

**New York State Department of
Environmental Conservation**

Site Number 7-09-009

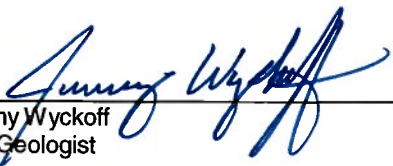
**Gladding Cordage Site Quarterly
Report**

Fourth Quarter 2011

September 2012



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**Gladding Cordage Site
Quarterly Report**

Fourth Quarter 2011

Site Number 7-09-009

Prepared for:
New York State Department of
Environmental Conservation

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Date:
September 2012

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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).

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-trichloroethane (1,1,1-TCA) was detected at 6 µg/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 (46 HZ) has been maintained since September 2010.

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 was not operating for 2 days in October due to a power interruption. The system operated continuously during November and December. However, RW-2 did not operate for 15 days in mid-October due to a faulty pressure transducer. In general, the treatment plant operated at approximately 97 percent of the total available time during the fourth quarter operating period.

Upgrades to the Gladding Cordage treatment system instrumentation and controls have been approved by the NYSDEC. Construction of the new controls system will begin during the first quarter 2012.

The monthly flow rates and total flow volumes for the fourth quarter 2011 operating period are summarized in Table 2-1. As shown in Table 2-1, the flow meters for RW-1 and RW-2 are inoperative; therefore, no flow measurements are currently reported for the recovery wells. The flow rates are estimated based on previously reported values. The estimated average flow for RW-1 and RW-2 is 33 gallons per minute (GPM) and 25 GPM, respectively. Table 2-1 shows that, based on the estimated average flows, approximately 7 million gallons of water were treated between October and December, 2011.

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, respectively. 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. Tables 2-2 and 2-3, and Figure 2-2 show that the fourth quarter 2011 concentrations of 1,1,1-TCA in the samples from recovery well RW-1 ranged from 49 micrograms per liter ($\mu\text{g/L}$) to 56 $\mu\text{g/L}$ and concentrations of 1,1,1-TCA ranged from 43 $\mu\text{g/L}$ to 55 $\mu\text{g/L}$ in the samples from RW-2. These results exceed the corresponding NYSDEC Class GA Standard of 5 $\mu\text{g/L}$; however, Figure 2-2 shows that the concentrations in the samples from these wells are consistent with previous results.

As shown in Tables 2-2 and 2-3, fourth quarter 2011 concentrations of 1,1-dichloroethane (1,1-DCA) ranged from 2.5 $\mu\text{g/L}$ to 2.6 $\mu\text{g/L}$ in samples collected from recover well RW-1, and from 1 $\mu\text{g/L}$ to 1.4 $\mu\text{g/L}$ in samples collected from RW-2. The concentrations of 1,1-dichloroethene (1,1-DCE) in samples collected at recovery well RW-1 ranged from 2.1 $\mu\text{g/L}$ to 3.4 $\mu\text{g/L}$ and the concentrations ranged from 1.6 $\mu\text{g/L}$ to

3 µg/L in the samples from RW-2. The 1,1-DCA and 1,1-DCE results were less than the applicable NYSDEC Class GA Standard of 5 µg/L.

Carbon tetrachloride was detected in the November 2011 sample from recovery well RW-2 at a concentration of 8.7 ug/L. This concentration exceeds the NYSDEC Class GA Standard of 5 ug/L and also the previous maximum concentration of 8.0 ug/L (February 2009) at this location. Carbon tetrachloride has not been detected in a sample from RW-2 since February 2009. Carbon tetrachloride was not detected at a concentration greater than the indicated quantitation limits in any of the other fourth quarter samples from either recovery well.

2.2.2.2 Effluent Sample Results

Table 2-4 summarizes laboratory analytical data for effluent samples collected from the treatment system. No VOCs were detected in the fourth quarter 2011 effluent samples. Based on influent sample concentrations and total flow volumes from the Gladding Cordage treatment system, approximately 3.3 pounds of VOCs were removed by the treatment system during the fourth quarter, 2011.

2.2.3 General Operation and Maintenance

No significant repairs were performed at the Gladding Cordage site during the fourth quarter 2011 operating period.

3. Groundwater Monitoring Program

Groundwater samples were collected from the site during the second quarter 2011 in accordance with the Work Plan. The results of the sampling even were submitted in the second quarter 2011 Gladding Cordage Site Quarterly Report and Annual Groundwater Monitoring Summary (ARCADIS, 2011). The next groundwater sampling even is scheduled to take place during the third quarter 2012.

4. Recommendations

Construction of the new controls system should be completed to provide remote access to system controls and improve reliability of the groundwater remediation system.

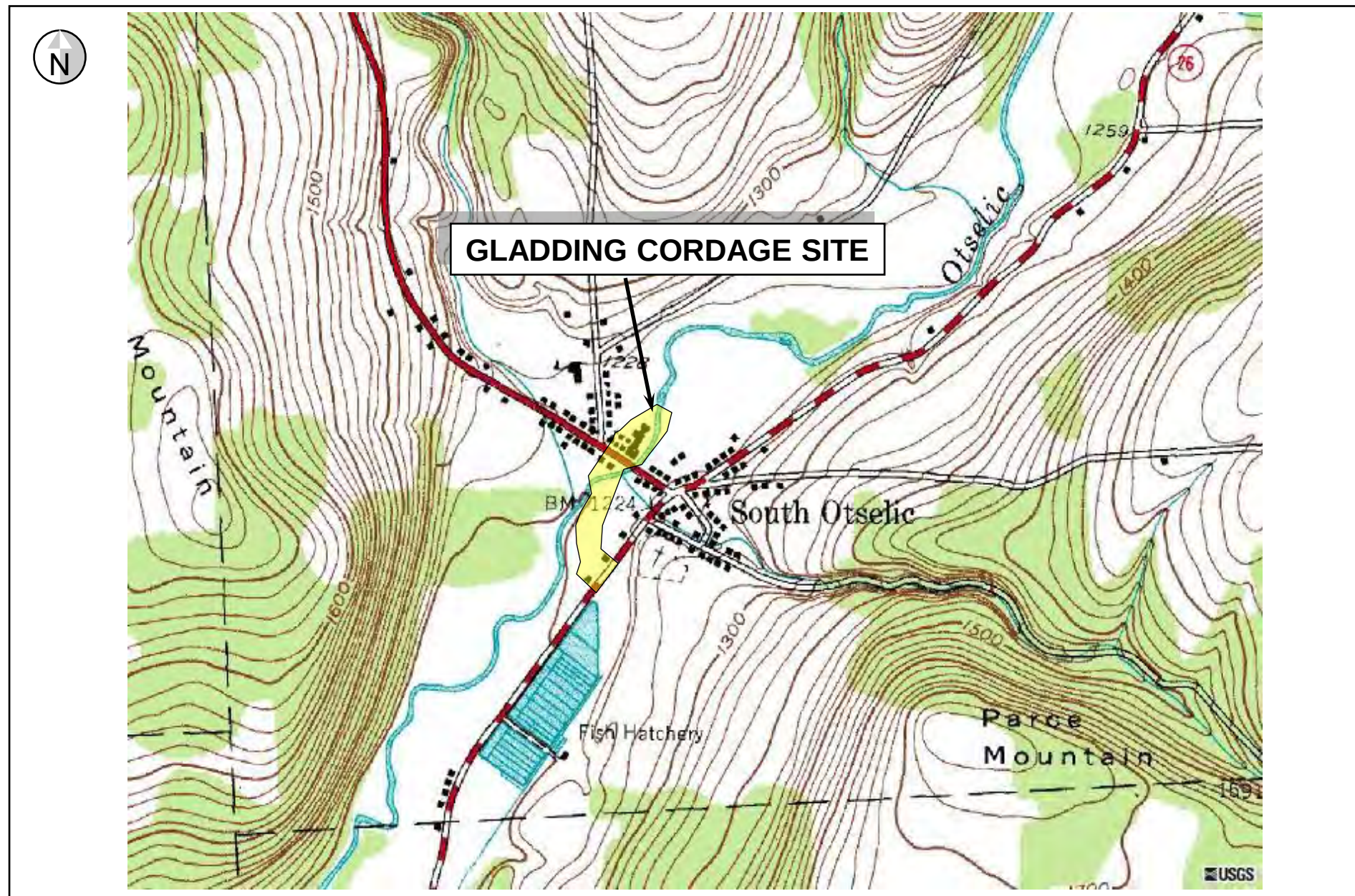
5. Summary

The Gladding Cordage groundwater treatment system did not operate for two days in October, due to a power interruption. The treatment system operated without interruption during the remainder of the fourth quarter 2011 operating period; however, RW-2 was not operating for 15 days during the month of October due to a faulty pressure transducer. The estimated average total flow rate through the treatment system during the fourth quarter 2011 operating period was approximately 58 GPM. Based on monthly influent and effluent sampling, the treatment successfully removes VOCs from groundwater extracted from the capture zone at the current VFD setting of 46 Hz. The VFD setting will continue to be evaluated based on system monitoring results. No VOCs were detected in the fourth quarter 2011 effluent samples. Approximately 3.3 pounds of VOCs were removed by the treatment system during the fourth quarter 2011.

**Figure 2-1
Site Location**

Gladding Cordage Site
South Otselic, New York
Site Number 7-09-009

0 2,000 ft



Source: USGS 7.5-minute Series Topographic Quadrangle, South Otselic.

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

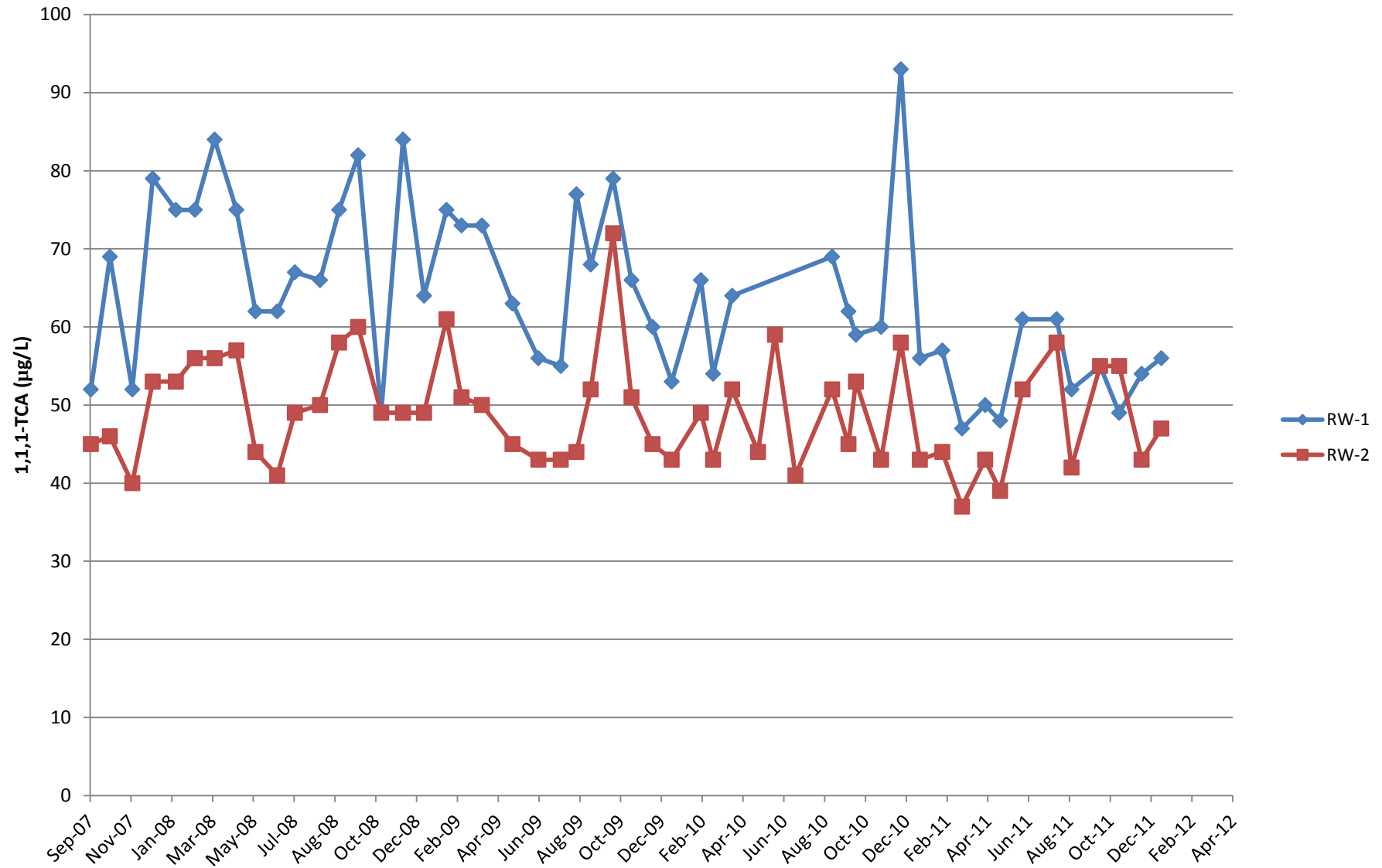


TABLE 2-1
TREATMENT SYSTEM STATUS AND FLOW SUMMARY
GLADDING CORDAGE SITE
SOUTH OTSELIC, NEW YORK
NYSDEC SITE NO. 7-04-009A

Date	System Operation (days)	System On-time (% of possible days)	Well On-time		Flow Rates		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	437,760 ⁽³⁾	276,480 ⁽³⁾	714,240	3,435,840
September-07	30	100%	100%	100%	38	25	1,641,600 ⁽³⁾	1,080,000 ⁽³⁾	2,721,600	
October-07	20	65%	100%	100%	38.2	25.7	1,100,160 ⁽³⁾	740,160 ⁽³⁾	1,840,320	
November-07	30	100%	67%	100%	39.9	24.9 ⁽²⁾	958,840 ⁽⁴⁾	1,075,680 ⁽³⁾	2,034,520	6,172,646
December-07	31	100%	39%	100%	31.8	24.9 ⁽²⁾	1,186,270 ⁽⁴⁾	1,111,536 ⁽³⁾	2,297,806	
January-08	31	100%	100%	100%	31.8	24.9 ⁽²⁾	856,620 ⁽⁴⁾	1,111,536 ⁽³⁾	1,968,156	5,503,499
February-08	26	90%	69%	88%	32	24.9 ⁽²⁾	1,179,610 ⁽⁴⁾	820,385 ⁽³⁾	1,999,995	
March-08	23	74%	100%	100%	32.9	24.9 ⁽²⁾	710,660 ⁽⁴⁾	824,688 ⁽³⁾	1,535,348	
April-08	30	100%	100%	100%	30.8	24.9 ⁽²⁾	1,051,520 ⁽⁴⁾	1,075,680 ⁽³⁾	2,127,200	6,846,908
May-08	31	100%	100%	100%	31.3	24.9 ⁽²⁾	1,238,580 ⁽⁴⁾	1,111,536 ⁽³⁾	2,350,116	
June-08	27	90%	100%	100%	30.5	24.9 ⁽²⁾	1,401,480 ⁽⁴⁾	968,112 ⁽³⁾	2,369,592	
July-08	28	90%	68%	100%	30.1	24.9 ⁽²⁾	1,029,590 ⁽⁴⁾	1,003,968 ⁽³⁾	2,033,558	6,201,456
August-08	28	90%	100%	100%	30	24.9 ⁽²⁾	943,060 ⁽⁴⁾	1,003,968 ⁽³⁾	1,947,028	
September-08	30	100%	100%	100%	29.8	24.9 ⁽²⁾	1,145,190 ⁽⁴⁾	1,075,680 ⁽³⁾	2,220,870	
October-08	31	100%	100%	100%	30	24.9 ⁽²⁾	1,212,410 ⁽⁴⁾	1,111,536 ⁽³⁾	2,323,946	7,494,552
November-08	30	100%	100%	100%	31.7	24.9 ⁽²⁾	1,532,370 ⁽⁴⁾	1,075,680 ⁽³⁾	2,608,050	
December-08	31	100%	100%	100%	31.3	24.9 ⁽²⁾	1,451,020 ⁽⁴⁾	1,111,536 ⁽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

Date	System Operation (days)	System On-time (% of possible days)	Well On-time		Flow Rates		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)		
January-09	31	100%	100%	100%	31.3	24.9 ⁽²⁾	1,392,710 ⁽⁴⁾	1,111,536 ⁽³⁾	2,504,246	6,931,910
February-09	28	100%	100%	100%	30.8	24.9 ⁽²⁾	1,363,120 ⁽⁴⁾	1,003,968 ⁽³⁾	2,367,088	
March-09	31	100%	100%	100%	30.8	24.9 ⁽²⁾	949,040 ⁽⁴⁾	1,111,536 ⁽³⁾	2,060,576	
April-09	30	100%	100%	100%	31.2	24.9 ⁽²⁾	1,281,120 ⁽⁴⁾	1,075,680 ⁽³⁾	2,356,800	8,217,156
May-09	31	100%	100%	100%	31.5	24.9 ⁽²⁾	1,968,910 ⁽⁴⁾	1,111,536 ⁽³⁾	3,080,446	
June-09	30	100%	100%	100%	31.1	24.9 ⁽²⁾	1,704,230 ⁽⁴⁾	1,075,680 ⁽³⁾	2,779,910	
July-09	28	90%	100%	100%	30.4	24.9 ⁽²⁾	736,020 ⁽⁴⁾	1,003,968 ⁽³⁾	1,739,988	5,833,432
August-09	29	94%	100%	100%	30.6	24.9 ⁽²⁾	982,480 ⁽⁴⁾	1,039,824 ⁽³⁾	2,022,304	
September-09	30	100%	100%	100%	30.3	24.9 ⁽²⁾	995,460 ⁽⁴⁾	1,075,680 ⁽³⁾	2,071,140	
October-09	20	65%	100%	100%	34.1	24.9 ⁽²⁾	1,363,040 ⁽⁴⁾	717,120 ⁽³⁾	2,080,160	6,228,096
November-09	29	97%	100%	100%	31.7	24.9 ⁽²⁾	866,140 ⁽⁴⁾	1,039,824 ⁽³⁾	1,905,964	
December-09	27	87%	100%	100%	33.7	24.9 ⁽²⁾	1,273,860 ⁽⁴⁾	968,112 ⁽³⁾	2,241,972	
January-10	31	100%	100%	100%	29.2	24.9 ⁽²⁾	1,327,190 ⁽⁴⁾	1,111,536 ⁽³⁾	2,438,726	7,478,090
February-10	28	100%	100%	100%	34.8	24.9 ⁽²⁾	2,029,590 ⁽⁴⁾	1,003,968 ⁽³⁾	3,033,558	
March-10	31	100%	100%	100%	33	24.9 ⁽²⁾	894,270 ⁽⁴⁾	1,111,536 ⁽³⁾	2,005,806	
April-10	26	87%	100%	100%	35.2	24.9 ⁽²⁾	1,143,260 ⁽⁴⁾	932,256 ⁽³⁾	2,075,516	3,981,724
May-10	28	90%	36%	100%	35.2	24.9 ⁽²⁾	290,240 ⁽⁴⁾	1,003,968 ⁽³⁾	1,294,208	
June-10	17	57%	0%	100%	0	25 ⁽²⁾	0 ⁽⁴⁾	612,000 ⁽³⁾	612,000	
July-10	18	58%	0%	100%	0	24.9 ⁽²⁾	0 ⁽³⁾	645,408 ⁽³⁾	645,408	4,034,736
August-10	23	74%	0%	100%	0	24.9 ⁽²⁾	0 ⁽³⁾	824,688 ⁽³⁾	824,688	
September-10	30	100%	100%	100%	34.5 ⁽²⁾	24.9 ⁽²⁾	1,488,960 ⁽³⁾	1,075,680 ⁽³⁾	2,564,640	
October-10	31	100%	100%	90%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,489,302 ⁽³⁾	1,000,382 ⁽³⁾	2,489,684	7,271,870
November-10	30	100%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,441,260 ⁽³⁾	1,075,680 ⁽³⁾	2,516,940	
December-10	27	87%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,297,134 ⁽³⁾	968,112 ⁽³⁾	2,265,246	
Total Flow 2009							14,876,130	12,334,464	27,210,594	
Total Flow 2010							11,401,206	11,365,214	22,766,420	

Notes:

- 1 - System started on 8/23/07.
 - 2 - Flow meter inoperative. Flow based on previous average flows or from manual tests.
 - 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

Date	System Operation (days)	System On-time (% of possible days)	Well On-time		Flow Rates		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)		
January-11	31	100%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,489,302 ⁽⁴⁾	1,111,536 ⁽³⁾	2,600,838	6,292,350
February-11	20	71%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	960,840 ⁽⁴⁾	717,120 ⁽³⁾	1,677,960	
March-11	24	77%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,153,008 ⁽⁴⁾	860,544 ⁽³⁾	2,013,552	
April-11	27	90%	100%	100%	33.36 ⁽²⁾	24.9 ⁽²⁾	1,297,134 ⁽⁴⁾	968,112 ⁽³⁾	2,265,246	6,544,044
May-11	28	90%	100%	100%	33.36 ⁽²⁾	24.9 ⁽²⁾	1,345,176 ⁽⁴⁾	1,003,968 ⁽³⁾	2,349,144	
June-11	23	77%	100%	100%	33.36 ⁽²⁾	24.9 ⁽²⁾	1,104,966 ⁽⁴⁾	824,688 ⁽³⁾	1,929,654	
July-11	6	19%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	288,576 ⁽⁴⁾	215,136 ⁽³⁾	503,712	5,592,514
August-11	31	100%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,490,976 ⁽⁴⁾	1,111,536 ⁽³⁾	2,602,512	
September-11	30	100%	100%	97%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,442,880 ⁽⁴⁾	1,043,410 ⁽³⁾	2,486,290	
October-11	28	90%	100%	54%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,346,688 ⁽⁴⁾	542,143 ⁽³⁾	1,888,831	7,009,903
November-11	30	100%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,442,880 ⁽⁴⁾	1,075,680 ⁽³⁾	2,518,560	
December-11	31	100%	100%	100%	33.4 ⁽²⁾	24.9 ⁽²⁾	1,490,976 ⁽⁴⁾	1,111,536 ⁽³⁾	2,602,512	
Total Flow 2011							14,853,402	10,585,408	25,438,810	

Notes:

- 1 - System started on 8/23/07.
 - 2 - Flow meter inoperative. Flow based on previous average flows or from manual tests.
 - 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 - RW-1)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-1 9/6/2007 WATER ug/L	RW-1 10/4/2007 WATER ug/L	RW-1 11/6/2007 WATER ug/L	RW-1 12/6/2007 WATER ug/L	RW-1 1/9/2008 WATER ug/L	RW-1 2/6/2008 WATER ug/L	RW-1 3/6/2008 WATER ug/L	RW-1 4/7/2008 WATER ug/L	RW-1 5/5/2008 WATER ug/L	RW-1 6/6/2008 WATER ug/L	RW-1 7/2/2008 WATER ug/L	RW-1 8/8/2008 WATER ug/L	RW-1 9/5/2008 WATER ug/L	RW-1 10/3/2008 WATER ug/L	RW-1 11/6/2008 WATER ug/L
VOCs																
1,1,1-Trichloroethane	5	52	69	52	79	75	75	84	75	62	62	67	66	75	82	49
1,1,2,2-Tetrachloroethane	5	0.30 U	0.30 U	0.30 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 U	1 U
1,1,2-Trichloroethane	1	0.41 U	0.41 U	0.41 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 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1.3 U	1.3 U	1.3 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 U	1 U
1,1-Dichloroethane	5	0.38 U	0.38 U	2.4 J	3.4	2.6	3.4 J	3.8 J	3.2 J	0.67 U	2 J	2.8 J	2.6 J	0.67 U	3.1 J	2
1,1-Dichloroethene	5	12	4.0 J	1.3 J	6.0	1.6	2.6 J	6.9	2.2 J	5.5	4.8 J	5.5	3.3 J	0.67 U	0.67 U	3.2
1,2,4-Trichlorobenzene		0.46 U	0.46 U	0.46 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 U	1 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	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
1,2-Dibromoethane	5	0.32 U	0.32 U	0.32 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 U	1 U
1,2-Dichlorobenzene	3	0.44 U	0.44 U	0.44 U	0.48 U	0.40 U	0.40 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
1,2-Dichloroethane	0.6	0.34 U	0.34 U	0.34 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 U	1 U
1,2-Dichloropropane	1	0.40 U	0.40 U	0.40 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 U	1 U
1,3-Dichlorobenzene	3	0.50 U	0.50 U	0.50 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 U	1 U
1,4-Dichlorobenzene	3	0.54 U	0.54 U	0.54 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 U	1 U
2-Butanone	50	1.1 U	1.1 U	1.1 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 U	5 U
2-Hexanone	50	1.7 U	1.7 U	1.7 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 U	5 U
4-Methyl-2-Pentanone		1.6 U	1.6 U	1.6 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 U	5 U
Acetone	50	2.3 U	2.3 U	2.3 U	2.7	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
Benzene	1	0.39 U	0.39 U	0.39 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 U	1 U
Bromodichloromethane	50	0.33 U	0.33 U	0.33 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 U	1 U
Bromoform	50	0.32 U	0.32 U	0.32 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 U	1 U
Bromomethane	5	0.41 U	0.41 U	0.41 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 U	1 U
Carbon Disulfide		0.40 U	0.40 U	0.40 U	0.51 U	0.20 U	0.20 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
Carbon Tetrachloride	5	1.1 U	1.1 U	1.1 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 U	1 U
Chlorobenzene	5	0.47 U	0.47 U	0.47 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 U	1 U
Chloroethane	5	0.83 U	0.83 U	0.83 U	0.49 U	0.80 U	0.80 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
Chloroform	7	0.33 U	0.33 U	0.33 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 U	1 U
Chloromethane		0.34 U	0.34 U	0.34 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 U	1 U
cis-1,2-Dichloroethene	5	0.29 U	0.29 U	0.29 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 U	1 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	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
Cyclohexane		0.36 U	0.36 U	0.36 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 U	1 U
Dibromochloromethane	50	0.26 U	0.26 U	0.26 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 U	1 U
Dichlorodifluoromethane	5	0.17 U	0.17 U	0.17 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 U	1 U
Ethyl Benzene	5	0.45 U	0.45 U	0.45 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 U	1 U
Isopropylbenzene	5	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 U	1 U
m/p-Xylenes	5	1.2 U	1.2 U	1.2 U	0.97 U	0.47 U	0.47 U	1.4 J	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	2 U
Methyl Acetate		0.20 U	0.20 U	0.20 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 U	1 U
Methyl tert-butyl Ether		0.28 U	0.28 U	0.28 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 U	1 U
Methylcyclohexane		0.34 U	0.34 U	0.34 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 U	1 U
Methylene Chloride	5	0.43 U	0.43 U	0.43 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 U	1 U
o-Xylene		0.46 U	0.46 U	0.46 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 U	1 U
Styrene	5	0.41 U	0.41 U	0.41 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 U	1 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	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
Tetrachloroethene	5	0.48 U	0.48 U	0.48 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 U	1 U
Toluene	5	0.36 U	0.36 U	0.36 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 U	1 U
trans-1,2-Dichloroethene	5	0.40 U	0.40 U	0.40 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 U	1 U
Trichloroethene	5	0.46 U	0.46 U	0.46 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 U	1 U
Trichlorofluoromethane	5	0.22 U	0.22 U	0.22 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 U	1 U
Vinyl Chloride	2	0.33 U	0.33 U	0.33 U	0.46 U	0.30 U	0.30 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
Total VOCs		64	73	55.7	88.4	79.2	81	96.1	80.4	67.5	66.8	75.3	71.9	75	85.1	54.2

- 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 - RW-1)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-1 12/8/2008 WATER ug/L	RW-1 1/8/2009 WATER ug/L	RW-1 2/10/2009 WATER ug/L	RW-1 3/4/2009 WATER ug/L	RW-1 4/3/2009 WATER ug/L	RW-1 5/18/2009 WATER ug/L	RW-1 6/25/2009 WATER ug/L	RW-1 7/28/2009 WATER ug/L	RW-1 8/20/2009 WATER ug/L	RW-1 9/10/2009 WATER ug/L	RW-1 10/13/2009 WATER ug/L	RW-1 11/9/2009 WATER ug/L	RW-1 12/10/2009 WATER ug/L	RW-1 1/7/2010 WATER ug/L	RW-1 2/19/2010 WATER ug/L
VOCs																
1,1,1-Trichloroethane	5	84	64	75	73	73	63	56	55	77	68	79	66	60	53	66
1,1,2,2-Tetrachloroethane	5	1 U	1 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 U	1 U
1,1,2-Trichloroethane	1	1 U	1 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 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 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 U	1 U
1,1-Dichloroethane	5	6.4	2	3.2	3	2.6	2.8	2.4	2.5	3.4	3.2	4.1	3.8	2.9	2.6	3.2
1,1-Dichloroethene	5	7.8	2.1	2.4	0.47 U	2.8	1.3	1.6	3.2	3.4	3.4	3.1	3.9	2.5	2.5	3.2
1,2,4-Trichlorobenzene		1 U	1 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 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 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 U	1 U
1,2-Dibromoethane	5	1 U	1 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 U	1 U
1,2-Dichlorobenzene	3	1 U	1 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 U	1 U
1,2-Dichloroethane	0.6	1 U	1 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 U	1 U
1,2-Dichloropropane	1	1 U	1 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 U	1 U
1,3-Dichlorobenzene	3	1 U	1 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 U	1 U
1,4-Dichlorobenzene	3	1 U	1 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	1 U	1 U
2-Butanone	50	5 U	5 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	5 U	5 U
2-Hexanone	50	5 U	5 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	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 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	5 U	5 U
Acetone	50	5 U	5 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	5 U	5 U
Benzene	1	1 U	1 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	1 U	1 U
Bromodichloromethane	50	1 U	1 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	1 U	1 U
Bromoform	50	1 U	1 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	3.2	1 U	1 U
Bromomethane	5	1 U	1 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 U	1 U
Carbon Disulfide		1 U	1 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	1 U	1 U
Carbon Tetrachloride	5	1 U	7.8	8	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 U	1 U
Chlorobenzene	5	1 U	1 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	1 U	1 U
Chloroethane	5	1 U	1 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	1 U	1 U
Chloroform	7	1 U	1 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	1 U	1 U
Chloromethane		1 U	1 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	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 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	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 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 U	1 U
Cyclohexane		1 U	1 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	1 U	1 U
Dibromochloromethane	50	1 U	1 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	2.2	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 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	1 U	1 U
Ethyl Benzene	5	1 U	1 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	1 U	1 U
Isopropylbenzene	5	1 U	1 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 U	1 U
m/p-Xylenes	5	2 U	2 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	2 U	2 U
Methyl Acetate		1 U	1 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	1 U	1 U
Methyl tert-butyl Ether		1 U	1 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	1 U	1 U
Methylcyclohexane		1 U	1 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	1 U	1 U
Methylene Chloride	5	1 U	1 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	0.61 J	1 U	1 U
o-Xylene		1 U	1 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 U	1 U
Styrene	5	1 U	1 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	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 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	1 U	1 U
Tetrachloroethene	5	1 U	1 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	1 U	1 U
Toluene	5	1 U	1 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	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 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 U	1 U
Trichloroethene	5	1 U	1 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	1 U	1 U
Trichlorofluoromethane	5	1 U	1 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	1 U	1 U
Vinyl Chloride	2	1 U	1 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	1 U	1 U
Total VOCs		98.2	75.9	88.6	76.0	78.4	67.1	60.0	60.7	83.8	74.6	86.2	73.7	71.4	58.1	72.4

- 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 - RW-1)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-1 3/9/2010 WATER ug/L	RW-1 4/6/2010 WATER ug/L	RW-1 8/31/2010 WATER ug/L	RW-1 9/24/2010 WATER ug/L	RW-1 10/5/2010 WATER ug/L	RW-1 11/11/2010 WATER ug/L	RW-1 12/10/2010 WATER ug/L	RW-1 1/7/2011 WATER ug/L	RW-1 2/9/2011 WATER ug/L	RW-1 3/10/2011 WATER ug/L	RW-1 4/13/2011 WATER ug/L	RW-1 5/5/2011 WATER ug/L	RW-1 6/7/2011 WATER ug/L
VOCs														
1,1,1-Trichloroethane	5	54	64	69	62	59	60	93	56	57	47	50	48	61
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	2.7	2.3	1 U	2.9	2.5	1 U	3.9	2.5	2.6	2	1 U	1.7	2.7
1,1-Dichloroethene	5	2.6	1.2	2.6	3.4	3.4	1.4	9.6	3.5	3.5	2.8	1.2	1.1	1.1
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs		59.3	67.5	71.6	68.3	64.9	62.4	106.5	62	63.1	51.8	51.2	50.8	64.8

- 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 - RW-1)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-1 7/27/2011 WATER ug/L	RW-1 8/18/2011 WATER ug/L	RW-1 9/29/2011 WATER ug/L	RW-1 10/27/2011 WATER ug/L	RW-1 11/29/2011 WATER ug/L	RW-1 12/28/2011 WATER ug/L
VOCs							
1,1,1-Trichloroethane	5	61	52	55	49	54	56
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	2.3	2.1	2.7	2.5	2.6	2.6
1,1-Dichloroethene	5	2.1	1.7	1.6	3.4	2.9	2.1
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1.3	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs		65.4	55.8	59.3	54.9	60.8	60.7

- 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 (INFLUENT - RW-2)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-2 9/6/2007 WATER ug/L	RW-2 10/4/2007 WATER ug/L	RW-2 11/6/2007 WATER ug/L	RW-2 12/6/2007 WATER ug/L	RW-2 1/9/2008 WATER ug/L	RW-2 2/6/2008 WATER ug/L	RW-2 3/6/2008 WATER ug/L	RW-2 4/7/2008 WATER ug/L	RW-2 5/5/2008 WATER ug/L	RW-2 6/6/2008 WATER ug/L	RW-2 7/2/2008 WATER ug/L	RW-2 8/8/2008 WATER ug/L	RW-2 9/5/2008 WATER ug/L	RW-2 10/3/2008 WATER ug/L	RW-2 11/6/2008 WATER ug/L
VOCs																
1,1,1-Trichloroethane	5	45	46	40	53	53	56	56	57	44	41	49	50	58	60	49
1,1,2,2-Tetrachloroethane	5	0.30 U	0.30 U	0.30 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 U	1 U
1,1,2-Trichloroethane	1	0.41 U	0.41 U	0.41 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 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1.3 U	1.3 U	1.3 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 U	1 U
1,1-Dichloroethane	5	0.38 U	0.38 U	0.38 U	1.2	0.98 J	1.2 J	1.3 J	0.67 U	0.67 U	0.92 J	1 J	0.67 U	0.67 U	0.67 U	1 U
1,1-Dichloroethene	5	7.9	5.4	1.1 J	4.1	1.0	1.7 J	3.8 J	2.1 J	4.2 J	3 J	4.6 J	0.67 U	0.67 U	0.67 U	1 U
1,2,4-Trichlorobenzene		0.46 U	0.46 U	0.46 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 U	1 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	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
1,2-Dibromoethane	5	0.32 U	0.32 U	0.32 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 U	1 U
1,2-Dichlorobenzene	3	0.44 U	0.44 U	0.44 U	0.48 U	0.40 U	0.40 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
1,2-Dichloroethane	0.6	0.34 U	0.34 U	0.34 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 U	1 U
1,2-Dichloropropane	1	0.40 U	0.40 U	0.40 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 U	1 U
1,3-Dichlorobenzene	3	0.50 U	0.50 U	0.50 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 U	1 U
1,4-Dichlorobenzene	3	0.54 U	0.54 U	0.54 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 U	1 U
2-Butanone	50	1.1 U	1.1 U	1.1 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 U	5 U
2-Hexanone	50	1.7 U	1.7 U	1.7 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 U	5 U
4-Methyl-2-Pentanone		1.6 U	1.6 U	1.6 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 U	5 U
Acetone	50	2.3 U	2.3 U	2.3 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 U	5 U
Benzene	1	0.39 U	0.39 U	0.39 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 U	1 U
Bromodichloromethane	50	0.33 U	0.33 U	0.33 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 U	1 U
Bromoform	50	0.32 U	0.32 U	0.32 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 U	1 U
Bromomethane	5	0.41 U	0.41 U	0.41 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 U	1 U
Carbon Disulfide		0.40 U	0.40 U	0.40 U	0.51 U	0.20 U	0.20 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
Carbon Tetrachloride	5	1.1 U	1.1 U	1.1 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 U	1 U
Chlorobenzene	5	0.47 U	0.47 U	0.47 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 U	1 U
Chloroethane	5	0.83 U	0.83 U	0.83 U	0.49 U	0.80 U	0.80 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
Chloroform	7	0.33 U	0.33 U	0.33 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 U	1 U
Chloromethane		0.34 U	0.34 U	0.34 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 U	1 U
cis-1,2-Dichloroethene	5	0.29 U	0.29 U	0.29 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 U	0.82 J
cis-1,3-Dichloropropene	0.4	0.36 U	0.36 U	0.36 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 U	1 U
Cyclohexane		0.36 U	0.36 U	0.36 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 U	2.8
Dibromochloromethane	50	0.26 U	0.26 U	0.26 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 U	1 U
Dichlorodifluoromethane	5	0.17 U	0.17 U	0.17 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 U	1 U
Ethyl Benzene	5	0.45 U	0.45 U	0.45 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 U	1 U
Isopropylbenzene	5	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 U	1 U
m/p-Xylenes	5	1.2 U	1.2 U	1.2 U	0.97 U	0.47 U	0.47 U	1.2 J	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	2 U
Methyl Acetate		0.20 U	0.20 U	0.20 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 U	1 U
Methyl tert-butyl Ether		0.28 U	0.28 U	0.28 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 U	1 U
Methylcyclohexane		0.34 U	0.34 U	0.34 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 U	1 U
Methylene Chloride	5	0.43 U	0.43 U	0.43 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 U	1 U
o-Xylene		0.46 U	0.46 U	0.46 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 U	1 U
Styrene	5	0.41 U	0.41 U	0.41 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 U	1 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	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
Tetrachloroethene	5	0.48 U	0.48 U	0.48 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 U	1 U
Toluene	5	0.36 U	0.36 U	0.36 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 U	1 U
trans-1,2-Dichloroethene	5	0.40 U	0.40 U	0.40 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 U	1 U
Trichloroethene	5	0.46 U	0.46 U	0.46 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 U	1 U
Trichlorofluoromethane	5	0.22 U	0.22 U	0.22 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 U	1 U
Vinyl Chloride	2	0.33 U	0.33 U	0.33 U	0.46 U	0.30 U	0.30 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
Total VOCs		53	51	41	58	55.0	58.9	62.3	59.1	48.2	44.0	54.6	50.0	58.0	60.0	52.6

- 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 (INFLUENT - RW-2)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-2 12/8/2008 WATER ug/L	RW-2 1/8/2009 WATER ug/L	RW-2 2/10/2009 WATER ug/L	RW-2 3/4/2009 WATER ug/L	RW-2 4/3/2009 WATER ug/L	RW-2 5/18/2009 WATER ug/L	RW-2 6/25/2009 WATER ug/L	RW-2 7/28/2009 WATER ug/L	RW-2 8/20/2009 WATER ug/L	RW-2 9/10/2009 WATER ug/L	RW-2 10/13/2009 WATER ug/L	RW-2 11/9/2009 WATER ug/L	RW-2 12/10/2009 WATER ug/L	RW-2 1/7/2010 WATER ug/L	RW-2 2/19/2010 WATER ug/L
VOCs																
1,1,1-Trichloroethane	5	49	49	61	51	50	45	43	43	44	52	72	51	45	43	49
1,1,2,2-Tetrachloroethane	5	1 U	1 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 U	1 U
1,1,2-Trichloroethane	1	1 U	1 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 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 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 U	1 U
1,1-Dichloroethane	5	4.3	1 U	1.2	1.2	0.36 U	1.1	0.94 J	0.85 J	0.95 J	1.1	1.8	1.3	1.1	0.9 J	1.1
1,1-Dichloroethene	5	5.2	1 U	1.8	0.47 U	0.47 U	0.73 J	0.87 J	1.9	1.7	2	2.5	2.2	1.6	1.7	1.9
1,2,4-Trichlorobenzene		1 U	1 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 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 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 U	1 U
1,2-Dibromoethane	5	1 U	1 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 U	1 U
1,2-Dichlorobenzene	3	1 U	1 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 U	1 U
1,2-Dichloroethane	0.6	1 U	1 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 U	1 U
1,2-Dichloropropane	1	1 U	1 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 U	1 U
1,3-Dichlorobenzene	3	1 U	1 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 U	1 U
1,4-Dichlorobenzene	3	1 U	1 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	1 U	1 U
2-Butanone	50	5 U	5 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	5 U	5 U
2-Hexanone	50	5 U	5 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	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 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	5 U	5 U
Acetone	50	5 U	5 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	5 U	5 U
Benzene	1	1 U	1 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	1 U	1 U
Bromodichloromethane	50	1 U	1 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	1 U	1 U
Bromoform	50	1 U	1 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	1.3	1 U	1 U
Bromomethane	5	1 U	1 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 U	1 U
Carbon Disulfide		1 U	1 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	1 U	1 U
Carbon Tetrachloride	5	1 U	5.9	6.4	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 U	1 U
Chlorobenzene	5	1 U	1 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	1 U	1 U
Chloroethane	5	1 U	1 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	1 U	1 U
Chloroform	7	1 U	1 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	1 U	1 U
Chloromethane		1 U	1 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	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 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	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 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 U	1 U
Cyclohexane		1 U	1 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	1 U	1 U
Dibromochloromethane	50	1 U	1 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	0.78 J	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 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	1 U	1 U
Ethyl Benzene	5	1 U	1 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	1 U	1 U
Isopropylbenzene	5	1 U	1 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 U	1 U
m/p-Xylenes	5	2 U	2 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	2 U	2 U
Methyl Acetate		1 U	1 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	1 U	1 U
Methyl tert-butyl Ether		1 U	1 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	1 U	1 U
Methylcyclohexane		1 U	1 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	1 U	1 U
Methylene Chloride	5	1 U	1 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	2.1	1 U	1 U
o-Xylene		1 U	1 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 U	1 U
Styrene	5	1 U	1 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	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 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	1 U	1 U
Tetrachloroethene	5	1 U	1 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	1 U	1 U
Toluene	5	1 U	1 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	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 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 U	1 U
Trichloroethene	5	1 U	1 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	1 U	1 U
Trichlorofluoromethane	5	1 U	1 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	1 U	1 U
Vinyl Chloride	2	1 U	1 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	1 U	1 U
Total VOCs		58.5	54.9	70.4	52.2	50.0	46.8	44.8	45.8	46.7	55.1	76.3	54.5	51.9	45.6	52.0

- 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 (INFLUENT - RW-2)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-2 3/9/2010 WATER ug/L	RW-2 4/6/2010 WATER ug/L	RW-2 5/14/2010 WATER ug/L	RW-2 6/8/2010 WATER ug/L	RW-2 7/8/2010 WATER ug/L	RW-2 8/31/2010 WATER ug/L	RW-2 9/24/2010 WATER ug/L	RW-2 10/5/2010 WATER ug/L	RW-2 11/11/2010 WATER ug/L	RW-2 12/10/2010 WATER ug/L	RW-2 1/7/2011 WATER ug/L	RW-2 2/9/2011 WATER ug/L	RW-2 3/10/2011 WATER ug/L	RW-2 4/13/2011 WATER ug/L	RW-2 5/5/2011 WATER ug/L	RW-2 6/7/2011 WATER ug/L
VOCs																	
1,1,1-Trichloroethane	5	43	52	44	59	41	52	45	53	43	58	43	44	37	43	39	52
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1	1.1	0.96 J	1 U	0.91 J	1.4	0.94 J	1.3	1 U	1.2	1	0.98 J	0.75 J	1 U	0.72 J	1.2
1,1-Dichloroethene	5	1.7	0.86 J	1.7	1 U	1.2	1.9	2.6	1.4	0.86 J	5.8	2.7	2	1.7	0.82 J	0.73 J	0.96 J
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs		45.7	54.0	46.7	59.0	43.1	55.3	48.5	55.7	44.9	65.0	46.7	47.0	39.5	43.8	40.5	54.2

- 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 (INFLUENT - RW-2)
GLADDING CORDAGE
SOUTH OTSELIC, NEW YORK
NYSDEC Site No. 7-09-009

Sample ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	RW-2 7/27/2011 WATER ug/L	RW-2 8/18/2011 WATER ug/L	RW-2 9/29/2011 WATER ug/L	RW-2 10/27/2011 WATER ug/L	RW-2 11/29/2011 WATER ug/L	RW-2 12/28/2011 WATER ug/L
VOCs							
1,1,1-Trichloroethane	5	58	42	55	55	43	47
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1.3	1 U	2.6	1.4	1	1.1
1,1-Dichloroethene	5	1.8	1.6	1.8	3	1.8	1.6
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	8.7	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs		61.1	43.6	59.4	59.4	54.5	49.7

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

TABLE 2-4
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	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	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
VOCS																		
1,1,1-Trichloroethane	5	0.32 U	0.32 U	0.32 U	0.46 U	6.0	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	2.2 J	0.39 U	1.9 J	0.39 U	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	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	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	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	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	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	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	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 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	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 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	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	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	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	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	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	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	0.40 U	0.40 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
1,2-Dichloroethane	0.6	0.34 U	0.34 U	0.34 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 U	0.41 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	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	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	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	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	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	0.22 U
2-Butanone	50	1.1 U	1.1 U	43	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 U	1.9 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	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	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	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	1.8 U
Acetone	50	2.3 U	2.3 U	2.3 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 U	2.2 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	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	0.35 U
Bromodichloromethane	50	0.33 U	0.33 U	0.33 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 U	0.23 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	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	0.44 U
Bromomethane	5	0.41 U	0.41 U	0.41 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 U	1.4 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	0.20 U	0.20 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
Carbon Tetrachloride	5	1.1 U	1.1 U	1.1 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 U	0.27 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	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	0.28 U
Chloroethane	5	0.83 U	0.83 U	0.83 U	0.49 U	0.80 U	0.80 U	0.80 U	0.80 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
Chloroform	7	0.33 U	0.33 U	0.33 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 U	0.45 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	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	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	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	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	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	0.29 U
Cyclohexane		0.36 U	0.36 U	0.36 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 U	0.57 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	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	0.23 U
Dichlorodifluoromethane	5	0.17 U	0.17 U	0.17 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 U	0.88 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	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	0.05 U
Isopropylbenzene	5	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 U	0.37 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	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1.2 J	0.47 U	0.47 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	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	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	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	0.23 U
Methylcyclohexane		0.34 U	0.34 U	0.34 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 U	0.47 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	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	0.38 U
o-Xylene		0.46 U	0.46 U	0.46 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 U	0.16 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	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	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	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	0.31 U
Tetrachloroethene	5	0.48 U	0.48 U	0.48 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 U	0.97 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	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	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	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	0.44 U
Trichloroethene	5	0.46 U	0.46 U	0.46 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 U	0.34 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	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	0.53 U
Vinyl Chloride	2	0.33 U	0.33 U	0.33 U	0.46 U	0.30 U	0.30 U	0.30 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 U

Notes
U - Not detected at the indicated concentration.
J - Estimated concentration.

TABLE 2-4
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) 9/5/2008 WATER 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	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	EFF(44HZ) 10/13/2009 WATER ug/L	EFF(44HZ) 11/9/2009 WATER ug/L	EFF(44HZ) 12/10/2009 WATER ug/L	EFF(44HZ) 1/7/2010 WATER ug/L
VOCS																		
1,1,1-Trichloroethane	5	0.39 U	0.39 U	1 U	1 U	1 U	0.4 U	0.4 U	0.4 U	0.4 U	2.1	2.2	2.7	1.3	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	0.37 U	0.37 U	1 U	1 U	1 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 U
1,1,2-Trichloroethane	1	0.32 U	0.32 U	1 U	1 U	1 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 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	0.61 U	1 U	1 U	1 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 U
1,1-Dichloroethane	5	0.67 U	0.67 U	1 U	1 U	1 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	1 U
1,1-Dichloroethene	5	0.67 U	0.67 U	1 U	1 U	1 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	1 U
1,2,4-Trichlorobenzene		0.39 U	0.39 U	1 U	2.2	1 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 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	0.58 U	1 U	1 U	1 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 U
1,2-Dibromoethane	5	0.26 U	0.26 U	1 U	1 U	1 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 U
1,2-Dichlorobenzene	3	0.4 U	0.4 U	1 U	1 U	1 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 U
1,2-Dichloroethane	0.6	0.41 U	0.41 U	1 U	1 U	1 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 U
1,2-Dichloropropane	1	0.46 U	0.46 U	1 U	1 U	1 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 U
1,3-Dichlorobenzene	3	0.28 U	0.28 U	1 U	1 U	1 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 U
1,4-Dichlorobenzene	3	0.22 U	0.22 U	1 U	1 U	1 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	1 U
2-Butanone	50	1.9 U	1.9 U	5 U	5 U	5 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	5 U
2-Hexanone	50	1.8 U	1.8 U	5 U	5 U	5 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	5 U
4-Methyl-2-Pentanone		1.8 U	1.8 U	5 U	5 U	5 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	5 U
Acetone	50	2.2 U	2.2 U	5 U	5 U	5 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	5 U
Benzene	1	0.35 U	0.35 U	1 U	1 U	1 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	1 U
Bromodichloromethane	50	0.23 U	0.23 U	1 U	1 U	1 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	1 U
Bromoform	50	0.44 U	0.44 U	1 U	1 U	1 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	1.7	1 U
Bromomethane	5	1.4 U	1.4 U	1 U	1 U	1 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 U
Carbon Disulfide		0.2 U	0.2 U	1 U	1 U	1 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	1 U
Carbon Tetrachloride	5	0.27 U	0.27 U	1 U	1 U	1 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 U
Chlorobenzene	5	0.28 U	0.28 U	1 U	1 U	1 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	1 U
Chloroethane	5	0.8 U	0.8 U	1 U	1 U	1 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	1 U
Chloroform	7	0.45 U	0.45 U	1 U	1 U	1 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	1 U
Chloromethane		0.37 U	0.37 U	1 U	1 U	1 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	1 U
cis-1,2-Dichloroethene	5	0.72 U	0.72 U	1 U	1 U	1 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	1 U
cis-1,3-Dichloropropene	0.4	0.29 U	0.29 U	1 U	1 U	1 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 U
Cyclohexane		0.57 U	0.57 U	1.9	1 U	1 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	1 U
Dibromochloromethane	50	0.23 U	0.23 U	1 U	1 U	1 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	1.1	1 U
Dichlorodifluoromethane	5	0.88 U	0.88 U	1 U	1 U	1 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	1 U
Ethyl Benzene	5	0.05 U	0.05 U	1 U	1 U	1 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	1 U
Isopropylbenzene	5	0.37 U	0.37 U	1 U	1 U	1 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 U
m/p-Xylenes	5	0.47 U	0.47 U	2 U	2 U	2 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	2 U
Methyl Acetate		0.45 U	0.45 U	1 U	1 U	1 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	1 U
Methyl tert-butyl Ether		0.23 U	0.23 U	1 U	1 U	1 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	1 U
Methylcyclohexane		0.47 U	0.47 U	1 U	1 U	1 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	1 U
Methylene Chloride	5	0.38 U	0.38 U	1 U	1 U	1 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	2.4	1 U
o-Xylene		0.16 U	0.16 U	1 U	1 U	1 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 U
Styrene	5	0.19 U	0.19 U	1 U	1 U	1 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	1 U
t-1,3-Dichloropropene	0.4	0.31 U	0.31 U	1 U	1 U	1 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	1 U
Tetrachloroethene	5	0.97 U	0.97 U	1 U	1 U	1 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	1 U
Toluene	5	0.16 U	0.16 U	1 U	1 U	1 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	1 U
trans-1,2-Dichloroethene	5	0.44 U	0.44 U	1 U	1 U	1 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 U
Trichloroethene	5	0.34 U	0.44 U	1 U	1 U	1 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	1 U
Trichlorofluoromethane	5	0.53 U	0.34 U	1 U	1 U	1 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	1 U
Vinyl Chloride	2	0.3 U	0.53 U	1 U	1 U	1 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	1 U

Notes
U - Not detected at the indicated concentration.
J - Estimated concentration.

TABLE 2-4
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) 2/19/2010 WATER ug/L	EFF(44HZ) 3/9/2010 WATER ug/L	EFF(44HZ) 4/6/2010 WATER ug/L	EFF(44HZ) 5/14/2010 WATER ug/L	EFF(44HZ) 6/8/2010 WATER ug/L	EFF(44HZ) 7/8/2010 WATER ug/L	EFF(44HZ) 8/31/2010 WATER ug/L	EFF(46HZ) 9/24/2010 WATER ug/L	EFF(46HZ) 10/5/2010 WATER ug/L	EFF(46HZ) 11/11/2010 WATER ug/L	EFF(46HZ) 12/10/2010 WATER ug/L	EFF(46HZ) 1/7/2011 WATER ug/L	EFF(46HZ) 2/9/2011 WATER ug/L	EFF(46HZ) 3/10/2011 WATER ug/L	EFF(46HZ) 4/13/2011 WATER ug/L	EFF(46HZ) 5/5/2011 WATER ug/L	EFF(46HZ) 6/7/2011 WATER ug/L
VOCS																		
1,1,1-Trichloroethane	5	1 U	2.6	2.4	1 U	1 U	1 U	4.2	1 U	0.67 J	1 U	0.61 J	1 U	1 U	1 U	1 U	1 U	1.4
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes
U - Not detected at the indicated concentration.
J - Estimated concentration.

TABLE 2-4
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(46HZ) 7/27/2011 WATER ug/L	EFF(46HZ) 8/18/2011 WATER ug/L	EFF(46HZ) 9/29/2011 WATER ug/L	EFF(46HZ) 10/27/2011 WATER ug/L	EFF(46HZ) 11/29/2011 WATER ug/L	EFF(46HZ) 12/28/2011 WATER ug/L
VOCS							
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U

Notes
U - Not detected at the indicated concentration.
J - Estimated concentration.

Appendix A

O&M Checklist and Daily Phone Log

Date	10/27/2011
Inspector	JRW
Time	12:00

Recovery Wells	Initial	Final	Initial	Final
	RW-1		RW-2	
Flow Rate (GPM)	<u>Flow meter</u>	<u>inop</u>	<u>Flow meter</u>	<u>inop</u>
Total Flow (Gallons)	<u>Flow meter</u>	<u>inop</u>	<u>Flow meter</u>	<u>inop</u>
Water Level (Feet)	34.2	32.4	(-16)	33.2

Air Stripper		Initial	Final
Blower VFD Setting (Hertz)		46	46
System Pressure (inches water)		0.0	10.6
Intake/Exhaust Piping OK? (Y/N)	Y		
Water Leaks (Y/N)	N		
Water Temperature (F°)	50		

Notes:

Turned on heat.

System down.

Installed spare pressure transducer in RW-2. Cable 40 ft.; water depth 32 ft.

Static:	RW-1	34.2
	RW-2	32.3

Restart system.

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

Date	11/29/2011
Inspector	JRW
Time	10:50

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)	<u>Flow meter inop</u>		<u>Flow meter inop</u>	
Total Flow (Gallons)	<u>Flow meter inop</u>		<u>Flow meter inop</u>	
Water Level (Feet)	32.2	32.2	36.2	36.2

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

Air Stripper		Initial	Final
Blower VFD Setting (Hertz)		46	46
System Pressure (inches water)		10.3	10.3
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)	ON	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

Notes:

[illegible]

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
10/1/2011	X	X	X	X	(1)
10/2/2011	X	X	X	X	(1)
10/3/2011	X	X	X	X	
10/4/2011	X	X	X	X	
10/5/2011	X	X	X	X	
10/6/2011	X	X	X	X	
10/7/2011	X	X	X	X	
10/8/2011	X	X	X	X	(1)
10/9/2011	X	X	X	X	(1)
10/10/2011	X	X	X	X	
10/11/2011	X	X	X	X	
10/12/2011	X	X	X		
10/13/2011	X	X	X		
10/14/2011	X	X	X		
10/15/2011	X	X	X		(1)
10/16/2011	X	X	X		(1)
10/17/2011	X	X	X		
10/18/2011	X	X	X		
10/19/2011	X	X	X		
10/20/2011	X	X	X		
10/21/2011	X	X	X		
10/22/2011	X	X	X		(1)
10/23/2011	X	X	X		(1)
10/24/2011	X	X	X		
10/25/2011		X			
10/26/2011		X			
10/27/2011	X	X	X	X	
10/28/2011	X	X	X	X	
10/29/2011	X	X	X	X	(1)
10/30/2011	X	X	X	X	(1)

Notes:

X - Indicates normal operation

1 - No data recorded. System operation based on previous and subsequent day's call log.

2 - System re-start by NYSDEC fish hatchery personnel.

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
11/1/2011	X	X	X	X	
11/2/2011	X	X	X	X	
11/3/2011	X	X	X	X	
11/4/2011	X	X	X	X	
11/5/2011	X	X	X	X	(1)
11/6/2011	X	X	X	X	(1)
11/7/2011	X	X	X	X	
11/8/2011	X	X	X	X	
11/9/2011	X	X	X	X	
11/10/2011	X	X	X	X	
11/11/2011	X	X	X	X	
11/12/2011	X	X	X	X	(1)
11/13/2011	X	X	X	X	(1)
11/14/2011	X	X	X	X	
11/15/2011	X	X	X	X	
11/16/2011	X	X	X	X	
11/17/2011	X	X	X	X	
11/18/2011	X	X	X	X	
11/19/2011	X	X	X	X	(1)
11/20/2011	X	X	X	X	(1)
11/21/2011	X	X	X	X	
11/22/2011	X	X	X	X	
11/23/2011	X	X	X	X	
11/24/2011	X	X	X	X	
11/25/2011	X	X	X	X	
11/26/2011	X	X	X	X	(1)
11/27/2011	X	X	X	X	(1)
11/28/2011	X	X	X	X	
11/29/2011	X	X	X	X	
11/30/2011	X	X	X	X	

Notes:

X - Indicates normal operation

1 - No data recorded. System operation based on previous and subsequent day's call log.

2 - System re-start by NYSDEC fish hatchery personnel.

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
12/1/2011	X	X	X	X	
12/2/2011	X	X	X	X	
12/3/2011	X	X	X	X	(1)
12/4/2011	X	X	X	X	(1)
12/5/2011	X	X	X	X	
12/6/2011	X	X	X	X	
12/7/2011	X	X	X	X	
12/8/2011	X	X	X	X	
12/9/2011	X	X	X	X	
12/10/2011	X	X	X	X	(1)
12/11/2011	X	X	X	X	(1)
12/12/2011	X	X	X	X	
12/13/2011	X	X	X	X	
12/14/2011	X	X	X	X	
12/15/2011	X	X	X	X	
12/16/2011	X	X	X	X	
12/17/2011	X	X	X	X	(1)
12/18/2011	X	X	X	X	(1)
12/19/2011	X	X	X	X	
12/20/2011	X	X	X	X	
12/21/2011	X	X	X	X	
12/22/2011	X	X	X	X	
12/23/2011	X	X	X	X	
12/24/2011	X	X	X	X	(1)
12/25/2011	X	X	X	X	(1)
12/26/2011	X	X	X	X	
12/27/2011	X	X	X	X	
12/28/2011	X	X	X	X	
12/29/2011	X	X	X	X	
12/30/2011	X	X	X	X	
12/31/2011	X	X	X	X	(1)

Notes:

X - Indicates normal operation

1 - No data recorded. System operation based on previous and subsequent day's call log.

2 - System re-start by NYSDEC fish hatchery personnel.

Appendix B

Analytical Reporting Forms

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : DEC GLADDING CORDAGE

**ARCADIS INC.
855 Route 146, Suite 210**

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

**ORDER ID : C4372
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	C4372-01	8260-Low					
RW-2	C4372-02	8260-Low					
EFF46HZ	C4372-03	8260-Low					
TRIPBLANK	C4372-04	8260-Low					

**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
C4372-01	WATER	10/27/11	10/28/11		11/10/11
C4372-02	WATER	10/27/11	10/28/11		11/10/11
C4372-03	WATER	10/27/11	10/28/11		11/10/11
C4372-04	WATER	09/30/11	10/28/11		10/28/11

* 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
C4372-01	Water	8260-Low			
C4372-02	Water	8260-Low			
C4372-03	Water	8260-Low			
C4372-04	Water	8260-Low			



Cover Page

Order ID : C4372

Project ID : DEC Gladding Cordage

Client : Arcadis Inc.

Lab Sample Number

C4372-01
C4372-02
C4372-03
C4372-04

Client Sample Number

RW-1
RW-2
EFF46HZ
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

Arcadis Inc.

Project Name: DEC Gladding Cordage

Project # N/A

Chemtech Project # C4372

Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

4 Water samples were received on 10/28/2011.

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 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260/5030.

D. QA/ QC Samples:

The Holding Times were met for all analysis except for TRIPBLANK. Sample was received outside hold time.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {C4223-04MS} with File ID: VG038509.D recoveries met the requirements for all compounds except for Benzene[130%], Bromoform[56%], cis-1,2-Dichloroethene[130%], Methyl tert-butyl Ether[128%], Methylene Chloride[144%] and Trichloroethene[198%] .

The MSD {C4223-05MSD} with File ID: VG038510.D recoveries met the acceptable requirements except for Acetone[144%], Benzene[128%], Bromoform[56%], Chloromethane[140%], cis-1,2-Dichloroethene[132%], Methyl tert-butyl Ether[128%], Methylene Chloride[142%] and Trichloroethene[198%] .

The RPD recoveries met criteria.

The Blank Spike for {BSG1028W1} with File ID: VG038481.D met requirements for all samples except for 2-Hexanone [160%].

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

The Initial Calibration met the requirements.

The Continuous Calibration File ID VG038479.D met the requirements except for Acetone, Toluene-d8 and 4-Bromofluorobenzene . Only Trip Blank was analyzed under this calibration and it did not have hits.



The Continuous Calibration File ID VG038504.D met the requirements except for Acetone, Methyl Acetate, Methylene Chloride, Toluene-d8, 4-Bromofluorobenzene and Tetrachloroethene. Only QC samples were analyzed. 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.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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_____

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number 088372

04372

B1109075

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: ARCADIS
ADDRESS: 855 Route 146, STE 210
CITY: Clifton Park STATE: NY ZIP: 12065
ATTENTION: Jeremy Wyckoff
PHONE: 518-250-7300 FAX: 518-250-7301

CLIENT PROJECT INFORMATION

PROJECT NAME: NYSDEL Gladding Conlage
PROJECT NO.: 0026636510000 LOCATION: Sloatsburg, NY
PROJECT MANAGER: J. Wyckoff
e-mail: jeremy.wyckoff@arcadis-us.com
PHONE: Same FAX: Same

CLIENT BILLING INFORMATION

BILL TO: Arcadis PO#: 0026636510000
ADDRESS: PO Box 1240
CITY: White Plains STATE: NY ZIP:
ATTENTION: Accts Payable PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: 10 DAYS *
EDD: 10 DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☒ EDD FORMAT NYSDEL Equis

TEL VOCS

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	A											← Specify Preservatives A-HCl B-HNO ₃ C-H ₂ SO ₄ D-NaOH E-ICE F-Other
			COMP	GRAB	DATE	TIME													
1.	Rw-1	AQ		X	10/27/11	1355	2	X											
2.	Rw-2			X		1400	2	X											
3.	EFF 46 HZ			X		1405	2	X											
4.	TRIP Blank			-	9/30/11	10:30	2	X											
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			

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

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>10/27/11 1430</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant MeOH extraction requires an additional 4% for percent solid. Comments:	Cooler Temp. <u>4°C</u> Ice in Cooler?: <u>Yes</u>
RELINQUISHED BY: 2. <u>[Signature]</u>	DATE/TIME: <u></u>	RECEIVED BY: 2. <u></u>		
RELINQUISHED BY: 3. <u>FedEx</u>	DATE/TIME: <u>10/28/11 9:15</u>	RECEIVED FOR LAB BY: 3. <u>Ken Rwan</u>	Page <u>1</u> of <u>1</u>	SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT Shipment Complete: ☒ YES ☐ NO

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	RW-1	SDG No.:	c4372
Lab Sample ID:	C4372-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038762.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	3.4		0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	2.5		0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	49		0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	RW-1	SDG No.:	c4372
Lab Sample ID:	C4372-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038762.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.4		61 - 141	103%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		69 - 133	101%	SPK: 50
2037-26-5	Toluene-d8	43.3		65 - 126	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.6		58 - 135	77%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	806118	3.94			
540-36-3	1,4-Difluorobenzene	1369330	4.75			
3114-55-4	Chlorobenzene-d5	749043	9.72			
3855-82-1	1,4-Dichlorobenzene-d4	305930	13.41			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	RW-1	SDG No.:	c4372
Lab Sample ID:	C4372-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	RTX-VMS	ID :	0.18
		Final Vol:	5000
		Test:	VOC-TCLVOA-10
		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038762.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	------------	-------

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	RW-2	SDG No.:	c4372
Lab Sample ID:	C4372-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038763.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	3		0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1.4		0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	55		0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	RW-2	SDG No.:	c4372
Lab Sample ID:	C4372-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038763.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.6		61 - 141	105%	SPK: 50
1868-53-7	Dibromofluoromethane	50.9		69 - 133	102%	SPK: 50
2037-26-5	Toluene-d8	42.4		65 - 126	85%	SPK: 50
460-00-4	4-Bromofluorobenzene	38		58 - 135	76%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	788508	3.94			
540-36-3	1,4-Difluorobenzene	1331000	4.76			
3114-55-4	Chlorobenzene-d5	708010	9.71			
3855-82-1	1,4-Dichlorobenzene-d4	301357	13.41			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	RW-2	SDG No.:	c4372
Lab Sample ID:	C4372-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038763.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	EFF46HZ	SDG No.:	c4372
Lab Sample ID:	C4372-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038764.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	EFF46HZ	SDG No.:	c4372
Lab Sample ID:	C4372-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038764.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.3		61 - 141	105%	SPK: 50
1868-53-7	Dibromofluoromethane	52.3		69 - 133	105%	SPK: 50
2037-26-5	Toluene-d8	44.9		65 - 126	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.8		58 - 135	82%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	777338	3.94			
540-36-3	1,4-Difluorobenzene	1278780	4.76			
3114-55-4	Chlorobenzene-d5	707791	9.71			
3855-82-1	1,4-Dichlorobenzene-d4	290815	13.41			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/27/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	EFF46HZ	SDG No.:	c4372
Lab Sample ID:	C4372-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038764.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	09/30/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	TRIPBLANK	SDG No.:	c4372
Lab Sample ID:	C4372-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038484.D	1		10/28/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	09/30/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	TRIPBLANK	SDG No.:	c4372
Lab Sample ID:	C4372-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038484.D	1		10/28/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.6		61 - 141	103%	SPK: 50
1868-53-7	Dibromofluoromethane	46.6		69 - 133	93%	SPK: 50
2037-26-5	Toluene-d8	43.2		65 - 126	86%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.8		58 - 135	82%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	489970	3.91			
540-36-3	1,4-Difluorobenzene	960331	4.71			
3114-55-4	Chlorobenzene-d5	841070	9.68			
3855-82-1	1,4-Dichlorobenzene-d4	393271	13.38			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	09/30/11
Project:	DEC Gladding Cordage	Date Received:	10/28/11
Client Sample ID:	TRIPBLANK	SDG No.:	c4372
Lab Sample ID:	C4372-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038484.D	1		10/28/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution



Hit Summary Sheet
SW-846

SDG No.: C4372

Client: Arcadis Inc.

Sample ID	Client ID		Parameter	Concentration	C	RDL	MDL	Units
Client ID:	RW-1							
C4372-01	RW-1	WATER	1,1-Dichloroethene	3.40		1.0	0.47	ug/L
C4372-01	RW-1	WATER	1,1-Dichloroethane	2.50		1.0	0.36	ug/L
C4372-01	RW-1	WATER	1,1,1-Trichloroethane	49.00		1.0	0.40	ug/L
			Total Voc :		54.90			
			Total Concentration:		54.90			
Client ID:	RW-2							
C4372-02	RW-2	WATER	1,1-Dichloroethene	3.00		1.0	0.47	ug/L
C4372-02	RW-2	WATER	1,1-Dichloroethane	1.40		1.0	0.36	ug/L
C4372-02	RW-2	WATER	1,1,1-Trichloroethane	55.00		1.0	0.40	ug/L
			Total Voc :		59.40			
			Total Concentration:		59.40			

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM CASE No.: C4372 SAS No.: C4372 SDG NO.: C4372

Analytical Method: EPA SW846 8260

	Lab Sample ID.	Client Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBG1028W1	VBG1028W1	104	96	87	80	0
02	BSG1028W1	BSG1028W1	101	94	88	93	0
03	C4372-04	TRIPBLANK	103	93	86	82	0
04	VBG1028W2	VBG1028W2	101	97	85	78	0
05	BSG1028W3	BSG1028W3	108	99	89	92	0
06	C4223-04MS	ADC3004MS	100	90	87	93	0
07	C4223-05MSD	ADC3004MSD	104	91	88	98	0

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (70-120)
 SMC2 (DBFM) =Dibromofluoromethane (85-115)
 SMC3 (TOL) =Toluene-d8 (85-120)
 SMC4 (BFB) =4-Bromofluorobenzene (75-120)

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

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM CASE No.: C4372 SAS No.: C4372 SDG NO.: C4372

Analytical Method: EPA SW846 8260

	Lab Sample ID.	Client Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBG1110W1	VBG1110W1	101	102	89	80	0
02	BSG1110W2	BSG1110W2	112	106	90	89	0
03	C4372-01	RW-1	103	101	87	77	0
04	C4372-02	RW-2	105	102	85	76	0
05	C4372-03	EFF46HZ	105	105	90	82	0

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (70-120)

SMC2 (DBFM) =Dibromofluoromethane (85-115)

SMC3 (TOL) =Toluene-d8 (85-120)

SMC4 (BFB) =4-Bromofluorobenzene (75-120)

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 Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : C4223-04 Analytical Method: EPA SW846 8260 Datafile : VG038509.D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
Dichlorodifluoromethane	50	0	44	88	(30-155)
Chloromethane	50	0	60	120	(40-125)
Vinyl Chloride	50	0	59	118	(50-145)
Bromomethane	50	0	57	114	(34-145)
Chloroethane	50	0	63	126	(60-135)
Trichlorofluoromethane	50	0	60	120	(60-145)
1,1,2-Trichlorotrifluoroethane	50	0	59	118	(47-152)
1,1-Dichloroethene	50	0	61	122	(70-130)
Acetone	250	0	330	132	(40-140)
Carbon Disulfide	50	0	36	72	(35-160)
Methyl tert-butyl Ether	50	0	64	128*	(65-125)
Methyl Acetate	50	0	60	120	(29-176)
Methylene Chloride	50	0	72	144*	(55-140)
trans-1,2-Dichloroethene	50	0	58	116	(60-140)
1,1-Dichloroethane	50	0	67	134	(70-135)
Cyclohexane	50	0	61	122	(42-159)
2-Butanone	250	0	310	124	(47-150)
Carbon Tetrachloride	50	0	58	116	(65-140)
cis-1,2-Dichloroethene	50	0	65	130*	(70-125)
Chloroform	50	0	63	126	(65-135)
1,1,1-Trichloroethane	50	0	57	114	(65-130)
Methylcyclohexane	50	0	51	102	(41-152)
Benzene	50	0	65	130*	(80-120)
1,2-Dichloroethane	50	0	57	114	(70-130)
Trichloroethene	50	0	99	198*	(70-125)
1,2-Dichloropropane	50	0	59	118	(75-125)
Bromodichloromethane	50	0	54	108	(75-120)
4-Methyl-2-Pentanone	250	0	260	104	(60-135)
Toluene	50	0	47	94	(75-120)
t-1,3-Dichloropropene	50	0	46	92	(55-140)
cis-1,3-Dichloropropene	50	0	45	90	(70-130)
1,1,2-Trichloroethane	50	0	49	98	(75-125)
2-Hexanone	250	0	250	100	(55-130)

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

* Values outside of QC limits



WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : C4223-04 Analytical Method: EPA SW846 8260 Datafile : VG038509.D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
Dibromochloromethane	50	0	43	86	(60-135)
1,2-Dibromoethane	50	0	48	96	(80-120)
Tetrachloroethene	50	0	37	74	(45-148)
Chlorobenzene	50	0	47	94	(80-120)
Ethyl Benzene	50	0	49	98	(75-125)
m/p-Xylenes	100	0	94	94	(75-130)
o-Xylene	50	0	46	92	(80-120)
Styrene	50	0	44	88	(65-135)
Bromoform	50	0	28	56*	(70-130)
Isopropylbenzene	50	0	45	90	(75-125)
1,1,2,2-Tetrachloroethane	50	0	50	100	(65-130)
1,3-Dichlorobenzene	50	0	46	92	(75-125)
1,4-Dichlorobenzene	50	0	45	90	(75-125)
1,2-Dichlorobenzene	50	0	48	96	(70-120)
1,2-Dibromo-3-Chloropropane	50	0	42	84	(50-130)
1,2,4-Trichlorobenzene	50	0	41	82	(65-135)

RPD : 0 Out of 49 outside limits

Spike Recovery : 6 Out of 49 outside limits

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

* Values outside of QC limits



WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : C4223-05 Analytical Method: EPA SW846 8260 Datafile : VG038510.D

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % % (ug/L)		QC LIMITS	
					RPD	REC
Dichlorodifluoromethane	50	45	90	2	20	(30-155)
Chloromethane	50	70	140*	15	20	(40-125)
Vinyl Chloride	50	65	130	10	20	(50-145)
Bromomethane	50	58	116	2	20	(34-145)
Chloroethane	50	63	126	0	20	(60-135)
Trichlorofluoromethane	50	60	120	0	20	(60-145)
1,1,2-Trichlorotrifluoroethane	50	61	122	3	20	(47-152)
1,1-Dichloroethene	50	62	124	2	20	(70-130)
Acetone	250	360	144*	9	20	(40-140)
Carbon Disulfide	50	36	72	0	20	(35-160)
Methyl tert-butyl Ether	50	64	128*	0	20	(65-125)
Methyl Acetate	50	63	126	5	20	(29-176)
Methylene Chloride	50	71	142*	1	20	(55-140)
trans-1,2-Dichloroethene	50	58	116	0	20	(60-140)
1,1-Dichloroethane	50	64	128	5	20	(70-135)
Cyclohexane	50	63	126	3	20	(42-159)
2-Butanone	250	320	128	3	20	(47-150)
Carbon Tetrachloride	50	55	110	5	20	(65-140)
cis-1,2-Dichloroethene	50	66	132*	2	20	(70-125)
Chloroform	50	63	126	0	20	(65-135)
1,1,1-Trichloroethane	50	58	116	2	20	(65-130)
Methylcyclohexane	50	51	102	0	20	(41-152)
Benzene	50	64	128*	2	20	(80-120)
1,2-Dichloroethane	50	58	116	2	20	(70-130)
Trichloroethene	50	99	198*	0	20	(70-125)
1,2-Dichloropropane	50	60	120	2	20	(75-125)
Bromodichloromethane	50	54	108	0	20	(75-120)
4-Methyl-2-Pentanone	250	270	108	4	20	(60-135)
Toluene	50	48	96	2	20	(75-120)
t-1,3-Dichloropropene	50	41	82	11	20	(55-140)
cis-1,3-Dichloropropene	50	40	80	12	20	(70-130)
1,1,2-Trichloroethane	50	50	100	2	20	(75-125)
2-Hexanone	250	260	104	4	20	(55-130)

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

* Values outside of QC limits

**WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**Lab Name: CHEMTECH Client: Arcadis Inc.Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372Matrix Spike - EPA Sample No : C4223-05 Analytical Method: EPA SW846 8260 Datafile : VG038510.D

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD		QC LIMITS	
			%	%	RPD	REC
Dibromochloromethane	50	41	82	5	20	(60-135)
1,2-Dibromoethane	50	48	96	0	20	(80-120)
Tetrachloroethene	50	40	80	8	20	(45-148)
Chlorobenzene	50	47	94	0	20	(80-120)
Ethyl Benzene	50	48	96	2	20	(75-125)
m/p-Xylenes	100	94	94	0	20	(75-130)
o-Xylene	50	46	92	0	20	(80-120)
Styrene	50	44	88	0	20	(65-135)
Bromoform	50	28	56*	0	20	(70-130)
Isopropylbenzene	50	45	90	0	20	(75-125)
1,1,2,2-Tetrachloroethane	50	51	102	2	20	(65-130)
1,3-Dichlorobenzene	50	45	90	2	20	(75-125)
1,4-Dichlorobenzene	50	46	92	2	20	(75-125)
1,2-Dichlorobenzene	50	46	92	4	20	(70-120)
1,2-Dibromo-3-Chloropropane	50	42	84	0	20	(50-130)
1,2,4-Trichlorobenzene	50	40	80	2	20	(65-135)

RPD : 0 Out of 49 outside limits

Spike Recovery : 8 Out of 49 outside limits

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

* Values outside of QC limits

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : BSG1028W1 Analytical Method: EPA SW846 8260 Datafile : VG038481.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		19	95	(35-124)
Chloromethane	20		21	105	(40-125)
Vinyl Chloride	20		23	115	(50-144)
Bromomethane	20		21	105	(44-145)
Chloroethane	20		22	110	(60-135)
Trichlorofluoromethane	20		23	115	(60-137)
1,1,2-Trichlorotrifluoroethane	20		25	125	(52-142)
1,1-Dichloroethene	20		23	115	(70-130)
Acetone	100		140	140	(50-140)
Carbon Disulfide	20		20	100	(36-155)
Methyl tert-butyl Ether	20		25	125	(65-125)
Methyl Acetate	20		27	135	(51-158)
Methylene Chloride	20		27	135	(61-138)
trans-1,2-Dichloroethene	20		23	115	(60-137)
1,1-Dichloroethane	20		25	125	(70-135)
Cyclohexane	20		25	125	(56-141)
2-Butanone	100		130	130	(56-150)
Carbon Tetrachloride	20		22	110	(65-138)
cis-1,2-Dichloroethene	20		24	120	(70-125)
Chloroform	20		25	125	(67-135)
1,1,1-Trichloroethane	20		22	110	(65-130)
Methylcyclohexane	20		21	105	(56-137)
Benzene	20		23	115	(80-120)
1,2-Dichloroethane	20		23	115	(70-130)
Trichloroethene	20		21	105	(70-125)
1,2-Dichloropropane	20		23	115	(75-125)
Bromodichloromethane	20		22	110	(75-120)
4-Methyl-2-Pentanone	100		110	110	(63-135)
Toluene	20		18	90	(75-120)
t-1,3-Dichloropropene	20		20	100	(66-135)
cis-1,3-Dichloropropene	20		20	100	(70-130)
1,1,2-Trichloroethane	20		20	100	(75-125)
2-Hexanone	100		160	160*	(56-130)
Dibromochloromethane	20		19	95	(64-135)
1,2-Dibromoethane	20		19	95	(80-120)

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

* Values outside of QC limits

Comments: _____

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**Lab Name: CHEMTECH Client: Arcadis Inc.Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372Matrix Spike - EPA Sample No : BSG1028W1 Analytical Method: EPA SW846 8260 Datafile : VG038481.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Tetrachloroethene	20		16	80	(45-178)
Chlorobenzene	20		19	95	(80-120)
Ethyl Benzene	20		20	100	(75-125)
m/p-Xylenes	40		38	95	(75-130)
o-Xylene	20		18	90	(80-120)
Styrene	20		18	90	(65-135)
Bromoform	20		16	80	(70-130)
Isopropylbenzene	20		18	90	(75-125)
1,1,2,2-Tetrachloroethane	20		20	100	(65-130)
1,3-Dichlorobenzene	20		17	85	(75-125)
1,4-Dichlorobenzene	20		18	90	(75-125)
1,2-Dichlorobenzene	20		18	90	(70-120)
1,2-Dibromo-3-Chloropropane	20		17	85	(54-130)
1,2,4-Trichlorobenzene	20		16	80	(65-133)

RPD : 0 Out of 49 outside limits

Spike Recovery : 1 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____



WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : BSG1028W3 Analytical Method: EPA SW846 8260 Datafile : VG038507.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		16	80	(35-124)
Chloromethane	20		22	110	(40-125)
Vinyl Chloride	20		23	115	(50-144)
Bromomethane	20		23	115	(44-145)
Chloroethane	20		26	130	(60-135)
Trichlorofluoromethane	20		23	115	(60-137)
1,1,2-Trichlorotrifluoroethane	20		23	115	(52-142)
1,1-Dichloroethene	20		23	115	(70-130)
Acetone	100		140	140	(50-140)
Carbon Disulfide	20		21	105	(36-155)
Methyl tert-butyl Ether	20		25	125	(65-125)
Methyl Acetate	20		25	125	(51-158)
Methylene Chloride	20		27	135	(61-138)
trans-1,2-Dichloroethene	20		22	110	(60-137)
1,1-Dichloroethane	20		25	125	(70-135)
Cyclohexane	20		24	120	(56-141)
2-Butanone	100		120	120	(56-150)
Carbon Tetrachloride	20		22	110	(65-138)
cis-1,2-Dichloroethene	20		24	120	(70-125)
Chloroform	20		24	120	(67-135)
1,1,1-Trichloroethane	20		22	110	(65-130)
Methylcyclohexane	20		19	95	(56-137)
Benzene	20		24	120	(80-120)
1,2-Dichloroethane	20		22	110	(70-130)
Trichloroethene	20		21	105	(70-125)
1,2-Dichloropropane	20		24	120	(75-125)
Bromodichloromethane	20		22	110	(75-120)
4-Methyl-2-Pentanone	100		100	100	(63-135)
Toluene	20		19	95	(75-120)
t-1,3-Dichloropropene	20		17	85	(66-135)
cis-1,3-Dichloropropene	20		18	90	(70-130)
1,1,2-Trichloroethane	20		19	95	(75-125)
2-Hexanone	100		96	96	(56-130)
Dibromochloromethane	20		18	90	(64-135)
1,2-Dibromoethane	20		18	90	(80-120)

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

* Values outside of QC limits

Comments:

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : BSG1028W3 Analytical Method: EPA SW846 8260 Datafile : VG038507.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Tetrachloroethene	20		24	120	(45-178)
Chlorobenzene	20		18	90	(80-120)
Ethyl Benzene	20		19	95	(75-125)
m/p-Xylenes	40		36	90	(75-130)
o-Xylene	20		17	85	(80-120)
Styrene	20		17	85	(65-135)
Bromoform	20		14	70	(70-130)
Isopropylbenzene	20		17	85	(75-125)
1,1,2,2-Tetrachloroethane	20		18	90	(65-130)
1,3-Dichlorobenzene	20		16	80	(75-125)
1,4-Dichlorobenzene	20		17	85	(75-125)
1,2-Dichlorobenzene	20		18	90	(70-120)
1,2-Dibromo-3-Chloropropane	20		14	70	(54-130)
1,2,4-Trichlorobenzene	20		14	70	(65-133)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____



WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : BSG1110W2 Analytical Method: EPA SW846 8260 Datafile : VG038757.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		20	100	(35-124)
Chloromethane	20		22	110	(40-125)
Vinyl Chloride	20		23	115	(50-144)
Bromomethane	20		21	105	(44-145)
Chloroethane	20		21	105	(60-135)
Trichlorofluoromethane	20		20	100	(60-137)
1,1,2-Trichlorotrifluoroethane	20		21	105	(52-142)
1,1-Dichloroethene	20		21	105	(70-130)
Acetone	100		140	140	(50-140)
Carbon Disulfide	20		21	105	(36-155)
Methyl tert-butyl Ether	20		21	105	(65-125)
Methyl Acetate	20		23	115	(51-158)
Methylene Chloride	20		22	110	(61-138)
trans-1,2-Dichloroethene	20		21	105	(60-137)
1,1-Dichloroethane	20		21	105	(70-135)
Cyclohexane	20		22	110	(56-141)
2-Butanone	100		110	110	(56-150)
Carbon Tetrachloride	20		20	100	(65-138)
cis-1,2-Dichloroethene	20		21	105	(70-125)
Chloroform	20		21	105	(67-135)
1,1,1-Trichloroethane	20		20	100	(65-130)
Methylcyclohexane	20		21	105	(56-137)
Benzene	20		20	100	(80-120)
1,2-Dichloroethane	20		19	95	(70-130)
Trichloroethene	20		20	100	(70-125)
1,2-Dichloropropane	20		20	100	(75-125)
Bromodichloromethane	20		19	95	(75-120)
4-Methyl-2-Pentanone	100		99	99	(63-135)
Toluene	20		18	90	(75-120)
t-1,3-Dichloropropene	20		18	90	(66-135)
cis-1,3-Dichloropropene	20		18	90	(70-130)
1,1,2-Trichloroethane	20		18	90	(75-125)
2-Hexanone	100		100	100	(56-130)
Dibromochloromethane	20		18	90	(64-135)
1,2-Dibromoethane	20		17	85	(80-120)

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

* Values outside of QC limits

Comments:

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4372 SAS No : C4372 SDG No: C4372

Matrix Spike - EPA Sample No : BSG1110W2 Analytical Method: EPA SW846 8260 Datafile : VG038757.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Tetrachloroethene	20		23	115	(45-178)
Chlorobenzene	20		21	105	(80-120)
Ethyl Benzene	20		21	105	(75-125)
m/p-Xylenes	40		41	103	(75-130)
o-Xylene	20		21	105	(80-120)
Styrene	20		21	105	(65-135)
Bromoform	20		17	85	(70-130)
Isopropylbenzene	20		21	105	(75-125)
1,1,2,2-Tetrachloroethane	20		20	100	(65-130)
1,3-Dichlorobenzene	20		21	105	(75-125)
1,4-Dichlorobenzene	20		20	100	(75-125)
1,2-Dichlorobenzene	20		21	105	(70-120)
1,2-Dibromo-3-Chloropropane	20		18	90	(54-130)
1,2,4-Trichlorobenzene	20		21	105	(65-133)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG1028W1

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: C4372SAS No.: C4372 SDG NO.: C4372Lab File ID: VG038480.DLab Sample ID: VBG1028W1Date Analyzed: 10/28/2011Time Analyzed: 19:30GC 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
BSG1028W1	BSG1028W1	VG038481.D	10/28/2011
TRIPBLANK	C4372-04	VG038484.D	10/28/2011

COMMENTS: _____

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG1028W1	SDG No.:	c4372
Lab Sample ID:	VBG1028W1	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038480.D	1		10/28/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1028W1		SDG No.:	c4372
Lab Sample ID:	VBG1028W1		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038480.D	1		10/28/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.9		70 - 120	104%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		85 - 115	96%	SPK: 50
2037-26-5	Toluene-d8	43.2		85 - 120	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.8		75 - 120	80%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	508485	3.91			
540-36-3	1,4-Difluorobenzene	979257	4.71			
3114-55-4	Chlorobenzene-d5	889281	9.67			
3855-82-1	1,4-Dichlorobenzene-d4	382056	13.38			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG1028W1	SDG No.:	c4372
Lab Sample ID:	VBG1028W1	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038480.D	1		10/28/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG1028W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: C4372SAS No.: C4372 SDG NO.: C4372Lab File ID: VG038505.DLab Sample ID: VBG1028W2Date Analyzed: 10/29/2011Time Analyzed: 09:27GC 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
BSG1028W3	BSG1028W3	VG038507.D	10/29/2011
ADC3004MS	C4223-04MS	VG038509.D	10/29/2011
ADC3004MSD	C4223-05MSD	VG038510.D	10/29/2011

COMMENTS: _____

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1028W2		SDG No.:	c4372
Lab Sample ID:	VBG1028W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038505.D	1		10/29/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1028W2		SDG No.:	c4372
Lab Sample ID:	VBG1028W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038505.D	1		10/29/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.6		70 - 120	101%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		85 - 115	97%	SPK: 50
2037-26-5	Toluene-d8	42.3		85 - 120	85%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.1		75 - 120	78%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	512396	3.92			
540-36-3	1,4-Difluorobenzene	989287	4.74			
3114-55-4	Chlorobenzene-d5	884005	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	393246	13.39			

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1028W2		SDG No.:	c4372
Lab Sample ID:	VBG1028W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038505.D	1		10/29/11	VG102811

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG1110W1

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: C4372SAS No.: C4372 SDG NO.: C4372Lab File ID: VG038754.DLab Sample ID: VBG1110W1Date Analyzed: 11/10/2011Time Analyzed: 12:15GC 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
BSG1110W2	BSG1110W2	VG038757.D	11/10/2011
RW-1	C4372-01	VG038762.D	11/10/2011
RW-2	C4372-02	VG038763.D	11/10/2011
EFF46HZ	C4372-03	VG038764.D	11/10/2011

COMMENTS: _____

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG1110W1	SDG No.:	c4372
Lab Sample ID:	VBG1110W1	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038754.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1110W1		SDG No.:	c4372
Lab Sample ID:	VBG1110W1		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038754.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.6		70 - 120	101%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		85 - 115	102%	SPK: 50
2037-26-5	Toluene-d8	44.5		85 - 120	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.9		75 - 120	80%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	821317	3.93			
540-36-3	1,4-Difluorobenzene	1353160	4.75			
3114-55-4	Chlorobenzene-d5	734923	9.71			
3855-82-1	1,4-Dichlorobenzene-d4	290951	13.4			

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1110W1		SDG No.:	c4372
Lab Sample ID:	VBG1110W1		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG038754.D	1		11/10/11	VG111011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : DEC GLADDING CORDAGE

**ARCADIS INC.
855 Route 146, Suite 210**

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

**ORDER ID : C4773
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	C4773-01	8260-Low					
RW-2	C4773-02	8260-Low					
EFF-46-HZ	C4773-03	8260-Low					
TRIPBLANK	C4773-04	8260-Low					

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION****FORM S-IIa****SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA) ANALYSES****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
C4773-01	WATER	11/29/11	11/30/11		12/01/11
C4773-02	WATER	11/29/11	11/30/11		12/01/11
C4773-03	WATER	11/29/11	11/30/11		12/01/11
C4773-04	WATER	10/28/11	11/30/11		12/01/11

* 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
C4773-01	Water	8260-Low	5030		
C4773-02	Water	8260-Low	5030		
C4773-03	Water	8260-Low	5030		
C4773-04	Water	8260-Low	5030		



Cover Page

Order ID : C4773

Project ID : DEC Gladding Cordage

Client : Arcadis Inc.

Lab Sample Number

C4773-01
C4773-02
C4773-03
C4773-04

Client Sample Number

RW-1
RW-2
EFF-46-HZ
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 : _____

CHEMTECH**CHAIN OF CUSTODY RECORD**

B1109189

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

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number

020522

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: ARCADES
ADDRESS: 855 Route 146 Ste 210
CITY: Clifton Park STATE: NY ZIP: 12065
ATTENTION: Jeremy Wyckoff
PHONE: 518-250-7300 FAX: 518-250-7301

CLIENT PROJECT INFORMATION

PROJECT NAME: NYSDEL Gladding College
PROJECT NO: 0206365 LOCATION: S. Otisville
PROJECT MANAGER: Jeremy Wyckoff
e-mail: jeremy.wyckoff@arcadis-us.com
PHONE: 518-250-7300 FAX: 518-250-7301

CLIENT BILLING INFORMATION

BILL TO: ARCADES PO#: 00266365, arc
ADDRESS: 630 Plaza Drive, Ste 600
CITY: Highlands Ranch STATE: CO ZIP: 80129
ATTENTION: Accts Payable PHONE: 720-344-3500

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD FORMAT _____

TEL Vials

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl B-HNO₃
C-H₂SO₄ D-NaOH
E-ICE F-Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other	
			COMP	GRAB	DATE	TIME		A	1	2	3	4	5	6	7	8		9
1.	RW-1	AQ		X	11/29/11	1040	2	X										
2.	RW-2	↓		X	↓	1045	↓	↓										
3.	EFF-46-HZ	↓		X	↓	1050	↓	↓										
4.	Trip Blank	↓		-	10/28/11	1715	↓	↓										
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt:	Compliant ☒ Non Compliant ☐	Cooler Temp. <u>4°C</u>
1. <u>[Signature]</u>	<u>11/29/11 13:20</u>	1. <u>[Signature]</u>	MeOH extraction requires an additional 4 oz jar for percent solid.		Ice in Cooler?: <u>YES</u>
RELINQUISHED BY	DATE/TIME:	RECEIVED BY:	Comments:		
2. <u>[Signature]</u>	<u>11/30/11 9:35</u>	2. <u>[Signature]</u>			
RELINQUISHED BY	DATE/TIME:	RECEIVED FOR LAB BY:			
3. <u>FedEx</u>	<u>11/30/11 9:35</u>	3. <u>Ken Kwara</u>			

Page 1 of 1

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

Shipment Complete: ☒ YES ☐ NO

FedEx NEW Package
Express US Airbill

FedEx
Tracking
Number

8757 8999 2102

0200 Form
ID No.

FedEx Reprint Copy

1 From
Date 11/29/11 Sender's FedEx
Account Number 106519269

Sender's Name Jeremy Wyckoff Phone 512 250-7300

Company ALCADIS

Address 855 Route 146 Ste 210 Dept./Floor/Suite/Room

City Clifton Park State NY ZIP 12065

2 Your Internal Billing Reference 00266865.0000

3 To
Recipient's Name Sample Receiving Phone 908 789-8700

Company Chemtech

Address 284 Sheffield St. We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address Use this line for the HOLD location address or for continuation of your shipping address.

City Mountainside State NJ ZIP 07092



8757 8999 2102

KL 11/30/11
9:35

4 Express Package Service * In most locations.

NOTE: Service order has changed. Please select carefully.

06 ☐ FedEx First Overnight

04 ☒ FedEx Priority Overnight

05 ☐ FedEx Standard Overnight

5 Packaging * Declared value limit \$500.

06 ☐ FedEx Envelope* 02 ☐ FedEx Pak* 03 ☐ FedEx Box 04 ☐ FedEx Tube 08 ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY DELIVERY

☐ No Signature Required

☒ Direct Signature

☐ Indirect Signature

Does this shipment contain dangerous goods?

☒ No ☐ Yes

As per attached
Shipper's Declaration.

☐ Yes
Shipper's Declaration
not required.

06 ☐ Dry Ice
Dry Ice, 6, UN 1845 to

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment Bill to:

1 ☒ Sender 2 ☐ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Total Packages Total Weight

1 11 lbs

Credit Card Auth

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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CASE NARRATIVE

Arcadis Inc.

Project Name: DEC Gladding Cordage

Project # N/A

Chemtech Project # C4773

Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

4 Water samples were received on 11/30/2011.

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 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260-Low.

D. QA/ QC Samples:

The Holding Times were met for all analysis except for TRIPBLANK.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD recoveries met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

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

The Initial Calibration met the requirements .

The Initial Calibration Verification met the requirements .

The Continuous Calibration File ID VG039265.D met the requirements except for Vinyl Chloride, Bromomethane, Chloromethane and Acetone .

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.



F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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_____

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	RW-1	SDG No.:	C4773
Lab Sample ID:	C4773-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039259.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	2.9		0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	2.6		0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	54		0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	RW-1	SDG No.:	C4773
Lab Sample ID:	C4773-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039259.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1.3		0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.8		61 - 141	114%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		69 - 133	96%	SPK: 50
2037-26-5	Toluene-d8	49		65 - 126	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.1		58 - 135	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	537141	3.91			
540-36-3	1,4-Difluorobenzene	986445	4.72			
3114-55-4	Chlorobenzene-d5	524540	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	209606	13.4			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	RW-1	SDG No.:	C4773
Lab Sample ID:	C4773-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039259.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	RW-2	SDG No.:	C4773
Lab Sample ID:	C4773-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039273.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1.8		0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1		0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	8.7		0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	43		0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	RW-2	SDG No.:	C4773
Lab Sample ID:	C4773-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039273.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.2		61 - 141	112%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		69 - 133	100%	SPK: 50
2037-26-5	Toluene-d8	49.8		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.7		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	533306	3.9			
540-36-3	1,4-Difluorobenzene	955193	4.71			
3114-55-4	Chlorobenzene-d5	509809	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	200788	13.39			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	RW-2	SDG No.:	C4773
Lab Sample ID:	C4773-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	RTX-VMS	ID :	0.18
		Final Vol:	5000
		Test:	VOC-TCLVOA-10
		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039273.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	EFF-46-HZ	SDG No.:	C4773
Lab Sample ID:	C4773-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039272.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	EFF-46-HZ	SDG No.:	C4773
Lab Sample ID:	C4773-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039272.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.9		61 - 141	114%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		69 - 133	96%	SPK: 50
2037-26-5	Toluene-d8	50.1		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.5		58 - 135	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	533537	3.9			
540-36-3	1,4-Difluorobenzene	966150	4.71			
3114-55-4	Chlorobenzene-d5	514491	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	202473	13.39			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/29/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	EFF-46-HZ	SDG No.:	C4773
Lab Sample ID:	C4773-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039272.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/28/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	TRIPBLANK	SDG No.:	C4773
Lab Sample ID:	C4773-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039270.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/28/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	TRIPBLANK	SDG No.:	C4773
Lab Sample ID:	C4773-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039270.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.4		61 - 141	109%	SPK: 50
1868-53-7	Dibromofluoromethane	48.6		69 - 133	97%	SPK: 50
2037-26-5	Toluene-d8	51.1		65 - 126	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		58 - 135	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	556233	3.91			
540-36-3	1,4-Difluorobenzene	1011100	4.71			
3114-55-4	Chlorobenzene-d5	564800	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	212896	13.4			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	10/28/11
Project:	DEC Gladding Cordage	Date Received:	11/30/11
Client Sample ID:	TRIPBLANK	SDG No.:	C4773
Lab Sample ID:	C4773-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039270.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution



Hit Summary Sheet
SW-846

SDG No.: C4773

Client: Arcadis Inc.

Sample ID	Client ID		Parameter	Concentration	C	RDL	MDL	Units
Client ID:	RW-1							
C4773-01	RW-1	WATER	1,1-Dichloroethene	2.90		1.0	0.47	ug/L
C4773-01	RW-1	WATER	1,1-Dichloroethane	2.60		1.0	0.36	ug/L
C4773-01	RW-1	WATER	1,1,1-Trichloroethane	54.00		1.0	0.40	ug/L
C4773-01	RW-1	WATER	Bromoform	1.30		1.0	0.47	ug/L
Total Voc :					60.80			
Total Concentration:					60.80			
Client ID:	RW-2							
C4773-02	RW-2	WATER	1,1-Dichloroethene	1.80		1.0	0.47	ug/L
C4773-02	RW-2	WATER	1,1-Dichloroethane	1.00		1.0	0.36	ug/L
C4773-02	RW-2	WATER	Carbon Tetrachloride	8.70		1.0	0.20	ug/L
C4773-02	RW-2	WATER	1,1,1-Trichloroethane	43.00		1.0	0.40	ug/L
Total Voc :					54.50			
Total Concentration:					54.50			

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM CASE No.: C4773 SAS No.: C4773 SDG NO.: C4773

Analytical Method: EPA SW846 8260

	Lab Sample ID.	Client Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBG1130W1	VBG1130W1	104	96	95	88	0
02	BSG1130W1	BSG1130W1	117	101	103	103	0
03	BSG1130W2	BSG1130W2	109	97	97	99	0
04	C4773-01	RW-1	114	96	98	92	0
05	VBG1130W2	VBG1130W2	119	100	100	88	0
06	BSG1130W3	BSG1130W3	120	100	104	108	0
07	C4773-04	TRIPBLANK	109	97	102	95	0
08	C4773-03	EFF-46-HZ	114	96	100	89	0
09	C4773-02	RW-2	112	100	100	91	0

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (61-141)
 SMC2 (DBFM) =Dibromofluoromethane (69-133)
 SMC3 (TOL) =Toluene-d8 (65-126)
 SMC4 (BFB) =4-Bromofluorobenzene (58-135)

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 Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4773 SAS No : C4773 SDG No: C4773

Matrix Spike - EPA Sample No : BSG1130W1 Analytical Method: EPA SW846 8260 Datafile : VG039240.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		20	100	(46-139)
Chloromethane	20		20	100	(58-139)
Vinyl Chloride	20		21	105	(65-137)
Bromomethane	20		19	95	(50-162)
Chloroethane	20		19	95	(54-160)
Trichlorofluoromethane	20		21	105	(67-143)
1,1,2-Trichlorotrifluoroethane	20		21	105	(71-136)
1,1-Dichloroethene	20		20	100	(69-134)
Acetone	100		100	100	(41-181)
Carbon Disulfide	20		21	105	(63-138)
Methyl tert-butyl Ether	20		20	100	(72-136)
Methyl Acetate	20		20	100	(51-158)
Methylene Chloride	20		22	110	(67-138)
trans-1,2-Dichloroethene	20		21	105	(72-132)
1,1-Dichloroethane	20		21	105	(74-135)
Cyclohexane	20		21	105	(67-132)
2-Butanone	100		100	100	(64-146)
Carbon Tetrachloride	20		24	120	(71-134)
cis-1,2-Dichloroethene	20		21	105	(74-130)
Chloroform	20		21	105	(74-134)
1,1,1-Trichloroethane	20		20	100	(74-133)
Methylcyclohexane	20		21	105	(71-125)
Benzene	20		21	105	(75-125)
1,2-Dichloroethane	20		21	105	(76-130)
Trichloroethene	20		21	105	(73-127)
1,2-Dichloropropane	20		21	105	(76-125)
Bromodichloromethane	20		21	105	(78-127)
4-Methyl-2-Pentanone	100		110	110	(71-140)
Toluene	20		20	100	(74-125)
t-1,3-Dichloropropene	20		19	95	(74-131)
cis-1,3-Dichloropropene	20		20	100	(74-128)
1,1,2-Trichloroethane	20		21	105	(75-129)
2-Hexanone	100		100	100	(62-153)
Dibromochloromethane	20		19	95	(74-131)
1,2-Dibromoethane	20		20	100	(74-129)

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

* Values outside of QC limits

Comments:

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4773 SAS No : C4773 SDG No: C4773

Matrix Spike - EPA Sample No : BSG1130W1 Analytical Method: EPA SW846 8260 Datafile : VG039240.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Tetrachloroethene	20		19	95	(46-157)
Chlorobenzene	20		21	105	(76-123)
Ethyl Benzene	20		21	105	(75-126)
m/p-Xylenes	40		42	105	(74-126)
o-Xylene	20		21	105	(73-127)
Styrene	20		21	105	(75-126)
Bromoform	20		17	85	(66-130)
Isopropylbenzene	20		21	105	(70-127)
1,1,2,2-Tetrachloroethane	20		19	95	(66-131)
1,3-Dichlorobenzene	20		21	105	(70-125)
1,4-Dichlorobenzene	20		20	100	(71-124)
1,2-Dichlorobenzene	20		20	100	(71-126)
1,2-Dibromo-3-Chloropropane	20		15	75	(62-134)
1,2,4-Trichlorobenzene	20		20	100	(62-129)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments:

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4773 SAS No : C4773 SDG No: C4773

Matrix Spike - EPA Sample No : BSG1130W2 Analytical Method: EPA SW846 8260 Datafile : VG039241.D

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
Dichlorodifluoromethane	20	21	105	5	20	(46-139)
Chloromethane	20	22	110	10	20	(58-139)
Vinyl Chloride	20	23	115	9	20	(65-137)
Bromomethane	20	21	105	10	20	(50-162)
Chloroethane	20	20	100	5	20	(54-160)
Trichlorofluoromethane	20	20	100	5	20	(67-143)
1,1,2-Trichlorotrifluoroethane	20	20	100	5	20	(71-136)
1,1-Dichloroethene	20	20	100	0	20	(69-134)
Acetone	100	110	110	10	20	(41-181)
Carbon Disulfide	20	21	105	0	20	(63-138)
Methyl tert-butyl Ether	20	21	105	5	20	(72-136)
Methyl Acetate	20	22	110	10	20	(51-158)
Methylene Chloride	20	23	115	4	20	(67-138)
trans-1,2-Dichloroethene	20	21	105	0	20	(72-132)
1,1-Dichloroethane	20	21	105	0	20	(74-135)
Cyclohexane	20	21	105	0	20	(67-132)
2-Butanone	100	100	100	0	20	(64-146)
Carbon Tetrachloride	20	22	110	9	20	(71-134)
cis-1,2-Dichloroethene	20	21	105	0	20	(74-130)
Chloroform	20	21	105	0	20	(74-134)
1,1,1-Trichloroethane	20	20	100	0	20	(74-133)
Methylcyclohexane	20	21	105	0	20	(71-125)
Benzene	20	21	105	0	20	(75-125)
1,2-Dichloroethane	20	20	100	5	20	(76-130)
Trichloroethene	20	20	100	5	20	(73-127)
1,2-Dichloropropane	20	21	105	0	20	(76-125)
Bromodichloromethane	20	20	100	5	20	(78-127)
4-Methyl-2-Pentanone	100	110	110	0	20	(71-140)
Toluene	20	20	100	0	20	(74-125)
t-1,3-Dichloropropene	20	19	95	0	20	(74-131)
cis-1,3-Dichloropropene	20	20	100	0	20	(74-128)
1,1,2-Trichloroethane	20	20	100	5	20	(75-129)
2-Hexanone	100	100	100	0	20	(62-153)
Dibromochloromethane	20	19	95	0	20	(74-131)
1,2-Dibromoethane	20	20	100	0	20	(74-129)

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

* Values outside of QC limits

Comments: _____

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4773 SAS No : C4773 SDG No: C4773

Matrix Spike - EPA Sample No : BSG1130W2 Analytical Method: EPA SW846 8260 Datafile : VG039241.D

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
Tetrachloroethene	20	21	105	10	20	(46-157)
Chlorobenzene	20	21	105	0	20	(76-123)
Ethyl Benzene	20	21	105	0	20	(75-126)
m/p-Xylenes	40	43	108	3	20	(74-126)
o-Xylene	20	22	110	5	20	(73-127)
Styrene	20	22	110	5	20	(75-126)
Bromoform	20	17	85	0	20	(66-130)
Isopropylbenzene	20	21	105	0	20	(70-127)
1,1,2,2-Tetrachloroethane	20	19	95	0	20	(66-131)
1,3-Dichlorobenzene	20	21	105	0	20	(70-125)
1,4-Dichlorobenzene	20	20	100	0	20	(71-124)
1,2-Dichlorobenzene	20	21	105	5	20	(71-126)
1,2-Dibromo-3-Chloropropane	20	18	90	18	20	(62-134)
1,2,4-Trichlorobenzene	20	20	100	0	20	(62-129)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4773 SAS No : C4773 SDG No: C4773

Matrix Spike - EPA Sample No : BSG1130W3 Analytical Method: EPA SW846 8260 Datafile : VG039268.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		19	95	(35-124)
Chloromethane	20		20	100	(40-125)
Vinyl Chloride	20		21	105	(50-144)
Bromomethane	20		20	100	(44-145)
Chloroethane	20		21	105	(60-135)
Trichlorofluoromethane	20		22	110	(60-137)
1,1,2-Trichlorotrifluoroethane	20		19	95	(52-142)
1,1-Dichloroethene	20		20	100	(70-130)
Acetone	100		98	98	(50-140)
Carbon Disulfide	20		21	105	(36-155)
Methyl tert-butyl Ether	20		20	100	(65-125)
Methyl Acetate	20		21	105	(51-158)
Methylene Chloride	20		23	115	(61-138)
trans-1,2-Dichloroethene	20		21	105	(60-137)
1,1-Dichloroethane	20		22	110	(70-135)
Cyclohexane	20		20	100	(56-141)
2-Butanone	100		98	98	(56-150)
Carbon Tetrachloride	20		23	115	(65-138)
cis-1,2-Dichloroethene	20		21	105	(70-125)
Chloroform	20		22	110	(67-135)
1,1,1-Trichloroethane	20		22	110	(65-130)
Methylcyclohexane	20		19	95	(56-137)
Benzene	20		21	105	(80-120)
1,2-Dichloroethane	20		20	100	(70-130)
Trichloroethene	20		20	100	(70-125)
1,2-Dichloropropane	20		21	105	(75-125)
Bromodichloromethane	20		21	105	(75-120)
4-Methyl-2-Pentanone	100		100	100	(63-135)
Toluene	20		21	105	(75-120)
t-1,3-Dichloropropene	20		19	95	(66-135)
cis-1,3-Dichloropropene	20		19	95	(70-130)
1,1,2-Trichloroethane	20		21	105	(75-125)
2-Hexanone	100		100	100	(56-130)
Dibromochloromethane	20		20	100	(64-135)
1,2-Dibromoethane	20		20	100	(80-120)

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

* Values outside of QC limits

Comments: _____

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C4773 SAS No : C4773 SDG No: C4773

Matrix Spike - EPA Sample No : BSG1130W3 Analytical Method: EPA SW846 8260 Datafile : VG039268.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Tetrachloroethene	20		19	95	(45-178)
Chlorobenzene	20		21	105	(80-120)
Ethyl Benzene	20		21	105	(75-125)
m/p-Xylenes	40		42	105	(75-130)
o-Xylene	20		21	105	(80-120)
Styrene	20		22	110	(65-135)
Bromoform	20		17	85	(70-130)
Isopropylbenzene	20		21	105	(75-125)
1,1,2,2-Tetrachloroethane	20		20	100	(65-130)
1,3-Dichlorobenzene	20		21	105	(75-125)
1,4-Dichlorobenzene	20		20	100	(75-125)
1,2-Dichlorobenzene	20		21	105	(70-120)
1,2-Dibromo-3-Chloropropane	20		15	75	(54-130)
1,2,4-Trichlorobenzene	20		20	100	(65-133)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG1130W1

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: C4773SAS No.: C4773 SDG NO.: C4773Lab File ID: VG039239.DLab Sample ID: VBG1130W1Date Analyzed: 11/30/2011Time Analyzed: 17:35GC 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
BSG1130W1	BSG1130W1	VG039240.D	11/30/2011
BSG1130W2	BSG1130W2	VG039241.D	11/30/2011
RW-1	C4773-01	VG039259.D	12/01/2011

COMMENTS: _____

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG1130W1	SDG No.:	C4773
Lab Sample ID:	VBG1130W1	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039239.D	1		11/30/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1130W1		SDG No.:	C4773
Lab Sample ID:	VBG1130W1		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039239.D	1		11/30/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.8		61 - 141	104%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		69 - 133	96%	SPK: 50
2037-26-5	Toluene-d8	47.4		65 - 126	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	44		58 - 135	88%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	669701	3.91			
540-36-3	1,4-Difluorobenzene	1147640	4.72			
3114-55-4	Chlorobenzene-d5	587307	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	226063	13.4			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG1130W1	SDG No.:	C4773
Lab Sample ID:	VBG1130W1	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039239.D	1		11/30/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG1130W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: C4773SAS No.: C4773 SDG NO.: C4773Lab File ID: VG039267.DLab Sample ID: VBG1130W2Date Analyzed: 12/01/2011Time Analyzed: 07:18GC 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
BSG1130W3	BSG1130W3	VG039268.D	12/01/2011
TRIPBLANK	C4773-04	VG039270.D	12/01/2011
EFF-46-HZ	C4773-03	VG039272.D	12/01/2011
RW-2	C4773-02	VG039273.D	12/01/2011

COMMENTS: _____

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1130W2		SDG No.:	C4773
Lab Sample ID:	VBG1130W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039267.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1130W2		SDG No.:	C4773
Lab Sample ID:	VBG1130W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039267.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.4		70 - 120	119%	SPK: 50
1868-53-7	Dibromofluoromethane	50		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	50.2		85 - 120	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.8		75 - 120	88%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	638151	3.91			
540-36-3	1,4-Difluorobenzene	1170540	4.71			
3114-55-4	Chlorobenzene-d5	591859	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	225879	13.39			

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG1130W2		SDG No.:	C4773
Lab Sample ID:	VBG1130W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG039267.D	1		12/01/11	VG113011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: C4773 SAS No.: C4773 SDG NO.: C4773
Lab File ID: VG039238.D Date Analyzed: 11/30/2011
Instrument ID: MSVOAG Time Analyzed: 16:30
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	702692	3.91	1228999	4.73	688095	9.70
UPPER LIMIT	1405384	4.41	2457998	5.23	1376190	10.2
LOWER LIMIT	351346	3.41	614499.5	4.23	344047.5	9.2
EPA SAMPLE NO.						
BSG1130W1	741254	3.91	1266805	4.72	694445	9.69
BSG1130W2	769607	3.91	1339219	4.71	710525	9.69
RW-1	537141	3.91	986445	4.72	524540	9.69
VBG1130W1	669701	3.91	1147643	4.72	587307	9.69

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.: C4773 SAS No.: C4773 SDG NO.: C4773
Lab File ID: VG039238.D Date Analyzed: 11/30/2011
Instrument ID: MSVOAG Time Analyzed: 16:30
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	318917	13.4				
UPPER LIMIT	637834	13.9				
LOWER LIMIT	159458.5	12.9				
EPA SAMPLE NO.						
BSG1130W1	310637	13.39				
BSG1130W2	312008	13.40				
RW-1	209606	13.40				
VBG1130W1	226063	13.40				

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.



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: C4773 SAS No.: C4773 SDG NO.: C4773
Lab File ID: VG039265.D Date Analyzed: 12/01/2011
Instrument ID: MSVOAG Time Analyzed: 06:20
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	661097	3.90	1220708	4.72	682288	9.69
UPPER LIMIT	1322194	4.4	2441416	5.22	1364576	10.19
LOWER LIMIT	330548.5	3.4	610354	4.22	341144	9.19
EPA SAMPLE NO.						
BSG1130W3	653744	3.90	1160419	4.71	648729	9.69
RW-2	533306	3.90	955193	4.71	509809	9.69
EFF-46-HZ	533537	3.90	966150	4.71	514491	9.69
TRIPBLANK	556233	3.91	1011104	4.71	564800	9.69
VBG1130W2	638151	3.91	1170542	4.71	591859	9.69

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.: C4773 SAS No.: C4773 SDG NO.: C4773
Lab File ID: VG039265.D Date Analyzed: 12/01/2011
Instrument ID: MSVOAG Time Analyzed: 06:20
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	320679	13.4				
UPPER LIMIT	641358	13.9				
LOWER LIMIT	160339.5	12.9				
EPA SAMPLE NO.						
BSG1130W3	284787	13.40				
RW-2	200788	13.39				
EFF-46-HZ	202473	13.39				
TRIPBLANK	212896	13.40				
VBG1130W2	225879	13.39				

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.

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : DEC GLADDING CORDAGE

**ARCADIS INC.
855 Route 146, Suite 210**

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

**ORDER ID : C5155
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	C5155-01	8260-Low					
RW-2	C5155-02	8260-Low					
EFF-46HZ	C5155-03	8260-Low					
TRIPBLANK	C5155-04	8260-Low					

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

FORM S-IIa

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA) ANALYSES**

**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
C5155-01	WATER	12/28/11	12/29/11		01/04/12
C5155-02	WATER	12/28/11	12/29/11		01/04/12
C5155-03	WATER	12/28/11	12/29/11		01/04/12
C5155-04	WATER	11/30/11	12/29/11		01/05/12

* 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
C5155-01	Water	8260-Low	OLM04.3		
C5155-02	Water	8260-Low	OLM04.3		
C5155-03	Water	8260-Low	OLM04.3		
C5155-04	Water	8260-Low	OLM04.3		



Cover Page

Order ID : C5155

Project ID : DEC Gladding Cordage

Client : Arcadis Inc.

Lab Sample Number

C5155-01
C5155-02
C5155-03
C5155-04

Client Sample Number

RW-1
RW-2
EFF-46HZ
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

Arcadis Inc.

Project Name: DEC Gladding Cordage

Project # N/A

Chemtech Project # C5155

Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

4 Water samples were received on 12/29/2011.

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 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260-Low.

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 RPD recoveries met criteria.

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

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

The Initial Calibration met the requirements.

The Initial Calibration Verification 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.



F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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_____

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO. CS155
QUOTE NO.
COC Number 021230

CLIENT INFORMATION			CLIENT PROJECT INFORMATION			CLIENT BILLING INFORMATION												
REPORT TO BE SENT TO:																		
COMPANY: <u>ARCADIS</u>			PROJECT NAME: <u>NYSDEC Gladding Cordero</u>			BILL TO: <u>ARCADIS</u>												
ADDRESS: <u>855 Route 146 Ste 210</u>			PROJECT NO. <u>0266365</u> LOCATION: <u>S. Otsego</u>			ADDRESS:												
CITY: <u>Clifton Park</u> STATE: <u>NY</u> ZIP: <u>12065</u>			PROJECT MANAGER: <u>Jeremy Wyckoff</u>			CITY: <u>Highlands Ranch</u> STATE: <u>CO</u> ZIP:												
ATTENTION: <u>Jeremy Wyckoff</u>			e-mail: <u>jeremy.wyckoff@arcadis-us.com</u>			ATTENTION: <u>Accts Payable</u> PHONE:												
PHONE: <u>518-250-7300</u> FAX: <u>518-250-7301</u>			PHONE: <u>Same</u> FAX: <u>Same</u>															
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			ANALYSIS												
FAX: _____ DAYS: _____			☐ RESULTS ONLY ☐ USEPA CLP ☐ RESULTS + QC ☒ New York State ASP "B" ☐ New Jersey REDUCED ☐ New York State ASP "A" ☐ New Jersey CLP ☐ Other _____ ☒ EDD FORMAT <u>NYS EQUIS</u>			TCL VOCs												
HARD COPY: <u>STD</u> DAYS: _____																		
EDD: <u>STD</u> DAYS: _____																		
PREAPPROVED TAT: ☒ YES ☐ NO																		
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS																		
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A-HCl B-HNO ₃ C-H ₂ SO ₄ D-NaOH E-ICE F-Other	
			COMP	GRAB	DATE	TIME		A	1	2	3	4	5	6	7	8		9
1.	<u>RW-1</u>	<u>AQ</u>	<u>X</u>		<u>12/28/11</u>	<u>1015</u>	<u>2</u>	<u>X</u>										
2.	<u>RW-2</u>	<u>↓</u>	<u>X</u>			<u>1020</u>	<u>↓</u>	<u>X</u>										
3.	<u>EFF-46 HB</u>	<u>↓</u>	<u>X</u>			<u>1025</u>	<u>↓</u>	<u>X</u>										
4.	<u>THIP Blank</u>	<u>↓</u>	<u>—</u>		<u>11/30/11</u>	<u>—</u>	<u>↓</u>	<u>X</u>										
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY																		
RELINQUISHED BY SAMPLER:		DATE/TIME:		RECEIVED BY:		Conditions of bottles or coolers at receipt:		Compliant ☒ Non Compliant ☐		Cooler Temp. <u>4°C</u>								
1. <u>Jeremy Wyckoff</u>		12/28/11 1100		1. <u>[Signature]</u>		MeOH extraction requires an additional 4-oz jar for percent solid.				Ice in Cooler?: <u>YES</u>								
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		Comments:												
2. <u>[Signature]</u>				2. <u>[Signature]</u>														
RELINQUISHED BY:		DATE/TIME:		RECEIVED FOR LAB BY:		Page <u>1</u> of <u>1</u>		SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT		Shipment Complete: ☒ YES ☐ NO								
3. <u>Fed Ex</u>		12/29/11 9:10		3. <u>[Signature]</u>				CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT										

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	RW-1	SDG No.:	C5155
Lab Sample ID:	C5155-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040020.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	2.1		0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	2.6		0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	56		0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	RW-1	SDG No.:	C5155
Lab Sample ID:	C5155-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040020.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.2		61 - 141	92%	SPK: 50
1868-53-7	Dibromofluoromethane	44.8		69 - 133	90%	SPK: 50
2037-26-5	Toluene-d8	43.6		65 - 126	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		58 - 135	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	686987	3.9			
540-36-3	1,4-Difluorobenzene	996594	4.71			
3114-55-4	Chlorobenzene-d5	933356	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	509916	13.39			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	RW-1	SDG No.:	C5155
Lab Sample ID:	C5155-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040020.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	------------	-------

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	RW-2	SDG No.:	C5155
Lab Sample ID:	C5155-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040021.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1.6		0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1.1		0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	47		0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	RW-2	SDG No.:	C5155
Lab Sample ID:	C5155-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040021.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.2		61 - 141	92%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		69 - 133	94%	SPK: 50
2037-26-5	Toluene-d8	46.4		65 - 126	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.2		58 - 135	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	665692	3.9			
540-36-3	1,4-Difluorobenzene	954663	4.72			
3114-55-4	Chlorobenzene-d5	918130	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	500643	13.4			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	RW-2	SDG No.:	C5155
Lab Sample ID:	C5155-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	RTX-VMS	ID :	0.18
		Final Vol:	5000
		Test:	VOC-TCLVOA-10
		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040021.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	------------	-------

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	EFF-46HZ	SDG No.:	C5155
Lab Sample ID:	C5155-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040022.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	EFF-46HZ	SDG No.:	C5155
Lab Sample ID:	C5155-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040022.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.5		61 - 141	95%	SPK: 50
1868-53-7	Dibromofluoromethane	45.9		69 - 133	92%	SPK: 50
2037-26-5	Toluene-d8	43.6		65 - 126	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		58 - 135	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	665569	3.9			
540-36-3	1,4-Difluorobenzene	951758	4.72			
3114-55-4	Chlorobenzene-d5	936816	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	490642	13.4			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	12/28/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	EFF-46HZ	SDG No.:	C5155
Lab Sample ID:	C5155-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040022.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/30/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	TRIPBLANK	SDG No.:	C5155
Lab Sample ID:	C5155-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040023.D	1		01/05/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	0.83	J	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/30/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	TRIPBLANK	SDG No.:	C5155
Lab Sample ID:	C5155-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040023.D	1		01/05/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.9		61 - 141	90%	SPK: 50
1868-53-7	Dibromofluoromethane	46		69 - 133	92%	SPK: 50
2037-26-5	Toluene-d8	44		65 - 126	88%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		58 - 135	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	647482	3.91			
540-36-3	1,4-Difluorobenzene	930343	4.72			
3114-55-4	Chlorobenzene-d5	930732	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	489404	13.4			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	11/30/11
Project:	DEC Gladding Cordage	Date Received:	12/29/11
Client Sample ID:	TRIPBLANK	SDG No.:	C5155
Lab Sample ID:	C5155-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040023.D	1		01/05/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Hit Summary Sheet
SW-846

SDG No.: C5155

Client: Arcadis Inc.

Sample ID	Client ID		Parameter	Concentration	C	RDL	MDL	Units
Client ID:	RW-1							
C5155-01	RW-1	WATER	1,1-Dichloroethene	2.10		1.0	0.47	ug/L
C5155-01	RW-1	WATER	1,1-Dichloroethane	2.60		1.0	0.36	ug/L
C5155-01	RW-1	WATER	1,1,1-Trichloroethane	56.00		1.0	0.40	ug/L
			Total Voc :		60.70			
			Total Concentration:		60.70			
Client ID:	RW-2							
C5155-02	RW-2	WATER	1,1-Dichloroethene	1.60		1.0	0.47	ug/L
C5155-02	RW-2	WATER	1,1-Dichloroethane	1.10		1.0	0.36	ug/L
C5155-02	RW-2	WATER	1,1,1-Trichloroethane	47.00		1.0	0.40	ug/L
			Total Voc :		49.70			
			Total Concentration:		49.70			
Client ID:	TRIPBLANK							
C5155-04	TRIPBLANK	WATER	Chloromethane	0.83	J	1.0	0.20	ug/L
			Total Voc :		0.83			
			Total Concentration:		0.83			



Surrogate Summary

SW-846

SDG No.: C5155

Client: Arcadis Inc.

Analytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
BSG0104W1	BSG0104W1	1,2-Dichloroethane-d4	50	43.77	88		70	120
		Dibromofluoromethane	50	44.62	89		85	115
		Toluene-d8	50	45.1	90		85	120
		4-Bromofluorobenzene	50	44.63	89		75	120
BSG0104W2	BSG0104W2	1,2-Dichloroethane-d4	50	45.36	91		70	120
		Dibromofluoromethane	50	45.56	91		85	115
		Toluene-d8	50	47.08	94		85	120
		4-Bromofluorobenzene	50	46.29	93		75	120
C5155-01	RW-1	1,2-Dichloroethane-d4	50	46.17	92		61	141
		Dibromofluoromethane	50	44.76	90		69	133
		Toluene-d8	50	43.56	87		65	126
		4-Bromofluorobenzene	50	46.8	94		58	135
C5155-02	RW-2	1,2-Dichloroethane-d4	50	46.21	92		61	141
		Dibromofluoromethane	50	46.83	94		69	133
		Toluene-d8	50	46.35	93		65	126
		4-Bromofluorobenzene	50	50.16	100		58	135
C5155-03	EFF-46HZ	1,2-Dichloroethane-d4	50	47.5	95		61	141
		Dibromofluoromethane	50	45.9	92		69	133
		Toluene-d8	50	43.63	87		65	126
		4-Bromofluorobenzene	50	50.39	101		58	135
C5155-04	TRIPBLANK	1,2-Dichloroethane-d4	50	44.91	90		61	141
		Dibromofluoromethane	50	46.02	92		69	133
		Toluene-d8	50	43.96	88		65	126
		4-Bromofluorobenzene	50	48.36	97		58	135
VBG0104W2	VBG0104W2	1,2-Dichloroethane-d4	50	43.29	87		70	120
		Dibromofluoromethane	50	45.05	90		85	115
		Toluene-d8	50	47.27	95		85	120
		4-Bromofluorobenzene	50	50	100		75	120



WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C5155 SAS No : C5155 SDG No: C5155

Matrix Spike - EPA Sample No : BSG0104W1 Analytical Method: EPA SW846 8260 Datafile : VG040011.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		22	110	(35-124)
Chloromethane	20		21	105	(40-125)
Vinyl Chloride	20		21	105	(50-144)
Bromomethane	20		18	90	(44-145)
Chloroethane	20		20	100	(60-135)
Trichlorofluoromethane	20		20	100	(60-137)
1,1,2-Trichlorotrifluoroethane	20		21	105	(52-142)
1,1-Dichloroethene	20		21	105	(70-130)
Acetone	100		84	84	(50-140)
Carbon Disulfide	20		21	105	(36-155)
Methyl tert-butyl Ether	20		20	100	(65-125)
Methyl Acetate	20		19	95	(51-158)
Methylene Chloride	20		21	105	(61-138)
trans-1,2-Dichloroethene	20		20	100	(60-137)
1,1-Dichloroethane	20		21	105	(70-135)
Cyclohexane	20		21	105	(56-141)
2-Butanone	100		91	91	(56-150)
Carbon Tetrachloride	20		19	95	(65-138)
cis-1,2-Dichloroethene	20		21	105	(70-125)
Chloroform	20		21	105	(67-135)
1,1,1-Trichloroethane	20		20	100	(65-130)
Methylcyclohexane	20		21	105	(56-137)
Benzene	20		21	105	(80-120)
1,2-Dichloroethane	20		20	100	(70-130)
Trichloroethene	20		21	105	(70-125)
1,2-Dichloropropane	20		19	95	(75-125)
Bromodichloromethane	20		20	100	(75-120)
4-Methyl-2-Pentanone	100		86	86	(63-135)
Toluene	20		21	105	(75-120)
t-1,3-Dichloropropene	20		21	105	(66-135)
cis-1,3-Dichloropropene	20		22	110	(70-130)
1,1,2-Trichloroethane	20		20	100	(75-125)
2-Hexanone	100		94	94	(56-130)
Dibromochloromethane	20		21	105	(64-135)
1,2-Dibromoethane	20		21	105	(80-120)

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

* Values outside of QC limits

Comments: _____

C5155

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C5155 SAS No : C5155 SDG No: C5155

Matrix Spike - EPA Sample No : BSG0104W1 Analytical Method: EPA SW846 8260 Datafile : VG040011.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Tetrachloroethene	20		19	95	(45-178)
Chlorobenzene	20		20	100	(80-120)
Ethyl Benzene	20		21	105	(75-125)
m/p-Xylenes	40		40	100	(75-130)
o-Xylene	20		21	105	(80-120)
Styrene	20		20	100	(65-135)
Bromoform	20		20	100	(70-130)
Isopropylbenzene	20		21	105	(75-125)
1,1,2,2-Tetrachloroethane	20		20	100	(65-130)
1,3-Dichlorobenzene	20		21	105	(75-125)
1,4-Dichlorobenzene	20		21	105	(75-125)
1,2-Dichlorobenzene	20		20	100	(70-120)
1,2-Dibromo-3-Chloropropane	20		19	95	(54-130)
1,2,4-Trichlorobenzene	20		21	105	(65-133)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____

C5155



WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C5155 SAS No : C5155 SDG No: C5155

Matrix Spike - EPA Sample No : BSG0104W2 Analytical Method: EPA SW846 8260 Datafile : VG040012.D

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
Dichlorodifluoromethane	20	22	110	0	20	(35-124)
Chloromethane	20	22	110	5	20	(40-125)
Vinyl Chloride	20	24	120	13	20	(50-144)
Bromomethane	20	20	100	11	20	(44-145)
Chloroethane	20	21	105	5	20	(60-135)
Trichlorofluoromethane	20	21	105	5	20	(60-137)
1,1,2-Trichlorotrifluoroethane	20	22	110	5	20	(52-142)
1,1-Dichloroethene	20	21	105	0	20	(70-130)
Acetone	100	90	90	7	20	(50-140)
Carbon Disulfide	20	21	105	0	20	(36-155)
Methyl tert-butyl Ether	20	21	105	5	20	(65-125)
Methyl Acetate	20	21	105	10	20	(51-158)
Methylene Chloride	20	21	105	0	20	(61-138)
trans-1,2-Dichloroethene	20	20	100	0	20	(60-137)
1,1-Dichloroethane	20	21	105	0	20	(70-135)
Cyclohexane	20	21	105	0	20	(56-141)
2-Butanone	100	95	95	4	20	(56-150)
Carbon Tetrachloride	20	20	100	5	20	(65-138)
cis-1,2-Dichloroethene	20	21	105	0	20	(70-125)
Chloroform	20	20	100	5	20	(67-135)
1,1,1-Trichloroethane	20	21	105	5	20	(65-130)
Methylcyclohexane	20	22	110	5	20	(56-137)
Benzene	20	20	100	5	20	(80-120)
1,2-Dichloroethane	20	20	100	0	20	(70-130)
Trichloroethene	20	20	100	5	20	(70-125)
1,2-Dichloropropane	20	18	90	5	20	(75-125)
Bromodichloromethane	20	20	100	0	20	(75-120)
4-Methyl-2-Pentanone	100	93	93	8	20	(63-135)
Toluene	20	20	100	5	20	(75-120)
t-1,3-Dichloropropene	20	22	110	5	20	(66-135)
cis-1,3-Dichloropropene	20	21	105	5	20	(70-130)
1,1,2-Trichloroethane	20	20	100	0	20	(75-125)
2-Hexanone	100	97	97	3	20	(56-130)
Dibromochloromethane	20	21	105	0	20	(64-135)
1,2-Dibromoethane	20	21	105	0	20	(80-120)

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

* Values outside of QC limits

Comments: _____

**WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: Arcadis Inc.

Lab Code: CHEM Cas No: C5155 SAS No : C5155 SDG No: C5155

Matrix Spike - EPA Sample No : BSG0104W2 Analytical Method: EPA SW846 8260 Datafile : VG040012.D

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD		QC LIMITS	
			% REC #	% RPD #	RPD	REC
Tetrachloroethene	20	19	95	0	20	(45-178)
Chlorobenzene	20	20	100	0	20	(80-120)
Ethyl Benzene	20	21	105	0	20	(75-125)
m/p-Xylenes	40	41	103	3	20	(75-130)
o-Xylene	20	21	105	0	20	(80-120)
Styrene	20	20	100	0	20	(65-135)
Bromoform	20	20	100	0	20	(70-130)
Isopropylbenzene	20	20	100	5	20	(75-125)
1,1,2,2-Tetrachloroethane	20	21	105	5	20	(65-130)
1,3-Dichlorobenzene	20	21	105	0	20	(75-125)
1,4-Dichlorobenzene	20	21	105	0	20	(75-125)
1,2-Dichlorobenzene	20	21	105	5	20	(70-120)
1,2-Dibromo-3-Chloropropane	20	20	100	5	20	(54-130)
1,2,4-Trichlorobenzene	20	20	100	5	20	(65-133)

RPD : 0 Out of 49 outside limits

Spike Recovery : 0 Out of 49 outside limits

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

* Values outside of QC limits

Comments: _____

C5155



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBG0104W2

Lab Name: CHEMTECHContract: MALC02Lab Code: CHEM Case No.: C5155SAS No.: C5155 SDG NO.: C5155Lab File ID: VG040010.DLab Sample ID: VBG0104W2Date Analyzed: 01/04/2012Time Analyzed: 17:55GC 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
BSG0104W1	BSG0104W1	VG040011.D	01/04/2012
BSG0104W2	BSG0104W2	VG040012.D	01/04/2012
RW-1	C5155-01	VG040020.D	01/04/2012
RW-2	C5155-02	VG040021.D	01/04/2012
EFF-46HZ	C5155-03	VG040022.D	01/04/2012
TRIPBLANK	C5155-04	VG040023.D	01/05/2012

COMMENTS: _____

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG0104W2	SDG No.:	C5155
Lab Sample ID:	VBG0104W2	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040010.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

Report of Analysis

Client:	Arcadis Inc.		Date Collected:	
Project:	DEC Gladding Cordage		Date Received:	
Client Sample ID:	VBG0104W2		SDG No.:	C5155
Lab Sample ID:	VBG0104W2		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS	ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040010.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	43.3		70 - 120	87%	SPK: 50
1868-53-7	Dibromofluoromethane	45		85 - 115	90%	SPK: 50
2037-26-5	Toluene-d8	47.3		85 - 120	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	50		75 - 120	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	756004	3.9			
540-36-3	1,4-Difluorobenzene	1088780	4.71			
3114-55-4	Chlorobenzene-d5	1065990	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	573176	13.38			

Report of Analysis

Client:	Arcadis Inc.	Date Collected:	
Project:	DEC Gladding Cordage	Date Received:	
Client Sample ID:	VBG0104W2	SDG No.:	C5155
Lab Sample ID:	VBG0104W2	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG040010.D	1		01/04/12	VG010412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MALC02
Lab Code: CHEM Case No.: C5155 SAS No.: C5155 SDG NO.: C5155
Lab File ID: VG040005.D Date Analyzed: 01/04/2012
Instrument ID: MSVOAG Time Analyzed: 14:41
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	704038	3.90	994373	4.71	917758	9.68
UPPER LIMIT	1408076	4.4	1988746	5.21	1835516	10.18
LOWER LIMIT	352019	3.4	497186.5	4.21	458879	9.18
EPA SAMPLE NO.						
BSG0104W1	759223	3.90	1047055	4.71	986326	9.68
BSG0104W2	736835	3.90	1041022	4.71	975063	9.68
RW-1	686987	3.90	996594	4.71	933356	9.69
RW-2	665692	3.90	954663	4.72	918130	9.69
EFF-46HZ	665569	3.90	951758	4.72	936816	9.69
TRIPBLANK	647482	3.91	930343	4.72	930732	9.69
VBG0104W2	756004	3.90	1088780	4.71	1065985	9.69

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.: C5155 SAS No.: C5155 SDG NO.: C5155
Lab File ID: VG040005.D Date Analyzed: 01/04/2012
Instrument ID: MSVOAG Time Analyzed: 14:41
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	492545	13.38				
UPPER LIMIT	985090	13.88				
LOWER LIMIT	246272.5	12.88				
EPA SAMPLE NO.						
BSG0104W1	510717	13.39				
BSG0104W2	506321	13.39				
RW-1	509916	13.39				
RW-2	500643	13.40				
EFF-46HZ	490642	13.40				
TRIPBLANK	489404	13.40				
VBG0104W2	573176	13.38				

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.