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Groundwater Sampling Report
August 2008

34 FREEMAN'S BRIDGE ROAD SITE
Site 4-47-028

Work Assignment No. D004445-9

Prepared for:

SUPERFUND STANDBY PROGRAM
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1.0 INTRODUCTION

This groundwater sampling report has been prepared by Earth Tech Northeast, Inc. for the 34 Freeman's Bridge Road Site (Site), Site Number 4-47-028, located at 34 Freeman's Bridge Road, Town of Glenville, Schenectady County, New York (See Figure 1). This work is being performed under Work Assignment No. D004445-9 of the Superfund Standby Contract between the New York State Department of Environmental Conservation (NYSDEC) and Earth Tech Northeast, Inc (Earth Tech). The purpose of this report is to present the data collected from the August 2008 groundwater sampling event and any conclusions or suggestions drawn from this data. The groundwater sampling event is the first of eight quarterly events required during the first two years of monitoring at the Site as presented in the Site Management Plan (SMP).

1.1 SITE DESCRIPTION AND HISTORY

The Site is located in a commercial and light industrial area in the southeast part of the Town of Glenville, northeast of the Village of Scotia. The Site is on the northeast side of Freeman's Bridge Road approximately 1,000 feet northwest of the reconstructed Freeman's Bridge over the Mohawk River. Across the river lies an industrial and highly urbanized section of the City of Schenectady. The site is currently owned by Lyon's Ventures, Inc.

The site occupies approximately 13 acres, as determined by the estimated limits of impacted fill on the property and adjacent properties. The site is bordered to the east by the Delaware and Hudson Railroad, and Niagara Mohawk power line right of ways; to the north by Warner Creek; to the west by private properties and Freeman's Bridge Road; and to the south by private property. The Site is generally flat, with a rise in the grade approaching the railroad power line and right of ways and a swale centrally located that extends to Warner Creek. The Mohawk River approaches to within 300 feet south of the site. Warner Creek is a Class A designated tributary of the Mohawk River.

The property associated with the 34 Freeman's Bridge Road site was owned and had been used by the Kitchton Cooperage Company as a drum recycling facility since the late 1950's. A 12-acre parcel, Town of Glenville Tax Map # 30.19-01-26.1, was purchased in 1978 by Lyon's Ventures, Inc (Lyon's). In addition to operating a commercial used furniture business, Lyon's operations also included storing drummed waste on the site and receiving large quantities of fill and construction and demolition (C&D) debris that were spread across an 11-acre area south of Warner Creek. Drum recycling operations (late 1950's to 1972) by the Kitchton Cooperage Company, and more recent drum storage and unregulated fill operations conducted by Lyon's, contaminated the soils and groundwater to various degrees on the site, in particular the southwest corner, with polychlorinated biphenyls (PCBs).

A Remedial Investigation/Feasibility Study (RI/FS) was conducted by Earth Tech from 2000 through 2004 and a remediation strategy consisting of excavating and treating on-site via low temperature thermal technologies and the collection and treatment of contaminated water was recommended in the NYSDEC ROD (March 31, 2004). Remedial construction of the preferred alternative began in November 2006 and was completed in October 2007. In addition to treating

over 75,000 tons of hazardous and non-hazardous soils, over 9 million gallons of groundwater from the Site operations was treated by the on-site waste water treatment plant and discharged as per the NYSDEC approved site Dewatering Plan to the Warner's Creek.

A SMP (Earth Tech, 2008) was developed for the Site and approved by the NYSDEC in July 2008.

2.0 GROUNDWATER SAMPLING AND ANALYSIS

Earth Tech collected one round of groundwater samples from each of the 20 monitoring wells on August 25 and 26, 2008. All groundwater samples were submitted for the full Target Compound and Target Analysis Lists (VOCs by ASP 95-1, SVOCs by ASP 95-2, TAL Metals by ASP CLP Methodologies and PCBs and pesticides, by ASP 95-3). Monitoring well purging/sampling logs were completed for each monitoring well and are presented in Appendix A.

2.1 METHODOLOGY

A complete round of depth to water reading was collected prior to sampling. In addition, before purging each well, a depth to water measurement was taken using an interface probe, which was decontaminated with a liquinox bath and rinsed with distilled water between each use. Each monitoring well was purged of three well volumes. Purge water was disposed on the ground in the immediate vicinity of each well as per NYSDEC directive. Each pump was decontaminated after purging/sampling each monitoring well by a liquinox bath followed by a distilled water rinse.

After purging, temperature, conductivity, pH, turbidity, color and odor of the water were recorded on the monitoring well purging/sampling logs (Appendix A). Groundwater samples were collected using a Whale pump with dedicated polyethylene tubing and foot valve. All groundwater samples were collected in bottles provided by the laboratory. Samples were packed on ice, and submitted with a completed Chain-of-Custody (COC) to Adirondack Environmental Services, Inc., for analyses.

The groundwater levels were collected to develop a potentiometric map for the shallow groundwater zone and to determine the groundwater flow pathways.

3.0 MONITORING RESULTS

The following section presents the results of the August 2008 groundwater sampling events at the Site.

3.1 GROUNDWATER FLOW

Prior to groundwater sampling, water level measurements were collected and recorded for each well (Table 1). These water level elevations were then used to develop a groundwater flow map for the shallow aquifer (Figure 2). The overall direction of groundwater flow in the shallow portion of the aquifer was to the northwest along the southern boundary of the Site, and to the north-northeast in the northern half of the Site. Groundwater flow appears to be affected by the swale located in the center of the site and Warner creek to the north. The water level data indicates that groundwater flow in the deeper portion of the aquifer follows a northern direction.

3.2 GROUNDWATER ANALYTICAL RESULTS

This is the first of eight quarterly groundwater samplings as presented in the SMP. The groundwater results were evaluated based on comparison with NYS Ambient Water Quality Standards (AWQS) and guidance values, collectively known as Standards, Criteria and Guidelines (SCGs). In addition, the August 2008 results were compared to the March 2008 results (the first round of groundwater samples collected following the completion of the remedial action).

Table 2 through 4 presents the groundwater analysis for the 20 monitoring wells sampled during the August 2008 sampling event, and the prior sampling in March 2008, for VOCs, SVOCs, and metals, respectively. These tables show only those compounds detected above laboratory detection limits. PCB's and pesticides are not presented since none were detected above laboratory detection limits in either the March or August 2008 sampling events.

3.2.1 Volatile Organic Compounds

The results of the VOC analyses are presented in Table 2. Ten of the monitoring wells showed VOCs exceedences. As in the March 2008 sampling event, the primary compound detected in the site wells was cis-1,2-dichloroethene, found in 5 of the 20 Site wells. Concentrations of cis-1,2-dichloroethene were as high as 68 ug/L and at concentrations similar to those measured in March 2008. Other compounds detected include vinyl chloride, acetone, methyl tert-butyl ether (MTBE), trichloroethene, ethylbenzene, xylenes, and isopropylbenzene. The highest concentrations were for ethylbenzene and xylenes at MW-30. This well had a total VOC concentration of 10,520 ug/L, a significant increase in the concentration from the total VOC concentration of 3,437 ug/L in the March 2008 sampling event. MW-30 is located in a section of the former excavation that exhibited some evidence of non-aqueous phase liquid (NAPL) during the excavation process. In addition, high concentrations were detected in shallow monitoring well MW-20, with a total VOC concentration of 1400 ug/L, located along the northwestern boundary of the property. This increased from 797 ug/L total VOCs in the March 2008 sampling event. Total VOC concentrations are shown in Figure 3.

As in the March 2008 sampling event, the only deep wells to show any VOC concentrations above detection limits were MW-19D located off-site to the south east, and MW-16D located in the northeastern edge of the site. Both showed concentrations of cis-1,2 dichoroethene above AWQS standards (5 ug/L) at 9.2 ug/L (MW-16D) and 33 ug/L (MW-19D). These concentrations did not vary significantly from March 2008.

3.2.2 Semivolatile Organic Compounds

Concentrations of SVOCs above laboratory detection limits were found in only three monitoring wells: MW-18, MW-20 and MW-30 (Table 3). There was significant increase in the concentrations of phenol detected in MW-20. Phenol increased from a concentration of 180 ug/L in March 2008 to 1700 ug/L in August 2008. In addition, 2-methylphenol increased from 9.2 ug/L to 200 ug/L and 4-Methylphenol was detected at 1100 ug/L. All of these concentrations are significantly above the AWQS standards. Monitoring wells MW-18 and MW-30 also showed increases in the compounds detected.

3.2.3 PCBs and Pesticides

The groundwater samples from the August 2008 sampling event showed no concentrations of PCBs or pesticides above the laboratory detection limits for any compounds. This is consistent with the March 2008 results for PCBs and pesticides.

3.2.4 Metals

Table 4 presents the results for the metals analysis for the August 2008 sampling event. Several compounds were detected at concentrations over the AWQS and GV for metals in drinking water. These compounds included antimony, iron, lead, magnesium, manganese, sodium, and thallium. Of these compounds, iron, manganese and sodium were detected in more wells at levels above the AWQS than any of the other compounds.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Comparison of the March 2008 groundwater analytical data for the Site with the August 2008 results indicates little change in the concentration of reported analytes with the exceptions noted for wells MW-20 and MW-30. The presence of NAPL during the remedial investigation in the area of MW-30 may be the reason for the increased ethylbenzene and xylene concentrations. Further sampling will help delineate any trends.

Since no Pesticides and PCBs have been detected during the first two rounds of groundwater samples, these target groups should be removed from the list of analytical compounds sampled quarterly. Pesticides and PCBs should only be analyzed annually.

TABLES

Table 1

Groundwater Elevations and Monitoring Well Details
34 Freemans Bridge Road
Glenville, New York

August 2008

Date				Aug-08	
Monitoring Well	**GROUND Elevation**	**CASING Elevation**	**Measuring Point**	**Depth To Water (ft)**	**Ground Water Elevation (ft)**
MW-11	228.57	231.42	231.23	11.94	219.29
MW-11D	228.61	231.26	231.20	11.48	219.72
MW-12	228.50	231.06	230.68	10.97	219.71
MW-15	FLUSH	224.47	224.14	3.5	220.64
MW-15D	FLUSH	224.49	224.35	3.75	220.60
MW-16	226.09	228.68	228.41	9.57	218.84
MW-16D	225.81	227.67	227.49	8.58	218.91
MW-18	227.29	229.94	229.58	7.11	222.47
MW-19	224.77	227.27	227.12	5.52	221.60
MW-19D	224.89	226.14	226.01	4.65	221.36
MW-20	224.80	226.99	226.89	6.8	220.09
MW-20D	224.72	227.16	227.13	6.93	220.20
MW-21D	224.71	229.56	229.05	8.85	220.20
MW-21	224.52	227.51	227.46	7.43	220.03
MW-23	221.99	224.93	224.86	5.34	219.52
MW-23D	222.36	224.46	224.32	4.36	219.96
MW-30	223.57	226.26	226.19	6.61	219.58
MW-31	223.18	225.55	225.43	5.81	219.62
MW-32	224.92	227.83	227.32	7.3	220.02
MW-33	224.18	227.37	226.99	6.45	220.54

MP = Measuring point established on top of pvc (black marker)
All measurements in Feet

Table 2
Groundwater Analytical Summary
Volatile Organic Compounds
34 Freemans Bridge Road
Glenville, New York
August 2008

Sample ID		MW11		MW11		MW11D		MW11D		MW12		MW12		MW15		MW15		MW15D		MW15D		MW16		MW16		MW16D		MW16D		MW18		MW18		MW19		MW19		MW19D		MW19D		MW20		MW20	
Sampling Date		3/27/2008		8/26/2008		3/27/2008		8/26/2008		3/24/2008		8/26/2008		3/26/2008		8/26/2008		3/26/2008		8/26/2008		3/25/2008		8/26/2008		3/25/2008		8/26/2008		3/26/2008		8/26/2008		3/26/2008		8/25/2008		3/26/2008		8/25/2008		3/24/2008		8/25/2008	
Units		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
VOCs	AWQS/GV Values																																										
Vinyl chloride	2	5	U	10	U	5	U	10	U	5	U	10	U	**16**		**76**		5	U	10	U	5	U	10	U	5	U	10	U	5	U	10	U	5	U	10	U	5	U	10	U	5	U	100	U
Acetone	50 (GV)	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	**24**		10	U	5	U	10	U	5	U	10	U	10	U	10	U	10	U	**720**	D	**1400**	D
Methyl tert-butyl Ether	10(GV)	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**5.9**		5	U	5	U	5	U	**23**		5	U	5	U	5	U	50	U
1,1-Dichloroethane	5	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	5	U	5	U	5	U	50	U
cis-1,2-Dichloroethene	5	5	U	5	U	5	U	5	U	5	U	5	U	**8.3**		**15**		5	U	5	U	5	U	5	U	**25**		**9.2**		5	U	5	U	5	U	5	U	**36**		**33**		5	U	50	U
2-Butanone	50(GV)	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	**77**		100	U
Benzene	1	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	5	U	5	U	5	U	5	U	50	U
Trichloroethene	5	**17**		**9.9**		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	5	U	5	U	50	U
Methylcyclohexane	NA	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	5	U	5	U	5	U	5	U	50	U
Toluene	5	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	5	U	5	U	5	U	5	U	50	U
Tetrachloroethene	5	**7**		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	5	U	5	U	5	U	50	U
Ethylbenzene	5	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	5	U	5	U	5	U	5	U	50	U
o-xylene	5	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	5	U	5	U	5	U	5	U	50	U
m&p-xylenes	5	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	5	U	5	U	5	U	5	U	50	U
Isopropylbenzene	5	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	5	U	5	U	5	U	5	U	50	U
Total VOC's		24		9.9		0		0		0		0		24.3		91		0		0		0		24		30.9		9.2		0		0		0		23		36		33		797		1400	

Sample ID		MW20D		MW20D		MW21		MW21		MW21D		MW21D		MW23		MW23		MW-23D		MW-23D		MW30		MW30		MW31		MW31		MW32		MW32		MW33		MW33	
Sampling Date		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/27/2008		8/25/2008		4/4/2008		8/25/2008		3/25/2008		8/26/2008		3/25/2008		8/26/2008		3/27/2008		8/26/2008		3/26/2008		8/26/2008	
Units		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
VOCs	AWQS/GV Values																																				
Vinyl chloride	2	5	U	10	U	5	U	10	U	5	U	10	U	**10**		10	U	5	U	10	U	5	U	200	U	**7.9**		**13**		5	U	10	U	5	U	10	U
Acetone	50 (GV)	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	200	U	10	U	10	U	10	U	10	U	**36**		10	U
Methyl tert-butyl Ether	10(GV)	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	100	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	100	U	5	U	5	U	5	U	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	5	U	5	U	5	U	5	U	5	U	5	U	**49**		**68**		5	U	5	U	**50**		100	U	**12**		**10**		5	U	5	U	5	U	5	U
2-Butanone	50(GV)	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	200	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	1	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	100	U	5	U	5	U	5	U	5	U	5	U	**6**	
Trichloroethene	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	100	U	5	U	5	U	5	U	5	U	5	U	5	U
Methylcyclohexane	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**26**		100	U	5	U	5	U	5	U	5	U	5	U	5	U
Toluene	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**69**		100	U	5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	100	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**110**		**1700**	D	5	U	5	U	5	U	5	U	5	U	5	U
o-xylene	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**110**		**140**	D	**140**		5	U	5	U	5	U	5	U	5	U
m&p-xylenes	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**3000**	D	**8500**	E	**5.8**		5	U	5	U	5	U	5	U	5	U
Isopropylbenzene	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	**72**		**180**	D	5	U	5	U	5	U	5	U	5	U	5	U
Total VOC's		0		0		0		0		0		0		59		68		0		0		3437		10520		165.7		23		0		0		36		6	

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

E - Value above quantitation range.

NA - Not analyzed

ND - Non Detect

Table 3
Groundwater Analytical Summary
Semi - Volatile Organic Compounds
34 Freemans Bridge Road
Glenville, New York
August 2008

Sample ID		MW11		MW11		MW11D		MW11D		MW12		MW12		MW15		MW15		MW15D		MW15D		MW16		MW16		MW16D		MW16D		MW18		MW18		MW19		MW19		MW19D		MW19D	
Sampling Date		3/27/2008		8/26/2008		3/27/2008		8/26/2008		3/24/2008		8/26/2008		3/26/2008		8/26/2008		3/26/2008		8/26/2008		3/25/2008		8/26/2008		3/25/2008		8/26/2008		3/26/2008		8/26/2008		3/26/2008		8/25/2008		3/26/2008		8/25/2008	
Units		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
SVOCs	AWQS/GV Values																																								
Phenol	1	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	1	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	**9**		5	U	5	U	5	U	5	U	5	U
2-Methylphenol	1	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,2-Oxybis(1-chloropropane)	5	5	U	NA		5	U	NA		5.1	U	NA		5	U	NA		5	U	NA		**4.8**	J	NA		5	U	NA		5	U	NA		5	U	NA		5	U	NA	
4-Methylphenol	1	NA		5	U	NA		5	U	NA		5	U	5	U	6	U	5	U	5	U	NA		5	U	NA		5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	50(GV)	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	10(GV)	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	NA	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Phenanthrene	50(GV)	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	**7**		5	U	5	U	5	U
Carbazole	NA	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	**5**		5	U	5	U	5	U
Fluoranthene	50(GV)	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	**7**		5	U	5	U	5	U
Pyrene	50(GV)	5	U	5	U	5	U	5	U	5.1	U	5	U	5	U	6	U	5	U	5	U	5.2	U	5	U	5	U	5	U	5	U	5	U	5	U	**6**		5	U	5	U	5	U
Total SVOCs		0		0		0		0		0		0		0		0		0		0		4.8		0		0		0		9		0		0		0		0		0	

Sample ID		MW20		MW20		MW20D		MW20D		MW21		MW21		MW21D		MW21D		MW23		MW23		MW-23D		MW-23D		MW30		MW30		MW31		MW31		MW32		MW32		MW33		MW33	
Sampling Date		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/27/2008		8/25/2008		4/4/2008		8/25/2008		3/25/2008		8/26/2008		3/25/2008		8/26/2008		3/27/2008		8/26/2008		3/26/2008		8/26/2008	
Units		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
SVOCs	AWQS/GV Values																																								
Phenol	1	**180**	D	**1700**	D	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
2-Chlorophenol	1	5.1	U	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
2-Methylphenol	1	**9.2**		**200**	D	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
2,2-Oxybis(1-chloropropane)	5	5.1	U	NA		5	U	NA		5.2	U	NA		5.1	U	NA		5	U	NA		5	U	NA		5	U	NA		5	U	NA		5	U	NA		5	U	NA	
4-Methylphenol	1	NA		**1100**	D	NA		5	U	NA		5	U	NA		5	U	NA		5	U	5	U	5	U	NA		11	U	NA		5	U	NA		5	U	5	U	6	U
2,4-Dimethylphenol	50(GV)	5.1	U	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	**21**		**110**	D	5	U	5	U	5	U	5	U	5	U	6	U
Naphthalene	10(GV)	**4.8**	J	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	**2.3**	J	**15**	D	5	U	5	U	5	U	5	U	5	U	6	U
Acenaphthylene	NA	**3.2**	J	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
Phenanthrene	50(GV)	5.1	U	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
Carbazole	NA	5.1	U	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
Fluoranthene	50(GV)	5.1	U	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
Pyrene	50(GV)	5.1	U	110	U	5	U	5	U	5.2	U	5	U	5.1	U	5	U	5	U	5	U	5	U	5	U	5	U	11	U	5	U	5	U	5	U	5	U	5	U	6	U
Total SVOCs		197.2		3000		0		0		0		0		0		0		0		0		0		0		23.3		125		0		0		0		0		0		0	

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

E - Value above quantitation range.

NA - Not analyzed

ND - Non Detect

Table 4
Groundwater Analytical Summary
Metals
34 Freemans Bridge Road
Glenville, New York
August 2008

Sample ID		MW11		MW11		MW11D		MW11D		MW12		MW12		MW15		MW15		MW15D		MW15D		MW16		MW16		MW16D		MW16D		MW18		MW18		MW19		MW19		MW19D		MW19D	
Sampling Date		3/27/2008		8/26/2008		3/27/2008		8/26/2008		3/24/2008		8/26/2008		3/26/2008		8/26/2008		3/26/2008		8/26/2008		3/25/2008		8/26/2008		3/25/2008		8/26/2008		3/26/2008		8/26/2008		3/26/2008		8/25/2008		3/26/2008		8/25/2008	
Units		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Metals	AWQS/GV Values																																								
Aluminum	NA	4190		521		60.4	J	100	U	830		14100		1840		6660		45.8	U	430		45.8	U	100	U	103	J	100	U	930		970		458		990		694		1390	
Antimony	3	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	15.1	J	60	U
Arsenic	25	5.99	J	5	U	3.9	U	5	U	3.9	U	5	U	3.9	U	5	U	3.9	U	5	U	3.9	U	7		3.9	U	5	U	3.9	U	5	U	3.9	U	7		3.9	U	5	
Barium	1000	79.4	J	67		153	J	187		40.5	J	181		29.3	J	66		13.2	J	21		247		160		35.5	J	54		19.6	J	51		29.1	J	109		42.3	J	60	
Beryllium	3	0.59	J	5	U	0.3	U	5	U	0.5	J	5	U	0.38	J	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U
Calcium	NA	117000		161000		178000		311000		95100		149000		65600		115000		61100		111000		347000		254000		69200		121000		58400		141000		67700		162000		120000		156000	
Chromium	50	10.4		5	U	1.2	U	5	U	1.5	J	20		3.27	J	6		2.32	J	5	U	1.31	J	5	U	1.37	J	5	U	4.33	J	5	U	4.65	J	5	U	7.04	J	5	U
Cobalt	NA	6.78	J	50	U	2.4	U	50	U	2.4	U	50	U	3.05	J	50	U	2.4	U	50	U	2.4	U	50	U	7.93	J	50	U	2.56	J	50	U	2.4	U	50	U	7.29	J	50	U
Copper	200	11.4	J	5	U	1.7	U	5	U	1.7	U	35		4.06	J	15		1.7	U	5	U	1.7	U	5	U	1.7	U	5	U	1.7	U	5	U	2.86	J	10		1.93	J	5	U
Iron	300	11500		1640		3100		6310		2160		26500		4080		1110		37	U	864		19200		14500		1640		1200		2530		2080		1520		4570		8990		9350	
Lead	25	11.7		5	U	4.6	U	12	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U
Magnesium	35000 (GV)	18800		22800		31200		34500		10300		20000		11400		20000		10300		17900		47900		48200		11100		19500		9290		20600		7680		19400		17300		22200	
Manganese	300	1180		2200		269		540		49		242		224		474		38.7		108		2430		3000		841		803		62.7		218		116		1820		429		594	
Mercury	0.7	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.09	J	0.2	U	0.08	U	0.2	U
Nickel	100	10.9	J	20	U	4.7	U	20	U	4.7	U	21		4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U
Potassium	NA	1590	J	2130		2490	J	2990		1170	J	6180		1540	J	5120		1480	J	3340		7790		6040		1100	J	2680		615	J	1690		1560	J	6280		883	J	1670	
Selenium	10	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	5	U	5	U	5	U
Sodium	20000	23600		27300		69200		40200		6500		11500		22000		26600		30500		34600		31300		22800		35800		42000		3570	J	10000		8400		15100		5960		5610	
Thallium	0.5 (GV)	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U
Vanadium	NA	12.6	J	20	U	3.1	U	20	U	3.1	U	31		4.9	J	20	U	3.1	U	20	U	3.1	U	20	U	3.1	U	20	U	3.1	U	20	U	3.1	U	20	U	3.1	U	20	U
Zinc	2000 (GV)	51.5	J	10	U	9.89	J	10	U	19.2	J	136		18.8	J	34		10.6	J	10	U	16.7	J	10	U	16	J	10	U	26.6	J	10	U	17.3	J	38		21.1	J	10	U
Cyanide	200	28.1		10	U	4.5		10	U	2.9		10	U	1.9		10	U	1.9		10	U	7.6		10	U	5.1		20		2.3		10	U	2.3		10	U	4.8		10	

Sample ID		MW20		MW20		MW20D		MW20D		MW21		MW21		MW21D		MW21D		MW23		MW23		MW-23D		MW-23D		MW30		MW30		MW31		MW31		MW32		MW32		MW33		MW33	
Sampling Date		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/24/2008		8/25/2008		3/27/2008		8/25/2008		4/4/2008		8/25/2008		3/25/2008		8/26/2008		3/25/2008		8/26/2008		3/27/2008		8/26/2008		3/26/2008		8/26/2008	
Units		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Metals	AWQS/GV Values																																								
Aluminum	NA	141	J	3090		347		649		441		3310		45.8	U	100	U	386		3650		1400		544		401		707		265		820		1590		2730		45.8	U	1780	
Antimony	3	6.8	U	60	U	6.8	U	60	U	10.2	J	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	6.8	U	60	U	15.1	J	60	U
Arsenic	25	4.77	J	21		3.9	U	5	U	3.9	U	5	U	3.9	U	5	U	3.9	U	5	U	3.9	U	5	U	6.66	J	9		3.9	U	5	U	3.9	U	5	U	3.9	U	18	
Barium	1000	64.2	J	240		56	J	115		67	J	153		80.3	J	113		44.1	J	132		101	J	88		132	J	113		41.7	J	96		89.2	J	142		39.8	J	98	
Beryllium	3	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.3	U	5	U	0.31	J	5	U	0.36	J	5	U	0.41	J	5	U	0.3	U	5	U
Calcium	NA	168000		460000		61100		114000		186000		351000		82200		114000		88800		136000		123000		110000		126000		126000		115000		183000		99200		156000		128000		415000	
Chromium	50	1.2	U	5	U	1.2	U	5	U	8.49	J	5	U	1.2	U	5	U	1.73	J	5	U	2.67	J	5	U	1.2	U	5	U	1.2	U	5	U	4.85	J	5	U	4.94	J	5	U
Cobalt	NA	2.4	U	50	U	2.4	U	50	U	6.67	J	50	U	2.4	U	50	U	2.4	U	50	U	2.4	U	50	U	2.4	U	50	U	2.4	U	50	U	3.3	J	50	U	5.84	J	50	U
Copper	200	12.9	J	29		2.1	J	5	U	1.7	U	5		1.7	U	5	U	1.7	U	8		4.17	J	5	U	1.7	U	5	U	1.7	U	5	U	1.97	J	5	U	1.7	U	8	
Iron	300	37	U	3660		1630		2480		9160		20400		1050		1650		3890		18000		5560		2630		6430		5410		1800		6050		7900		14800		2480		6190	
Lead	25	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	4.6	U	5	U	30.5		130		4.96	J	5	U	4.6	U	5	U	4.6	U	5	U	5.73	J	5	U	4.6	U	7	
Magnesium	35000 (GV)	3950	J	5510		9700		18600		28800		50500		13900		19400		13800		23100		19400		16900		20900		16500		17400		39500		17800		29100		12800		20700	
Manganese	300	14.4	J	71		52.3		71		6730		10300		107		163		449		904		226		159		626		792		359		455		714		1530		232		413	
Mercury	0.7	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2	U	0.02	U	0.2	U	0.08	U	0.2	U	0.08	U	0.2		0.08	U	0.2	U	0.08	U	0.2	U
Nickel	100	8.81	J	39		4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U	4.7	U	20	U
Potassium	NA	15100		92600		2000	J	5560		898	J	3000		1640	J	3420		1630	J	4540		15300		2890		1590	J	7060		1590	J	5750		1520	J	2880		4780	J	33600	
Selenium	10	6.18	J	9		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	5	U	5	U
Sodium	20000	69800		122000		32000		35400		12500		19400		52000		43500		30900		33900		80200		36300		124000		135000		29300		45300		13900		19400		130000		166000	
Thallium	0.5 (GV)	8	U	69	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10	U	8	U	10		8	U	10	U
Vanadium	NA	3.67	J	20	U	3.1	U	20	U	5.96	J	20	U	3.1	U	20	U	3.1	U	20	U	3.59	J	20	U	3.1	U	20	U	3.1	U	20	U	3.4	J	20	U	3.1	U	20	U
Zinc	2000 (GV)	10.9	J	20		11.8	J	10	U	20.8	J	21		9.18	J	10	U	18.8	J	54		43.2	J	10	U	19.5	J	11		8.35	J	10	U	21.1	J	20		14.2	J	26	
Cyanide	200	11.2		10	U	22.4		10	U	21.2		10	U	2.7		10	U	8.5		10	U	0.96	J	10		4.3		10	U	8.4		20		79.9		190		3.7		20	

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria.

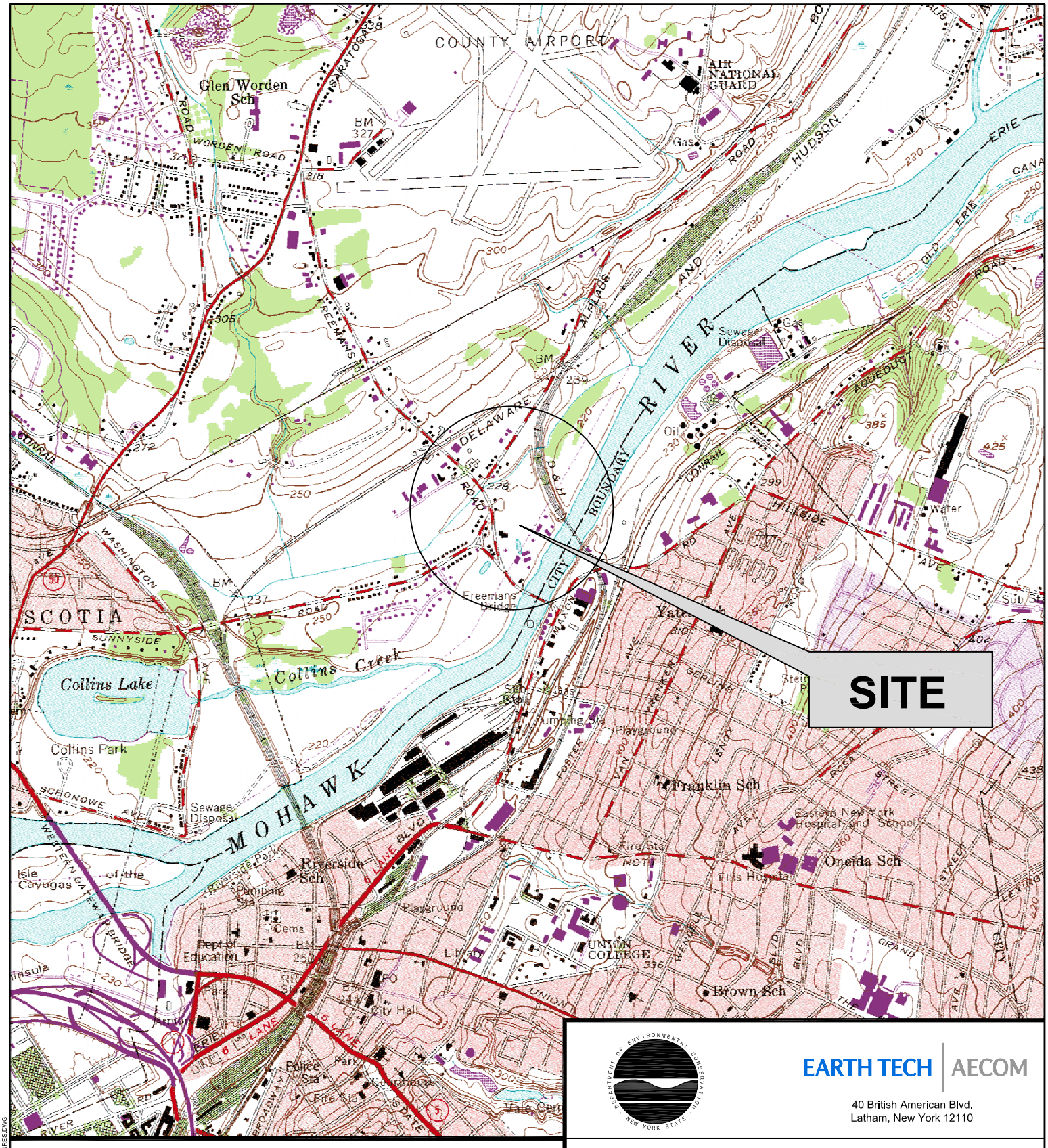
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NA - Not analyzed

ND - Non Detect

FIGURES



PLAN

Scale in Feet

0 1000' 2000'

MAP REFERENCES:
IMAGE FROM USGS 7.5 MIN. QUADRANGLE, SCHENECTADY SERIES.

EARTH TECH | AECOM
40 British American Blvd.
Latham, New York 12110

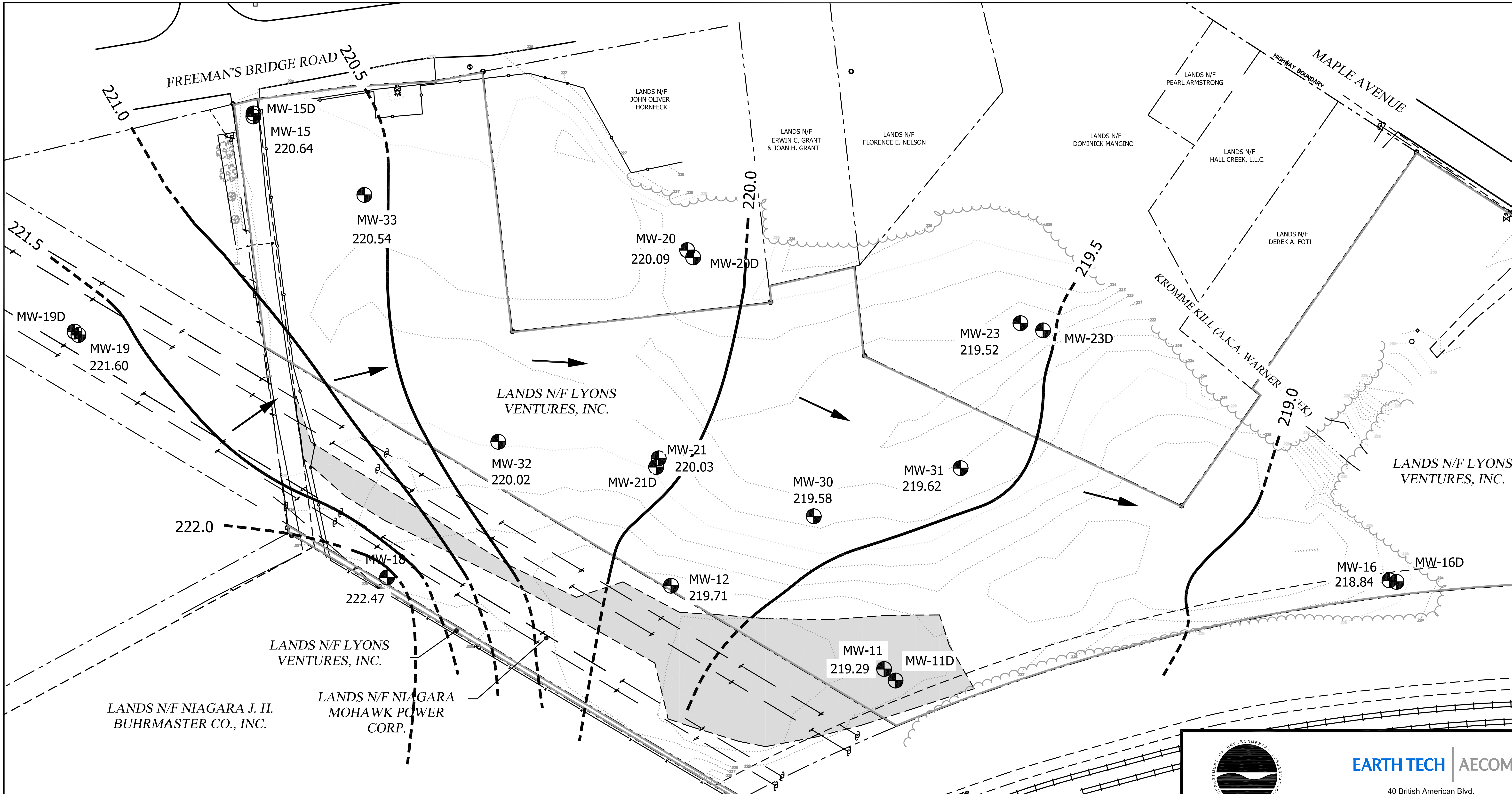
FIGURE 1
SITE LOCATION MAP

POST REMEDIATION FIELD INVESTIGATION

34 Freeman's Bridge Road Site
Site # 4-47-028

Town of Glenville	Schenectady County, New York
DATE: SEPTEMBER, 2008	SCALE: 1"=2000'
PROJECT NO.: 93693	FIGURE 1

FILE NAME = WORK\93693\CADD\SITE-MANAGEMENT-PLANS\M-FIGURES.DWG



MAPPING REFERENCES:
1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.

2) MONITORING WELL AND SOIL VAPOR POINT LOCATIONS BY A SURVEY PERFORMED BY EARTH TECH, MAY 8, 2008

LEGEND

MW-19D — MONITORING WELL LOCATION

GROUNDWATER CONTOUR DASHED WHERE INFERED

GENERAL GROUNDWATER FLOW DIRECTION

PLAN

Scale in Feet
0 50' 100'

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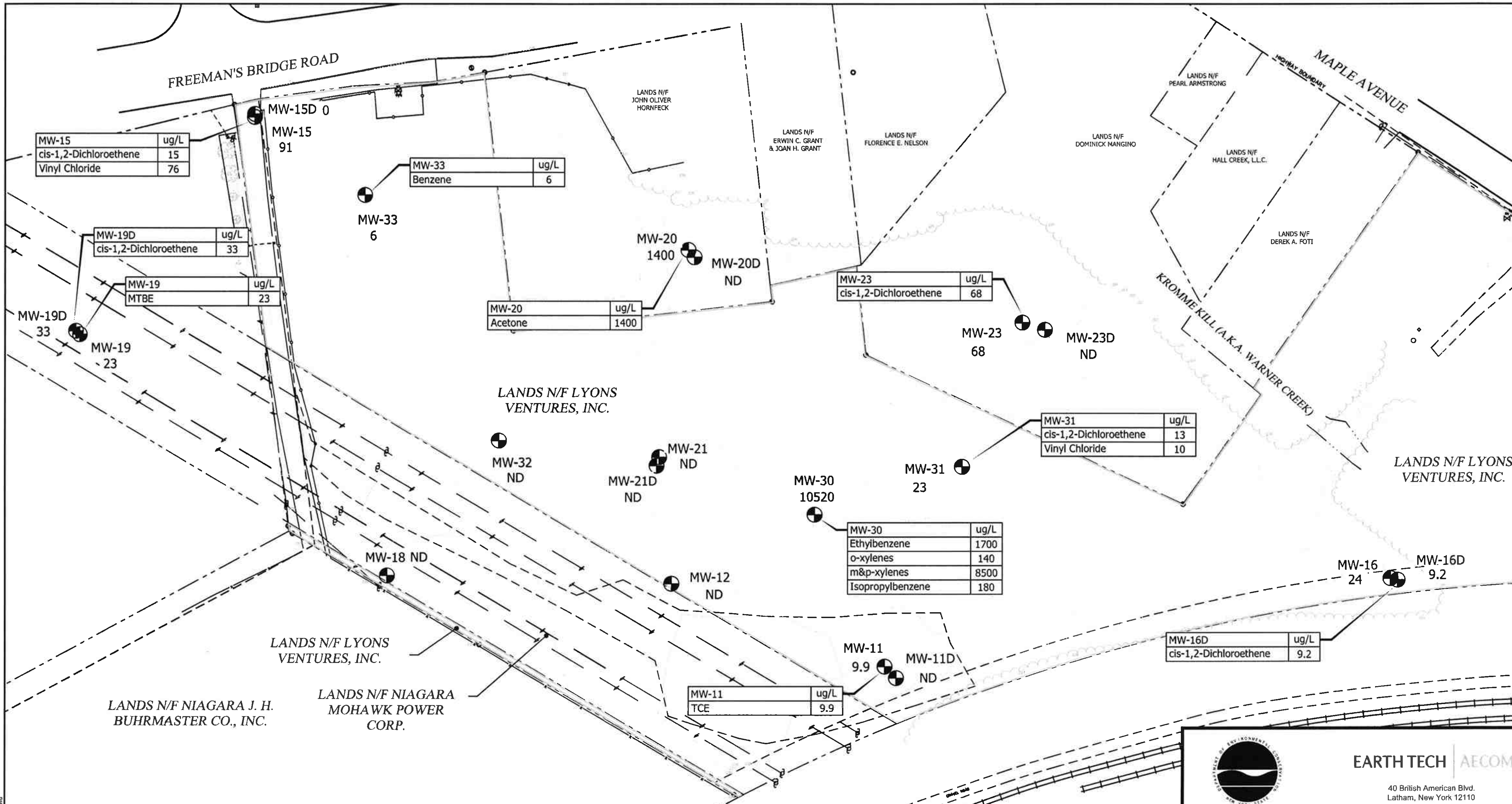
Latham, New York 12110

FIGURE 2 - SHALLOW GROUNDWATER FLOW
AUGUST 2008

GROUNDWATER SAMPLING REPORT
34 Freeman's Bridge Road Site
NYSDEC Site # 4-47-028

Town of Glenville	Schenectady County, New York
DATE: AUGUST, 2008	SCALE: 1"=100'
PROJECT NO.: 105886	FIGURE 2



EARTH TECH | AECOM

40 British American Blvd.
Latham, New York 12110

FIGURE 3 - TOTAL VOC CONCENTRATIONS IN GROUNDWATER & AWQS EXCEEDENCES

GROUNDWATER SAMPLING REPORT
34 Freeman's Bridge Road Site
NYSDEC Site # 4-47-028

Town of Glenville	Schenectady County, New York
DATE: AUGUST, 2008	SCALE: 1"=100'
PROJECT NO.: 105886	FIGURE 3

MAPPING REFERENCES:
1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.

2) MONITORING WELL LOCATIONS BY A SURVEY PERFORMED BY EARTH TECH, MAY 8, 2008

LEGEND

MW-19D 33 — MONITORING WELL LOCATION WITH REPORTED TOTAL VOC CONCENTRATION

ND — NON-DETECT

SAMPLING LOCATION

MW-31	ug/L
cis-1,2-Dichloroethene	13
Vinyl Chloride	10

CHEMICAL CONSTITUENT

ANALYTICAL RESULT (ug/L) WHERE CONCENTRATIONS FOUND ABOVE NYS AMBIENT WATER QUALITY STANDARDS (AWQS)

PLAN

Scale in Feet
0 50' 100'

Appendix A
Monitoring Well Purging/Sampling Forms

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 11 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-11 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	19.35	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	11.94	feet
4. C = Column of Water in Casing:	7.41	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	1.20	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	820	822					
Water Leve	0.33	feet	12.01	15.50					
Volume Pu	N / A	gal	0.50	1.50					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	349.0	694.0					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	35	31					
Conductivit	(+/-) 3%	µmho / cm	0.836	0.853					
pH	(+/-) 0.1	pH unit	7.71	7.07					
Temp		C	17.27	16.39					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 820
Purged a total of 3.6 gal
Sampled at 825

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 11 D Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-11 D QA/QC Collected? MS/MSD

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	53.5	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	11.48	feet
4. C = Column of Water in Casing:	42.02	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	6.84	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	751	755	800				
Water Leve	0.33	feet	11.68	11.69	11.69				
Volume Pu	N / A	gal	5.00	11.00	20.00				
Flow Rate	N / A	mL / min	-	-	-				
Turbidity	(+/-) 10%	NTU	61.5	41.2	11.0				
Dissolved	(+/-) 10%	mg / L	-	-	-				
Eh / ORP	(+/-) 10	MeV	-99	-94	-84				
Conductivit	(+/-) 3%	µmho / cm	1.37	1.66	0.999				
pH	(+/-) 0.1	pH unit	8.35	8.12	7.82				
Temp		C	12.28	12.09	12.05				
Color		Visual	clear	clear	clear				
Odor		Olfactory	none	none	none				

Comments:

Started purge at 745
Purged a total of 20.54 gal
Sampled 800

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 12 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-12 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	17.29	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	10.97	feet
4. C = Column of Water in Casing:	6.32	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	1.03	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1256	1258					
Water Leve	0.33	feet	12.15	12.82					
Volume Pu	N / A	gal	0.50	1.75					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	141.0	703.0					
Dissolved (	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-19	-1					
Conductivit	(+/-) 3%	µmho / cm	0.685	0.687					
pH	(+/-) 0.1	pH unit	8.37	7.38					
Temp		C	16.39	15.83					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 1255
Purged a total of 3 gal
Sampled at 1300

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 15 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-15 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	14.25	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	3.5	feet
4. C = Column of Water in Casing:	10.75	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	1.75	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	847	850					
Water Leve	0.33	feet	3.60	6.55					
Volume Pu	N / A	gal	0.75	3.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	767.0	326.0					
Dissolved (	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-77	-54					
Conductivit	(+/-) 3%	µmho / cm	0.587	0.585					
pH	(+/-) 0.1	pH unit	7.35	7.45					
Temp		C	16.83	16.73					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 845
Purged a total of 5.25 gal
Sampled at 855

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 15 D Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-15 D QA/QC Collected? DUP-1

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	29.5	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	3.75	feet
4. C = Column of Water in Casing:	25.75	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	4.19	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	907	909	913				
Water Leve	0.33	feet	3.77	3.77	3.80				
Volume Pu	N / A	gal	1.50	5.00	10.00				
Flow Rate	N / A	mL / min	-	-	-				
Turbidity	(+/-) 10%	NTU	562.0	215.0	131.0				
Dissolved	(+/-) 10%	mg / L	-	-	-				
Eh / ORP	(+/-) 10	MeV	48	49	52				
Conductivit	(+/-) 3%	µmho / cm	0.703	0.691	0.686				
pH	(+/-) 0.1	pH unit	7.71	7.53	7.49				
Temp		C	13.48	13.41	13.26				
Color		Visual	cloudy	clear	clear				
Odor		Olfactory	none	none	none				

Comments:

Started purge at 905
Purged a total of 12.5 gal
Sampled 915

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW-16 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-16 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	13.2	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	9.57	feet
4. C = Column of Water in Casing:	3.63	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	0.59	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	940	941					
Water Leve	0.33	feet	9.60	11.90					
Volume Pu	N / A	gal	0.25	1.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	371.0	248.0					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	0.94	-102					
Conductivit	(+/-) 3%	µmho / cm	1.47	0.999					
pH	(+/-) 0.1	pH unit	7.66	7.32					
Temp		C	15.72	14.88					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 940
Purged a total of 1.7 gal
Sampled at 945
Some odor during sampling

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 16 D Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-16 D QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	28.64	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	8.58	feet
4. C = Column of Water in Casing:	20.06	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	3.27	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	955	957	959				
Water Leve	0.33	feet	8.90	8.90	8.90				
Volume Pu	N / A	gal	1.50	5.00	8.00				
Flow Rate	N / A	mL / min	-	-	-				
Turbidity	(+/-) 10%	NTU	204.0	159.0	100.0				
Dissolved (	(+/-) 10%	mg / L	-	-	-				
Eh / ORP	(+/-) 10	MeV	-25	-26	-36				
Conductivit	(+/-) 3%	µmho / cm	0.826	0.852	0.864				
pH	(+/-) 0.1	pH unit	7.25	7.32	7.34				
Temp		C	12.43	11.91	11.84				
Color		Visual	cloudy	clear	clear				
Odor		Olfactory	none	none	none				

Comments:

Started purge at 954
Purged a total of 9.8
Sampled at 1000

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 18 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-18 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	14.7	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	7.11	feet
4. C = Column of Water in Casing:	7.46	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	1.21	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1202	1203					
Water Leve	0.33	feet	7.10	7.70					
Volume Pu	N / A	gal	0.50	2.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	376.0	155.0					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	60	83					
Conductivit	(+/-) 3%	µmho / cm	0.892	0.931					
pH	(+/-) 0.1	pH unit	7.28	6.79					
Temp		C	17.82	17.64					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 1201
Purged a total of 3.5 gal
Sampled at 1205

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 19 Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-19 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	9.72	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	5.52	feet
4. C = Column of Water in Casing:	4.2	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	0.68	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1332	1335					
Water Leve	0.33	feet	7.60	7.92					
Volume Pu	N / A	gal	0.50	1.50					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	127.0	49.0					
Dissolved (	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	40	-10					
Conductivit	(+/-) 3%	µmho / cm	0.711	0.71					
pH	(+/-) 0.1	pH unit	6.97	7.46					
Temp		C	18.37	17.77					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 1331
Purged a total of 2 gal
Sampled at 1335

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 19 D Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-19 D QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	22.31	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	4.65	feet
4. C = Column of Water in Casing:	17.6	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	2.87	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1320	1322					
Water Leve	0.33	feet	7.00	7.11					
Volume Pu	N / A	gal	1.00	5.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	999.0	430.0					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-97	-107					
Conductivit	(+/-) 3%	µmho / cm	0.738	0.704					
pH	(+/-) 0.1	pH unit	7.27	7.47					
Temp		C	14.42	12.78					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:

Started purge at 1319
Purged a total 8.5 gal
Sampled at 1325

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 20 Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-20 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	12.41	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	6.8	feet
4. C = Column of Water in Casing:	5.6	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	0.91	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1125	1129					
Water Leve	0.33	feet	9.01	9.25					
Volume Pu	N / A	gal	1.00	1.50					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	765.0	409.0					
Dissolved (	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-352	-354					
Conductivit	(+/-) 3%	µmho / cm	4.18	466					
pH	(+/-) 0.1	pH unit	10.50	17.98					
Temp		C	18.15	17.36					
Color		Visual	yellow/cloudy	cloudy					
Odor		Olfactory	strong smell	strong smell					

Comments:

Started purge at 1123
Purged dry at 1131
Returned to sample at 1255

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 20 D Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-20 D QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	31.9	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	6.93	feet
4. C = Column of Water in Casing:	24.97	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	4.07	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1110	1113	1117				
Water Leve	0.33	feet	7.10	7.08	6.85				
Volume Pu	N / A	gal	1.25	6.00	12.00				
Flow Rate	N / A	mL / min	-	-	-				
Turbidity	(+/-) 10%	NTU	446.0	110.0	59.3				
Dissolved (	(+/-) 10%	mg / L	-	-	-				
Eh / ORP	(+/-) 10	MeV	-81	-80	-75				
Conductivit	(+/-) 3%	µmho / cm	0.793	0.769	0.76				
pH	(+/-) 0.1	pH unit	7.29	7.43	7.22				
Temp		C	15.27	13.50	13.33				
Color		Visual	cloudy	cloudy	cloudy				
Odor		Olfactory	slight odor	slight odor	slight odor				

Comments:

Started purge at 1107
Purged a total of 12.21 gal
Sampled at 1120

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 21 Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-21 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	18.3	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	7.43	feet
4. C = Column of Water in Casing:	10.87	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	1.77	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1241	1244					
Water Leve	0.33	feet	10.40	11.90					
Volume Pu	N / A	gal	1.00	3.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	125.0	643.0					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-96	-92					
Conductivi	(+/-) 3%	µmho / cm	1.31	1.44					
pH	(+/-) 0.1	pH unit	7.41	7.13					
Temp		C	18.72	16.26					
Color		Visual	cloudy	very cloudy					
Odor		Olfactory	strong smell	strong smell					

Comments:

Started purge at 1239
Purged a total of 5.3 gal
Sampled at 1245

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 21 D Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-21 D QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	50.2	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	8.85	feet
4. C = Column of Water in Casing:	41.4	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	6.74	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1148	1153	1158	1203			
Water Leve	0.33	feet	9.07	9.07	9.05	9.07			
Volume Pu	N / A	gal	2.50	7.50	12.50	20.00			
Flow Rate	N / A	mL / min	-	-	-	-			
Turbidity	(+/-) 10%	NTU	128.0	51.7	66.0	40.0			
Dissolved (	(+/-) 10%	mg / L	-	-	-	-			
Eh / ORP	(+/-) 10	MeV	-119	-95	-90	-86			
Conductivit	(+/-) 3%	µmho / cm	0.895	0.829	0.85	0.842			
pH	(+/-) 0.1	pH unit	9.44	8.62	8.12	7.91			
Temp		C	14.42	14.37	13.83	14.06			
Color		Visual	clear	clear	clear	clear			
Odor		Olfactory	none	none	none	none			

Comments:
Started purge at 1145
Purged a total 20 gal
Sampled 1205

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 23 Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-23 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	11.3	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	5.34	feet
4. C = Column of Water in Casing:	10.96	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	1.78	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1040	1050					
Water Leve	0.33	feet	6.30	8.50					
Volume Pu	N / A	gal	1.00	2.50					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	70.7	196.0					
Dissolved (	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-128	-119					
Conductivit	(+/-) 3%	µmho / cm	0.795	0.764					
pH	(+/-) 0.1	pH unit	7.52	7.09					
Temp		C	16.81	17.09					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	odor	odor					

Comments:

Started purge at 10:39
Purged a total of 5 gal
Sampled at 1100

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 23 D Date: 08/25/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-23 D QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	55.3	feet
2. D = Riser Diameter (I.D.):	0.17	feet
3. W = Static Depth to Water (TOC):	4.36	feet
4. C = Column of Water in Casing:	50.94	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	8.30	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1025	1031					
Water Leve	0.33	feet	4.36						
Volume Pu	N / A	gal	2.00	7.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	942.0	99.1					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-86	-79					
Conductivit	(+/-) 3%	µmho / cm	0.886	0.821					
pH	(+/-) 0.1	pH unit	8.86	8.09					
Temp		C	14.48	13.82					
Color		Visual	very cloudy	cloudy					
Odor		Olfactory	none	none					

Comments:
The dissolved Oxygen sensor on the YSI was broken so no paramters will be taken for any wells

Started purge 1023
Purged a total of 8.5 gal
Sampled at 1035

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW-30 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-30 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	16.49	feet
2. D = Riser Diameter (I.D.):	0.33	feet
3. W = Static Depth to Water (TOC):	6.61	feet
4. C = Column of Water in Casing:	4.88	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	6.42	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1238	1240					
Water Leve	0.33	feet	11.20	12.25					
Volume Pu	N / A	gal	5.00	10.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	67.0	59.5					
Dissolved (	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-182	-164					
Conductivit	(+/-) 3%	µmho / cm	1.73	1.59					
pH	(+/-) 0.1	pH unit	7.14	7.33					
Temp		C	18.48	15.95					
Color		Visual	Black	cloudy					
Odor		Olfactory	strong smell	strong smell					

Comments:

Free product in the well, all over the tubing. A black oil.
Started purge at 1236
Purged a total of 19gal
Sampled at 1243

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 31 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-31 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	16.79	feet
2. D = Riser Diameter (I.D.):	0.33	feet
3. W = Static Depth to Water (TOC):	5.81	feet
4. C = Column of Water in Casing:	10.98	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	7.13	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1218	1221	1222				
Water Leve	0.33	feet	9.15	9.68	9.85				
Volume Pu	N / A	gal	5.00	10.00	15.00				
Flow Rate	N / A	mL / min	-	-	-				
Turbidity	(+/-) 10%	NTU	122.0	162.0	141.0				
Dissolved (	(+/-) 10%	mg / L	-	-	-				
Eh / ORP	(+/-) 10	MeV	-89	-90	-87				
Conductivit	(+/-) 3%	µmho / cm	1.35	1.31	1.24				
pH	(+/-) 0.1	pH unit	6.89	7.05	7.20				
Temp		C	18.02	14.87	15.40				
Color		Visual	cloudy	cloudy	cloudy				
Odor		Olfactory	odor	odor	odor				

Comments:

Started purge at 1216
Purged a total of 21.4 gal
Sampled at 1225

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 32 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-32 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	22.24	feet
2. D = Riser Diameter (I.D.):	0.33	feet
3. W = Static Depth to Water (TOC):	7.3	feet
4. C = Column of Water in Casing:	14.94	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	9.71	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1104	1108	1116				
Water Leve	0.33	feet	7.80	7.75	7.77				
Volume Pu	N / A	gal	5.00	10.00	22.50				
Flow Rate	N / A	mL / min	-	-	-				
Turbidity	(+/-) 10%	NTU	74.4	336.0	151.0				
Dissolved (	(+/-) 10%	mg / L	-	-	-				
Eh / ORP	(+/-) 10	MeV	-120	-108	-99				
Conductivit	(+/-) 3%	µmho / cm	0.814	0.785	0.784				
pH	(+/-) 0.1	pH unit	8.08	7.73	1.55				
Temp		C	13.13	12.85	13.80				
Color		Visual	grayish	cloudy	cloudy				
Odor		Olfactory	odor	odor	odor				

Comments:

Started purge at 1101
Purged a total of 29.13 gal
Sampled at 1120

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging / Sampling Form

Project Name and Number: Freemans Bridge Road 105886.02

Monitoring Well Number: MW- 33 Date: 08/26/2008

Samplers: Tyler Brown and Cristine Vinciguerra

Sample Number: MW-33 QA/QC Collected? None

Purging / Sampling Method: Whale Pump

1. L = Total Well Depth:	13.94	feet
2. D = Riser Diameter (I.D.):	0.33	feet
3. W = Static Depth to Water (TOC):	6.45	feet
4. C = Column of Water in Casing:	7.49	feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$	4.86	gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Parameter	Stabilizati	Units	Readings						
Time		24 hr	1025	1049					
Water Leve	0.33	feet	9.52	12.60					
Volume Pu	N / A	gal	1.00	5.00					
Flow Rate	N / A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	102.0	167.0					
Dissolved	(+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	-145	-144					
Conductivit	(+/-) 3%	µmho / cm	0.863	2.8					
pH	(+/-) 0.1	pH unit	7.15	7.55					
Temp		C	17.32	18.32					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	strong odor	strong odor					

Comments:

Starged purge at 1041
Purged dry at 1051
Purged a total of 6 gal
Sampled at 1130
Tubing had a black coat
* Three consecutive readings within range indicates stabilization of that parameter.