

New York State Department of Environmental Conservation

Department of Environmental Remediation • 625 Broadway • Albany, New York 12233

Site Number 7-09-009

Gladding Cordage Site Quarterly Report Third Quarter 2009

New York State Department of Environmental
Conservation Work Assignment D004443-5

December 2009



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1. Introduction

The New York State Department of Environmental Conservation (NYSDEC) has issued a Work Assignment (# D004443-5) to Malcolm Pirnie, Inc. (Malcolm Pirnie) for Operation, Maintenance, and Monitoring at the Gladding Cordage Site in New York State (Site # 7-09-009). Malcolm Pirnie has prepared this Quarterly Report in accordance with the NYSDEC-approved Work Plan to summarize site activities.



2. Site Activities

2.1. SITE DESCRIPTION

The Gladding Cordage Site is located on Ridge Road, South Otselic, Chenango County, New York (Figure 2-1), along the western bank of the Otselic River.

2.2. OPERATION AND MAINTENANCE

On August 23, 2007, NYSDEC provided a training session to Malcolm Pirnie personnel on the operation and maintenance (O&M) of the groundwater treatment plant at the Gladding Cordage Site. Since then, Malcolm Pirnie has maintained operation of the groundwater treatment plant. This includes the operation, maintenance, and influent/effluent sampling in accordance with the NYSDEC O&M manual (Operation and Maintenance Manual, Volume I, Gladding Cordage Site, Site 7-09-009, TAMS Consultants, Inc., 1996) (O&M Manual).

2.2.1. Treatment System Operation

As shown on the O&M Check Lists and Daily Phone Logs (Appendix A), the Gladding Cordage groundwater treatment system operated with minimal interruptions during the third quarter, 2009. These interruptions were related to power outages confirmed by personnel at the South Otselic NYSDEC Fish Hatchery.

A variable frequency drive (VFD) was installed on January 9, 2008 to regulate the speed of the air stripper blower motor. Following the installation of the VFD, effluent samples were collected at various blower motor frequencies (speeds) including 40 HZ, 50 HZ, and 60 HZ. The analyte 1,1,1-trichloroethene (1,1,1-TCA) was detected at 6 ug/l in the 40 HZ effluent sample but was not detected in the 50 HZ and 60 HZ samples. Following the completion of the January 9, 2008 sampling event the VFD was set to 50 HZ. Additional sampling was conducted in February 2008 to optimize the treatment system blower speed. Based on the results, the VFD setting was reduced to 42 HZ beginning in March 2008. The VFD setting is evaluated on a monthly basis. The current VFD setting is 44 HZ.

The monthly flow rates and total flow volumes for the second quarter 2009 operating period are summarized in Table 2-1. As shown in Table 2-1, the groundwater treatment system pumping rates for RW-1 were approximately 30 GPM. The flow meter for RW-2 was removed for repairs in November 2007 and has not been replaced; no flow measurements are currently reported for this recovery well. The flow rate for RW-2 is

estimated (24.9 GPM) based on previously reported values. Table 2-1 shows that approximately 5.8 million gallons of water were treated between July and September, 2009.

2.2.2. Treatment System Sampling

Influent and effluent groundwater samples were collected from the Gladding Cordage treatment system in accordance with the Work Plan and submitted to Chemtech Laboratories following chain-of-custody protocols for analysis of target compound list (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260B. Analytical Reporting Forms are provided in Appendix B.

2.2.2.1. Influent Sample Results

Table 2-2 and Table 2-3 summarize the VOC influent and effluent sample results, respectfully. Figure 2-2 provides a summary of 1,1,1-TCA concentrations in samples from recovery wells RW-1 and RW-2 since September 2007. Table 2-2 and Figure 2-2 show that the third quarter 2009 concentrations of 1,1,1-TCA in the samples from recovery well RW-1 ranged from 55 micrograms per liter (ug/L) to 77 ug/L and ranged from 49 ug/L to 58 ug/L in the samples from RW-2. These results exceed the corresponding NYSDEC Class GA Standard of 5 ug/L. Figure 2-2 shows that the concentrations of 1,1,1-TCA in the samples from RW- 1 and RW-2 increased compared to results from the second quarter 2009 operating period, but the concentrations are within the range of previously reported results from these wells.

As shown in Table 2-2, the concentrations of 1,1-dichloroethane in the samples from RW-1 ranged from 2.5 ug/L to 3.4 ug/L; the concentrations of 1,1-dichloroethene ranged from 3.2 ug/L to 3.4 ug/L. These results are less than the applicable NYSDEC Class GA Standard of 5 ug/L for these compounds.

2.2.2.2. Effluent Sample Results

Table 2-3 summarizes laboratory analytical data for effluent samples collected from the treatment system. As shown in Table 2-3, 1,1,1-TCA was detected in the third quarter effluent samples at concentrations of 2.2 ug/L, 2.7 ug/L, and 1.3 ug/L, respectively. These results are less than the corresponding NYSDEC Class GA Standard of 5ug/L. No other VOCs were detected in any of the third quarter 2009 effluent samples from the treatment system.

Based on influent sample concentrations and total flow volumes from the Gladding Cordage treatment system, approximately three pounds of VOCs were removed by the treatment system during the third quarter 2009 operating period.

2.2.3 General Operation and Maintenance

The stick-up protective well casings for groundwater monitoring wells located within the Town Park (TW-6S, TW-6I, TW-6D, and TW-10D) were retrofitted with flush-mount protective casings. Figure 2-3 shows the locations of these wells. The work was

performed by Aztech Technologies on September 10, 2009. Following the well repairs, Malcolm Pirnie conducted a vertical survey to obtain the new measuring point elevations for these wells. Table 2-4 provides a summary with the revised measuring point elevations.

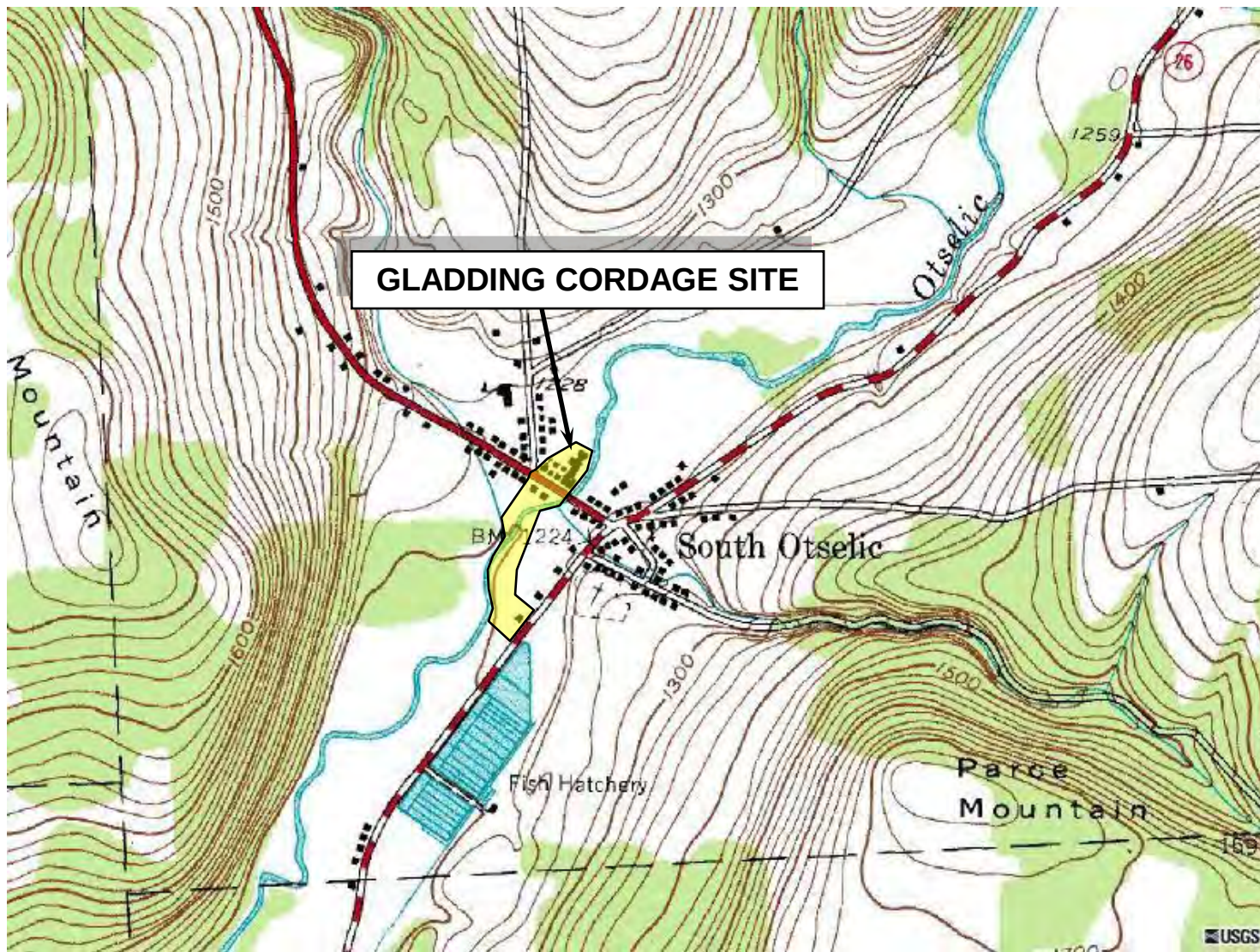
No additional repairs were performed at the Gladding Cordage site during the third quarter 2009 operational period.

2.3. GROUNDWATER MONITORING PROGRAM

At the direction of the NYSDEC, groundwater samples were collected from the site using Passive Diffusion Bags (PDBs) during the second quarter 2009. The results of the sampling event were submitted in the second quarter 2009 Gladding Cordage Site Quarterly Report and Annual Groundwater Monitoring Summary (Malcolm Pirnie, 2009).

3. Summary

The Gladding Cordage groundwater treatment system operated with minimal interruption during the second quarter 2009. The average total flow rate through the treatment system during this period was approximately 55 GPM. Total flow through the treatment system during the third quarter operational period was approximately 5.8 million gallons. Based on monthly influent and effluent sampling, the treatment system successfully removes VOCs from groundwater extracted from the capture zone. Although 1,1,1-TCA was detected in third quarter effluent samples, none of the results were greater than the corresponding NYSDEC Class GA Standard. If the presence of 1,1,1-TCA in effluent from the treatment system continues in the fourth quarter, the VFD setting for the air stripper blower will be adjusted accordingly. Approximately three pounds of VOCs were removed by the treatment system during the third quarter 2009.



SOURCE: U.S.G.S 7.5 MIN. SOUTH OTSELIC QUAD, 1988

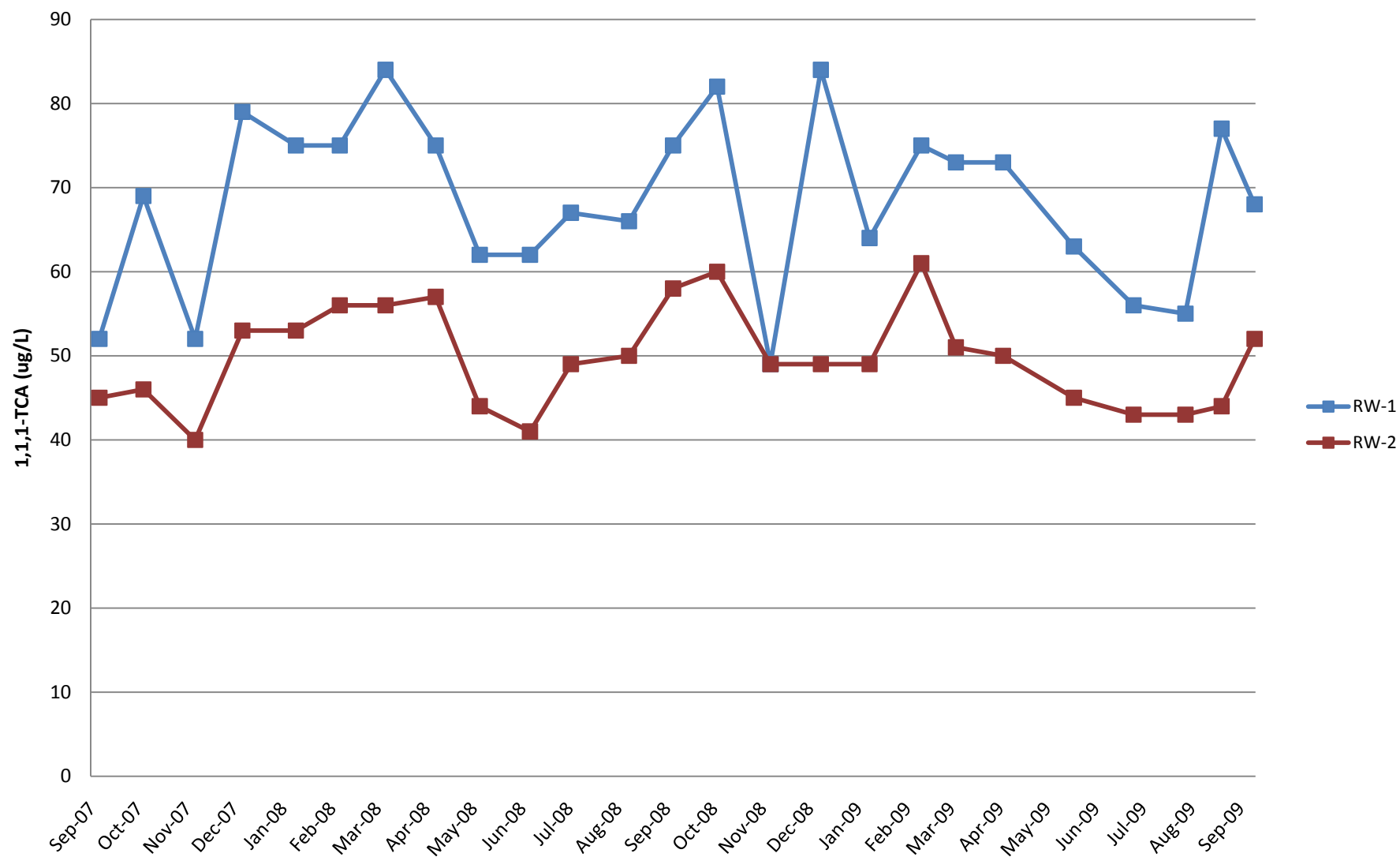


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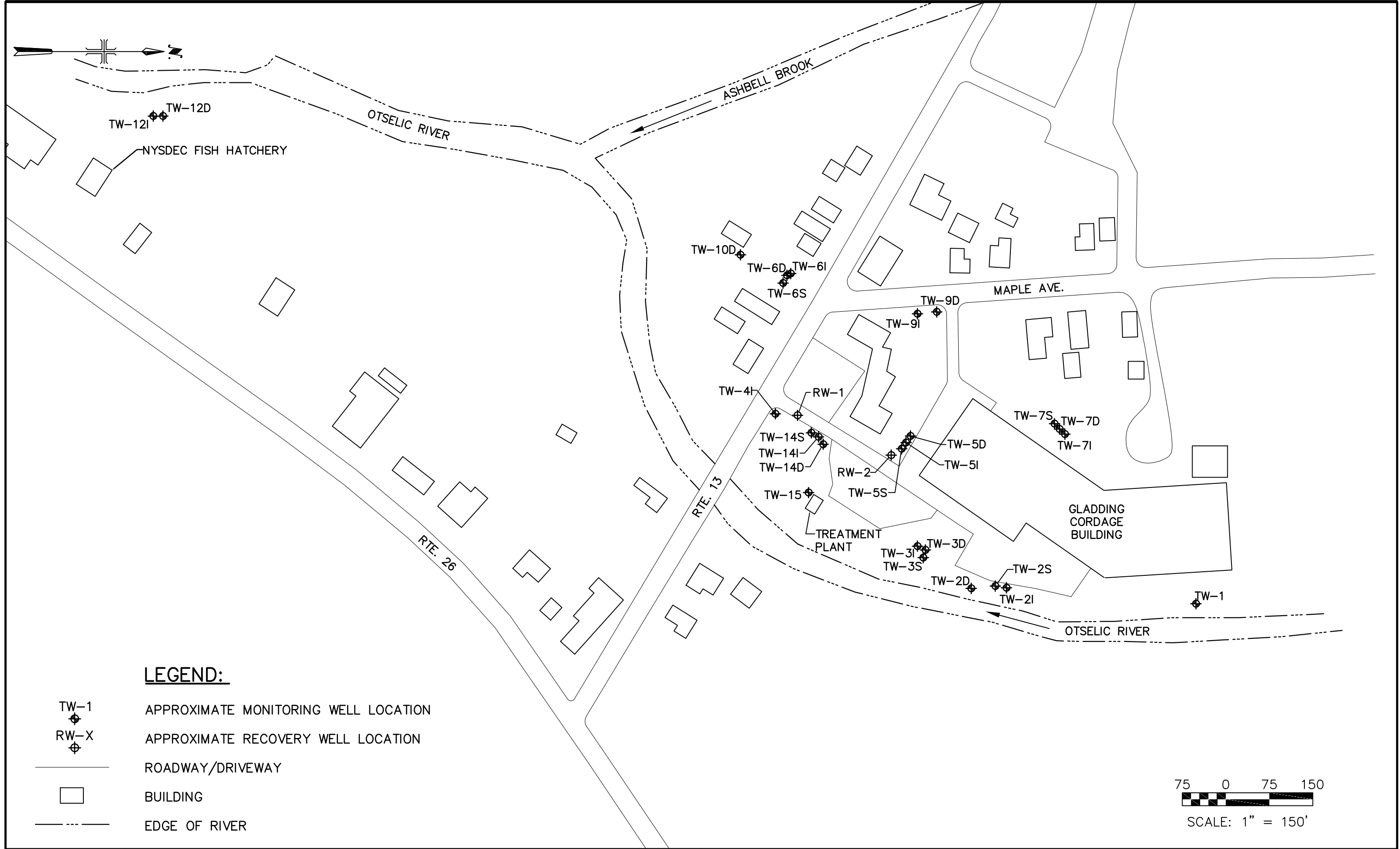
NYSDEC STANDBY CONTRACT NO. D004443-5
GLADDING CORDAGE – SITE NUMBER 7-09-009
SOUTH OTSELIC, NEW YORK
GLADDING CORDAGE SITE LOCATION

FIGURE 2-1

Figure 2-2
Treatment System Influent Sample Concentrations (1,1,1-TCA)
Gladding Cordage Site
NYSDEC Site Number 7-09-009



XREFS: I:\ACAD\PROJ\0266\365\X-Refs\Basemap.dwg IMAGES: None
User: Lewandowski Spec: PIRNIE STANDARD File: I:\ACAD\PROJ\0266\365\Figures\FIGURE 2-2_8_23_S.DWG Scale: 1:1 Date: 12/02/2009 Time: 14:34 Layout: Layout1



**TABLE 2-1
TREATMENT SYSTEM STATUS AND FLOW SUMMARY
GLADDING CORDAGE SITE
SOUTH OTSELIC, NEW YORK
NYSDEC SITE NO. 7-04-009A**

Month	System Operation (days)	System On-time (% of possible days)	Well On-time		Flow Rates		Totalizer	Recovery Well Total Flows		Total System Flow (gallons)	Quarterly Totals (gallons)
			RW-1 (% possible)	RW-2 (% possible)	RW-1 (gpm)	RW-2 (gpm)		RW-1 (gallons)	RW-2 (gallons)		
August-07	8 ⁽¹⁾	100%	100%	100%	38	24	-	437760 ⁽³⁾	276480 ⁽³⁾	714,240	3,435,840
September-07	30	100%	100%	100%	38	25	-	1641600 ⁽³⁾	1080000 ⁽³⁾	2,721,600	
October-07	20	65%	100%	100%	38.2	25.7	2276270	1100160 ⁽³⁾	740160 ⁽³⁾	1,840,320	
November-07	30	100%	67%	100%	39.9	24.9 ⁽²⁾	3235110	958840 ⁽⁴⁾	1075680 ⁽³⁾	2,034,520	6,172,646
December-07	31	100%	39%	100%	31.8	24.9 ⁽²⁾	4421380	1186270 ⁽⁴⁾	1111536 ⁽³⁾	2,297,806	
January-08	31	100%	100%	100%	31.8	24.9 ⁽²⁾	5278000	856620 ⁽⁴⁾	1111536 ⁽³⁾	1,968,156	
February-08	26	90%	69%	88%	32	24.9 ⁽²⁾	6457610	1179610 ⁽⁴⁾	820385 ⁽³⁾	1,999,995	5,503,499
March-08	23	74%	100%	100%	32.9	24.9 ⁽²⁾	7168270	710660 ⁽⁴⁾	824688 ⁽³⁾	1,535,348	
April-08	30	100%	100%	100%	30.8	24.9 ⁽²⁾	8219790	1051520 ⁽⁴⁾	1075680 ⁽³⁾	2,127,200	
May-08	31	100%	100%	100%	31.3	24.9 ⁽²⁾	9458370	1238580 ⁽⁴⁾	1111536 ⁽³⁾	2,350,116	6,846,908
June-08	27	90%	100%	100%	30.5	24.9 ⁽²⁾	10859850	1401480 ⁽⁴⁾	968112 ⁽³⁾	2,369,592	
July-08	28	90%	68%	100%	30.1	24.9 ⁽²⁾	11889440	1029590 ⁽⁴⁾	1003968 ⁽³⁾	2,033,558	
August-08	28	90%	100%	100%	30	24.9 ⁽²⁾	12832500	943060 ⁽⁴⁾	1003968 ⁽³⁾	1,947,028	6,201,456
September-08	30	100%	100%	100%	29.8	24.9 ⁽²⁾	13977690	1145190 ⁽⁴⁾	1075680 ⁽³⁾	2,220,870	
October-08	31	100%	100%	100%	30	24.9 ⁽²⁾	15190100	1212410 ⁽⁴⁾	1111536 ⁽³⁾	2,323,946	
November-08	30	100%	100%	100%	31.7	24.9 ⁽²⁾	16722470	1532370 ⁽⁴⁾	1075680 ⁽³⁾	2,608,050	7,494,552
December-08	31	100%	100%	100%	31.3	24.9 ⁽²⁾	18173490	1451020 ⁽⁴⁾	1111536 ⁽³⁾	2,562,556	
Total Flow 2007								5,324,630	4,283,856	9,608,486	
Total Flow 2008								13,752,110	12,294,305	26,046,415	

Notes:

1 - System started on 8/23/07.

2 - Flow meter inoperative. Flow based on average flow from August, September, and October 2008.

3 - Calculated based on percentage of system on-time, flow rate, and percentage of recovery well on-time.

4 - Calculated from totalizer values.

gpm - Gallons per minute

**TABLE 2-1
TREATMENT SYSTEM STATUS AND FLOW SUMMARY
GLADDING CORDAGE SITE
SOUTH OTSELIC, NEW YORK
NYSDEC SITE NO. 7-04-009A**

Month	System Operation (days)	System On-time (% of possible days)	Well On-time		Flow Rates		Totalizer	Recovery Well Total Flows			Total System Flow	Quarterly Totals (gallons)
			RW-1 (% possible)	RW-2 (% possible)	RW-1 (gpm)	RW-2 (gpm)	RW-1 (gallons)	RW-1 (gallons)	RW-2 (gallons)	(gallons)	(gallons)	
January-09	31	100%	100%	100%	31.3	24.9 ⁽²⁾	19566200	1392710 ⁽⁴⁾	1111536 ⁽³⁾		2,504,246	6,931,910
February-09	28	100%	100%	100%	30.8	24.9 ⁽²⁾	20929320	1363120 ⁽⁴⁾	1003968 ⁽³⁾		2,367,088	
March-09	31	100%	100%	100%	30.8	24.9 ⁽²⁾	21878360	949040 ⁽⁴⁾	1111536 ⁽³⁾		2,060,576	
April-09	30	100%	100%	100%	31.2	24.9 ⁽²⁾	23159480	1281120 ⁽⁴⁾	1075680 ⁽³⁾		2,356,800	8,217,156
May-09	31	100%	100%	100%	31.5	24.9 ⁽²⁾	25128390	1968910 ⁽⁴⁾	1111536 ⁽³⁾		3,080,446	
June-09	30	100%	100%	100%	31.1	24.9 ⁽²⁾	26832620	1704230 ⁽⁴⁾	1075680 ⁽³⁾		2,779,910	
July-09	28	90%	100%	100%	30.4	24.9 ⁽²⁾	27568640	736020 ⁽⁴⁾	1003968 ⁽³⁾		1,739,988	5,833,432
August-09	29	94%	100%	100%	30.6	24.9 ⁽²⁾	28551120	982480 ⁽⁴⁾	1039824 ⁽³⁾		2,022,304	
September-09	30	100%	100%	100%	30.3	24.9 ⁽²⁾	29546580	995460 ⁽⁴⁾	1075680 ⁽³⁾		2,071,140	
Total Flow 2009								11,373,090	9,609,408		20,982,498	

Notes:

1 - System started on 8/23/07.

2 - Flow meter inoperative. Flow based on average flow from August, September, and October 2008.

3 - Calculated based on percentage of system on-time, flow rate, and percentage of recovery well on-time.

4 - Calculated from totalizer values.

gpm - Gallons per minute

TABLE 2-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	RW-1 9/6/2007 WATER ug/L	RW-2 9/6/2007 WATER ug/L	RW-1 10/4/2007 WATER ug/L	RW-2 10/4/2007 WATER ug/L	RW-1 11/6/2007 WATER ug/L	RW-2 11/6/2007 WATER ug/L	RW-1 12/6/2007 WATER ug/L	RW-2 12/6/2007 WATER ug/L	RW-1 1/9/2008 WATER ug/L	RW-2 1/9/2008 WATER ug/L	RW-1 2/6/2008 WATER ug/L	RW-2 2/6/2008 WATER ug/L	RW-1 3/6/2008 WATER ug/L	RW-2 3/6/2008 WATER ug/L	RW-1 4/7/2008 WATER ug/L	RW-2 4/7/2008 WATER ug/L	RW-1 5/5/2008 WATER ug/L	RW-2 5/5/2008 WATER ug/L
VOCS																			
1,1,1-Trichloroethane	5	52	45	69	46	52	40	79	53	75	53	75	56	84	56	75	57	62	44
1,1,2,2-Tetrachloroethane	5	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.49 U	0.49 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37
1,1,2-Trichloroethane	1	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.52 U	0.52 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32
1,1,2-Trichlorotrifluoroethane	5	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	0.35 U	0.35 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61
1,1-Dichloroethane	5	0.38 U	0.38 U	0.38 U	0.38 U	2.4 J	0.38 U	3.4	1.2	2.6	0.98 J	3.4 J	1.2 J	3.8 J	1.3 J	3.2 J	0.67 U	0.67 U	0.67
1,1-Dichloroethene	5	12	7.9	4.0 J	5.4	1.3 J	1.1 J	6.0	4.1	1.6	1.0	2.6 J	1.7 J	6.9	3.8 J	2.2 J	2.1 J	5.5	4.2
1,2,4-Trichlorobenzene		0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.41 U	0.41 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39
1,2-Dibromo-3-Chloropropane	0.04	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.45 U	0.45 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58
1,2-Dibromoethane	5	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.56 U	0.56 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26
1,2-Dichlorobenzene	3	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.48 U	0.48 U	0.40 U	0.40 U	0.40 U	0.40 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4
1,2-Dichloroethane	0.6	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.38 U	0.38 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41
1,2-Dichloropropane	1	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.56 U	0.56 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46
1,3-Dichlorobenzene	3	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.45 U	0.45 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28
1,4-Dichlorobenzene	3	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.43 U	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22
2-Butanone	50	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	4.6 U	4.6 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9
2-Hexanone	50	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	2.9 U	2.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8
4-Methyl-2-Pentanone		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	2.7 U	2.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8
Acetone	50	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.7 U	2.7 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2
Benzene	1	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.52 U	0.52 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35
Bromodichloromethane	50	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.59 U	0.59 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23
Bromoform	50	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.42 U	0.42 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44
Bromomethane	5	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.63 U	0.63 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4
Carbon Disulfide		0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.51 U	0.51 U	0.20 U	0.20 U	0.20 U	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2
Carbon Tetrachloride	5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.49 U	0.49 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27
Chlorobenzene	5	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.50 U	0.50 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28
Chloroethane	5	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.49 U	0.49 U	0.80 U	0.80 U	0.80 U	0.80 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8
Chloroform	7	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.46 U	0.46 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45
Chloromethane		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.38 U	0.38 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37
cis-1,2-Dichloroethene	5	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.53 U	0.53 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72
cis-1,3-Dichloropropene	0.4	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.54 U	0.54 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29
Cyclohexane		0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.37 U	0.37 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57
Dibromochloromethane	50	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.45 U	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23
Dichlorodifluoromethane	5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.43 U	0.43 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88
Ethyl Benzene	5	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.50 U	0.50 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05
Isopropylbenzene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37
m/p-Xylenes	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.97 U	0.97 U	0.47 U	0.47 U	0.47 U	0.47 U	1.4 J	1.2 J	0.47 U	0.47 U	0.47 U	0.47
Methyl Acetate		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.92 U	0.92 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45
Methyl tert-butyl Ether		0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.50 U	0.50 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23
Methylcyclohexane		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.43 U	0.43 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47
Methylene Chloride	5	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.52 U	0.52 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38
o-Xylene		0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.51 U	0.51 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16
Styrene	5	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.48 U	0.48 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19
t-1,3-Dichloropropene	0.4	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.44 U	0.44 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31
Tetrachloroethene	5	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.68 U	0.68 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97
Toluene	5	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16
trans-1,2-Dichloroethene	5	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.57 U	0.57 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44
Trichloroethene	5	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.56 U	0.56 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34
Trichlorofluoromethane	5	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.40 U	0.40 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53
Vinyl Chloride	2	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.46 U	0.46 U	0.30 U	0.30 U	0.30 U	0.30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3
Total VOCs		64	53	73	51	55.7	41	88.4	58	79.2	55.0	81	58.9	96.1	62.3	80.4	59.1	67.5	48.2

- Concentration exceeds corresponding NYSDEC
Class GA Standard.
U - Not detected at the indicated concentration
J - Estimated concentration.

TABLE 2-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L		RW-1 6/6/2008 WATER ug/L	RW-2 6/6/2008 WATER ug/L	RW-1 7/2/2008 WATER ug/L	RW-2 7/2/2008 WATER ug/L	RW-1 8/8/2008 WATER ug/L	RW-2 8/8/2008 WATER ug/L	RW-1 9/5/2008 WATER ug/L	RW-2 9/5/2008 WATER ug/L	RW-1 10/3/2008 WATER ug/L	RW-2 10/3/2008 WATER ug/L	RW-1 11/6/2008 WATER ug/L	RW-2 11/6/2008 WATER ug/L	RW-1 12/8/2008 WATER ug/L	RW-2 12/8/2008 WATER ug/L	RW-1 1/8/2009 WATER ug/L	RW-2 1/8/2009 WATER ug/L	RW-1 2/10/2009 WATER ug/L
VOCS																			
1,1,1-Trichloroethane	5		62	41	67	49	66	50	75	58	82	60	49	49	84	49	64	49	75
1,1,2,2-Tetrachloroethane	5	U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1 U	1 U	1 U	1 U	1 U	1 U	0.31 U
1,1,2-Trichloroethane	1	U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	1 U	1 U	1 U	1 U	1 U	1 U	0.38 U
1,1,2-Trichlorotrifluoroethane	5	U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	1 U	1 U	1 U	1 U	1 U	1 U	0.45 U
1,1-Dichloroethane	5	U	2 J	0.92 J	2.8 J	1 J	2.6 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	2	1 U	6.4	4.3	2	1 U	3.2
1,1-Dichloroethene	5	J	4.8 J	3 J	5.5	4.6 J	3.3 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	3.2	1 U	7.8	5.2	2.1	1 U	2.4
1,2,4-Trichlorobenzene		U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	1 U	1 U	1 U	1 U	1 U	1 U	0.62 U
1,2-Dibromo-3-Chloropropane	0.04	U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	1 U	1 U	1 U	1 U	1 U	1 U	0.46 U
1,2-Dibromoethane	5	U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	1 U	1 U	1 U	1 U	1 U	1 U	0.41 U
1,2-Dichlorobenzene	3	U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	0.45 U
1,2-Dichloroethane	0.6	U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U	1 U	1 U	1 U	0.48 U
1,2-Dichloropropane	1	U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	1 U	1 U	1 U	1 U	1 U	1 U	0.46 U
1,3-Dichlorobenzene	3	U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	1 U	1 U	1 U	1 U	1 U	1 U	0.43 U
1,4-Dichlorobenzene	3	U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	1 U	1 U	1 U	1 U	1 U	1 U	0.32 U
2-Butanone	50	U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U
2-Hexanone	50	U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	5 U	5 U	5 U	5 U	5 U	5 U	1.9 U
4-Methyl-2-Pentanone		U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	5 U	5 U	5 U	5 U	5 U	5 U	2.1 U
Acetone	50	U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	5 U	5 U	5 U	5 U	5 U	5 U	2.8 U
Benzene	1	U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	1 U	1 U	1 U	1 U	1 U	1 U	0.32 U
Bromodichloromethane	50	U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	1 U	1 U	1 U	1 U	1 U	1 U	0.36 U
Bromoform	50	U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	1 U	1 U	1 U	1 U	1 U	1 U	0.47 U
Bromomethane	5	U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1 U	1 U	1 U	1 U	1 U	1 U	0.62 U
Carbon Disulfide		U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	0.54 U
Carbon Tetrachloride	5	U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	1 U	1 U	1 U	1 U	7.8	5.9	8
Chlorobenzene	5	U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	1 U	1 U	1 U	1 U	1 U	1 U	0.49 U
Chloroethane	5	U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U	1 U	1 U	0.66 U
Chloroform	7	U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U	1 U	1 U	1 U	0.34 U
Chloromethane		U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1 U	1 U	1 U	1 U	1 U	1 U	0.54 U
cis-1,2-Dichloroethene	5	U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	1 U	0.82 J	1 U	1 U	1 U	1 U	0.35 U
cis-1,3-Dichloropropene	0.4	U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	1 U	1 U	1 U	1 U	1 U	1 U	0.31 U
Cyclohexane		U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	1 U	2.8	1 U	1 U	1 U	1 U	0.55 U
Dibromochloromethane	50	U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	1 U	1 U	1 U	1 U	1 U	1 U	0.52 U
Dichlorodifluoromethane	5	U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	1 U	1 U	1 U	1 U	1 U	1 U	0.55 U
Ethyl Benzene	5	U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1 U	1 U	1 U	1 U	1 U	1 U	0.53 U
Isopropylbenzene	5	U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1 U	1 U	1 U	1 U	1 U	1 U	0.45 U
m/p-Xylenes	5	U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	2 U	2 U	2 U	2 U	2 U	2 U	0.95 U
Methyl Acetate		U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U	1 U	1 U	1 U	0.83 U
Methyl tert-butyl Ether		U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	1 U	1 U	1 U	1 U	1 U	1 U	0.35 U
Methylcyclohexane		U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1 U	1 U	1 U	1 U	1 U	1 U	0.68 U
Methylene Chloride	5	U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	1 U	1 U	1 U	1 U	1 U	1 U	0.41 U
o-Xylene		U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1 U	1 U	1 U	1 U	1 U	1 U	0.43 U
Styrene	5	U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	1 U	1 U	1 U	1 U	1 U	1 U	0.36 U
t-1,3-Dichloropropene	0.4	U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	1 U	1 U	1 U	1 U	1 U	1 U	0.29 U
Tetrachloroethene	5	U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	1 U	1 U	1 U	1 U	1 U	1 U	0.27 U
Toluene	5	U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1 U	1 U	1 U	1 U	1 U	1 U	0.37 U
trans-1,2-Dichloroethene	5	U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	1 U	1 U	1 U	1 U	1 U	1 U	0.41 U
Trichloroethene	5	U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	1 U	1 U	1 U	1 U	1 U	1 U	0.28 U
Trichlorofluoromethane	5	U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1 U	1 U	1 U	1 U	1 U	1 U	0.35 U
Vinyl Chloride	2	U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	1 U	1 U	1 U	1 U	1 U	0.34 U
Total VOCs			66.8	44.0	75.3	54.6	71.9	50.0	75	58.0	85.1	60.0	54.2	52.6	98.2	58.5	75.9	54.9	88.6

- Concentration exceeds corresponding NYSDEC
Class GA Standard.

U - Not detected at the indicated concentration

J - Estimated concentration.

TABLE 2-2
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (INFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	RW-2 2/10/2009 WATER ug/L	RW-1 3/4/2009 WATER ug/L	RW-2 3/4/2009 WATER ug/L	RW-1 4/3/2009 WATER ug/L	RW-2 4/3/2009 WATER ug/L	RW-1 5/18/2009 WATER ug/L	RW-2 5/18/2009 WATER ug/L	RW-1 6/25/2009 WATER ug/L	RW-2 6/25/2009 WATER ug/L	RW-1 7/28/2009 WATER ug/L	RW-2 7/28/2009 WATER ug/L	RW-1 8/20/2009 WATER ug/L	RW-2 8/20/2009 WATER ug/L	RW-1 9/10/2009 WATER ug/L	RW-2 9/10/2009 WATER ug/L
VOCS																
1,1,1-Trichloroethane	5	61	73	51	73	50	63	45	56	43	55	43	77	44	68	52
1,1,2,2-Tetrachloroethane	5	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1.2	3	1.2	2.6	0.36 U	2.8	1.1	2.4	0.94 J	2.5	0.85 J	3.4	0.95 J	3.2	1.1
1,1-Dichloroethene	5	1.8	0.47 U	0.47 U	2.8	0.47 U	1.3	0.73 J	1.6	0.87 J	3.2	1.9	3.4	1.7	3.4	2
1,2,4-Trichlorobenzene		0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	6.4	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs		70.4	76.0	52.2	78.4	50.0	67.1	46.8	60.0	44.8	60.7	45.8	83.8	46.7	74.6	55.1

- Concentration exceeds corresponding NYSDEC
Class GA Standard.

U - Not detected at the indicated concentration

J - Estimated concentration.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	EFF 9/6/2007 WATER ug/L	EFF 10/4/2007 WATER ug/L	EFF 11/6/2007 WATER ug/L	EFF 12/6/2007 WATER ug/L	EFF(40HZ) 1/9/2008 WATER ug/L	EFF(50HZ) 1/9/2008 WATER ug/L
VOCS							
1,1,1-Trichloroethane	5	0.32 U	0.32 U	0.32 U	0.46 U	6.0	0.39 U
1,1,2,2-Tetrachloroethane	5	0.30 U	0.30 U	0.30 U	0.49 U	0.37 U	0.37 U
1,1,2-Trichloroethane	1	0.41 U	0.41 U	0.41 U	0.52 U	0.32 U	0.32 U
1,1,2-Trichlorotrifluoroethane	5	1.3 U	1.3 U	1.3 U	0.35 U	0.61 U	0.61 U
1,1-Dichloroethane	5	0.38 U	0.38 U	0.38 U	0.55 U	0.67 U	0.67 U
1,1-Dichloroethene	5	0.42 U	0.42 U	0.42 U	0.55 U	0.67 U	0.67 U
1,2,4-Trichlorobenzene		0.46 U	0.46 U	0.46 U	0.41 U	0.39 U	0.39 U
1,2-Dibromo-3-Chloropropane	0.04	0.38 U	0.38 U	0.38 U	0.45 U	0.58 U	0.58 U
1,2-Dibromoethane	5	0.32 U	0.32 U	0.32 U	0.56 U	0.26 U	0.26 U
1,2-Dichlorobenzene	3	0.44 U	0.44 U	0.44 U	0.48 U	0.40 U	0.40 U
1,2-Dichloroethane	0.6	0.34 U	0.34 U	0.34 U	0.38 U	0.41 U	0.41 U
1,2-Dichloropropane	1	0.40 U	0.40 U	0.40 U	0.56 U	0.46 U	0.46 U
1,3-Dichlorobenzene	3	0.50 U	0.50 U	0.50 U	0.45 U	0.28 U	0.28 U
1,4-Dichlorobenzene	3	0.54 U	0.54 U	0.54 U	0.43 U	0.22 U	0.22 U
2-Butanone	50	1.1 U	1.1 U	43	4.6 U	1.9 U	1.9 U
2-Hexanone	50	1.7 U	1.7 U	1.7 U	2.9 U	1.8 U	1.8 U
4-Methyl-2-Pentanone		1.6 U	1.6 U	1.6 U	2.7 U	1.8 U	1.8 U
Acetone	50	2.3 U	2.3 U	2.3 U	2.7 U	2.2 U	2.2 U
Benzene	1	0.39 U	0.39 U	0.39 U	0.52 U	0.35 U	0.35 U
Bromodichloromethane	50	0.33 U	0.33 U	0.33 U	0.59 U	0.23 U	0.23 U
Bromoform	50	0.32 U	0.32 U	0.32 U	0.42 U	0.44 U	0.44 U
Bromomethane	5	0.41 U	0.41 U	0.41 U	0.63 U	1.4 U	1.4 U
Carbon Disulfide		0.40 U	0.40 U	0.40 U	0.51 U	0.20 U	0.20 U
Carbon Tetrachloride	5	1.1 U	1.1 U	1.1 U	0.49 U	0.27 U	0.27 U
Chlorobenzene	5	0.47 U	0.47 U	0.47 U	0.50 U	0.28 U	0.28 U
Chloroethane	5	0.83 U	0.83 U	0.83 U	0.49 U	0.80 U	0.80 U
Chloroform	7	0.33 U	0.33 U	0.33 U	0.46 U	0.45 U	0.45 U
Chloromethane		0.34 U	0.34 U	0.34 U	0.38 U	0.37 U	0.37 U
cis-1,2-Dichloroethene	5	0.29 U	0.29 U	0.29 U	0.53 U	0.72 U	0.72 U
cis-1,3-Dichloropropene	0.4	0.36 U	0.36 U	0.36 U	0.54 U	0.29 U	0.29 U
Cyclohexane		0.36 U	0.36 U	0.36 U	0.37 U	0.57 U	0.57 U
Dibromochloromethane	50	0.26 U	0.26 U	0.26 U	0.45 U	0.23 U	0.23 U
Dichlorodifluoromethane	5	0.17 U	0.17 U	0.17 U	0.43 U	0.88 U	0.88 U
Ethyl Benzene	5	0.45 U	0.45 U	0.45 U	0.50 U	0.05 U	0.05 U
Isopropylbenzene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.37 U	0.37 U
m/p-Xylenes	5	1.2 U	1.2 U	1.2 U	0.97 U	0.47 U	0.47 U
Methyl Acetate		0.20 U	0.20 U	0.20 U	0.92 U	0.45 U	0.45 U
Methyl tert-butyl Ether		0.28 U	0.28 U	0.28 U	0.50 U	0.23 U	0.23 U
Methylcyclohexane		0.34 U	0.34 U	0.34 U	0.43 U	0.47 U	0.47 U
Methylene Chloride	5	0.43 U	0.43 U	0.43 U	0.52 U	0.38 U	0.38 U
o-Xylene		0.46 U	0.46 U	0.46 U	0.51 U	0.16 U	0.16 U
Styrene	5	0.41 U	0.41 U	0.41 U	0.48 U	0.19 U	0.19 U
t-1,3-Dichloropropene	0.4	0.32 U	0.32 U	0.32 U	0.44 U	0.31 U	0.31 U
Tetrachloroethene	5	0.48 U	0.48 U	0.48 U	0.68 U	0.97 U	0.97 U
Toluene	5	0.36 U	0.36 U	0.36 U	0.51 U	0.16 U	0.16 U
trans-1,2-Dichloroethene	5	0.40 U	0.40 U	0.40 U	0.57 U	0.44 U	0.44 U
Trichloroethene	5	0.46 U	0.46 U	0.46 U	0.56 U	0.34 U	0.34 U
Trichlorofluoromethane	5	0.22 U	0.22 U	0.22 U	0.40 U	0.53 U	0.53 U
Vinyl Chloride	2	0.33 U	0.33 U	0.33 U	0.46 U	0.30 U	0.30 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	EFF(60HZ) 1/9/2008 WATER ug/L	EFF(42HZ) 2/6/2008 WATER ug/L	EFF(44HZ) 2/6/2008 WATER ug/L	EFF(44HZ) Duplicate 2/6/2008 WATER ug/L	EFF(46HZ) 2/6/2008 WATER ug/L	EFF(42HZ) 3/6/2008 WATER ug/L
VOCs							
1,1,1-Trichloroethane	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1,1,2,2-Tetrachloroethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,1,2-Trichloroethane	1	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1,1-Dichloroethane	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,1-Dichloroethene	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2,4-Trichlorobenzene		0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,2-Dibromoethane	5	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-Dichlorobenzene	3	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.4 U
1,2-Dichloroethane	0.6	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,3-Dichlorobenzene	3	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,4-Dichlorobenzene	3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Butanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Hexanone	50	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
4-Methyl-2-Pentanone		1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Acetone	50	2.2	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Benzene	1	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Bromodichloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Bromoform	50	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Bromomethane	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Carbon Disulfide		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.2 U
Carbon Tetrachloride	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Chlorobenzene	5	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Chloroethane	5	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.8 U
Chloroform	7	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Chloromethane		0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
cis-1,2-Dichloroethene	5	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
cis-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
Cyclohexane		0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
Dibromochloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Dichlorodifluoromethane	5	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
Ethyl Benzene	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Isopropylbenzene	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
m/p-Xylenes	5	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1.2 J
Methyl Acetate		0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Methyl tert-butyl Ether		0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylcyclohexane		0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Methylene Chloride	5	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
o-Xylene		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Styrene	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
t-1,3-Dichloropropene	0.4	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
Tetrachloroethene	5	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Toluene	5	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,2-Dichloroethene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Trichloroethene	5	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Trichlorofluoromethane	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Vinyl Chloride	2	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.3 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	EFF(42HZ) 4/7/2008 WATER ug/L	EFF(42HZ) 5/5/2008 WATER ug/L	EFF(43HZ) 6/6/2008 WATER ug/L	EFF(44HZ) 7/2/2008 WATER ug/L	EFF(44HZ) 8/8/2008 WATER ug/L	EFF(44HZ) 9/5/2008 WATER ug/L
VOCS							
1,1,1-Trichloroethane	5	2.2 J	0.39 U	1.9 J	0.39 U	0.39 U	0.39 U
1,1,2,2-Tetrachloroethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,1,2-Trichloroethane	1	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1,1-Dichloroethane	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,1-Dichloroethene	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2,4-Trichlorobenzene		0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,2-Dibromoethane	5	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-Dichlorobenzene	3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloroethane	0.6	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,3-Dichlorobenzene	3	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,4-Dichlorobenzene	3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Butanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Hexanone	50	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
4-Methyl-2-Pentanone		1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Acetone	50	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Benzene	1	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Bromodichloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Bromoform	50	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Bromomethane	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Carbon Disulfide		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon Tetrachloride	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Chlorobenzene	5	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Chloroethane	5	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Chloroform	7	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Chloromethane		0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
cis-1,2-Dichloroethene	5	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
cis-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
Cyclohexane		0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
Dibromochloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Dichlorodifluoromethane	5	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
Ethyl Benzene	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Isopropylbenzene	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
m/p-Xylenes	5	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Methyl Acetate		0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Methyl tert-butyl Ether		0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylcyclohexane		0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Methylene Chloride	5	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
o-Xylene		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Styrene	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
t-1,3-Dichloropropene	0.4	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
Tetrachloroethene	5	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Toluene	5	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,2-Dichloroethene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Trichloroethene	5	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Trichlorofluoromethane	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Vinyl Chloride	2	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC GA Standard ug/L	EFF(44HZ) 10/3/2008 WATER ug/L	EFF(44HZ) 11/6/2008 WATER ug/L	EFF(44HZ) 12/8/2008 WATER ug/L	EFF(44HZ) 1/18/09 WATER ug/L	EFF(44HZ) 2/10/2009 WATER ug/L	EFF(44HZ) 3/4/2009 WATER ug/L
VOCS							
1,1,1-Trichloroethane	5	0.39 U	1 U	1 U	1 U	0.4 U	0.4 U
1,1,2,2-Tetrachloroethane	5	0.37 U	1 U	1 U	1 U	0.31 U	0.31 U
1,1,2-Trichloroethane	1	0.32 U	1 U	1 U	1 U	0.38 U	0.38 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	1 U	1 U	1 U	0.45 U	0.45 U
1,1-Dichloroethane	5	0.67 U	1 U	1 U	1 U	0.36 U	0.36 U
1,1-Dichloroethene	5	0.67 U	1 U	1 U	1 U	0.47 U	0.47 U
1,2,4-Trichlorobenzene		0.39 U	1 U	2.2	1 U	0.62 U	0.62 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	1 U	1 U	1 U	0.46 U	0.46 U
1,2-Dibromoethane	5	0.26 U	1 U	1 U	1 U	0.41 U	0.41 U
1,2-Dichlorobenzene	3	0.4 U	1 U	1 U	1 U	0.45 U	0.45 U
1,2-Dichloroethane	0.6	0.41 U	1 U	1 U	1 U	0.48 U	0.48 U
1,2-Dichloropropane	1	0.46 U	1 U	1 U	1 U	0.46 U	0.46 U
1,3-Dichlorobenzene	3	0.28 U	1 U	1 U	1 U	0.43 U	0.43 U
1,4-Dichlorobenzene	3	0.22 U	1 U	1 U	1 U	0.32 U	0.32 U
2-Butanone	50	1.9 U	5 U	5 U	5 U	1.3 U	1.3 U
2-Hexanone	50	1.8 U	5 U	5 U	5 U	1.9 U	1.9 U
4-Methyl-2-Pentanone		1.8 U	5 U	5 U	5 U	2.1 U	2.1 U
Acetone	50	2.2 U	5 U	5 U	5 U	2.8 U	2.8 U
Benzene	1	0.35 U	1 U	1 U	1 U	0.32 U	0.32 U
Bromodichloromethane	50	0.23 U	1 U	1 U	1 U	0.36 U	0.36 U
Bromoform	50	0.44 U	1 U	1 U	1 U	0.47 U	0.47 U
Bromomethane	5	1.4 U	1 U	1 U	1 U	0.62 U	0.62 U
Carbon Disulfide		0.2 U	1 U	1 U	1 U	0.54 U	0.54 U
Carbon Tetrachloride	5	0.27 U	1 U	1 U	1 U	0.62 U	0.62 U
Chlorobenzene	5	0.28 U	1 U	1 U	1 U	0.49 U	0.49 U
Chloroethane	5	0.8 U	1 U	1 U	1 U	0.66 U	0.66 U
Chloroform	7	0.45 U	1 U	1 U	1 U	0.34 U	0.34 U
Chloromethane		0.37 U	1 U	1 U	1 U	0.54 U	0.54 U
cis-1,2-Dichloroethene	5	0.72 U	1 U	1 U	1 U	0.35 U	0.35 U
cis-1,3-Dichloropropene	0.4	0.29 U	1 U	1 U	1 U	0.31 U	0.31 U
Cyclohexane		0.57 U	1.9	1 U	1 U	0.55 U	0.55 U
Dibromochloromethane	50	0.23 U	1 U	1 U	1 U	0.52 U	0.52 U
Dichlorodifluoromethane	5	0.88 U	1 U	1 U	1 U	0.55 U	0.55 U
Ethyl Benzene	5	0.05 U	1 U	1 U	1 U	0.53 U	0.53 U
Isopropylbenzene	5	0.37 U	1 U	1 U	1 U	0.45 U	0.45 U
m/p-Xylenes	5	0.47 U	2 U	2 U	2 U	0.95 U	0.95 U
Methyl Acetate		0.45 U	1 U	1 U	1 U	0.83 U	0.83 U
Methyl tert-butyl Ether		0.23 U	1 U	1 U	1 U	0.35 U	0.35 U
Methylcyclohexane		0.47 U	1 U	1 U	1 U	0.68 U	0.68 U
Methylene Chloride	5	0.38 U	1 U	1 U	1 U	0.41 U	0.41 U
o-Xylene		0.16 U	1 U	1 U	1 U	0.43 U	0.43 U
Styrene	5	0.19 U	1 U	1 U	1 U	0.36 U	0.36 U
t-1,3-Dichloropropene	0.4	0.31 U	1 U	1 U	1 U	0.29 U	0.29 U
Tetrachloroethene	5	0.97 U	1 U	1 U	1 U	0.27 U	0.27 U
Toluene	5	0.16 U	1 U	1 U	1 U	0.37 U	0.37 U
trans-1,2-Dichloroethene	5	0.44 U	1 U	1 U	1 U	0.41 U	0.41 U
Trichloroethene	5	0.44 U	1 U	1 U	1 U	0.28 U	0.28 U
Trichlorofluoromethane	5	0.34 U	1 U	1 U	1 U	0.35 U	0.35 U
Vinyl Chloride	2	0.53 U	1 U	1 U	1 U	0.34 U	0.34 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

TABLE 2-3
SUMMARY OF GROUNDWATER TREATMENT SYSTEM VOCS (EFFLUENT)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix	NYSDEC GA Standard ug/L	EFF(44HZ) 4/3/2009 WATER ug/L	EFF(44HZ) 5/18/2009 WATER ug/L	EFF(44HZ) 6/25/2009 WATER ug/L	EFF(44HZ) 7/28/2009 WATER ug/L	EFF(44HZ) 8/20/2009 WATER ug/L	EFF(44HZ) 9/10/2009 WATER ug/L
VOCS							
1,1,1-Trichloroethane	5	0.4 U	0.4 U	2.1	2.2	2.7	1.3
1,1,2,2-Tetrachloroethane	5	0.31 U	0.31 U	0.31 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	0.38 U	0.38 U	0.38 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U
1,1-Dichloroethane	5	0.36 U	0.36 U	0.36 U	1 U	1 U	1 U
1,1-Dichloroethene	5	0.47 U	0.47 U	0.47 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		0.62 U	0.62 U	0.62 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	0.46 U	0.46 U	0.46 U	1 U	1 U	1 U
1,2-Dibromoethane	5	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	0.48 U	0.48 U	0.48 U	1 U	1 U	1 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	0.43 U	0.43 U	0.43 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	0.32 U	0.32 U	0.32 U	1 U	1 U	1 U
2-Butanone	50	1.3 U	1.3 U	1.3 U	5 U	5 U	5 U
2-Hexanone	50	1.9 U	1.9 U	1.9 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		2.1 U	2.1 U	2.1 U	5 U	5 U	5 U
Acetone	50	2.8 U	2.8 U	2.8 U	5 U	5 U	5 U
Benzene	1	0.32 U	0.32 U	0.32 U	1 U	1 U	1 U
Bromodichloromethane	50	0.36 U	0.36 U	0.36 U	1 U	1 U	1 U
Bromoform	50	0.47 U	0.47 U	0.47 U	1 U	1 U	1 U
Bromomethane	5	0.62 U	0.62 U	0.62 U	1 U	1 U	1 U
Carbon Disulfide		0.54 U	0.54 U	0.54 U	1 U	1 U	1 U
Carbon Tetrachloride	5	0.62 U	0.62 U	0.62 U	1 U	1 U	1 U
Chlorobenzene	5	0.49 U	0.49 U	0.49 U	1 U	1 U	1 U
Chloroethane	5	0.66 U	0.66 U	0.66 U	1 U	1 U	1 U
Chloroform	7	0.34 U	0.34 U	0.34 U	1 U	1 U	1 U
Chloromethane		0.54 U	0.54 U	0.54 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	0.35 U	0.35 U	0.35 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	0.31 U	0.31 U	0.31 U	1 U	1 U	1 U
Cyclohexane		0.55 U	0.55 U	0.55 U	1 U	1 U	1 U
Dibromochloromethane	50	0.52 U	0.52 U	0.52 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	0.55 U	0.55 U	0.55 U	1 U	1 U	1 U
Ethyl Benzene	5	0.53 U	0.53 U	0.53 U	1 U	1 U	1 U
Isopropylbenzene	5	0.45 U	0.45 U	0.45 U	1 U	1 U	1 U
m/p-Xylenes	5	0.95 U	0.95 U	0.95 U	2 U	2 U	2 U
Methyl Acetate		0.83 U	0.83 U	0.83 U	1 U	1 U	1 U
Methyl tert-butyl Ether		0.35 U	0.35 U	0.35 U	1 U	1 U	1 U
Methylcyclohexane		0.68 U	0.68 U	0.68 U	1 U	1 U	1 U
Methylene Chloride	5	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U
o-Xylene		0.43 U	0.43 U	0.43 U	1 U	1 U	1 U
Styrene	5	0.36 U	0.36 U	0.36 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	1 U	1 U	1 U
Tetrachloroethene	5	0.27 U	0.27 U	0.27 U	1 U	1 U	1 U
Toluene	5	0.37 U	0.37 U	0.37 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	0.41 U	0.41 U	0.41 U	1 U	1 U	1 U
Trichloroethene	5	0.28 U	0.28 U	0.28 U	1 U	1 U	1 U
Trichlorofluoromethane	5	0.35 U	0.35 U	0.35 U	1 U	1 U	1 U
Vinyl Chloride	2	0.34 U	0.34 U	0.34 U	1 U	1 U	1 U

Notes

U - Not detected at the indicated concentration.

J - Estimated concentration.

Table 2-4
SUMMARY OF GROUNDWATER MONITORING WELL MEASURING POINT ELEVATIONS
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC SITE No. 7-09-009

Well ID	Monitored Interval	Measuring Point Elevation ⁽¹⁾ (feet)
TW-1	Shallow	1212.71 ⁽⁴⁾
TW-2S	Shallow	1212.57 ⁽⁴⁾
TW-2I	Intermediate	1212.16 ⁽⁴⁾
TW-2D	Deep	1212.26 ⁽⁴⁾
TW-3S	Shallow	1213.60
TW-3I	Intermediate	1213.19
TW-3D	Deep	1213.47
TW-4I	Intermediate	1209.96 ⁽²⁾
TW-5S	Shallow	1211.78
TW-5I	Intermediate	1211.89
TW-5D	Deep	1212.55
TW-6S	Shallow	1210.08 ⁽⁵⁾
TW-6I	Intermediate	1210.61 ⁽⁵⁾
TW-6D	Deep	1210.36 ⁽⁵⁾
TW-7S	Shallow	1213.48
TW-7I	Intermediate	1213.60
TW-7D	Deep	1213.25
TW-9I	Intermediate	1213.75 ⁽⁴⁾
TW-9D	Deep	1213.84 ⁽⁴⁾
TW-10D	Deep	1209.58 ⁽⁵⁾
TW-12I	Intermediate	-
TW-12D	Deep	-
TW-14S	Shallow	1210.05 ⁽²⁾
TW-14I	Intermediate	1210.17 ⁽²⁾
TW-14D	Deep	1209.98 ⁽²⁾
TW-15	Intermediate	1212.94 ⁽²⁾
RW-1	Recovery Well	1169.98 ^(2,3)
RW-2	Recovery Well	-

Notes:

1 - Measuring point elevations from: Operation and Maintenance Manual, Volume I, Gladding Cordage Site, TAMS Consulting, Inc., 1996.

2 - Based on December 2007 survey referenced from TW-5D top of casing elevation.

3 - RW-1 water elevation calculated from water level pressure transducer reading.

4 - Based on June 2009 survey referenced from TW-3S, 5D, and 6D top of casing elevations.

5 - Based on September 2009 survey referenced from TW-4I top of casing elevation.

Appendix A

Operation and Maintenance Logs



Daily Phone Log
Gladding Cordage Groundwater Treatment System
South Otselic, New York
NYSDEC Site #709009
315-653-7234

Date	System Information				
	Blower Pressure	Sump Level	Recovery Well 1	Recovery Well 2	Notes
7/1/2009		X			System Down
7/2/2009	X	X	X	X	
7/3/2009	X	X	X	X	
7/4/2009	X	X	X	X	(1)
7/5/2009		X			System Down (1)
7/6/2009	X	X	X	X	
7/7/2009	X	X	X	X	
7/8/2009	X	X	X	X	
7/9/2009	X	X	X	X	
7/10/2009	X	X	X	X	
7/11/2009	X	X	X	X	(1)
7/12/2009	X	X	X	X	(1)
7/13/2009	X	X	X	X	
7/14/2009	X	X	X	X	
7/15/2009	X	X	X	X	
7/16/2009		X			System Down
7/17/2009	X	X	X	X	
7/18/2009	X	X	X	X	(1)
7/19/2009	X	X	X	X	(1)
7/20/2009	X	X	X	X	
7/21/2009		X			System Down
7/22/2009	X	X	X	X	
7/23/2009	X	X	X	X	
7/24/2009	X	X	X	X	
7/25/2009	X	X	X	X	(1)
7/26/2009	X	X	X	X	(1)
7/27/2009	X	X	X	X	
7/28/2009	X	X	X	X	
7/29/2009	X	X	X	X	
7/30/2009	X	X	X	X	
7/31/2009	X	X	X	X	

Notes:
 X - Indicates normal operation
 1 - No data recorded. System operation based on previous and subsequent day's call log.

Daily Phone Log
Gladding Cordage Groundwater Treatment System
South Otselic, New York
NYSDEC Site #709009
315-653-7234

Date	System Information				
	Blower Pressure	Sump Level	Recovery Well 1	Recovery Well 2	Notes
8/1/2009	X	X	X	X	(1)
8/2/2009	X	X	X	X	(1)
8/3/2009	X	X	X	X	
8/4/2009	X	X	X	X	
8/5/2009	X	X	X	X	
8/6/2009	X	X	X	X	
8/7/2009	X	X	X	X	
8/8/2009	X	X	X	X	(1)
8/9/2009	X	X	X	X	(1)
8/10/2009		X			System Down
8/11/2009	X	X	X	X	
8/12/2009	X	X	X	X	
8/13/2009	X	X	X	X	
8/14/2009	X	X	X	X	
8/15/2009	X	X	X	X	(1)
8/16/2009	X	X	X	X	(1)
8/17/2009	X	X	X	X	
8/18/2009		X			System Down
8/19/2009	X	X	X	X	
8/20/2009	X	X	X	X	
8/21/2009	X	X	X	X	
8/22/2009	X	X	X	X	(1)
8/23/2009	X	X	X	X	(1)
8/24/2009	X	X	X	X	
8/25/2009	X	X	X	X	
8/26/2009	X	X	X	X	
8/27/2009	X	X	X	X	
8/28/2009	X	X	X	X	
8/29/2009	X	X	X	X	(1)
8/30/2009	X	X	X	X	(1)
8/31/2009	X	X	X	X	

Notes:
 X - Indicates normal operation
 1 - No data recorded. System operation based on previous and subsequent day's call log.

Daily Phone Log
Gladding Cordage Groundwater Treatment System
South Otselic, New York
NYSDEC Site #709009
315-653-7234

Date	System Information				
	Blower Pressure	Sump Level	Recovery Well 1	Recovery Well 2	Notes
9/1/2009	X	X	X	X	
9/2/2009	X	X	X	X	
9/3/2009	X	X	X	X	
9/4/2009	X	X	X	X	
9/5/2009	X	X	X	X	(1)
9/6/2009	X	X	X	X	(1)
9/7/2009	X	X	X	X	
9/8/2009	X	X	X	X	
9/9/2009	X	X	X	X	
9/10/2009	X	X	X	X	
9/11/2009	X	X	X	X	
9/12/2009	X	X	X	X	(1)
9/13/2009	X	X	X	X	(1)
9/14/2009	X	X	X	X	
9/15/2009	X	X	X	X	
9/16/2009	X	X	X	X	
9/17/2009	X	X	X	X	
9/18/2009	X	X	X	X	
9/19/2009	X	X	X	X	(1)
9/20/2009	X	X	X	X	(1)
9/21/2009	X	X	X	X	
9/22/2009	X	X	X	X	
9/23/2009	X	X	X	X	
9/24/2009	X	X	X	X	
9/25/2009	X	X	X	X	
9/26/2009	X	X	X	X	(1)
9/27/2009	X	X	X	X	(1)
9/28/2009	X	X	X	X	
9/29/2009	X	X	X	X	
9/30/2009	X	X	X	X	

Notes:
 X - Indicates normal operation
 1 - No data recorded. System operation based on previous and subsequent day's call log.

**Gladding Cordage
South Otselic, New York
NYSDEC Site #709009**

System Operation	Initial	Final	Alarms	Initial	Final
System On (Y/N)	Y	Y	Blower Pressure (Y/N)	N	N
RW-1 On (Y/N)	Y	Y	Sump Level (Y/N)	N	N
RW-2 On (Y/N)	Y	Y	RW-1 (Y/N)	N	N
Blower On (Y/N)	Y	Y	RW-2 (Y/N)	N	N

Recovery Wells	Initial	Final	Initial	Final
	RW-1		RW-2	
Flow Rate (GPM)	-	31.9	Flow meter inop	
Total Flow (Gallons)	-	27568640	Flow meter inop	
Water Level (Feet)	-	30.4	-	29.5

Air Stripper		Initial	Final
Blower VFD Setting (Hertz)		-	44
System Pressure (inches water)		-	9.2
Intake/Exhaust Piping OK? (Y/N)	Y		
Water Leaks (Y/N)	N		
Water Temperature (F°)	50		

General Building/Site			
Building Condition OK? (Y/N)	Y	Sump Pump Operational? (Y/N)	Y
Heat (On/Off)	off	Sump High Level Switch OK? (Y/N)	Y
Grass Mowed (Y/N)	Y	Circuit Breakers Checked (Y/N)	Y
Monitoring Wells OK? (Y/N)	Y	Samples Collected (Y/N)	Y

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GROUNDWATER TREATMENT SYSTEM OPERATION AND MAINTENANCE CHECK LIST

Gladding Cordage
South Otselic, New York
NYSDEC Site #709009

Date 8/20/2009
Inspector JW
Time (in) 08:00 (out) 10:30

System Operation	Initial	Final	Alarms	Initial	Final
System On (Y/N)	<u>Y</u>	<u>Y</u>	Blower Pressure (Y/N)	<u>N</u>	<u>N</u>
RW-1 On (Y/N)	<u>Y</u>	<u>Y</u>	Sump Level (Y/N)	<u>N</u>	<u>N</u>
RW-2 On (Y/N)	<u>Y</u>	<u>Y</u>	RW-1 (Y/N)	<u>N</u>	<u>N</u>
Blower On (Y/N)	<u>Y</u>	<u>Y</u>	RW-2 (Y/N)	<u>N</u>	<u>N</u>

Recovery Wells	Initial	Final	Initial	Final
	RW-1		RW-2	
Flow Rate (GPM)	<u>-</u>	<u>33.7</u>		<u>Flow meter inop</u>
Total Flow (Gallons)	<u>-</u>	<u>28551120</u>		<u>Flow meter inop</u>
Water Level (Feet)	<u>-</u>	<u>30.6</u>		<u>-</u> <u>29.5</u>

Influent/Effluent Piping OK? (Y/N) Y

Air Stripper	Initial	Final
Blower VFD Setting (Hertz)	<u>-</u>	<u>44</u>
System Pressure (inches water)	<u>-</u>	<u>9.2</u>
Intake/Exhaust Piping OK? (Y/N)	<u>Y</u>	
Water Leaks (Y/N)	<u>N</u>	
Water Temperature (F°)	<u>50</u>	

General Building/Site		
Building Condition OK? (Y/N)	<u>Y</u>	Sump Pump Operational? (Y/N) <u>Y</u>
Heat (On/Off)	<u>off</u>	Sump High Level Switch OK? (Y/N) <u>Y</u>
Grass Mowed (Y/N)	<u>Y</u>	Circuit Breakers Checked (Y/N) <u>Y</u>
Monitoring Wells OK? (Y/N)	<u>Y</u>	Samples Collected (Y/N) <u>Y</u>

Notes:

Circuit breaker tripped for auto-dialer. Reset breaker and recheck system - All OK.

Date	9/10/2009
Inspector	JW
Time (in)	08:00 (out) 15:45

Appendix B

Analytical Reporting Forms



ANALYTICAL RESULTS SUMMARY

PROJECT NAME : DEC GLADDING CORDAGE

**MALCOLM PIRNIE, INC.
855 Route 146, Suite 210**

**Clifton Park , NY - 12065
Phone No: 5182507300**

**ORDER ID : A3741
ATTENTION : Jeremy Wyckoff**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
RW-1	A3741-01	8260					
RW-2	A3741-02	8260					
EFF(44HZ)	A3741-03	8260					
TRIPBLANK	A3741-04	8260					

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

FORM S-IIb

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA) ANALYSES**

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
A3741-01	WATER	07/28/09	07/29/09		07/30/09
A3741-02	WATER	07/28/09	07/29/09		07/30/09
A3741-03	WATER	07/28/09	07/29/09		07/30/09
A3741-04	WATER	07/24/09	07/29/09		07/30/09

* Details For Test :VOC-TCLVOA-10

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

FORM S-III

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
A3741-01	Water	8260	5030		
A3741-02	Water	8260	5030		
A3741-03	Water	8260	5030		
A3741-04	Water	8260	5030		



Cover Page

Order ID : A3741

Project ID : DEC Gladding Cordage

Client : Malcolm Pirnie, Inc.

Lab Sample Number

A3741-01
A3741-02
A3741-03
A3741-04

Client Sample Number

RW-1
RW-2
EFF(44HZ)
TRIPBLANK

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

Signature : _____



CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: DEC Gladding Cordage

Project # N/A

Chemtech Project # A3741

A. Number of Samples and Date of Receipt:

4 Water samples were received on 7/29/09.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA G were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The analysis of TCL Volatiles + 10 was based on method 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The Blank Spike and Blank Spike Duplicate met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-01Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020456.DLevel: (low/med) _____ Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	3.2	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	2.5	
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	55	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-01Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020456.DLevel: (low/med) Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-02Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020457.DLevel: (low/med) _____ Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1.9	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.85	J
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	43	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-02Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020457.DLevel: (low/med) _____ Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF(44HZ)

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-03Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020458.DLevel: (low/med) _____ Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2.2	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF(44HZ)

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-03Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020458.DLevel: (low/med) _____ Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-04Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020454.DLevel: (low/med) _____ Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: A3741-04Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020454.DLevel: (low/med) Date Received: 07/29/09% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



Hit Summary Sheet
SW-846

SDG No.: A3741

Client: Malcolm Pirnie, Inc.

Sample ID	Client ID		Parameter	Concentration	C	RDL	MDL	Units
Client ID:	EFF(44HZ)							
A3741-03	EFF(44HZ)	WATER	1,1,1-Trichloroethane	2.20		1.0	0.40	ug/L
			Total Voc :		2.20			
			Total Concentration:		2.20			
Client ID:	RW-1							
A3741-01	RW-1	WATER	1,1-Dichloroethene	3.20		1.0	0.47	ug/L
A3741-01	RW-1	WATER	1,1-Dichloroethane	2.50		1.0	0.36	ug/L
A3741-01	RW-1	WATER	1,1,1-Trichloroethane	55.00		1.0	0.40	ug/L
			Total Voc :		60.70			
			Total Concentration:		60.70			
Client ID:	RW-2							
A3741-02	RW-2	WATER	1,1-Dichloroethene	1.90		1.0	0.47	ug/L
A3741-02	RW-2	WATER	1,1-Dichloroethane	0.85	J	1.0	0.36	ug/L
A3741-02	RW-2	WATER	1,1,1-Trichloroethane	43.00		1.0	0.40	ug/L
			Total Voc :		45.75			
			Total Concentration:		45.75			

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM CASE No.: A3741 SAS No.: A3741 SDG NO.: A3741

	EPA Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBG0730W1	102	103	97	103	0
02	BSG0730W1	103	97	97	100	0
03	BSG0730W2	100	100	98	99	0
04	TRIPBLANK	96	103	100	99	0
05	RW-1	101	107	99	100	0
06	RW-2	104	105	100	101	0
07	EFF(44HZ)	109	105	99	104	0

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (80-136)

SMC2 (DBFM) =Dibromofluoromethane (85-121)

SMC3 (TOL) =Toluene-d8 (85-114)

SMC4 (BFB) =4-Bromofluorobenzene (80-121)

Column to be used to flag recovery values

* Values outside of contract required QC Limits

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Cas No: A3741 SAS No : A3741 SDG No: A3741

Matrix Spike - EPA Sample No : BSG0730W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		12	60	(50-109)
Chloromethane	20		18	90	(55-129)
Vinyl Chloride	20		19	95	(61-127)
Bromomethane	20		19	95	(61-129)
Chloroethane	20		19	95	(63-131)
Trichlorofluoromethane	20		19	95	(69-123)
1,1,2-Trichlorotrifluoroethane	20		18	90	(67-127)
1,1-Dichloroethene	20		19	95	(70-122)
Acetone	100		100	100	(66-132)
Carbon Disulfide	20		19	95	(56-135)
Methyl tert-butyl Ether	20		20	100	(74-130)
Methyl Acetate	20		19	95	(69-140)
Methylene Chloride	20		19	95	(74-125)
trans-1,2-Dichloroethene	20		18	90	(72-124)
1,1-Dichloroethane	20		19	95	(77-129)
Cyclohexane	20		17	85	(70-127)
2-Butanone	100		100	100	(72-136)
Carbon Tetrachloride	20		18	90	(72-125)
cis-1,2-Dichloroethene	20		19	95	(76-125)
Chloroform	20		19	95	(79-126)
1,1,1-Trichloroethane	20		19	95	(76-121)
Methylcyclohexane	20		17	85	(69-123)
Benzene	20		19	95	(77-123)
1,2-Dichloroethane	20		19	95	(77-125)
Trichloroethene	20		20	100	(76-122)
1,2-Dichloropropane	20		19	95	(79-125)
Bromodichloromethane	20		19	95	(78-123)
4-Methyl-2-Pentanone	100		93	93	(77-132)
Toluene	20		18	90	(78-122)
t-1,3-Dichloropropene	20		18	90	(77-123)
cis-1,3-Dichloropropene	20		19	95	(77-121)
1,1,2-Trichloroethane	20		19	95	(78-124)
2-Hexanone	100		100	100	(72-137)
Dibromochloromethane	20		20	100	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 0 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____Lab Code: CHEM Cas No: A3741 SAS No : A3741 SDG No: A3741Matrix Spike - EPA Sample No : BSG0730W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
1,2-Dibromoethane	20		20	100	(78-125)
Tetrachloroethene	20		25	125	(60-154)
Chlorobenzene	20		18	90	(78-122)
Ethyl Benzene	20		20	100	(77-122)
m/p-Xylenes	40		38	95	(76-122)
o-Xylene	20		19	95	(76-122)
Styrene	20		20	100	(77-124)
Bromoform	20		19	95	(73-140)
Isopropylbenzene	20		19	95	(77-122)
1,1,2,2-Tetrachloroethane	20		19	95	(75-124)
1,3-Dichlorobenzene	20		19	95	(77-120)
1,4-Dichlorobenzene	20		19	95	(76-120)
1,2-Dichlorobenzene	20		19	95	(77-121)
1,2-Dibromo-3-Chloropropane	20		18	90	(68-126)
1,2,4-Trichlorobenzene	20		19	95	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 0 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____Lab Code: CHEM Cas No: A3741 SAS No : A3741 SDG No: A3741Matrix Spike - EPA Sample No : BSG0730W2

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
Dichlorodifluoromethane	20	13	65	8	20	(50-109)
Chloromethane	20	18	90	0	20	(55-129)
Vinyl Chloride	20	19	95	0	20	(61-127)
Bromomethane	20	19	95	0	20	(61-129)
Chloroethane	20	20	100	5	20	(63-131)
Trichlorofluoromethane	20	18	90	5	20	(69-123)
1,1,2-Trichlorotrifluoroethane	20	18	90	0	20	(67-127)
1,1-Dichloroethene	20	19	95	0	20	(70-122)
Acetone	100	100	100	0	20	(66-132)
Carbon Disulfide	20	19	95	0	20	(56-135)
Methyl tert-butyl Ether	20	20	100	0	20	(74-130)
Methyl Acetate	20	19	95	0	20	(69-140)
Methylene Chloride	20	19	95	0	20	(74-125)
trans-1,2-Dichloroethene	20	19	95	5	20	(72-124)
1,1-Dichloroethane	20	20	100	5	20	(77-129)
Cyclohexane	20	17	85	0	20	(70-127)
2-Butanone	100	100	100	0	20	(72-136)
Carbon Tetrachloride	20	20	100	11	20	(72-125)
cis-1,2-Dichloroethene	20	19	95	0	20	(76-125)
Chloroform	20	19	95	0	20	(79-126)
1,1,1-Trichloroethane	20	19	95	0	20	(76-121)
Methylcyclohexane	20	18	90	6	20	(69-123)
Benzene	20	20	100	5	20	(77-123)
1,2-Dichloroethane	20	20	100	5	20	(77-125)
Trichloroethene	20	20	100	0	20	(76-122)
1,2-Dichloropropane	20	20	100	5	20	(79-125)
Bromodichloromethane	20	19	95	0	20	(78-123)
4-Methyl-2-Pentanone	100	100	100	7	20	(77-132)
Toluene	20	19	95	5	20	(78-122)
t-1,3-Dichloropropene	20	19	95	5	20	(77-123)
cis-1,3-Dichloropropene	20	20	100	5	20	(77-121)
1,1,2-Trichloroethane	20	19	95	0	20	(78-124)
2-Hexanone	100	110	110	10	20	(72-137)
Dibromochloromethane	20	20	100	0	20	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 77 outside limits

Spike Recovery : 0 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____Lab Code: CHEM Cas No: A3741 SAS No : A3741 SDG No: A3741Matrix Spike - EPA Sample No : BSG0730W2

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
1,2-Dibromoethane	20	20	100	0	20	(78-125)
Tetrachloroethene	20	26	130	4	20	(60-154)
Chlorobenzene	20	20	100	11	20	(78-122)
Ethyl Benzene	20	21	105	5	20	(77-122)
m/p-Xylenes	40	39	98	3	20	(76-122)
o-Xylene	20	21	105	10	20	(76-122)
Styrene	20	21	105	5	20	(77-124)
Bromoform	20	19	95	0	20	(73-140)
Isopropylbenzene	20	20	100	5	20	(77-122)
1,1,2,2-Tetrachloroethane	20	19	95	0	20	(75-124)
1,3-Dichlorobenzene	20	19	95	0	20	(77-120)
1,4-Dichlorobenzene	20	19	95	0	20	(76-120)
1,2-Dichlorobenzene	20	20	100	5	20	(77-121)
1,2-Dibromo-3-Chloropropane	20	19	95	5	20	(68-126)
1,2,4-Trichlorobenzene	20	20	100	5	20	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 77 outside limits

Spike Recovery : 0 Out of 77 outside limits

Comments: _____



4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG0730W1

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: A3741SAS No.: A3741 SDG NO.: A3741Lab File ID: VG020450.DLab Sample ID: VBG0730W1Date Analyzed: 07/30/2009Time Analyzed: 18:49GC Column: RTX-VMS ID: 0.18 (mm)Heated Purge: (Y/N) NInstrument ID: MSVOAG

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSG0730W1	BSG0730W1	VG020452.D	07/30/2009
BSG0730W2	BSG0730W2	VG020453.D	07/30/2009
TRIPBLANK	A3741-04	VG020454.D	07/30/2009
RW-1	A3741-01	VG020456.D	07/30/2009
RW-2	A3741-02	VG020457.D	07/30/2009
EFF (44HZ)	A3741-03	VG020458.D	07/30/2009

COMMENTS: _____



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBG0730W1

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: VBG0730W1Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020450.D

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

% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBG0730W1

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG No.: A3741Matrix (soil/water): WATER Lab Sample ID: VBG0730W1Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020450.D

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

% Moisture: not dec. 100 Date Analyzed: 07/30/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG NO.: A3741
Lab File ID: VG020449.D Date Analyzed: 07/30/2009
Instrument ID: MSVOAG Time Analyzed: 18:08
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1102871	3.68	1956347	4.43	1644278	9.40
UPPER LIMIT	2205742	4.18	3912694	4.93	3288556	9.9
LOWER LIMIT	551435.5	3.18	978173.5	3.93	822139	8.9
EPA SAMPLE NO.						
RW-1	1110552	3.68	1938921	4.43	1745283	9.40
RW-2	1095929	3.68	1923241	4.42	1651824	9.41
EFF (44HZ)	1045634	3.69	1832169	4.44	1608026	9.40
TRIPBLANK	1123070	3.68	1937807	4.43	1722302	9.40
BSG0730W1	1119641	3.69	2059856	4.44	1800065	9.41
BSG0730W2	1093103	3.68	1920010	4.44	1659443	9.40
VBG0730W1	1111504	3.68	2053811	4.43	1800580	9.40

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A3741 SAS No.: A3741 SDG NO.: A3741
Lab File ID: VG020449.D Date Analyzed: 07/30/2009
Instrument ID: MSVOAG Time Analyzed: 18:08
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	713609	13.12				
UPPER LIMIT	1427218	13.62				
LOWER LIMIT	356804.5	12.62				
EPA SAMPLE NO.						
RW-1	743840	13.12				
RW-2	717548	13.12				
EFF(44HZ)	709911	13.12				
TRIPBLANK	756962	13.13				
BSG0730W1	785748	13.13				
BSG0730W2	744986	13.12				
VBG0730W1	832506	13.12				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : DEC GLADDING CORDAGE

**MALCOLM PIRNIE, INC.
855 Route 146, Suite 210**

**Clifton Park , NY - 12065
Phone No: 5182507300**

**ORDER ID : A4028
ATTENTION : Jeremy Wyckoff**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
RW-1	A4028-01	8260					
RW-2	A4028-02	8260					
EFF-44HZ	A4028-03	8260					
TRIPBLANK	A4028-04	8260					

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

FORM S-IIb

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA) ANALYSES**

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
A4028-01	WATER	08/20/09	08/21/09		08/26/09
A4028-02	WATER	08/20/09	08/21/09		08/29/09
A4028-03	WATER	08/20/09	08/21/09		08/29/09
A4028-04	WATER	08/20/09	08/21/09		08/29/09

* Details For Test :VOC-TCLVOA-10

**NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**

FORM S-III

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
A4028-01	Water	8260	5030		
A4028-02	Water	8260	5030		
A4028-03	Water	8260	5030		
A4028-04	Water	8260	5030		



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Cover Page

Order ID : A4028

Project ID : DEC Gladding Cordage

Client : Malcolm Pirnie, Inc.

Lab Sample Number

A4028-01
A4028-02
A4028-03
A4028-04

Client Sample Number

RW-1
RW-2
EFF-44HZ
TRIPBLANK

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

Signature :

Mildred V. Reyes
I am approving this document
2009.09.03 14:57:34 -04'00'



CASE NARRATIVE

Malcolm Pirnie, Inc.
Project Name: DEC Gladding Cordage
Project # N/A
Chemtech Project # A4028

A. Number of Samples and Date of Receipt:

4 Water samples were received on 8/21/09.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA G were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator.

The analysis of TCL Volatiles + 10 was based on method 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The Blank Spike met requirements for all samples except for Acetone and Tetrachloroethene but they were not detected in any Sample.

The Blank Spike Duplicate and its RPD met requirements for all samples except for Tetrachloroethene

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration dated 08/28/09 with G instrument met the requirements except for Acetone, Tetrachloroethene. The % DEV. is more than 30 %.

The Calibration File ID VG021005.D met the requirements except for Acetone and 4-Methyl-2-Pentanone but they were not detected in any Sample.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Mildred V. Reyes Mildred V. Reyes
I am approving this document
2009.09.03 14:57:06 -04'00'



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028Matrix (soil/water): WATER Lab Sample ID: A4028-01Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020948.DLevel: (low/med) Date Received: 08/21/09% Moisture: not dec. 100 Date Analyzed: 08/26/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	3.4	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	3.4	
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	77	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: A4028-01

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020948.D

Level: (low/med) Date Received: 08/21/09

% Moisture: not dec. 100 Date Analyzed: 08/26/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
*179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: A4028-02

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021016.D

Level: (low/med) Date Received: 08/21/09

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1.7	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.95	J
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	44	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: A4028-02

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021016.D

Level: (low/med) Date Received: 08/21/09

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF-44HZ

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: A4028-03

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021017.D

Level: (low/med) Date Received: 08/21/09

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2.7	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF-44HZ

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: A4028-03

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021017.D

Level: (low/med) Date Received: 08/21/09

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: A4028-04

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021013.D

Level: (low/med) Date Received: 08/21/09

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028Matrix (soil/water): WATER Lab Sample ID: A4028-04Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021013.DLevel: (low/med) Date Received: 08/21/09% Moisture: not dec. 100 Date Analyzed: 08/29/09GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



Hit Summary Sheet
SW-846

SDG No.: A4028

Client: Malcolm Pirnie, Inc.

Sample ID	Client ID		Parameter	Concentration	C	RDL	MDL	Units
Client ID:	EFF-44HZ							
A4028-03	EFF-44HZ	WATER	1,1,1-Trichloroethane	2.70		1.0	0.40	ug/L
			Total Voc :		2.70			
			Total Concentration:		2.70			
Client ID:	RW-1							
A4028-01	RW-1	WATER	1,1-Dichloroethene	3.40		1.0	0.47	ug/L
A4028-01	RW-1	WATER	1,1-Dichloroethane	3.40		1.0	0.36	ug/L
A4028-01	RW-1	WATER	1,1,1-Trichloroethane	77.00		1.0	0.40	ug/L
			Total Voc :		83.80			
			Total Concentration:		83.80			
Client ID:	RW-2							
A4028-02	RW-2	WATER	1,1-Dichloroethene	1.70		1.0	0.47	ug/L
A4028-02	RW-2	WATER	1,1-Dichloroethane	0.95	J	1.0	0.36	ug/L
A4028-02	RW-2	WATER	1,1,1-Trichloroethane	44.00		1.0	0.40	ug/L
			Total Voc :		46.65			
			Total Concentration:		46.65			



-2A-

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM CASE No.: A4028 SAS No.: A4028 SDG NO.: A4028

	EPA Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBG0826W2	111	109	93	81	0
02	BSG0826W1	108	99	99	100	0
03	RW-1	111	107	94	98	0

	EPA Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBG0829W2	111	107	103	105	0
02	BSG0829W1	117	103	103	114	0
03	BSG0829W2	115	103	106	109	0
04	TRIPBLANK	115	109	105	108	0
05	RW-2	116	108	103	108	0
06	EFF-44HZ	118	107	100	104	0

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (80-136)
SMC2 (DBFM) =Dibromofluoromethane (85-121)
SMC3 (TOL) =Toluene-d8 (85-114)
SMC4 (BFB) =4-Bromofluorobenzene (80-121)

Column to be used to flag recovery values
* Values outside of contract required QC Limits



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____Lab Code: CHEM Cas No: A4028 SAS No: A4028 SDG No: A4028Matrix Spike - EPA Sample No: BSG0826W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		20	100	(50-109)
Chloromethane	20		23	115	(55-129)
Vinyl Chloride	20		23	115	(61-127)
Bromomethane	20		25	125	(61-129)
Chloroethane	20		24	120	(63-131)
Trichlorofluoromethane	20		23	115	(69-123)
1,1,2-Trichlorotrifluoroethane	20		21	105	(67-127)
1,1-Dichloroethene	20		21	105	(70-122)
Acetone	100		78	78	(66-132)
Carbon Disulfide	20		23	115	(56-135)
Methyl tert-butyl Ether	20		22	110	(74-130)
Methyl Acetate	20		20	100	(69-140)
Methylene Chloride	20		22	110	(74-125)
trans-1,2-Dichloroethene	20		22	110	(72-124)
1,1-Dichloroethane	20		22	110	(77-129)
Cyclohexane	20		20	100	(70-127)
2-Butanone	100		110	110	(72-136)
Carbon Tetrachloride	20		20	100	(72-125)
cis-1,2-Dichloroethene	20		23	115	(76-125)
Chloroform	20		23	115	(79-126)
1,1,1-Trichloroethane	20		22	110	(76-121)
Methylcyclohexane	20		19	95	(69-123)
Benzene	20		21	105	(77-123)
1,2-Dichloroethane	20		21	105	(77-125)
Trichloroethene	20		24	120	(76-122)
1,2-Dichloropropane	20		21	105	(79-125)
Bromodichloromethane	20		22	110	(78-123)
4-Methyl-2-Pentanone	100		96	96	(77-132)
Toluene	20		21	105	(78-122)
t-1,3-Dichloropropene	20		20	100	(77-123)
cis-1,3-Dichloropropene	20		20	100	(77-121)
1,1,2-Trichloroethane	20		20	100	(78-124)
2-Hexanone	100		96	96	(72-137)
Dibromochloromethane	20		21	105	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____Lab Code: CHEM Cas No: A4028 SAS No: A4028 SDG No: A4028Matrix Spike - EPA Sample No: BSG0826W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS QC	
				% REC#	LIMITS REC
1,2-Dibromoethane	20		21	105	(78-125)
Tetrachloroethene	20		21	105	(60-154)
Chlorobenzene	20		21	105	(78-122)
Ethyl Benzene	20		22	110	(77-122)
m/p-Xylenes	40		42	105	(76-122)
o-Xylene	20		21	105	(76-122)
Styrene	20		22	110	(77-124)
Bromoform	20		21	105	(73-140)
Isopropylbenzene	20		22	110	(77-122)
1,1,2,2-Tetrachloroethane	20		16	80	(75-124)
1,3-Dichlorobenzene	20		21	105	(77-120)
1,4-Dichlorobenzene	20		20	100	(76-120)
1,2-Dichlorobenzene	20		22	110	(77-121)
1,2-Dibromo-3-Chloropropane	20		22	110	(68-126)
1,2,4-Trichlorobenzene	20		20	100	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 77 outside limits

Comments: _____

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Cas No: A4028 SAS No: A4028 SDG No: A4028

Matrix Spike - EPA Sample No: BSG0829W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		21	105	(50-109)
Chloromethane	20		23	115	(55-129)
Vinyl Chloride	20		22	110	(61-127)
Bromomethane	20		20	100	(61-129)
Chloroethane	20		22	110	(63-131)
Trichlorofluoromethane	20		22	110	(69-123)
1,1,2-Trichlorotrifluoroethane	20		20	100	(67-127)
1,1-Dichloroethene	20		20	100	(70-122)
Acetone	100		150	150*	(66-132)
Carbon Disulfide	20		21	105	(56-135)
Methyl tert-butyl Ether	20		22	110	(74-130)
Methyl Acetate	20		23	115	(69-140)
Methylene Chloride	20		21	105	(74-125)
trans-1,2-Dichloroethene	20		20	100	(72-124)
1,1-Dichloroethane	20		21	105	(77-129)
Cyclohexane	20		21	105	(70-127)
2-Butanone	100		110	110	(72-136)
Carbon Tetrachloride	20		22	110	(72-125)
cis-1,2-Dichloroethene	20		20	100	(76-125)
Chloroform	20		21	105	(79-126)
1,1,1-Trichloroethane	20		22	110	(76-121)
Methyleyclohexane	20		19	95	(69-123)
Benzene	20		21	105	(77-123)
1,2-Dichloroethane	20		23	115	(77-125)
Trichloroethene	20		21	105	(76-122)
1,2-Dichloropropane	20		20	100	(79-125)
Bromodichloromethane	20		22	110	(78-123)
4-Methyl-2-Pentanone	100		130	130	(77-132)
Toluene	20		20	100	(78-122)
t-1,3-Dichloropropene	20		22	110	(77-123)
cis-1,3-Dichloropropene	20		21	105	(77-121)
1,1,2-Trichloroethane	20		21	105	(78-124)
2-Hexanone	100		120	120	(72-137)
Dibromochloromethane	20		22	110	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 2 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____Lab Code: CHEM Cas No: A4028 SAS No: A4028 SDG No: A4028Matrix Spike - EPA Sample No : BSG0829W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS QC % LIMITS	
				REC#	REC
1,2-Dibromoethane	20		22	110	(78-125)
Tetrachloroethene	20		26	130	(60-154)
Chlorobenzene	20		19	95	(78-122)
Ethyl Benzene	20		22	110	(77-122)
m/p-Xylenes	40		40	100	(76-122)
o-Xylene	20		19	95	(76-122)
Styrene	20		20	100	(77-124)
Bromoform	20		21	105	(73-140)
Isopropylbenzene	20		21	105	(77-122)
1,1,2,2-Tetrachloroethane	20		20	100	(75-124)
1,3-Dichlorobenzene	20		21	105	(77-120)
1,4-Dichlorobenzene	20		19	95	(76-120)
1,2-Dichlorobenzene	20		21	105	(77-121)
1,2-Dibromo-3-Chloropropane	20		21	105	(68-126)
1,2,4-Trichlorobenzene	20		20	100	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 2 Out of 77 outside limits

Comments: _____

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Cas No: A4028 SAS No: A4028 SDG No: A4028

Matrix Spike - EPA Sample No: BSG0829W2

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
Dichlorodifluoromethane	20	21	105	0	20	(50-109)
Chloromethane	20	22	110	4	20	(55-129)
Vinyl Chloride	20	23	115	4	20	(61-127)
Bromomethane	20	22	110	10	20	(61-129)
Chloroethane	20	22	110	0	20	(63-131)
Trichlorofluoromethane	20	23	115	4	20	(69-123)
1,1,2-Trichlorotrifluoroethane	20	21	105	5	20	(67-127)
1,1-Dichloroethene	20	23	115	14	20	(70-122)
Acetone	100	130	130	14	20	(66-132)
Carbon Disulfide	20	23	115	9	20	(56-135)
Methyl tert-butyl Ether	20	24	120	9	20	(74-130)
Methyl Acetate	20	24	120	4	20	(69-140)
Methylene Chloride	20	21	105	0	20	(74-125)
trans-1,2-Dichloroethene	20	22	110	10	20	(72-124)
1,1-Dichloroethane	20	23	115	9	20	(77-129)
Cyclohexane	20	23	115	9	20	(70-127)
2-Butanone	100	120	120	9	20	(72-136)
Carbon Tetrachloride	20	24	120	9	20	(72-125)
cis-1,2-Dichloroethene	20	22	110	10	20	(76-125)
Chloroform	20	22	110	5	20	(79-126)
1,1,1-Trichloroethane	20	23	115	4	20	(76-121)
Methylcyclohexane	20	21	105	10	20	(69-123)
Benzene	20	22	110	5	20	(77-123)
1,2-Dichloroethane	20	24	120	4	20	(77-125)
Trichloroethene	20	22	110	5	20	(76-122)
1,2-Dichloropropane	20	22	110	10	20	(79-125)
Bromodichloromethane	20	23	115	4	20	(78-123)
4-Methyl-2-Pentanone	100	130	130	0	20	(77-132)
Toluene	20	22	110	10	20	(78-122)
t-1,3-Dichloropropene	20	23	115	4	20	(77-123)
cis-1,3-Dichloropropene	20	22	110	5	20	(77-121)
1,1,2-Trichloroethane	20	23	115	9	20	(78-124)
2-Hexanone	100	130	130	8	20	(72-137)
Dibromochloromethane	20	23	115	4	20	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 2 Out of 77 outside limits

Spike Recovery: 1 Out of 77 outside limits

Comments: _____

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Cas No: A4028 SAS No: A4028 SDG No: A4028

Matrix Spike - EPA Sample No: BSG0829W2

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
1,2-Dibromoethane	20	23	115	4	20	(78-125)
Tetrachloroethene	20	32	160*	21*	20	(60-154)
Chlorobenzene	20	22	110	15	20	(78-122)
Ethyl Benzene	20	24	120	9	20	(77-122)
m/p-Xylenes	40	43	108	8	20	(76-122)
o-Xylene	20	22	110	15	20	(76-122)
Styrene	20	23	115	14	20	(77-124)
Bromoform	20	22	110	5	20	(73-140)
Isopropylbenzene	20	22	110	5	20	(77-122)
1,1,2,2-Tetrachloroethane	20	20	100	0	20	(75-124)
1,3-Dichlorobenzene	20	22	110	5	20	(77-120)
1,4-Dichlorobenzene	20	21	105	10	20	(76-120)
1,2-Dichlorobenzene	20	22	110	5	20	(77-121)
1,2-Dibromo-3-Chloropropane	20	21	105	0	20	(68-126)
1,2,4-Trichlorobenzene	20	20	100	0	20	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 2 Out of 77 outside limits

Spike Recovery: 1 Out of 77 outside limits

Comments:



4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG0826W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: A4028SAS No.: A4028 SDG NO.: A4028Lab File ID: VG020935.DLab Sample ID: VBG0826W2Date Analyzed: 08/26/2009Time Analyzed: 17:04GC Column: RTX-VMS ID: 0.18 (mm)Heated Purge: (Y/N) NInstrument ID: MSVOAG

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSG0826W1	BSG0826W1	VG020942.D	08/26/2009
RW-1	A4028-01	VG020948.D	08/26/2009

COMMENTS:

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBG0826W2

 Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

 Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

 Matrix (soil/water): WATER Lab Sample ID: VBG0826W2

 Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020935.D

 Level: (low/med) Date Received:

 % Moisture: not dec. 100 Date Analyzed: 08/26/09

 GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

 Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

 CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBG0826W2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: VBG0826W2

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG020935.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 08/26/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG0829W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: A4028SAS No.: A4028 SDG NO.: A4028Lab File ID: VG021007.DLab Sample ID: VBG0829W2Date Analyzed: 08/29/2009Time Analyzed: 16:25GC Column: RTX-VMS ID: 0.18 (mm)Heated Purge: (Y/N) NInstrument ID: MSVOAG

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSG0829W1	BSG0829W1	VG021008.D	08/29/2009
BSG0829W2	BSG0829W2	VG021009.D	08/29/2009
TRIPBLANK	A4028-04	VG021013.D	08/29/2009
RW-2	A4028-02	VG021016.D	08/29/2009
EFF-44HZ	A4028-03	VG021017.D	08/29/2009

COMMENTS:

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBG0829W2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: VBG0829W2

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021007.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBG0829W2

Lab Name: Chemtech Contract: Malcolm Pirnie, Inc.

Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG No.: A4028

Matrix (soil/water): WATER Lab Sample ID: VBG0829W2

Sample wt/vol: 5 (g/mL) ml Lab File ID: VG021007.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 08/29/09

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG NO.: A4028
Lab File ID: VG021005.D Date Analyzed: 08/29/2009
Instrument ID: MSVOAG Time Analyzed: 15:32
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1074276	3.70	1936056	4.46	1661675	9.42
UPPER LIMIT	2148552	4.2	3872112	4.96	3323350	9.92
LOWER LIMIT	537138	3.2	968028	3.96	830837.5	8.92
EPA SAMPLE NO.						
RW-2	1154500	3.71	2032758	4.46	1766417	9.42
EFF-44HZ	1091803	3.70	1993345	4.45	1671484	9.41
TRIPBLANK	1109807	3.70	1978231	4.45	1677502	9.41
BSG0829W1	1090877	3.70	1952792	4.45	1725517	9.42
BSG0829W2	1127940	3.69	2023821	4.45	1742981	9.42
VBG0829W2	1145887	3.71	2040375	4.46	1737250	9.41

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.



BA

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG NO.: A4028
Lab File ID: VG021005.D Date Analyzed: 08/29/2009
Instrument ID: MSVOAG Time Analyzed: 15:32
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	786934	13.14				
UPPER LIMIT	1573868	13.64				
LOWER LIMIT	393467	12.64				
EPA SAMPLE NO.						
RW-2	778641	13.13				
EFF-44HZ	760090	13.13				
TRIPBLANK	768067	13.13				
BSG0829W1	786162	13.14				
BSG0829W2	801280	13.13				
VBG0829W2	793758	13.14				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
 Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG NO.: A4028
 Lab File ID: VG020930.D Date Analyzed: 08/26/2009
 Instrument ID: MSVOAG Time Analyzed: 14:16
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1300761	3.69	2249341	4.44	2049411	9.40
UPPER LIMIT	2601522	4.19	4498682	4.94	4098822	9.9
LOWER LIMIT	650380.5	3.19	1124671	3.94	1024706	8.9
EPA SAMPLE NO.						
RW-1	953977	3.68	1766850	4.44	1464615	9.39
BSG0826W1	1209905	3.69	2214389	4.44	1884313	9.40
VBG0826W2	1285290	3.69	2384227	4.45	1915025	9.40

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
 Lab Code: CHEM Case No.: A4028 SAS No.: A4028 SDG NO.: A4028
 Lab File ID: VG020930.D Date Analyzed: 08/26/2009
 Instrument ID: MSVOAG Time Analyzed: 14:16
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	903641	13.12				
UPPER LIMIT	1807282	13.62				
LOWER LIMIT	451820.5	12.62				
EPA SAMPLE NO.						
RW-1	693265	13.12				
BSG0826W1	844877	13.11				
VBG0826W2	683287	13.11				

IS4 = 1,4-Dichlorobenzene-d4

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

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

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : DEC GLADDING CORDAGE

**MALCOLM PIRNIE, INC.
855 Route 146, Suite 210**

**Clifton Park , NY - 12065
Phone No: 5182507300**

**ORDER ID : A4288
ATTENTION : Jeremy Wyckoff**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
RW-1	A4288-01	8260					
RW-2	A4288-02	8260					
EFF44HZ	A4288-03	8260					
TRIPBLANK	A4288-04	8260					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
A4288-01	WATER	09/10/09	09/11/09		09/14/09
A4288-02	WATER	09/10/09	09/11/09		09/11/09
A4288-03	WATER	09/10/09	09/11/09		09/14/09
A4288-04	WATER	09/10/09	09/11/09		09/14/09

* Details For Test :VOC-TCLVOA-10

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

FORM S-III

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
A4288-01	Water	8260	5030		
A4288-02	Water	8260	5030		
A4288-03	Water	8260	5030		
A4288-04	Water	8260	5030		



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Cover Page

Order ID : A4288

Project ID : DEC Gladding Cordage

Client : Malcolm Pirnie, Inc.

Lab Sample Number

A4288-01
A4288-02
A4288-03
A4288-04

Client Sample Number

RW-1
RW-2
EFF44HZ
TRIPBLANK

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

Signature : _____



CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: DEC Gladding Cordage

Project # N/A

Chemtech Project # A4288

A. Number of Samples and Date of Receipt:

4 Water samples were received on 9/11/09.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA F were done using GC column RTX624, which is 75 meters, 0.53 ID, 3.0 df, Restek Cat. #10974. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator.

The analysis of TCL Volatiles - 10 was based on method 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for RW-1, RW-2, RW-1RE and RW-2RE.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples except for Dibromofluoromethane but the samples have no hit for this compound.

The Blank analysis did not indicate the presence of lab contamination.

The % RSD for Tetrachloroethene and Acetone in the initial calibration dated 09/09/09 with instrument F is above 15 %. This compound is passing on linear regressions, however in this case they were left on average response factor.

The Calibration File ID VF018996.D met the requirements except for Styrene and Bromoform but it is not present in the sample.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-01Sample wt/vol: 5 (g/mL) ml Lab File ID: VF019009.DLevel: (low/med) Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	3.2	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	3	
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	68	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-01Sample wt/vol: 5 (g/mL) ml Lab File ID: VF019009.DLevel: (low/med) Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1RE

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-01RESample wt/vol: 5 (g/mL) ml Lab File ID: VF019012.DLevel: (low/med) Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	3.4	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	3.2	
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	68	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-1RE

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-01RESample wt/vol: 5 (g/mL) ml Lab File ID: VF019012.DLevel: (low/med) Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2

Lab Name: Chemtech Contract: MALC02

Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288

Matrix (soil/water): WATER Lab Sample ID: A4288-02

Sample wt/vol: 5 (g/mL) ml Lab File ID: VF018990.D

Level: (low/med) Date Received: 09/11/09

% Moisture: not dec. 100 Date Analyzed: 09/11/09

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	2.4	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1.1	
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	52	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-02Sample wt/vol: 5 (g/mL) ml Lab File ID: VF018990.DLevel: (low/med) Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/11/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2RE

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-02RESample wt/vol: 5 (g/mL) ml Lab File ID: VF019013.DLevel: (low/med) _____ Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	2	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1.1	
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	52	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-2RE

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-02RESample wt/vol: 5 (g/mL) ml Lab File ID: VF019013.DLevel: (low/med) _____ Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF44HZ

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-03Sample wt/vol: 5 (g/mL) ml Lab File ID: VF019011.DLevel: (low/med) _____ Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1.3	
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFF44HZ

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-03Sample wt/vol: 5 (g/mL) ml Lab File ID: VF019011.DLevel: (low/med) Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: A4288-04Sample wt/vol: 5 (g/mL) ml Lab File ID: VF019002.DLevel: (low/med) _____ Date Received: 09/11/09% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: Chemtech Contract: MALC02

Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288

Matrix (soil/water): WATER Lab Sample ID: A4288-04

Sample wt/vol: 5 (g/mL) ml Lab File ID: VF019002.D

Level: (low/med) Date Received: 09/11/09

% Moisture: not dec. 100 Date Analyzed: 09/14/09

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



Hit Summary Sheet
SW-846

SDG No.: A4288

Client: Malcolm Pirnie, Inc.

Sample ID	Client ID		Parameter	Concentration	C	RDL	MDL	Units
Client ID:	EFF44HZ							
A4288-03	EFF44HZ	WATER	1,1,1-Trichloroethane	1.30		1.0	0.40	ug/L
			Total Voc :		1.30			
			Total Concentration:		1.30			
Client ID:	RW-1							
A4288-01	RW-1	WATER	1,1-Dichloroethene	3.20		1.0	0.47	ug/L
A4288-01	RW-1	WATER	1,1-Dichloroethane	3.00		1.0	0.36	ug/L
A4288-01	RW-1	WATER	1,1,1-Trichloroethane	68.00		1.0	0.40	ug/L
			Total Voc :		74.20			
			Total Concentration:		74.20			
Client ID:	RW-1RE							
A4288-01RE	RW-1RE	WATER	1,1-Dichloroethene	3.40		1.0	0.47	ug/L
A4288-01RE	RW-1RE	WATER	1,1-Dichloroethane	3.20		1.0	0.36	ug/L
A4288-01RE	RW-1RE	WATER	1,1,1-Trichloroethane	68.00		1.0	0.40	ug/L
			Total Voc :		74.60			
			Total Concentration:		74.60			
Client ID:	RW-2							
A4288-02	RW-2	WATER	1,1-Dichloroethene	2.40		1.0	0.47	ug/L
A4288-02	RW-2	WATER	1,1-Dichloroethane	1.10		1.0	0.36	ug/L
A4288-02	RW-2	WATER	1,1,1-Trichloroethane	52.00		1.0	0.40	ug/L
			Total Voc :		55.50			
			Total Concentration:		55.50			
Client ID:	RW-2RE							
A4288-02RE	RW-2RE	WATER	1,1-Dichloroethene	2.00		1.0	0.47	ug/L
A4288-02RE	RW-2RE	WATER	1,1-Dichloroethane	1.10		1.0	0.36	ug/L
A4288-02RE	RW-2RE	WATER	1,1,1-Trichloroethane	52.00		1.0	0.40	ug/L
			Total Voc :		55.10			
			Total Concentration:		55.10			

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM CASE No.: A4288 SAS No.: A4288 SDG NO.: A4288

	EPA Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBF0911W2	96	107	97	81	0
02	BSF0911W2	103	101	99	91	0
03	B-KYSPB5GWMS	103	99	99	91	0
04	B-KYSPB5GWMSD	103	101	99	91	0
05	RW-2	103	108	98	76 *	1
06	VBF0914W2	96	107	95	83	0
07	BSF0914W1	96	104	97	96	0
08	TRIPBLANK	95	107	93	84	0
09	RW-1	110	109	98	78 *	1
10	EFF44HZ	115	110	98	82	0
11	RW-1RE	127	115	101	78 *	1
12	RW-2RE	115	111	98	76 *	1

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (80-136)

SMC2 (DBFM) =Dibromofluoromethane (85-121)

SMC3 (TOL) =Toluene-d8 (85-114)

SMC4 (BFB) =4-Bromofluorobenzene (80-121)

Column to be used to flag recovery values

* Values outside of contract required QC Limits

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288

Matrix Spike - EPA Sample No : A4282-07

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
Dichlorodifluoromethane	50	0	56	112	(49-150)
Chloromethane	50	0	60	120	(56-163)
Vinyl Chloride	50	0	58	116	(61-149)
Bromomethane	50	0	51	102	(56-145)
Chloroethane	50	0	53	106	(60-148)
Trichlorofluoromethane	50	0	51	102	(60-149)
1,1,2-Trichlorotrifluoroethane	50	0	50	100	(64-134)
1,1-Dichloroethene	50	0	56	112	(64-132)
Acetone	250	4.2	230	90	(53-155)
Carbon Disulfide	50	0	48	96	(55-139)
Methyl tert-butyl Ether	50	0	58	116	(60-145)
Methyl Acetate	50	0	62	124	(53-151)
Methylene Chloride	50	0	64	128	(65-132)
trans-1,2-Dichloroethene	50	0	55	110	(68-128)
1,1-Dichloroethane	50	0	56	112	(64-132)
Cyclohexane	50	0	48	96	(61-139)
2-Butanone	250	0	280	112	(66-141)
Carbon Tetrachloride	50	0	48	96	(58-138)
cis-1,2-Dichloroethene	50	0	57	114	(61-140)
Chloroform	50	0	55	110	(72-136)
1,1,1-Trichloroethane	50	0	52	104	(72-133)
Methylcyclohexane	50	0	40	80	(59-133)
Benzene	50	0	54	108	(72-126)
1,2-Dichloroethane	50	0	52	104	(72-135)
Trichloroethene	50	0	51	102	(65-130)
1,2-Dichloropropane	50	0	53	106	(76-127)
Bromodichloromethane	50	0	52	104	(74-130)
4-Methyl-2-Pentanone	250	0	300	120	(69-142)
Toluene	50	0	53	106	(73-126)
t-1,3-Dichloropropene	50	0	50	100	(67-132)
cis-1,3-Dichloropropene	50	0	50	100	(68-128)
1,1,2-Trichloroethane	50	0	54	108	(77-126)
2-Hexanone	250	0	290	116	(65-149)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 3 Out of 231 outside limits

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288

Matrix Spike - EPA Sample No : A4282-07

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
Dibromochloromethane	50	0	51	102	(71-131)
1,2-Dibromoethane	50	0	53	106	(76-129)
Tetrachloroethene	50	0	42	84	(44-127)
Chlorobenzene	50	0	55	110	(70-123)
Ethyl Benzene	50	0	55	110	(65-130)
m/p-Xylenes	100	0	110	110	(66-125)
o-Xylene	50	0	56	112	(68-125)
Styrene	50	0	57	114	(63-125)
Bromoform	50	0	52	104	(63-125)
Isopropylbenzene	50	0	55	110	(64-127)
1,1,2,2-Tetrachloroethane	50	0	59	118	(68-134)
1,3-Dichlorobenzene	50	0	52	104	(74-118)
1,4-Dichlorobenzene	50	0	53	106	(70-121)
1,2-Dichlorobenzene	50	0	54	108	(70-123)
1,2-Dibromo-3-Chloropropane	50	0	55	110	(64-138)
1,2,4-Trichlorobenzene	50	0	50	100	(67-123)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 3 Out of 231 outside limits

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288

Matrix Spike - EPA Sample No : A4282-08

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % % (ug/L)		QC LIMITS	
					RPD	REC
Dichlorodifluoromethane	50	54	108	4	20	(49-150)
Chloromethane	50	65	130	8	20	(56-163)
Vinyl Chloride	50	60	120	3	20	(61-149)
Bromomethane	50	57	114	11	20	(56-145)
Chloroethane	50	56	112	6	20	(60-148)
Trichlorofluoromethane	50	51	102	0	20	(60-149)
1,1,2-Trichlorotrifluoroethane	50	47	94	6	20	(64-134)
1,1-Dichloroethene	50	57	114	2	20	(64-132)
Acetone	250	250	98	9	20	(53-155)
Carbon Disulfide	50	48	96	0	20	(55-139)
Methyl tert-butyl Ether	50	59	118	2	20	(60-145)
Methyl Acetate	50	67	134	8	20	(53-151)
Methylene Chloride	50	65	130	2	20	(65-132)
trans-1,2-Dichloroethene	50	58	116	5	20	(68-128)
1,1-Dichloroethane	50	57	114	2	20	(64-132)
Cyclohexane	50	45	90	6	20	(61-139)
2-Butanone	250	280	112	0	20	(66-141)
Carbon Tetrachloride	50	48	96	0	20	(58-138)
cis-1,2-Dichloroethene	50	58	116	2	20	(61-140)
Chloroform	50	55	110	0	20	(72-136)
1,1,1-Trichloroethane	50	54	108	4	20	(72-133)
Methylcyclohexane	50	39	78	3	20	(59-133)
Benzene	50	54	108	0	20	(72-126)
1,2-Dichloroethane	50	52	104	0	20	(72-135)
Trichloroethene	50	51	102	0	20	(65-130)
1,2-Dichloropropane	50	53	106	0	20	(76-127)
Bromodichloromethane	50	53	106	2	20	(74-130)
4-Methyl-2-Pentanone	250	290	116	3	20	(69-142)
Toluene	50	53	106	0	20	(73-126)
t-1,3-Dichloropropene	50	48	96	4	20	(67-132)
cis-1,3-Dichloropropene	50	48	96	4	20	(68-128)
1,1,2-Trichloroethane	50	54	108	0	20	(77-126)
2-Hexanone	250	290	116	0	20	(65-149)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 77 outside limits

Spike Recovery : 5 Out of 308 outside limits

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02

Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288

Matrix Spike - EPA Sample No : A4282-08

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % % (ug/L)		QC LIMITS	
					RPD	REC
Dibromochloromethane	50	51	102	0	20	(71-131)
1,2-Dibromoethane	50	54	108	2	20	(76-129)
Tetrachloroethene	50	41	82	2	20	(44-127)
Chlorobenzene	50	55	110	0	20	(70-123)
Ethyl Benzene	50	55	110	0	20	(65-130)
m/p-Xylenes	100	110	110	0	20	(66-125)
o-Xylene	50	56	112	0	20	(68-125)
Styrene	50	57	114	0	20	(63-125)
Bromoform	50	51	102	2	20	(63-125)
Isopropylbenzene	50	57	114	4	20	(64-127)
1,1,2,2-Tetrachloroethane	50	61	122	3	20	(68-134)
1,3-Dichlorobenzene	50	54	108	4	20	(74-118)
1,4-Dichlorobenzene	50	54	108	2	20	(70-121)
1,2-Dichlorobenzene	50	56	112	4	20	(70-123)
1,2-Dibromo-3-Chloropropane	50	57	114	4	20	(64-138)
1,2,4-Trichlorobenzene	50	52	104	4	20	(67-123)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 77 outside limits

Spike Recovery : 5 Out of 308 outside limits



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288Matrix Spike - EPA Sample No : BSF0911W2

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		22	110*	(50-109)
Chloromethane	20		20	100	(55-129)
Vinyl Chloride	20		23	115	(61-127)
Bromomethane	20		23	115	(61-129)
Chloroethane	20		24	120	(63-131)
Trichlorofluoromethane	20		21	105	(69-123)
1,1,2-Trichlorotrifluoroethane	20		21	105	(67-127)
1,1-Dichloroethene	20		22	110	(70-122)
Acetone	100		110	110	(66-132)
Carbon Disulfide	20		22	110	(56-135)
Methyl tert-butyl Ether	20		22	110	(74-130)
Methyl Acetate	20		24	120	(69-140)
Methylene Chloride	20		25	125	(74-125)
trans-1,2-Dichloroethene	20		23	115	(72-124)
1,1-Dichloroethane	20		23	115	(77-129)
Cyclohexane	20		19	95	(70-127)
2-Butanone	100		120	120	(72-136)
Carbon Tetrachloride	20		20	100	(72-125)
cis-1,2-Dichloroethene	20		23	115	(76-125)
Chloroform	20		23	115	(79-126)
1,1,1-Trichloroethane	20		21	105	(76-121)
Methylcyclohexane	20		18	90	(69-123)
Benzene	20		21	105	(77-123)
1,2-Dichloroethane	20		21	105	(77-125)
Trichloroethene	20		20	100	(76-122)
1,2-Dichloropropane	20		21	105	(79-125)
Bromodichloromethane	20		21	105	(78-123)
4-Methyl-2-Pentanone	100		110	110	(77-132)
Toluene	20		20	100	(78-122)
t-1,3-Dichloropropene	20		21	105	(77-123)
cis-1,3-Dichloropropene	20		21	105	(77-121)
1,1,2-Trichloroethane	20		21	105	(78-124)
2-Hexanone	100		110	110	(72-137)
Dibromochloromethane	20		21	105	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288Matrix Spike - EPA Sample No : BSF0911W2

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
1,2-Dibromoethane	20		21	105	(78-125)
Tetrachloroethene	20		24	120	(60-154)
Chlorobenzene	20		21	105	(78-122)
Ethyl Benzene	20		22	110	(77-122)
m/p-Xylenes	40		43	108	(76-122)
o-Xylene	20		21	105	(76-122)
Styrene	20		22	110	(77-124)
Bromoform	20		21	105	(73-140)
Isopropylbenzene	20		21	105	(77-122)
1,1,2,2-Tetrachloroethane	20		22	110	(75-124)
1,3-Dichlorobenzene	20		21	105	(77-120)
1,4-Dichlorobenzene	20		21	105	(76-120)
1,2-Dichlorobenzene	20		22	110	(77-121)
1,2-Dibromo-3-Chloropropane	20		20	100	(68-126)
1,2,4-Trichlorobenzene	20		18	90	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 77 outside limits

Comments: _____



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288Matrix Spike - EPA Sample No : BSF0914W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		22	110*	(50-109)
Chloromethane	20		21	105	(55-129)
Vinyl Chloride	20		22	110	(61-127)
Bromomethane	20		22	110	(61-129)
Chloroethane	20		24	120	(63-131)
Trichlorofluoromethane	20		21	105	(69-123)
1,1,2-Trichlorotrifluoroethane	20		19	95	(67-127)
1,1-Dichloroethene	20		20	100	(70-122)
Acetone	100		92	92	(66-132)
Carbon Disulfide	20		21	105	(56-135)
Methyl tert-butyl Ether	20		20	100	(74-130)
Methyl Acetate	20		21	105	(69-140)
Methylene Chloride	20		21	105	(74-125)
trans-1,2-Dichloroethene	20		21	105	(72-124)
1,1-Dichloroethane	20		21	105	(77-129)
Cyclohexane	20		19	95	(70-127)
2-Butanone	100		110	110	(72-136)
Carbon Tetrachloride	20		22	110	(72-125)
cis-1,2-Dichloroethene	20		20	100	(76-125)
Chloroform	20		21	105	(79-126)
1,1,1-Trichloroethane	20		21	105	(76-121)
Methylcyclohexane	20		19	95	(69-123)
Benzene	20		22	110	(77-123)
1,2-Dichloroethane	20		22	110	(77-125)
Trichloroethene	20		20	100	(76-122)
1,2-Dichloropropane	20		22	110	(79-125)
Bromodichloromethane	20		22	110	(78-123)
4-Methyl-2-Pentanone	100		120	120	(77-132)
Toluene	20		20	100	(78-122)
t-1,3-Dichloropropene	20		21	105	(77-123)
cis-1,3-Dichloropropene	20		21	105	(77-121)
1,1,2-Trichloroethane	20		21	105	(78-124)
2-Hexanone	100		110	110	(72-137)
Dibromochloromethane	20		21	105	(76-125)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 77 outside limits

Comments:



3B

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MALC02Lab Code: CHEM Cas No: A4288 SAS No : A4288 SDG No: A4288Matrix Spike - EPA Sample No : BSF0914W1

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
1,2-Dibromoethane	20		21	105	(78-125)
Tetrachloroethene	20		19	95	(60-154)
Chlorobenzene	20		21	105	(78-122)
Ethyl Benzene	20		20	100	(77-122)
m/p-Xylenes	40		40	100	(76-122)
o-Xylene	20		20	100	(76-122)
Styrene	20		20	100	(77-124)
Bromoform	20		22	110	(73-140)
Isopropylbenzene	20		21	105	(77-122)
1,1,2,2-Tetrachloroethane	20		22	110	(75-124)
1,3-Dichlorobenzene	20		21	105	(77-120)
1,4-Dichlorobenzene	20		21	105	(76-120)
1,2-Dichlorobenzene	20		22	110	(77-121)
1,2-Dibromo-3-Chloropropane	20		21	105	(68-126)
1,2,4-Trichlorobenzene	20		19	95	(73-121)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 77 outside limits

Comments: _____



4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0911W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: A4288SAS No.: A4288 SDG NO.: A4288Lab File ID: VF018970.DLab Sample ID: VBF0911W2Date Analyzed: 09/11/2009Time Analyzed: 13:11GC Column: RTX624 ID: 0.53 (mm)Heated Purge: (Y/N) NInstrument ID: MSVOAF

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0911W2	BSF0911W2	VF018972.D	09/11/2009
B-KYSPB5GWMS	A4282-07MS	VF018986.D	09/11/2009
B-KYSPB5GWMSD	A4282-08MSD	VF018987.D	09/11/2009
RW-2	A4288-02	VF018990.D	09/11/2009

COMMENTS: _____



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBF0911W2

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: VBF0911W2Sample wt/vol: 5 (g/mL) ml Lab File ID: VF018970.D

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

% Moisture: not dec. 100 Date Analyzed: 09/11/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBF0911W2

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: VBF0911W2Sample wt/vol: 5 (g/mL) ml Lab File ID: VF018970.D

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

% Moisture: not dec. 100 Date Analyzed: 09/11/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0914W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: A4288SAS No.: A4288 SDG NO.: A4288Lab File ID: VF018998.DLab Sample ID: VBF0914W2Date Analyzed: 09/14/2009Time Analyzed: 12:09GC Column: RTX624 ID: 0.53 (mm)Heated Purge: (Y/N) NInstrument ID: MSVOAF

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0914W1	BSF0914W1	VF018999.D	09/14/2009
TRIPBLANK	A4288-04	VF019002.D	09/14/2009
RW-1	A4288-01	VF019009.D	09/14/2009
EFF44HZ	A4288-03	VF019011.D	09/14/2009
RW-1RE	A4288-01RE	VF019012.D	09/14/2009
RW-2RE	A4288-02RE	VF019013.D	09/14/2009

COMMENTS: _____



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBF0914W2

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: VBF0914W2Sample wt/vol: 5 (g/mL) ml Lab File ID: VF018998.D

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

% Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBF0914W2

Lab Name: Chemtech Contract: MALC02Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG No.: A4288Matrix (soil/water): WATER Lab Sample ID: VBF0914W2Sample wt/vol: 5 (g/mL) ml Lab File ID: VF018998.DLevel: (low/med) Date Received: % Moisture: not dec. 100 Date Analyzed: 09/14/09GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG NO.: A4288
Lab File ID: VF018968.D Date Analyzed: 09/11/2009
Instrument ID: MSVOAF Time Analyzed: 11:22
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	571908	3.21	1032455	3.62	963797	6.53
UPPER LIMIT	1143816	3.71	2064910	4.12	1927594	7.03
LOWER LIMIT	285954	2.71	516227.5	3.12	481898.5	6.03
EPA SAMPLE NO.						
B-KYSPB5GWMS	617935	3.22	1114456	3.63	974750	6.55
B-KYSPB5GWMSD	644063	3.22	1177023	3.63	1062424	6.55
RW-2	525109	3.22	974568	3.64	803310	6.54
BSF0911W2	560098	3.22	1024768	3.63	889260	6.54
VBF0911W2	623511	3.22	1094642	3.63	939171	6.54

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG NO.: A4288
Lab File ID: VF018968.D Date Analyzed: 09/11/2009
Instrument ID: MSVOAF Time Analyzed: 11:22
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	529803	8.97				
UPPER LIMIT	1059606	9.47				
LOWER LIMIT	264901.5	8.47				
EPA SAMPLE NO.						
B-KYSPB5GWMS	499654	8.98				
B-KYSPB5GWMSD	518240	8.98				
RW-2	331782	8.98				
BSF0911W2	452137	8.98				
VBF0911W2	402147	8.97				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG NO.: A4288
Lab File ID: VF018996.D Date Analyzed: 09/14/2009
Instrument ID: MSVOAF Time Analyzed: 11:05
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	572154	3.21	1006574	3.62	927054	6.54
UPPER LIMIT	1144308	3.71	2013148	4.12	1854108	7.04
LOWER LIMIT	286077	2.71	503287	3.12	463527	6.04
EPA SAMPLE NO.						
RW-1	522487	3.22	979897	3.63	810252	6.54
RW-1RE	417994	3.22	808470	3.63	681287	6.55
RW-2RE	468009	3.23	895308	3.64	748515	6.54
EFF44HZ	447905	3.22	843575	3.64	702686	6.54
TRIPBLANK	751355	3.22	1275519	3.63	1131314	6.54
BSF0914W1	709253	3.22	1172087	3.63	1070583	6.54
VBF0914W2	660349	3.21	1124441	3.63	965351	6.54

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

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

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



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: A4288 SAS No.: A4288 SDG NO.: A4288
Lab File ID: VF018996.D Date Analyzed: 09/14/2009
Instrument ID: MSVOAF Time Analyzed: 11:05
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	533116	8.97				
UPPER LIMIT	1066232	9.47				
LOWER LIMIT	266558	8.47				
EPA SAMPLE NO.						
RW-1	335518	8.98				
RW-1RE	283915	8.98				
RW-2RE	317472	8.98				
EFF44HZ	337569	8.98				
TRIPBLANK	470064	8.98				
BSF0914W1	527124	8.97				
VBF0914W2	422122	8.97				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.