ND	0.5
142-28-9	1,3 - Dichloropropane	ND	0.5
124-48-1	Dibromochloromethane	ND	0.5
127-18-4	Tetrachloroethene	0.63	0.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.5
108-90-7	Chlorobenzene	ND	0.5
100-41-4	Ethylbenzene	ND	0.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	1.0
75-25-2	Bromoform (Tribromomethane)	ND	0.5
100-42-5	Styrene (Ethenylbenzene)	ND	0.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.5
96-18-4	1,2,3 - Trichloropropane	ND	0.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007AD.2/99
Laboratory ID: C99-15587

Date Sampled: 02-10-99
Date Analyzed: 02/11/98
Date Reported: February 16, 1999

Acid dock
SVE system

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.5
108-86-1	Bromobenzene	ND	0.5
103-65-1	n - Propylbenzene	ND	0.5
95-49-8	2 - Chlorotoluene	ND	0.5
106-43-4	4 - Chlorotoluene	ND	0.5
108-67-8	1,3,5 - Trimethylbenzene	3.97	0.5
98-06-6	tert - Butylbenzene	ND	0.5
95-63-6	1,2,4 - Trimethylbenzene	2.09	0.5
135-98-8	sec - Butylbenzene	ND	0.5
541-73-1	1,3 - Dichlorobenzene	ND	0.5
106-46-7	1,4 - Dichlorobenzene	ND	0.5
99-87-6	4-Isopropyltoluene	ND	0.5
95-50-1	1,2 - Dichlorobenzene	ND	0.5
104-51-8	n - Butylbenzene	ND	0.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	2.5
120-82-1	1,2,4 - Trichlorobenzene	ND	0.5
91-20-3	Naphthalene	ND	0.5
87-68-3	Hexachlorobutadiene	ND	0.5
87-61-6	1,2 3 - Trichlorobenzene	ND	0.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1885119	1883456	100%	50 - 200 %
Fluorobenzene	3282477	3182800	103%	50 - 200 %
1,4 - Difluorobenzene	2599465	2396303	108%	50 - 200 %
Chlorobenzene - d5	1895472	1683100	113%	50 - 200 %
1,4 - Dichlorobenzene - d4	844039	803090	105%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	9.89	98.9%	88 - 110 %
4 - Bromofluorobenzene	9.67	96.7%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.97	99.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients\99\western_water_consultants\99_15585_8260_a.xls

Analyst: yw
Reviewed: sec

EPA METHOD 8260

Client: Western Water Consultants
 Project: 93007
 Sample ID: 93007-UST.4/99
 Laboratory ID: C99-25231
 Matrix: Air
 Dilution Factor: 5

*Former UST &
area (SVE system)*

Date Sampled: 04-21-99
 Time Sampled: 13:00
 Date Received: 04-22-99
 Date Analyzed: 04-22-99
 Date Reported: May 7, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	ND	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	37.9	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-UST.4/99
Laboratory ID: C99-25231

Date Sampled: 04-21-99
Date Analyzed: 04/22/99
Date Reported: May 7, 1999

*Former UST Area
(SVE system)*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(mg/m ³)	DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL	PERCENT RECOVERY	ACCEPTANCE
				RANGE
Pentafluorobenzene	1517711	1404682	108 %	50 - 200 %
Fluorobenzene	2474475	2310593	107 %	50 - 200 %
1,4 - Difluorobenzene	2423412	2295661	106 %	50 - 200 %
Chlorobenzene - d5	1707461	1549824	110 %	50 - 200 %
1,4 - Dichlorobenzene - d4	632622	583759	108 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE
			RANGE
Dibromofluoromethane	10.3	103 %	86 - 118 %
Toluene - d8	9.73	97.3 %	88 - 110 %
4 - Bromofluorobenzene	10.4	104 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104 %	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients\99\western_water_consultants\casper_org\99_25231_8260_a.xls

Analyst: yw
Reviewed: sec

EPA METHOD 8260

Client: Western Water Consultants
 Project: 93007
 Sample ID: 93007-WP.4/99
 Laboratory ID: C99-25232
 Matrix: Air
 Dilution Factor: 5

*Former Wastewater
 collection area (SVE system)*

Date Sampled: 04-21-99
 Time Sampled: 13:50
 Date Received: 04-22-99
 Date Analyzed: 04-22-99
 Date Reported: May 7, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	28.1	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	2.20 J	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	39.2	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	51.6	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	19.2	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	60.1	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	54.2	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-WP.4/99
Laboratory ID: C99-25232

Date Sampled: 04-21-99
Date Analyzed: 04/22/99
Date Reported: May 7, 1999

*Former wastewater
collection (SVE system)*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	11.6	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	20.6	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	136	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	89.3	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

J - Meets Mass Spectral identification criteria but result is below established detection limit

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1506828	1404682	107%	50 - 200 %
Fluorobenzene	2404293	2310593	104%	50 - 200 %
1,4 - Difluorobenzene	2410840	2295661	105%	50 - 200 %
Chlorobenzene - d5	1679299	1549824	108%	50 - 200 %
1,4 - Dichlorobenzene - d4	629731	583759	108%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.5	105%	86 - 118 %
Toluene - d8	9.72	97.2%	88 - 110 %
4 - Bromofluorobenzene	10.5	105%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients99\western_water_consultants\casper_org\99_25231_8260_a.xls

Analyst: yw
Reviewed: sec

EPA METHOD 8260

Client: Western Water Consultants
 Project: 93007
 Sample ID: 93007-AD.4/99
 Laboratory ID: C99-25233
 Matrix: Air
 Dilution Factor: 2

Date Sampled: 04-21-99
 Time Sampled: 13:10
 Date Received: 04-22-99
 Date Analyzed: 04-22-99
 Date Reported: May 7, 1999

*Acid Dose
SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	Chloroform (Trichloromethane)	ND	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	1,1,1 - Trichloroethane	ND	2.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-AD.4/99
Laboratory ID: C99-25233

*acid rock
SVE system*

Date Sampled: 04-21-99
Date Analyzed: 04/22/99
Date Reported: May 7, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(mg/m ³)	DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	1.66	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT	ACCEPTANCE
			RECOVERY	RANGE
Pentafluorobenzene	1578138	1404682	112%	50 - 200 %
Fluorobenzene	2537172	2310593	110%	50 - 200 %
1,4 - Difluorobenzene	2488767	2295661	108%	50 - 200 %
Chlorobenzene - d5	1742900	1549824	112%	50 - 200 %
1,4 - Dichlorobenzene - d4	645402	583759	111%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT	ACCEPTANCE
		RECOVERY	RANGE
Dibromofluoromethane	10.4	104%	86 - 118 %
Toluene - d8	9.70	97.0%	88 - 110 %
4 - Bromofluorobenzene	10.6	106%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.8	108%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

sec: r:\reports\clients\99\western_water_consultants\casper_org\99_25231_8260_a.xls

Analyst: yw
Reviewed: sec

EPA METHOD 8260

Client: Western Water Consultants
Project: 93007-1
Sample ID: 93007-UST.7/99
Laboratory ID: 99-35187
Matrix: Air
Dilution Factor: 5

*Former UST Area
SVE system*

Date Sampled: 07-12-99
Time Sampled: 16:00
Date Received: 07-13-99
Date Analyzed: 07-13-99
Date Reported: July 16, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	ND	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	ND	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	36.6	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	ND	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-UST.7/99
Laboratory ID: 99-35187

Date Sampled: 07-12-99
Date Analyzed: 07-13-99
Date Reported: July 16, 1999

*Former UST Area
SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	ND	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	ND	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1399727	1544412	90.6%	50 - 200 %
Fluorobenzene	2280892	2297532	99.3%	50 - 200 %
1,4 - Difluorobenzene	2206790	2225187	99.2%	50 - 200 %
Chlorobenzene - d5	1749792	1573827	111%	50 - 200 %
1,4 - Dichlorobenzene - d4	700920	631327	111%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.4	114%	86 - 118 %
Toluene - d8	10.5	105%	88 - 110 %
4 - Bromofluorobenzene	10.4	104%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

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EPA METHOD 8260

Client: Western Water Consultants
Project: 93007-1
Sample ID: 93007-AD.7/99
Laboratory ID: 99-35188
Matrix: Air
Dilution Factor: 1

*Former Acid
Dock SVE system*

Date Sampled: 07-12-99
Time Sampled: 16:10
Date Received: 07-13-99
Date Analyzed: 07-13-99
Date Reported: July 16, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	0.5
74-87-3	Chloromethane	ND	0.5
75-01-4	Vinyl chloride (Chloroethene)	ND	0.5
74-83-9	Bromomethane	ND	0.5
75-00-3	Chloroethane	ND	0.5
75-69-4	Trichlorofluoromethane	ND	0.5
75-35-4	1,1 - Dichloroethene	ND	0.5
75-09-2	Methylene chloride (Dichloromethane)	ND	0.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.5
75-34-3	1,1 - Dichloroethane	ND	0.5
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	0.5
563-58-6	1,1 - Dichloropropene	ND	0.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.5
71-43-2	Benzene	ND	0.5
74-95-3	Dibromomethane	ND	0.5
78-87-5	1,2 - Dichloropropane	ND	0.5
79-01-6	Trichloroethene	ND	0.5
75-27-4	Bromodichloromethane	ND	0.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.5
79-00-5	1,1,2 - Trichloroethane	ND	0.5
108-88-3	Toluene	ND	0.5
106-93-4	1,2 - Dibromoethane	ND	0.5
142-28-9	1,3 - Dichloropropane	ND	0.5
124-48-1	Dibromochloromethane	ND	0.5
127-18-4	Tetrachloroethene	ND	0.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.5
108-90-7	Chlorobenzene	ND	0.5
100-41-4	Ethylbenzene	ND	0.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	1.0
75-25-2	Bromoform (Tribromomethane)	ND	0.5
100-42-5	Styrene (Ethenylbenzene)	ND	0.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.5
96-18-4	1,2,3 - Trichloropropane	ND	0.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-AD.7/99
Laboratory ID: 99-35188

Date Sampled: 07-12-99
Date Analyzed: 07-13-99
Date Reported: July 16, 1999

*Former Acid Dock
SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.5
108-86-1	Bromobenzene	ND	0.5
103-65-1	n - Propylbenzene	ND	0.5
95-49-8	2 - Chlorotoluene	ND	0.5
106-43-4	4 - Chlorotoluene	ND	0.5
108-67-8	1,3,5 - Trimethylbenzene	1.05	0.5
98-06-6	tert - Butylbenzene	ND	0.5
95-63-6	1,2,4 - Trimethylbenzene	1.46	0.5
135-98-8	sec - Butylbenzene	ND	0.5
541-73-1	1,3 - Dichlorobenzene	ND	0.5
106-46-7	1,4 - Dichlorobenzene	ND	0.5
99-87-6	4-Isopropyltoluene	ND	0.5
95-50-1	1,2 - Dichlorobenzene	ND	0.5
104-51-8	n - Butylbenzene	ND	0.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	2.5
120-82-1	1,2,4 - Trichlorobenzene	ND	0.5
91-20-3	Naphthalene	ND	0.5
87-68-3	Hexachlorobutadiene	ND	0.5
87-61-6	1,2 3 - Trichlorobenzene	ND	0.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1391743	1544412	90.1 %	50 - 200 %
Fluorobenzene	2320996	2297532	101 %	50 - 200 %
1,4 - Difluorobenzene	2240467	2225187	101 %	50 - 200 %
Chlorobenzene - d5	1722480	1573827	109 %	50 - 200 %
1,4 - Dichlorobenzene - d4	694689	631327	110 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.2	112 %	86 - 118 %
Toluene - d8	10.4	104 %	88 - 110 %
4 - Bromofluorobenzene	10.5	105 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.7	107 %	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

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EPA METHOD 8260

Client: Western Water Consultants
Project: 93007-1
Sample ID: 93007-WP.7/99
Laboratory ID: 99-35189
Matrix: Air
Dilution Factor: 5

*Former Wastewater Collection
pond SVE system*

Date Sampled: 07-12-99
Time Sampled: 15:45
Date Received: 07-13-99
Date Analyzed: 07-13-99
Date Reported: July 16, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	14.5	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	33.1	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	40.0	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	14.8	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	45.4	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	42.8	2.5
79-34-5	1,1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection



EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-WP.7/99
Laboratory ID: 99-35189

Date Sampled: 07-12-99
Date Analyzed: 07-13-99
Date Reported: July 16, 1999

*Former Westwater
Collection Pond
SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	LIMIT OF DETECTION (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	8.30	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	14.9	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	108	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	71.8	2.5
135-98-8	sec - Butylbenzene	3.25	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1487435	1544412	96.3%	50 - 200 %
Fluorobenzene	2068116	2297532	90.0%	50 - 200 %
1,4 - Difluorobenzene	2056009	2225187	92.4%	50 - 200 %
Chlorobenzene - d5	1607032	1573827	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	641494	631327	102%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.89	98.9%	86 - 118 %
Toluene - d8	10.4	104%	88 - 110 %
4 - Bromofluorobenzene	10.8	108%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.9	109%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-UST.10/99
Laboratory ID: 99-33909-1
Matrix: Air
Dilution Factor: 2

*Former UST Area
SVE system*

Date Sampled: 10-21-99
Time Sampled: 11:05
Date Received: 10-22-99
Date Analyzed: 10-22-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	REPORT LIMIT (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	Chloroform (Trichloromethane)	ND	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	1,1,1 - Trichloroethane	ND	2.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	37.0	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-UST.10/99
Laboratory ID: 99-33909-1

*Former UST Area
SVE system*

Date Sampled: 10-21-99
Date Analyzed: 10-22-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	REPORT LIMIT (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1301681	1283813	101 %	50 - 200 %
Fluorobenzene	2117833	2044683	104 %	50 - 200 %
1,4 - Difluorobenzene	1954014	1932913	101 %	50 - 200 %
Chlorobenzene - d5	1391228	1341681	104 %	50 - 200 %
1,4 - Dichlorobenzene - d4	534296	509208	105 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103 %	86 - 118 %
Toluene - d8	9.98	99.8 %	88 - 110 %
4 - Bromofluorobenzene	10.1	101 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants

Project: None

Sample ID: 93007-WP.10/99

Laboratory ID: 99-33909-2

Matrix: Air

Dilution Factor: 5

Date Sampled: 10-21-99

Time Sampled: 11:20

Date Received: 10-22-99

Date Analyzed: 10-22-99

Date Reported: November 4, 1999

*From Western Collection
and SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	REPORT LIMIT (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	2.5
74-87-3	Chloromethane	ND	2.5
75-01-4	Vinyl chloride (Chloroethene)	ND	2.5
74-83-9	Bromomethane	ND	2.5
75-00-3	Chloroethane	ND	2.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1 - Dichloroethene	ND	2.5
75-09-2	Methylene chloride (Dichloromethane)	ND	2.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.5
75-34-3	1,1 - Dichloroethane	ND	2.5
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	1,1,1 - Trichloroethane	9.35	5.0
107-06-2	1,2 - Dichloroethane	ND	2.5
563-58-6	1,1 - Dichloropropene	ND	2.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.5
71-43-2	Benzene	ND	2.5
74-95-3	Dibromomethane	ND	2.5
78-87-5	1,2 - Dichloropropane	ND	2.5
79-01-6	Trichloroethene	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.5
79-00-5	1,1,2 - Trichloroethane	ND	2.5
108-88-3	Toluene	22.9	2.5
106-93-4	1,2 - Dibromoethane	ND	2.5
142-28-9	1,3 - Dichloropropane	ND	2.5
124-48-1	Dibromochloromethane	ND	2.5
127-18-4	Tetrachloroethene	34.9	2.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.5
108-90-7	Chlorobenzene	ND	2.5
100-41-4	Ethylbenzene	11.7	2.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	34.5	5.0
75-25-2	Bromoform (Tribromomethane)	ND	2.5
100-42-5	Styrene (Ethenylbenzene)	ND	2.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	32.8	2.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.5
96-18-4	1,2,3 - Trichloropropane	ND	2.5

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE 1

33909R0000



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-WP.10/99
Laboratory ID: 99-33909-2

Date Sampled: 10-21-99
Date Analyzed: 10-22-99
Date Reported: November 4, 1999

*Former Western Water
Collection Pond
SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	REPORT LIMIT (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	6.60	2.5
108-86-1	Bromobenzene	ND	2.5
103-65-1	n - Propylbenzene	ND	2.5
95-49-8	2 - Chlorotoluene	ND	2.5
106-43-4	4 - Chlorotoluene	ND	2.5
108-67-8	1,3,5 - Trimethylbenzene	99.3	2.5
98-06-6	tert - Butylbenzene	ND	2.5
95-63-6	1,2,4 - Trimethylbenzene	67.2	2.5
135-98-8	sec - Butylbenzene	ND	2.5
541-73-1	1,3 - Dichlorobenzene	ND	2.5
106-46-7	1,4 - Dichlorobenzene	ND	2.5
99-87-6	4-Isopropyltoluene	ND	2.5
95-50-1	1,2 - Dichlorobenzene	ND	2.5
104-51-8	n - Butylbenzene	ND	2.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	12.5
120-82-1	1,2,4 - Trichlorobenzene	ND	2.5
91-20-3	Naphthalene	ND	2.5
87-68-3	Hexachlorobutadiene	ND	2.5
87-61-6	1,2 3 - Trichlorobenzene	ND	2.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1259327	1283813	98.1 %	50 - 200 %
Fluorobenzene	2027274	2044683	99.1 %	50 - 200 %
1,4 - Difluorobenzene	1920769	1932913	99.4 %	50 - 200 %
Chlorobenzene - d5	1370568	1341681	102 %	50 - 200 %
1,4 - Dichlorobenzene - d4	537222	509208	106 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.4	104 %	86 - 118 %
Toluene - d8	9.92	99.2 %	88 - 110 %
4 - Bromofluorobenzene	10.9	109 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.4	104 %	80 - 120 %

METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B



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LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Project: None
Sample ID: 93007-AD.10/99
Laboratory ID: 99-33909-3
Matrix: Air
Dilution Factor: 1

*Former Acid Rock
SVE system*

Date Sampled: 10-21-99
Time Sampled: 11:30
Date Received: 10-22-99
Date Analyzed: 10-22-99
Date Reported: November 4, 1999

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	REPORT LIMIT (mg/m ³)
75-71-8	Dichlorodifluoromethane	ND	0.5
74-87-3	Chloromethane	ND	0.5
75-01-4	Vinyl chloride (Chloroethene)	ND	0.5
74-83-9	Bromomethane	ND	0.5
75-00-3	Chloroethane	ND	0.5
75-69-4	Trichlorofluoromethane	ND	0.5
75-35-4	1,1 - Dichloroethene	ND	0.5
75-09-2	Methylene chloride (Dichloromethane)	ND	0.5
156-60-5	trans - 1, 2 - Dichloroethene	ND	0.5
75-34-3	1,1 - Dichloroethane	ND	0.5
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	0.5
563-58-6	1,1 - Dichloropropene	ND	0.5
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	0.5
71-43-2	Benzene	ND	0.5
74-95-3	Dibromomethane	ND	0.5
78-87-5	1,2 - Dichloropropane	ND	0.5
79-01-6	Trichloroethene	ND	0.5
75-27-4	Bromodichloromethane	ND	0.5
10061-01-5	cis - 1,3 - Dichloropropene	ND	0.5
10061-02-6	trans - 1,3 - Dichloropropene	ND	0.5
79-00-5	1,1,2 - Trichloroethane	ND	0.5
108-88-3	Toluene	ND	0.5
106-93-4	1,2 - Dibromoethane	ND	0.5
142-28-9	1,3 - Dichloropropane	ND	0.5
124-48-1	Dibromochloromethane	ND	0.5
127-18-4	Tetrachloroethene	ND	0.5
630-20-6	1,1,1,2 - Tetrachloroethane	ND	0.5
108-90-7	Chlorobenzene	ND	0.5
100-41-4	Ethylbenzene	ND	0.5
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	1.0
75-25-2	Bromoform (Tribromomethane)	ND	0.5
100-42-5	Styrene (Ethenylbenzene)	ND	0.5
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	0.5
79-34-5	1,1,2,2 - Tetrachloroethane	ND	0.5
96-18-4	1,2,3 - Trichloropropane	ND	0.5

ND - Analyte not detected at stated limit of detection

TRACKING NO. PAGE N

33909R000005



LABORATORY ANALYSIS REPORT, EPA METHOD 8260

Client: Western Water Consultants
Sample ID: 93007-AD.10/99
Laboratory ID: 99-33909-3

Date Sampled: 10-21-99
Date Analyzed: 10-22-99
Date Reported: November 4, 1999

*Former Acid Dock
SVE system*

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (mg/m ³)	REPORT LIMIT (mg/m ³)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	0.5
108-86-1	Bromobenzene	ND	0.5
103-65-1	n - Propylbenzene	ND	0.5
95-49-8	2 - Chlorotoluene	ND	0.5
106-43-4	4 - Chlorotoluene	ND	0.5
108-67-8	1,3,5 - Trimethylbenzene	ND	0.5
98-06-6	tert - Butylbenzene	ND	0.5
95-63-6	1,2,4 - Trimethylbenzene	ND	0.5
135-98-8	sec - Butylbenzene	ND	0.5
541-73-1	1,3 - Dichlorobenzene	ND	0.5
106-46-7	1,4 - Dichlorobenzene	ND	0.5
99-87-6	4-Isopropyltoluene	ND	0.5
95-50-1	1,2 - Dichlorobenzene	ND	0.5
104-51-8	n - Butylbenzene	ND	0.5
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	2.5
120-82-1	1,2,4 - Trichlorobenzene	ND	0.5
91-20-3	Naphthalene	ND	0.5
87-68-3	Hexachlorobutadiene	ND	0.5
87-61-6	1,2 3 - Trichlorobenzene	ND	0.5

ND - Analyte not detected at stated limit of detection

RUNTIME QUALITY ASSURANCE REPORT

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1298045	1283813	101 %	50 - 200 %
Fluorobenzene	2086593	2044683	102 %	50 - 200 %
1,4 - Difluorobenzene	1968292	1932913	102 %	50 - 200 %
Chlorobenzene - d5	1393156	1341681	104 %	50 - 200 %
1,4 - Dichlorobenzene - d4	544931	509208	107 %	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103 %	86 - 118 %
Toluene - d8	9.92	99.2 %	88 - 110 %
4 - Bromofluorobenzene	10.5	105 %	86 - 115 %
1,2 - Dichlorobenzene - d4	10.5	105 %	80 - 120 %

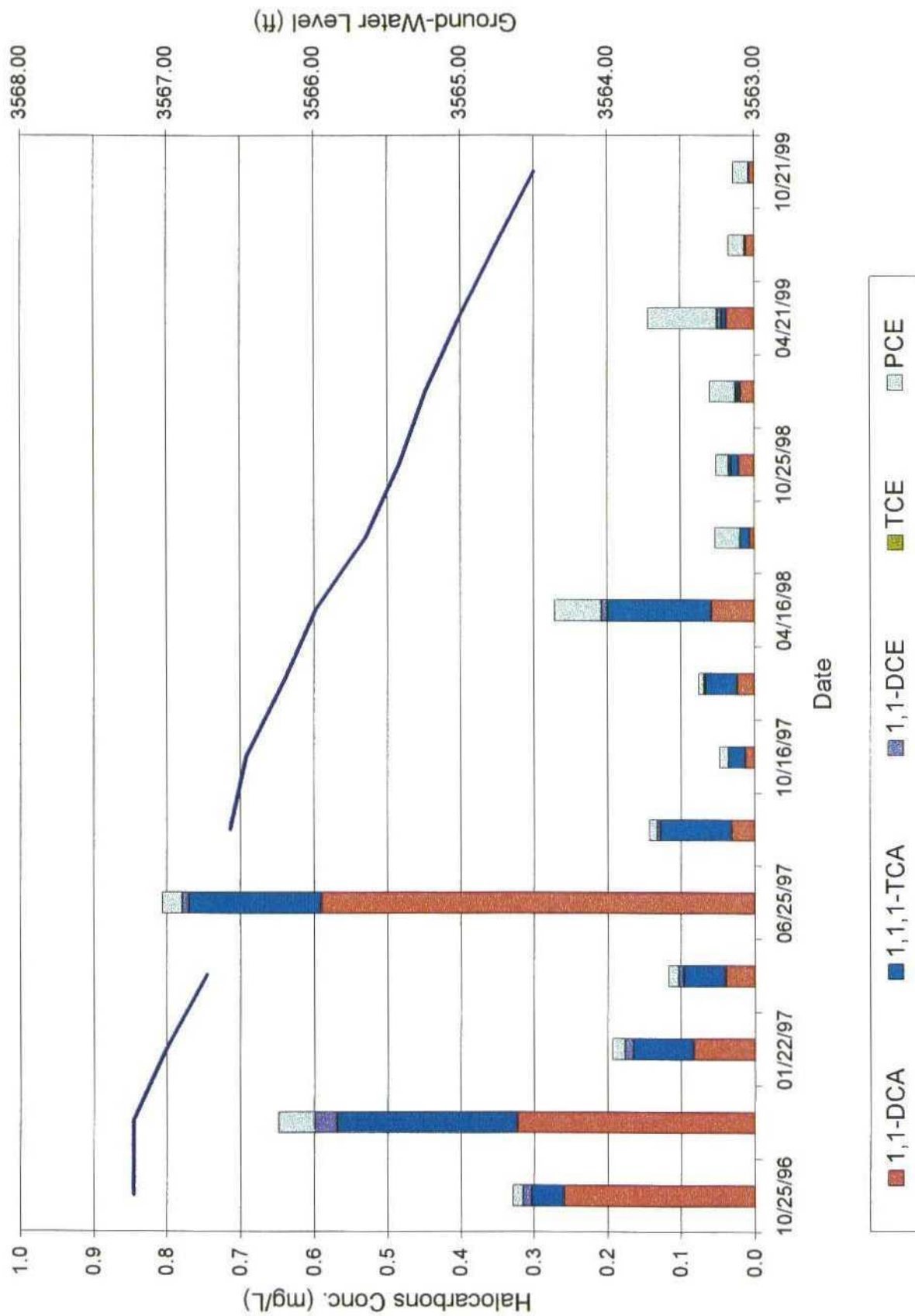
METHODS USED IN THIS ANALYSIS:

EPA 5030B, EPA 8260B

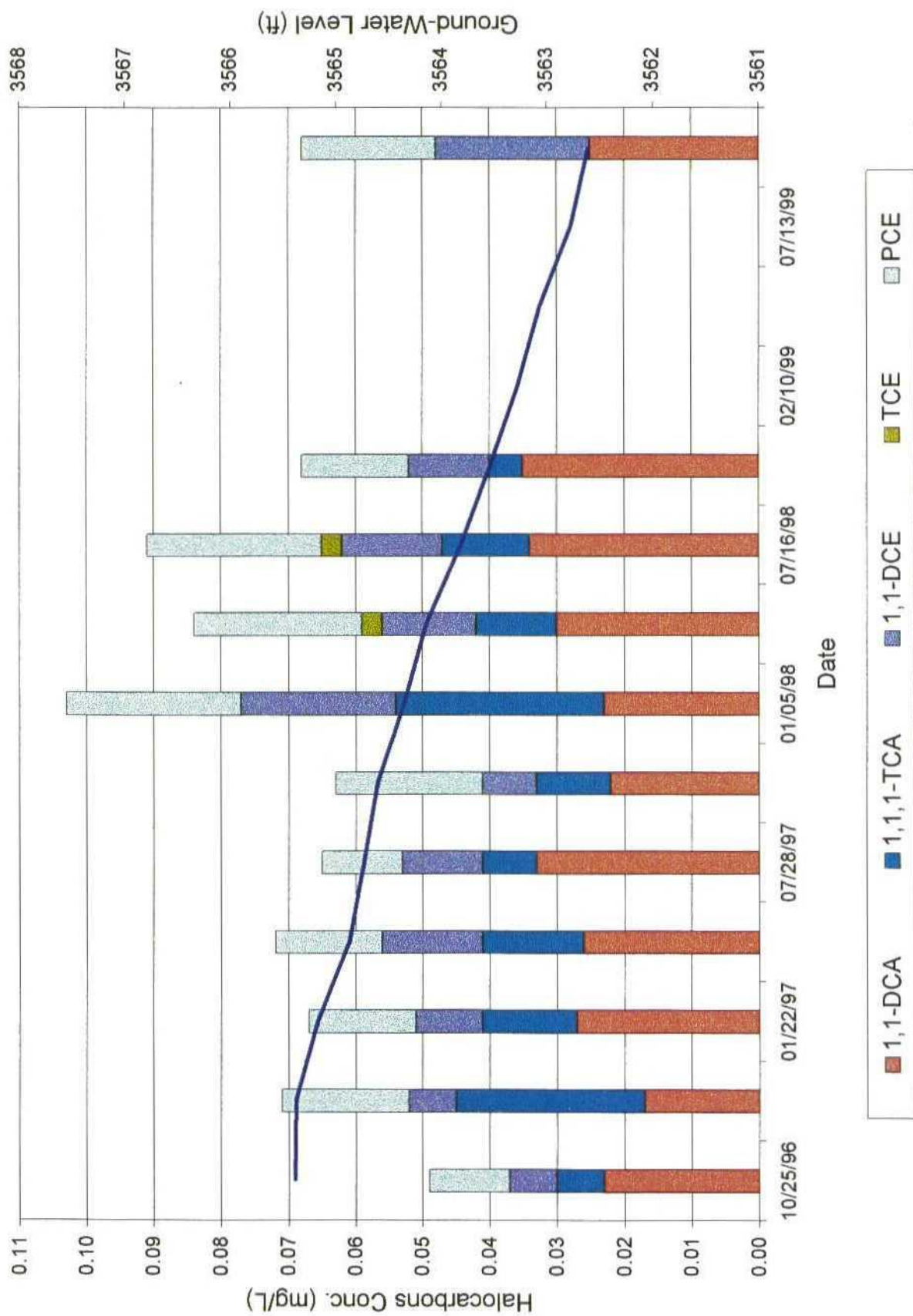
APPENDIX B

Halocarbons and Ground-water Levels

Monitoring Well MW-2 Halocarbons & Ground-Water Level

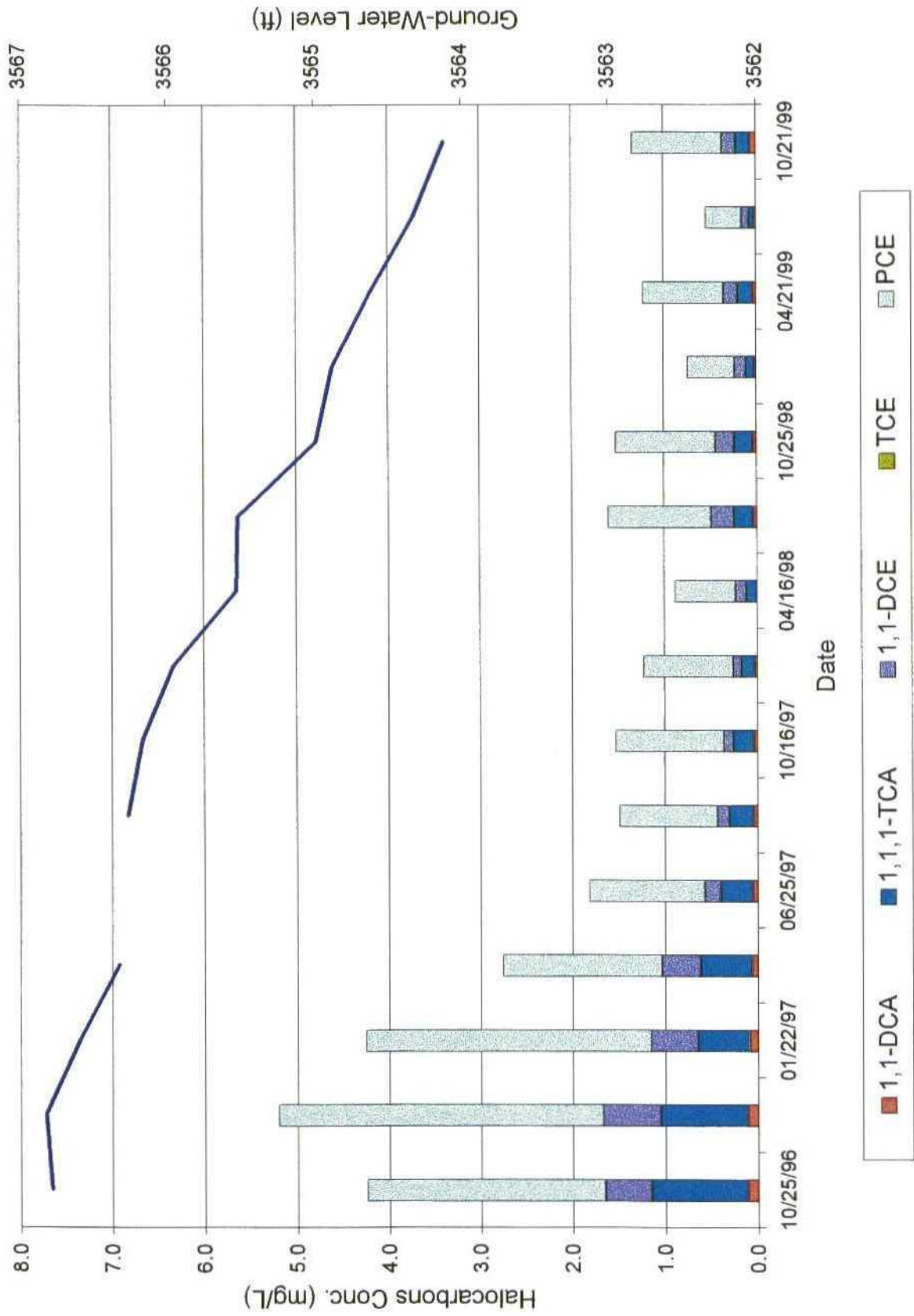


Monitoring Well MW-3 Halocarbons & Ground-Water Level



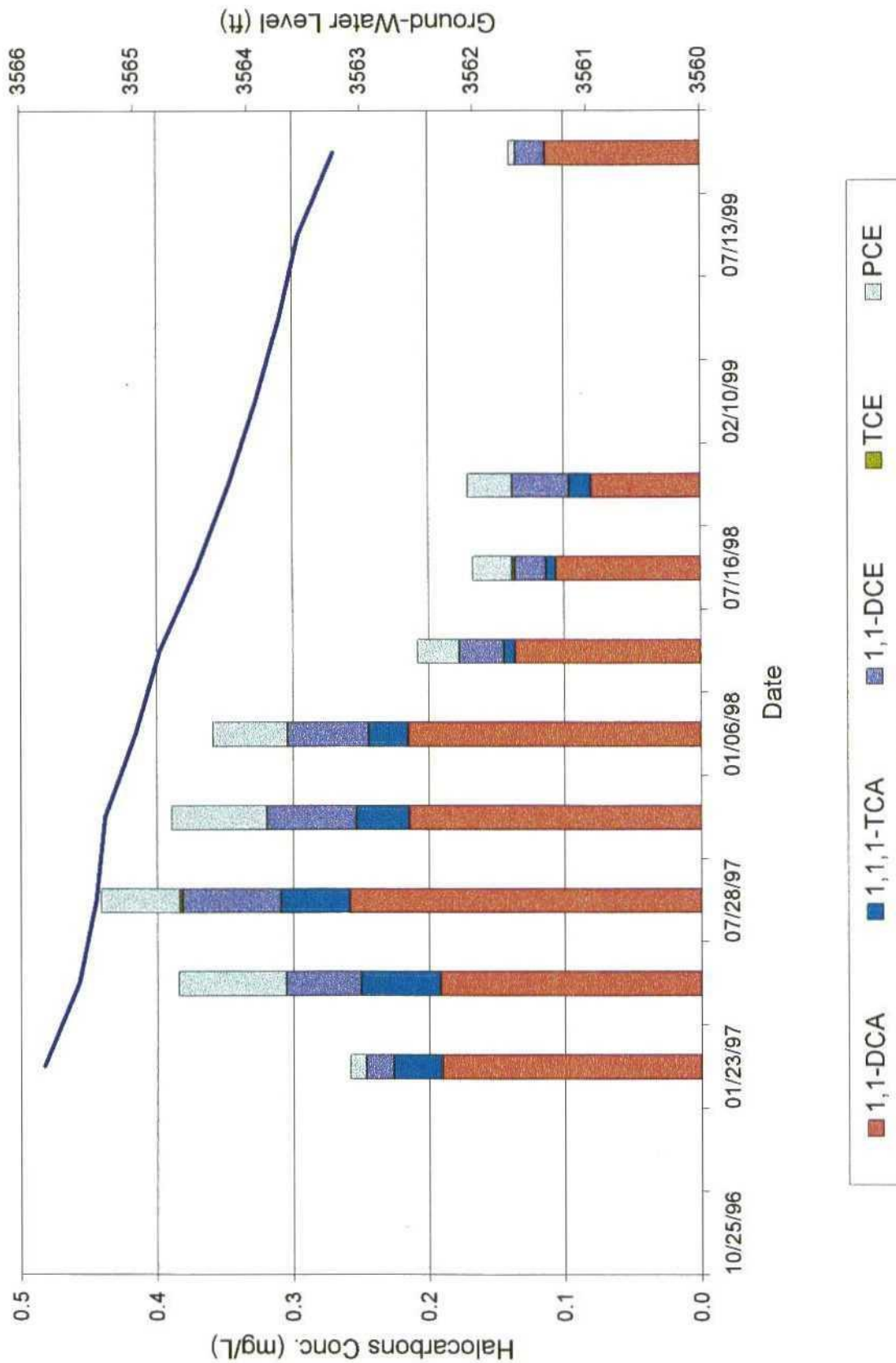
Monitoring Well MW-4

Halocarbons & Ground-Water Level

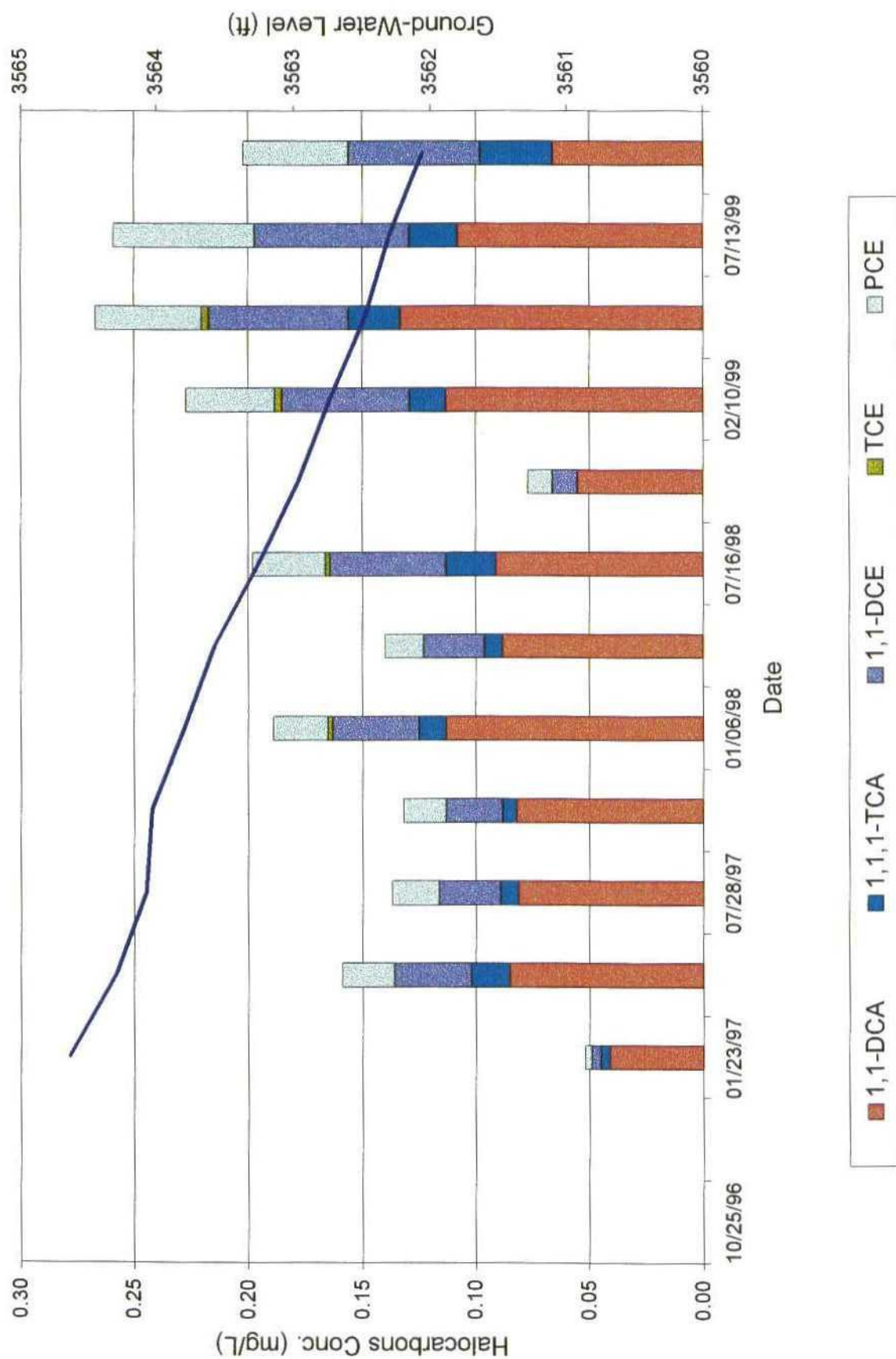


Monitoring Well MW-5

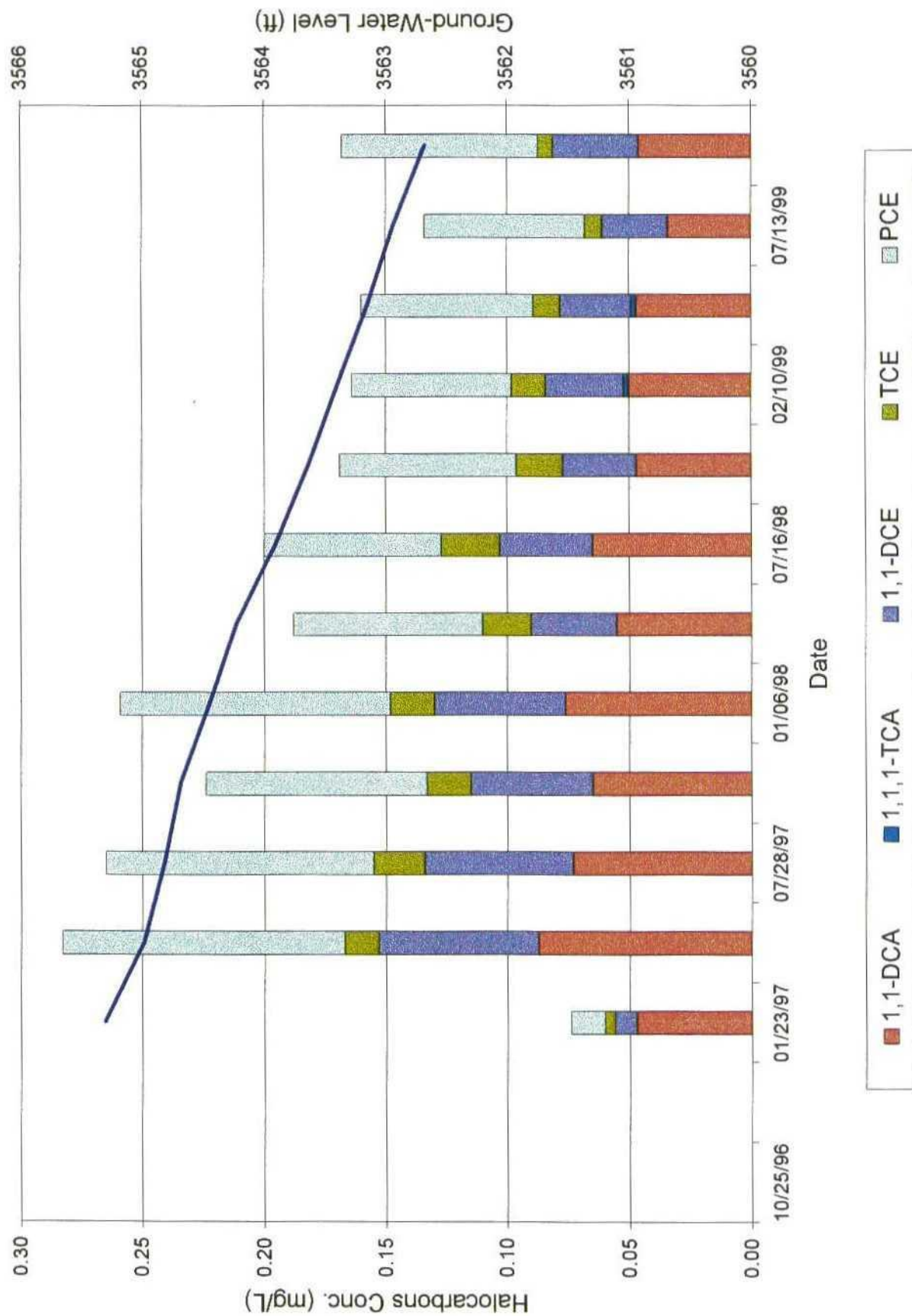
Halocarbons & Ground-Water Level



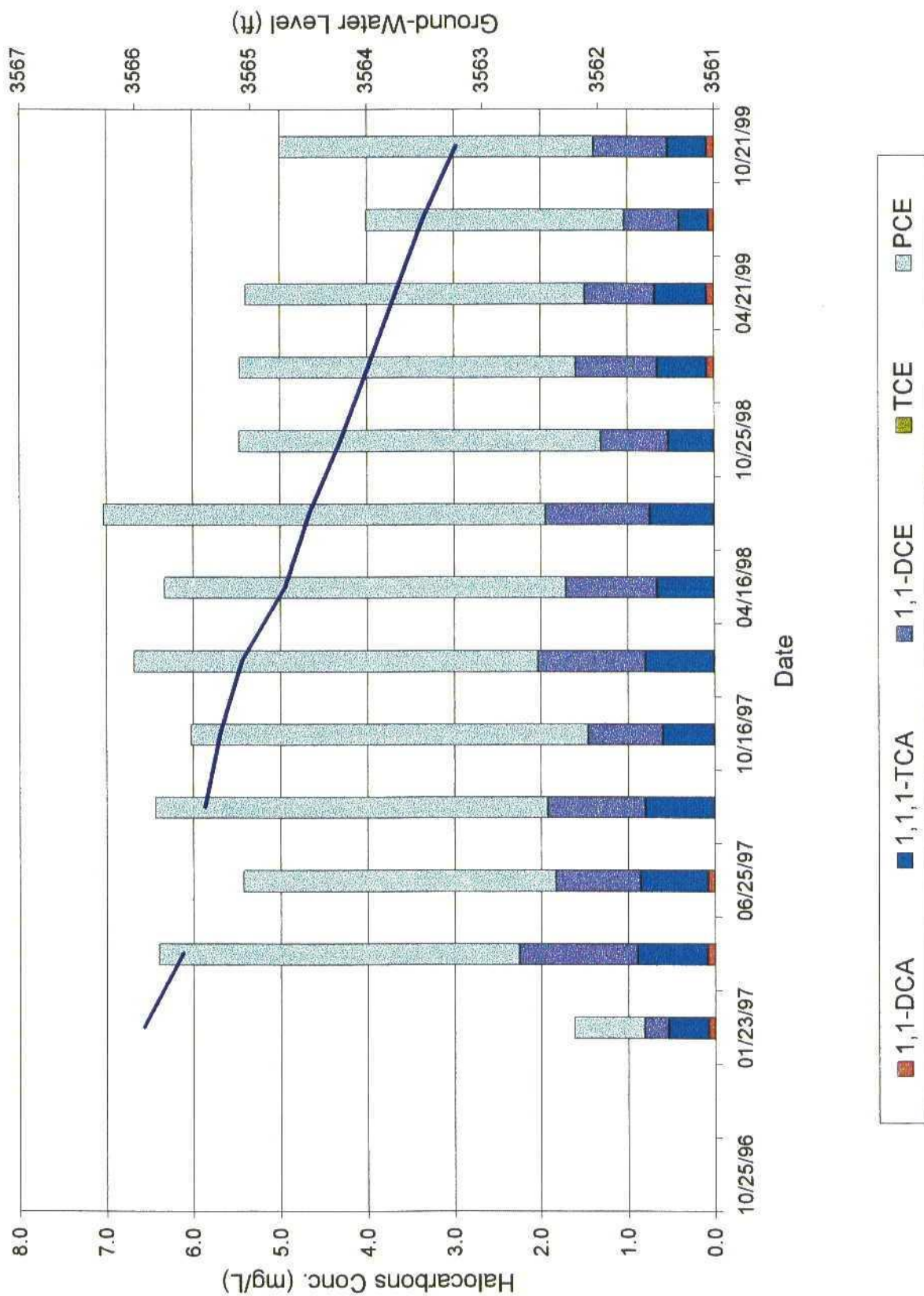
Monitoring Well MW-6 Halocarbons & Ground-Water Level



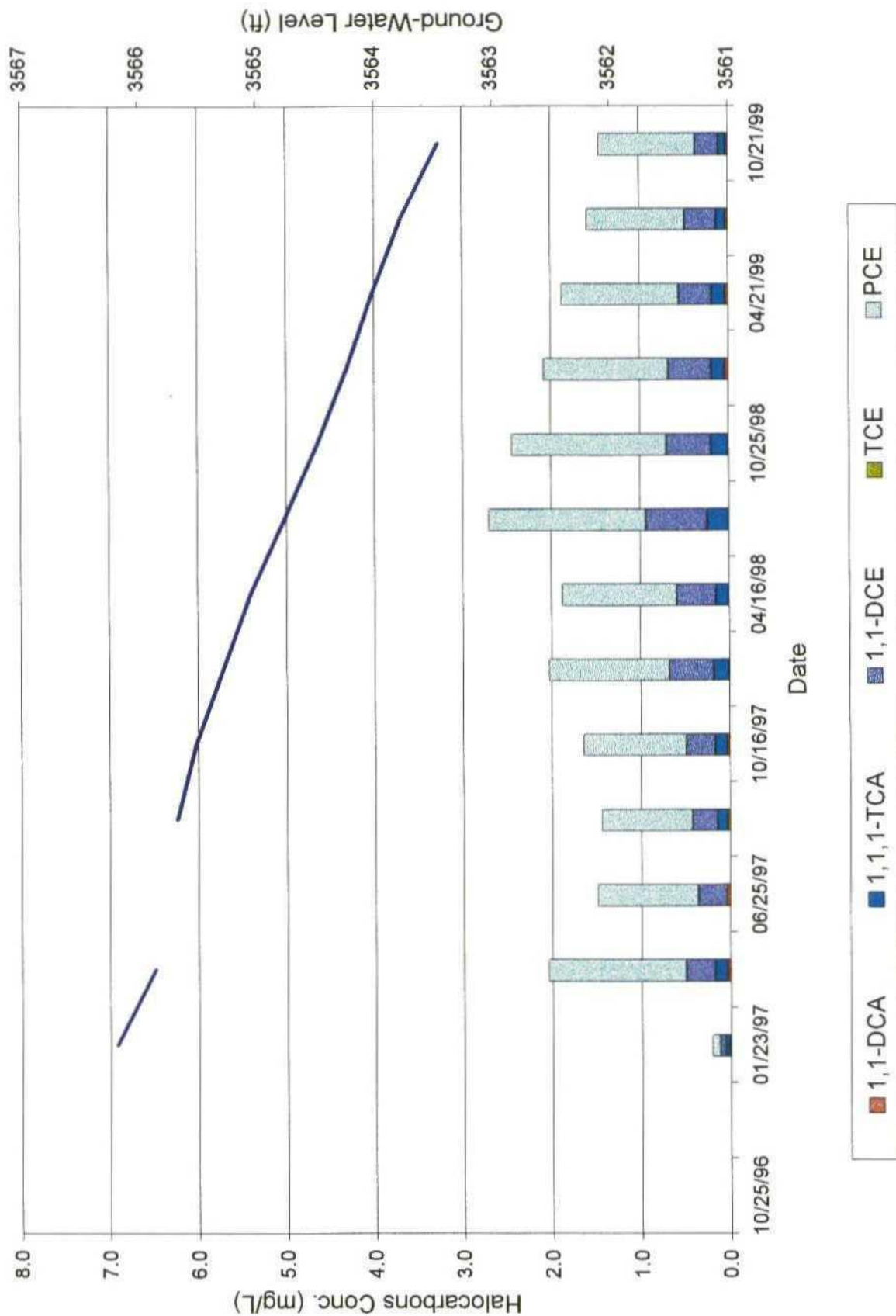
Monitoring Well MW-7 Halocarbons & Ground-Water Level



Monitoring Well MW-8 Halocarbons & Ground-Water Level



Monitoring Well MW-9 Halocarbons & Ground-Water Level



The chart displays two data series over time from 10/25/96 to 07/13/99. The left y-axis represents Halocarbons Concentration (mg/L) from 0.00 to 0.04. The right y-axis represents Ground-Water Level (ft) from 3560 to 3566. The x-axis represents Date. The groundwater level is shown as a blue line, and the halocarbon concentrations are shown as stacked bars with orange, blue, and green segments.

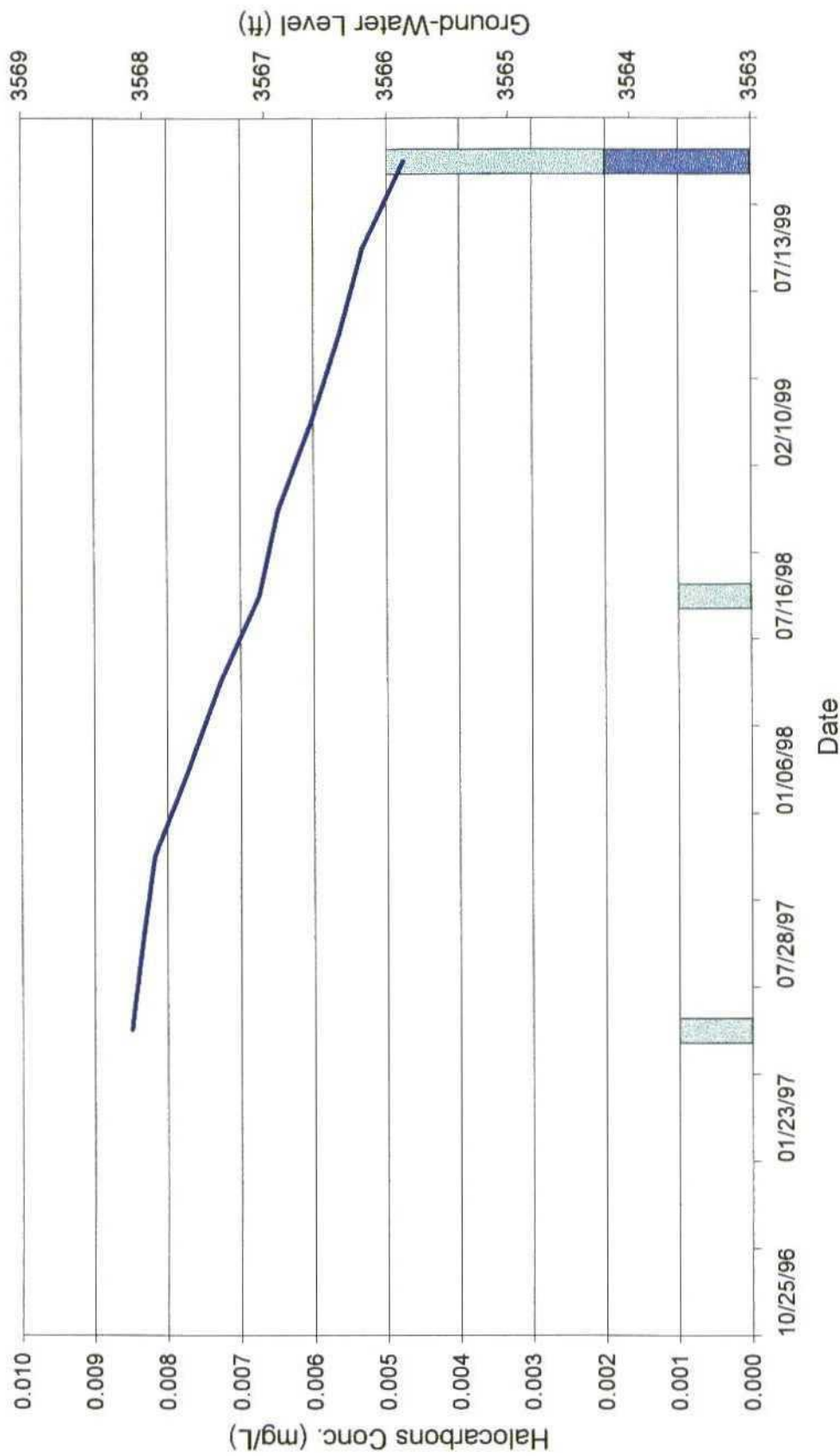
Date	Halocarbons Concentration (mg/L)	Ground-Water Level (ft)
10/25/96	0.00	3563.5
01/23/97	0.003 (orange) + 0.005 (blue) + 0.032 (green) = 0.040	3564.5
07/28/97	0.002 (orange) + 0.005 (blue) + 0.023 (green) = 0.030	3564.8
01/06/98	0.00	3565.5
07/16/98	0.00	3565.8
02/10/99	0.00	3565.5
07/13/99	0.00	3565.2



Monitoring Well MW-11 Halocarbons & Ground-Water Level



Monitoring Well MW-12 Halocarbons & Ground-Water Level



The chart displays two data series over time from 10/25/96 to 07/13/99. The top panel shows Halocarbons Concentration (mg/L) as stacked bars, and the bottom panel shows Ground-Water Level (ft) as a line graph.

Halocarbons Concentration (mg/L) Data (Estimated from Stacked Bars):

Date	Chloroethene (mg/L)	Chloroethane (mg/L)	Total (mg/L)
10/25/96	0.000	0.000	0.000
01/23/97	0.000	0.000	0.000
07/28/97	0.002	0.018	0.020
01/06/98	0.002	0.020	0.022
07/16/98	0.002	0.020	0.022
02/10/99	0.002	0.018	0.020
07/13/99	0.002	0.018	0.020

Ground-Water Level (ft) Data (Estimated from Line Graph):

Date	Ground-Water Level (ft)
10/25/96	3563.5
01/23/97	3563.0
07/28/97	3562.5
01/06/98	3562.0
07/16/98	3561.5
02/10/99	3561.0
07/13/99	3560.5



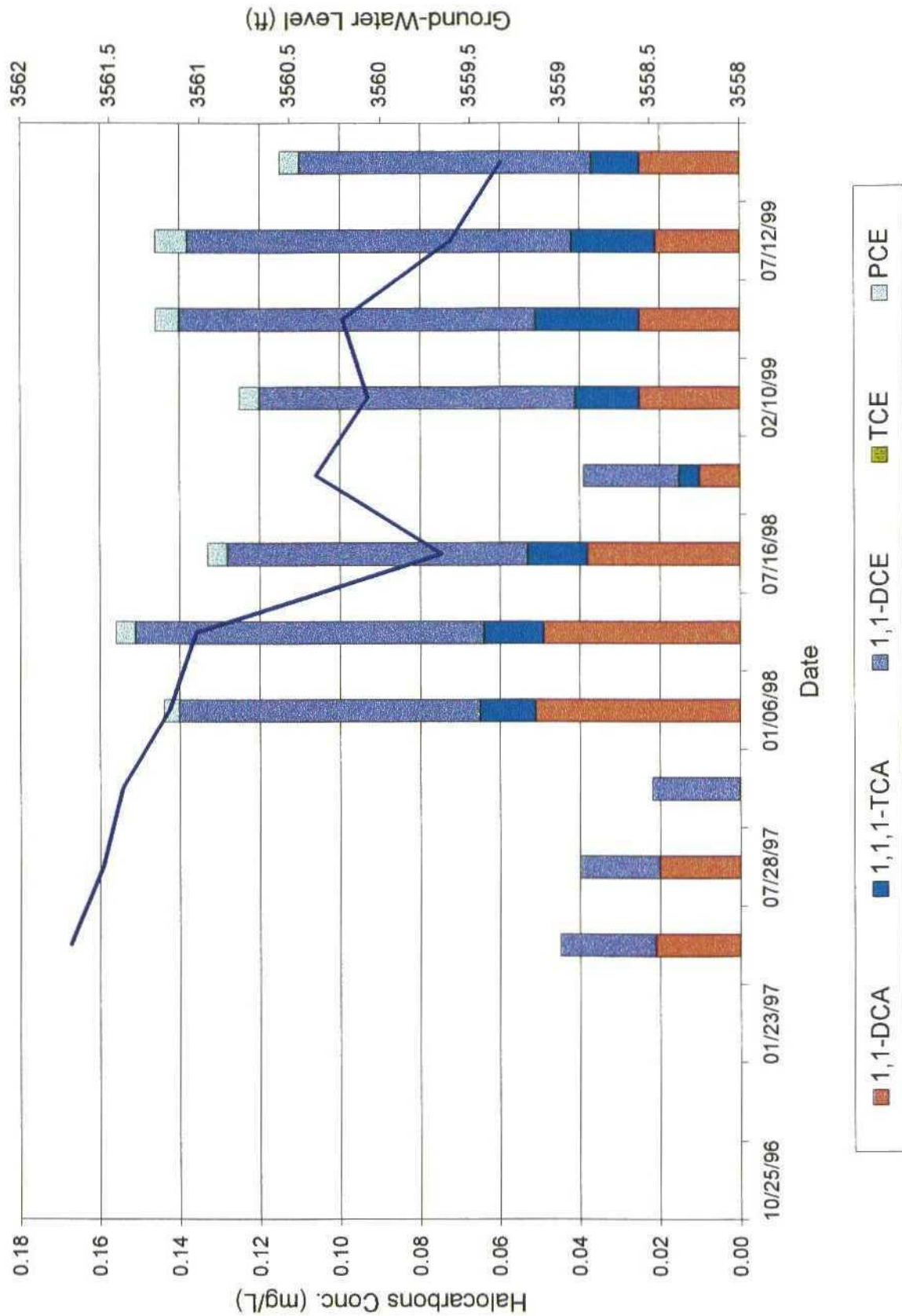
Monitoring Well MW-14 Halocarbons & Ground-Water Level



Monitoring Well MW-15 Halocarbons & Ground-Water Level



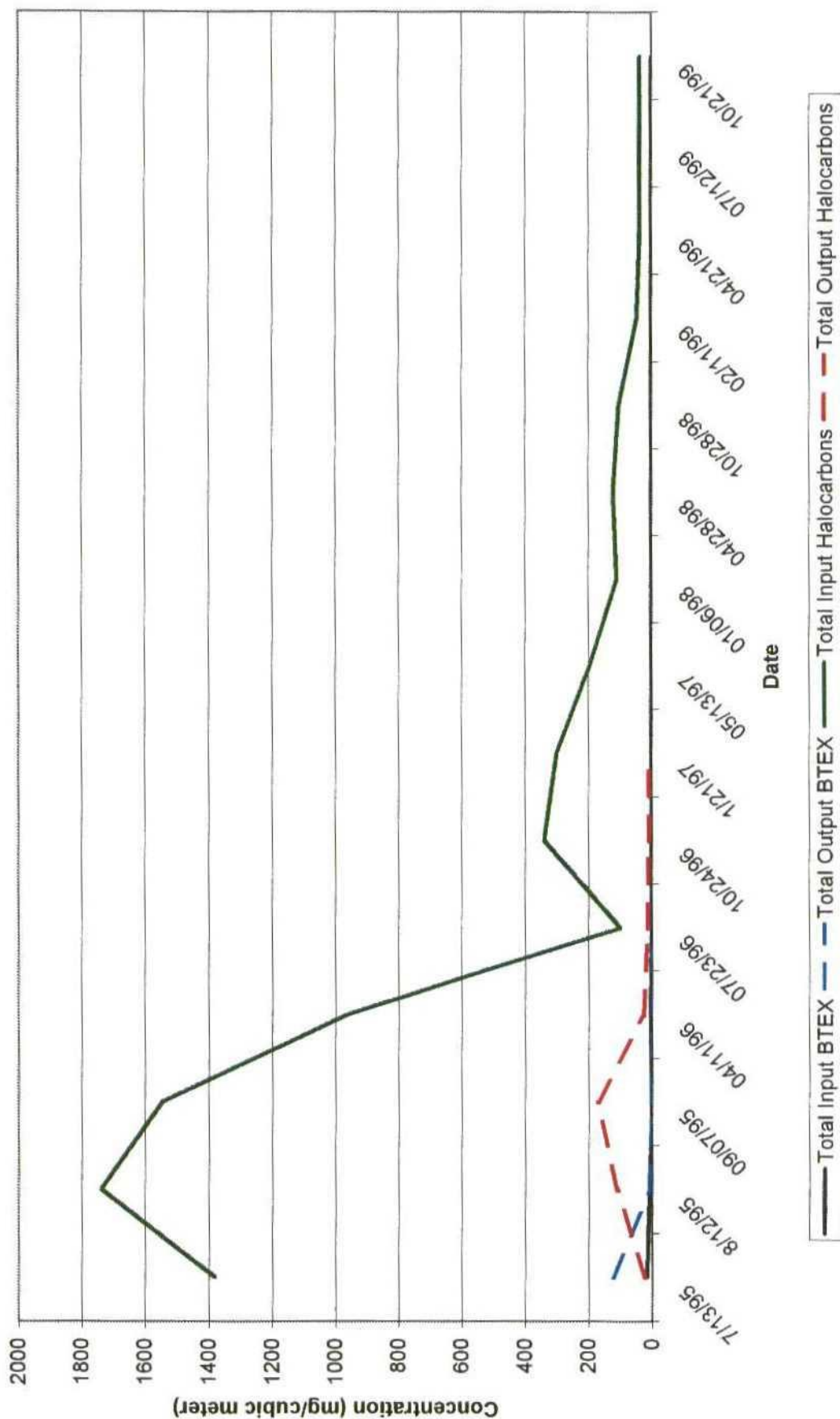
Shell Station Monitoring Well MW-4 Halocarbons & Ground-Water Level



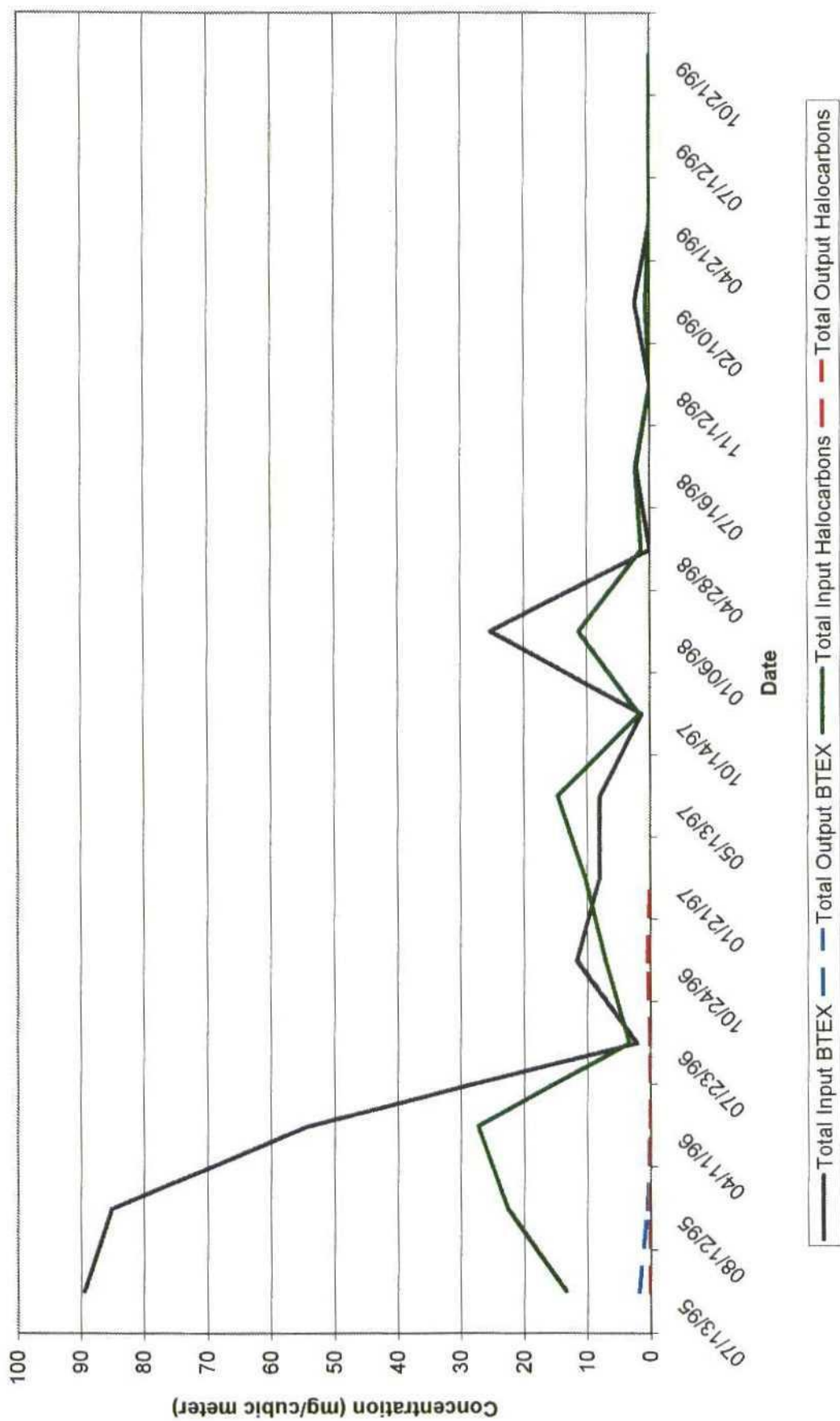
APPENDIX C

SVE Air Emissions

SVE Air Emissions Data Former UST Area



SVE Air Emissions Data Acid Dock Area



SVE Air Emissions Data Former Waste Water Collection Area

