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August 12, 2013

Mr. Michael Mason
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Subject: **Former Diamond Cleaners Site, Site No. 808030**
Draft Field Activities Report - Groundwater and Soil Sampling Results
Work Assignment # D007619-03
MACTEC Engineering and Consulting, P.C., Project No. 3612112209

Dear Mr. Mason:

MACTEC Engineering and Consulting, P.C. (MACTEC), under contract to the New York State Department of Environmental Conservation (NYSDEC), is submitting this Field Activities Report (Report) for the former Diamond Cleaners Site (DC Site) located at 717 Lake Street in the north-central section of the City of Elmira, Chemung County, New York (Figure 1). The Site is listed as a Class 2 Inactive hazardous waste site; Site No. 808030 in the Registry of Hazardous Waste Sites in New York State (NYS). This Report is being submitted under the NYSDEC Work Assignment #D007619-03, and in accordance with the Superfund Standby Contract between MACTEC and the NYSDEC.

INTRODUCTION

The purpose of the work performed is to monitor the effectiveness that the recently completed remedial action at the Site has had on groundwater quality, and to assess soil and groundwater quality at the nearby Associated Textile Rental Services (ATRS) Site.

The Site consists of a one-acre lot in a commercial and residential area. Prior to the remedial action conducted in 2012 to address chlorinated solvent contamination in soil and in groundwater, the Site contained a one story building with a grassy area west of the building, gravel parking area

south of the building, and a paved parking area north of the building. The building superstructure was demolished in March 2011.

The former ATRS Site is a roughly 0.75 acre parcel located at 714 Baldwin Street in a light industrial area of the City of Elmira, Chemung County, New York. The Site contains an approximately 6,000 square foot warehouse building and a small driveway. The remainder of the property is grass covered. Vacant property borders the Site to the north and south. The DC Site is located upgradient, approximately 300 feet east of the ATRS property. Industrial property lies to the west of the ATRS Site, across Clemens Parkway. The Sullivan Street Public Supply Wells are located approximately 5,000 feet north of the Site.

BACKGROUND

The NYSDEC issued the DC Site Record of Decision (ROD) for operable unit (OU)-1 on 31 March 2008 (NYSDEC, 2008a). The OU-1 ROD selected demolition of the DC Site building, excavation of contaminated soils exceeding remediation goals, and transportation and off-Site disposal of contaminated soil and building debris as the remedy for source area soils.

The NYSDEC issued the ROD for OU-2 in March 2010 (NYSDEC, 2010). The OU-2 ROD selected in-situ chemical oxidation and in-situ enhanced biodegradation as the remedy for Site groundwater. Sodium permanganate would oxidize contaminants in the source area. When source area groundwater stabilizes, enhanced biodegradation reagents could be injected if necessary pending results of groundwater monitoring.

Remedial action at the DC Site conducted in 2012 consisted of:

- excavation of contaminated soils exceeding remediation goals, and transportation and off-Site disposal of contaminated soil and building debris
- injection of sodium permanganate to oxidize groundwater contaminants in the source area
- installation of 12 groundwater monitoring wells (MW-12 through MW-23) both on-Site and off-Site; these wells had not been sampled prior to the field activities discussed in this Report.

A summary of the remedial action conducted in 2012 is contained in the Final Engineering Report (MACTEC, 2013a).

Groundwater monitoring discussed in this Report was conducted to monitor the effectiveness of the recently completed remedial action. In addition, sampling activities were performed to assess soil and groundwater quality at the nearby ATRS Site.

Subsequent investigations at the DC Site, including pre-design investigations conducted in separate mobilizations in March 2010, October 2010, and May 2012 were completed following the issuance of the ROD (NYSDEC, 2010), and are described in the Final Engineering Report (MACTEC, 2013a). Previous investigations at the ATRS Site are described in the 2008 Final Site Characterization Report for the ATRS Site (MACTEC, 2008) and the DC Remedial Investigation/Feasibility Study Report (MACTEC, 2009).

FIELD ACTIVITIES – MAY 2013

The objective of the May 2013 field investigation was to 1) monitor the effectiveness that the recently completed remedial action at the DC Site has had on groundwater quality, and 2) to assess soil and groundwater quality at the nearby ATRS Site.

Field activities planned at the DC and ATRS Sites is outlined in the Field Activities Plan (FAP): May 2013 Groundwater Sampling – former Diamond Cleaners (NYSDEC Site 808030) (MACTEC, 2013b). Fieldwork discussed in this Report was performed during the period between May 6 and May 9, 2013.

The following activities were conducted at the DC and ATRS Sites:

- A total of 36 groundwater samples were collected from 35 monitoring locations associated with the DC and ATRS Sites. Water samples were submitted for volatile organic compound (VOC) analysis
- A total of six (6) grab groundwater samples and 11 soil samples were collected from five direct push soil borings advanced on the ATRS property. Soil borings were placed coincident with sample locations previously advanced during a 2007 investigation conducted at the ATRS Site. Water and soil grab samples were submitted for VOC analysis;

Under direct contract with the NYSDEC, analytical and drilling services were provided by the following NYSDEC callout contractors:

- TestAmerica Laboratories, Inc. – provided soil and groundwater laboratory analytical services
- SJB Services, Inc./Empire Geo Services, Inc. –provided direct-push drilling services and provided means to treat discharge/purge water on-Site using granular activated carbon (GAC).

Investigation Derived Waste

Use of dedicated sampling equipment was used to the extent practical during this field effort. Used disposable equipment and personal protective clothing was double bagged in polyethylene trash bags and sealed with twist ties. This material was disposed of as nonhazardous municipal solid waste.

Groundwater well and direct push purge water generated during sampling activities at locations identified to be contaminated based on previous sampling results was containerized and treated on-Site using a portable GAC unit. The list of wells/borings identified as needing groundwater GAC treatment was provided in Table 2 of the FAP (MACTEC, 2013b). Treated water and groundwater from wells in which treatment was identified as not being necessary, as well as wash-water used to clean direct-push tools and water level indicators was discharged to the ground in a controlled manner.

Groundwater Sampling Activities

To evaluate current groundwater concentrations in the vicinity of the DC and ATRS Sites, low-flow groundwater sampling was conducted at 35 monitoring locations, as shown on Figure 2. Prior to groundwater sampling, water level measurements were collected at previously installed monitoring wells and piezometers both on- and off-Site.

Well sampling was conducted by MACTEC personnel according to MACTEC's Program Quality Assurance Program Plan (MACTEC, 2011). Field parameters, including water levels, pH, temperature, specific conductivity, oxidation reduction potential and dissolved oxygen were also

recorded at each monitoring location during pre-sample purging. Following collection, groundwater samples were submitted to TestAmerica Laboratories, Inc. for laboratory analysis of VOCs by United States Environmental Protection Agency (USEPA) Method 8260 following the NYSDEC Analytical Services Protocols (NYSDEC, 2005). Groundwater monitoring field data records are included in Attachment 1.

Groundwater purged during monitoring well sampling and direct-push groundwater grab sampling was containerized and treated on-Site using a portable GAC unit. The list of wells/borings identified as needing GAC treatment based on previous sampling results is provided on Table 1. Groundwater from wells in which treatment was not necessary was discharged to the ground in a controlled manner.

Direct Push Sampling Program – ATRS Site

To assess current soil and groundwater quality, as well as to compare current results to results at those sample locations previously evaluated at the ATRS Site, direct push soil and water sampling were conducted, as described in the following sub-sections.

Direct Push Soil Borings

Based on previous analytical data, soil borings during the May 2013 sampling event were placed coincident to previous borings advanced during a 2007 investigation performed at the ATRS Site. To evaluate the extent of potential soil contamination at the ATRS Site, five new soil borings (ATGW-002A, ATGW-026A, ATGW-043A, ATGW-045A, and ATGW-046A) were advanced at locations south and east of the ATRS Site building, similar to those completed in 2007. Soil boring locations are shown on Figure 2.

Soil samples were collected continuously from the ground surface to a maximum depth of 19 feet below ground surface. Soil samples were described consistent with the Unified Soil Classification System. Photoionization detector (PID) headspace readings were used to screen soil samples for the potential presence of VOCs as each soil sample was removed from the sample collection tube. The sample description and classification, PID headspace reading, and boring observations were recorded on the Soil Boring Logs, included in Attachment 1.

Two soil samples were collected from each boring for laboratory analysis of VOCs by USEPA Method 8260C with methanol preservation. The sample intervals were selected based on the portion of the soil core that had the highest PID reading, or were selected by the field geologist based on visual and/or olfactory characteristics. Upon completion, each boring was backfilled and the ground surface repaired to its original condition.

Direct Push Groundwater Sampling

Subsequent to direct push soil sampling, groundwater grab samples were collected from each direct push soil boring location. Upon completion of the soil sampling, a temporary one-inch diameter polyvinyl chloride narrow diameter well with a five-foot screen was deployed into each borehole. Groundwater was then purged and sampled from these temporary points at low-flow rates using dedicated polyethylene tubing and a peristaltic pump. Groundwater grab samples were submitted for laboratory analysis of VOCs by USEPA Method 8260. Relevant sample information was recorded on the direct push soil boring logs (see Attachment 1).

RESULTS

Groundwater Level Readings

Water level readings were collected to establish the potentiometric groundwater surface underlying the DC and ATRS Sites and the surrounding area at the time of sampling. Water level elevations and monitoring locations construction information are presented on Table 2. Based upon the water level readings, groundwater is interpreted to flow to southwest west across the two Sites, as depicted on Figure 3.

Soil and Groundwater Sampling

The results for the May 2013 soil and groundwater sampling event are discussed in the following subsections. Table 1 summarizes VOC detections in groundwater samples. Analytical data from groundwater samples were compared to the New York Codes, Rules, and Regulations (NYCRR) Subpart 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations, Class GA Waters (NYSDEC, 2008b). Table 3 summarizes VOC detections in soil samples, with results compared to the NYCRR Subpart 375-6.8: Soil

Cleanup Objectives (NYSDEC, 2006). Sample concentrations observed to exceed criteria are presented with bold/shaded text in these tables. The Data Usability Summary Report and complete analytical results are included in Attachment 2.

Groundwater Sampling Results

The concentrations of chlorinated solvents, as well as fuel related compounds detected in groundwater samples at the DC and ATRS Sites were observed to be generally consistent with historic data or are generally decreasing for most parameters at most locations. Results of the May 2013 sampling event show concentrations of primary groundwater contaminants of concern (COCs) (primarily tetrachloroethene [PCE], trichloroethene [TCE], cis-1,2-dichloroethene [cis-1,2-DCE], and vinyl chloride), in addition to other VOC compounds (including benzene and its derivatives) reported at levels above NYS GA Standards at locations on both the DC and ATRS Sites. Sample locations, including detections of PCE, TCE and cis-1,2-DCE, are shown on Figure 4.

Diamond Cleaners Site

Results from groundwater samples collected at locations near the area of remedial action (i.e., GW-002, MW-001, MW-007, MW-020 and MW-021) at the DC Site generally show an improvement in groundwater quality in the vicinity of the contaminant source area, possibly a result of the recent remedial action at the DC Site. Concentrations of PCE, TCE and cis-1,2-DCE are generally reported at levels lower than those from previous sampling events. Note that wells MW-020 and MW-021 were installed in the area of previously sampled MW-005, which was destroyed during remedial construction related activities in 2012. Analytical data from these two locations was evaluated along with previous data from MW-005.

ATRS Site

Groundwater Sampling Results – ATRS Site Monitoring Wells

Groundwater sample data reported from samples collected at the ATRS Site show concentrations of chlorinated solvents and fuel related compounds above NYS GA Standards at six monitoring well locations. Concentrations of PCE, TCE, cis-1,2-DCE, benzene, ethyl benzene, isopropyl benzene,

toluene and xylenes were reported in excess of NYS criteria at ATMW-001, ATMW-001R, ATMW-002, ATMW-004, ATMW-008, and ATMW-009.

Groundwater Sampling Results – ATRS Site Direct Push

Chlorinated solvents and fuel related VOCs were detected in each of the five groundwater samples obtained at the ATRS direct push locations; VOC compounds were reported above NYS GA Standards for each of the five groundwater samples.

Soil Sampling Results – ATRS Site Direct Push Soil Borings

Unconsolidated overburden encountered during soil sampling at the direct push soil borings at the ATRS Site consisted of silts, sands and gravels of varying consistency. These observations are similar to those described during previous investigations.

Analytical results reported from soil samples collected at the five soil borings indicate that relatively low concentrations of VOCs, including PCE, TCE and cis-1,2-DCE, were reported in each of the soil borings. Toluene was detected in ATGW-002A and in ATGW-043A. None of the detected compounds were reported above NYSDEC criteria. Benzene, ethyl benzene, isopropyl benzene, and xylenes were not detected in any of the samples. Sample locations and detections of VOC compounds are shown on Figure 5.

SUMMARY AND RECOMMENDATIONS

The May 2013 sampling investigation was conducted to monitor the effectiveness that the recently completed remedial action at the DC Site has had on groundwater quality, and to assess soil and groundwater quality at the nearby ATRS Site. The findings of the investigation are summarized below:

Summary

Former Diamond Cleaners Site

- A total of 25 groundwater samples were collected from 25 monitoring locations associated with the DC Site. Water samples were submitted for VOC analysis. Concentrations of

VOCs, including PCE, TCE, cis-1,2-DCE and vinyl chloride exceeded NYS GA Standards at several locations;

- Results from groundwater samples collected at GW-002, MW-001, MW-007, MW-020 and MW-021 at the DC Site generally show an improvement in groundwater quality in the area of remedial action, possibly a result of the recent remedial action at the DC Site. Concentrations of PCE, TCE and cis-1,2-DCE are generally reported at levels lower than those from previous sampling events.

ATRS Site

- Groundwater samples were collected from 10 groundwater monitoring wells associated with the ATRS Sites to evaluate concentrations of VOC compounds in shallow groundwater. Concentrations of chlorinated solvents and fuel related compounds exceeded NYS GA Standards at six (6) locations;
- To better understand contaminant distribution south and east of the ATRS Site building, 11 soil samples and five groundwater samples were obtained from 5 exploration locations and analyzed for VOCs. Site related COCs, including PCE, were detected in each soil sample; no VOCs were reported above NYS criteria. Chlorinated solvents and fuel related VOCs were detected in each of the five groundwater samples obtained at the ATRS direct push locations; VOC compounds were reported above NYS GA Standards for each of the five groundwater samples.

Recommendations

Based on findings from the May 2013 soil and groundwater sampling program conducted at the DC and ATRS Sites, AMEC has the following recommendations for further investigation at one or both of the Sites:

1) No apparent boundary of groundwater contamination has been established along the southern end of the plume in the area of the DC and ATRS Sites. Additional sampling and proposed well installation is recommended in the area to the south of the ATRS building to determine the lateral extent of the plume.
2) Soil data obtained previously during the Region 8 Site characterization at the ATRS Site (MACTEC, 2008) indicate that shallow soil contamination was encountered in borings east of the ATRS Site building. This, combined with the results from the May 2013 soil borings, suggests the contamination reported to date is residual and that the source area has not been identified. Additional soil borings along the east and south sides of the building are recommended to define the limits – and possibly a source - of soil contamination in this area.
3) Based on previous soil vapor data reported in the 2008 Site Characterization report for the ATRS Site (MACTEC, 2008), there is the potential for soil contamination (and potentially the source) to be located under the ATRS building. Additional soil vapor sampling and potential interior soil borings (if possible) are recommended to potentially identify a

contaminant source underlying the ATRS building, as well as confirm previously reported soil vapor results obtained during the 2008 Site characterization (MACTEC, 2008).

4) Based on concentrations of fuel related compounds (benzene, ethyl benzene, isopropyl benzene, toluene and xylenes) reported in groundwater samples collected at ATMW-001, ATMW-001R, ATMW-002 and ATMW-004, further investigation to better characterize evidence of benzene and its derivates noted during previous sampling at ATRS Site is recommended.
5) The OU-2 ROD for the DC Site (NYSDEC, 2010) recommended soil vapor sampling at the DC Site to monitor the effectiveness of the remedial action. Sampling vapor sampling at both the DC site and the ATRS site is recommended to determine if there are vapor intrusion concerns.
6) While concentrations of chlorinated solvents have shown a recent decrease at sample locations in close proximity to the area of remedial action, continued monitoring of groundwater quality is recommended to evaluate the effectiveness of the remedy over time.

We appreciate the opportunity to present this report. If you have any questions or concerns please call Mark Stelmack at 207-828-3592 or Lucas Benedict at 207-828-3599.

Sincerely,

MACTEC Engineering and Consulting, P.C.

Mark J. Stelmack, PE
Project Manager

Lucas J. Benedict
Project Scientist

Enclosures (2)

REFERENCES

MACTEC Engineering and Consulting, P.C. (MACTEC), 2008. Final Site Characterization Report, Region 8 Dry Cleaners – Group 2, Associated Textile Rental Services Site, Site No. 808041. Prepared for the New York State Department of Environmental Conservation, Albany, New York. January 2008.

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MACTEC, 2013b. Field Activities Plan: May 2013 Groundwater Sampling - Former Diamond Cleaners (NYSDEC Site 808030). Prepared for the New York State Department of Environmental Conservation, Albany, New York. April 2013.

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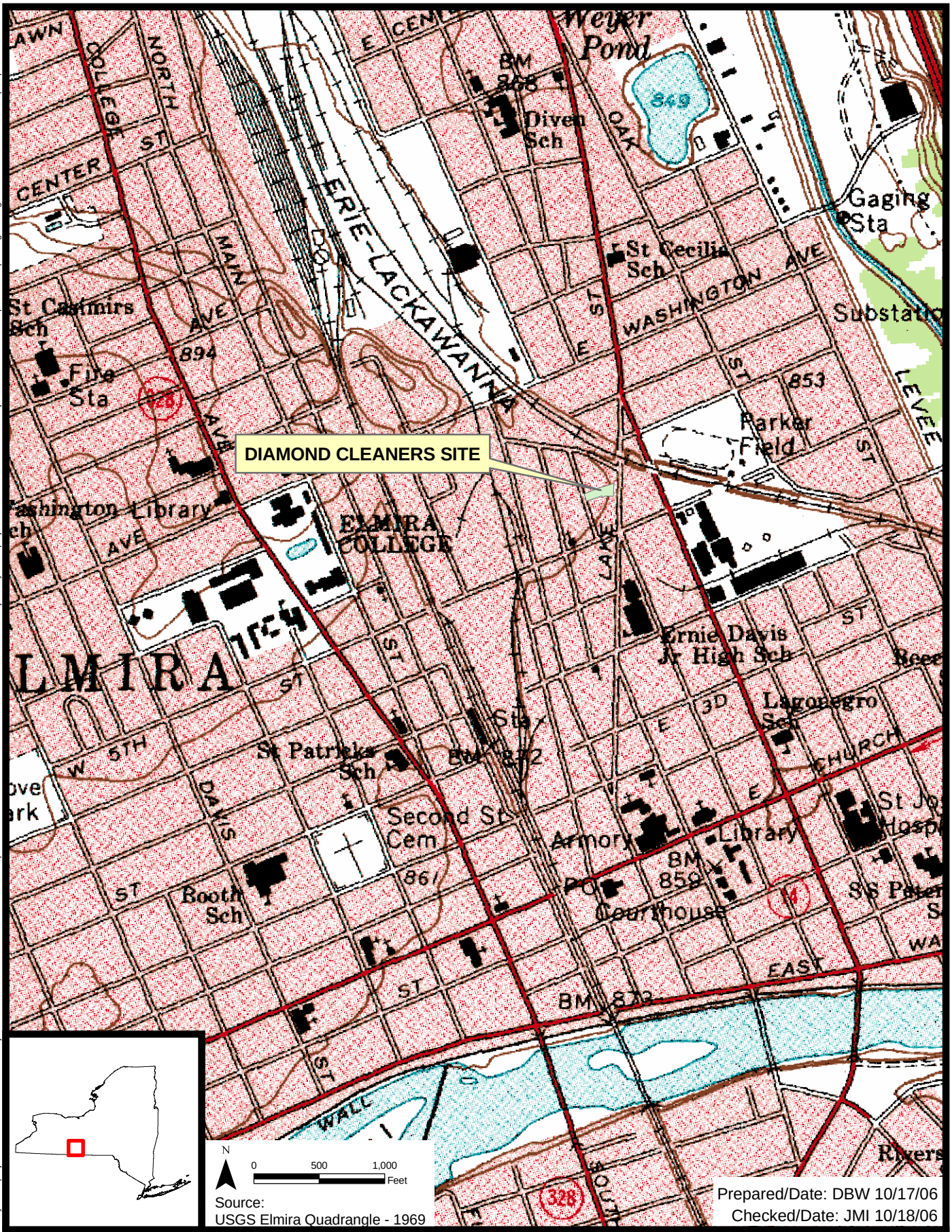
NYSDEC, 2010. Record of Decision, Diamond Cleaners Site, Operable Unit 2, Elmira, Chemung County, New York, Site Number 808030; March 2010.



Source:
USGS Elmira Quadrangle - 1969

Prepared/Date: DBW 10/17/06
Checked/Date: JMI 10/18/06

NYSDEC
FORMER DIAMOND CLEANERS
Elmira, New York

MACTEC

Site Location
Project 3612-11-2209
Figure 1

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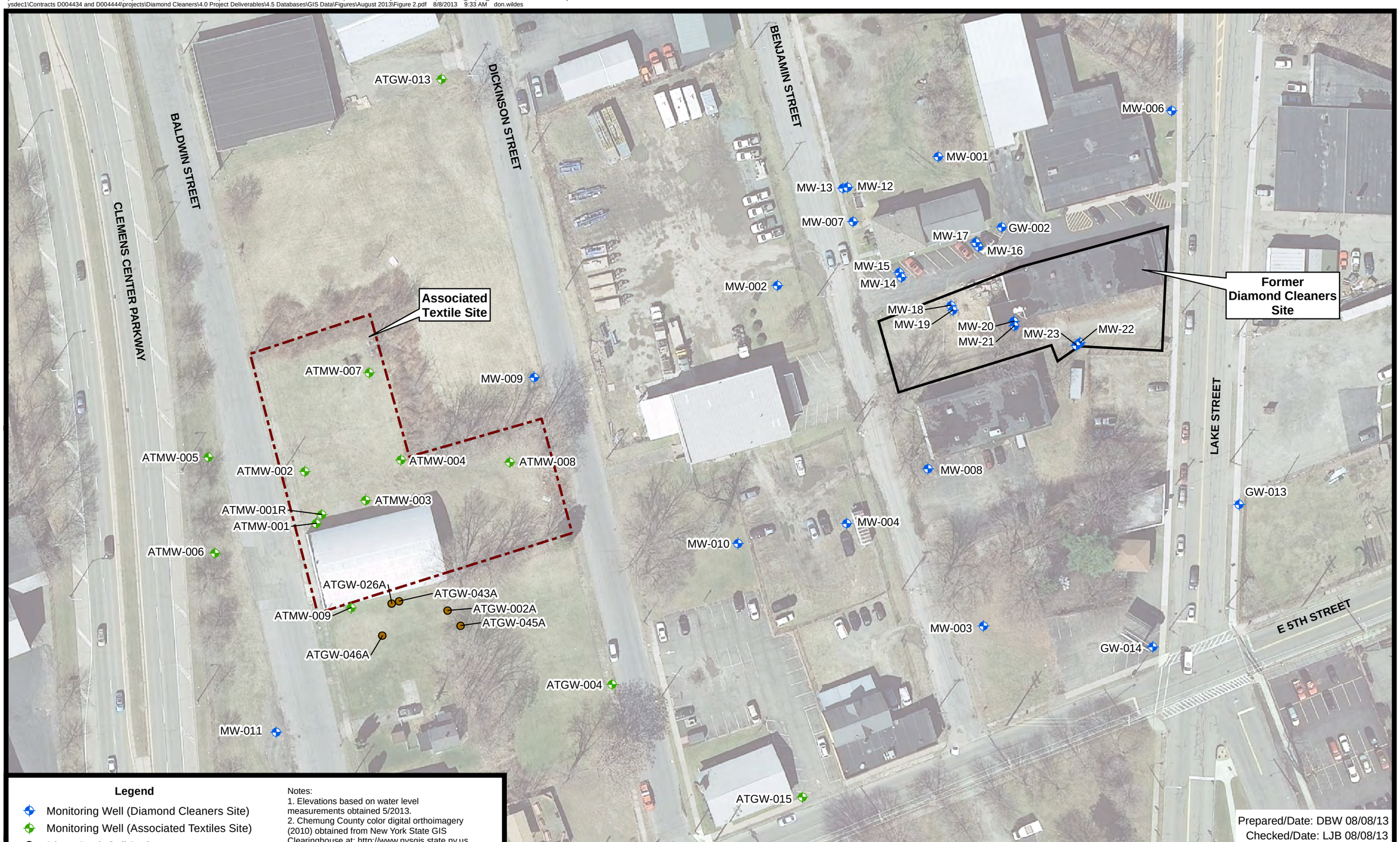


Legend

- Monitoring Well (Diamond Cleaners Site)
- Monitoring Well (Associated Textiles Site)
- Direct Push Soil Boring
- Diamond Cleaners Property
- Former ATRS Property

Notes:
1. Elevations based on water level measurements obtained 5/2013.
2. Chemung County color digital orthoimagery (2010) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

N

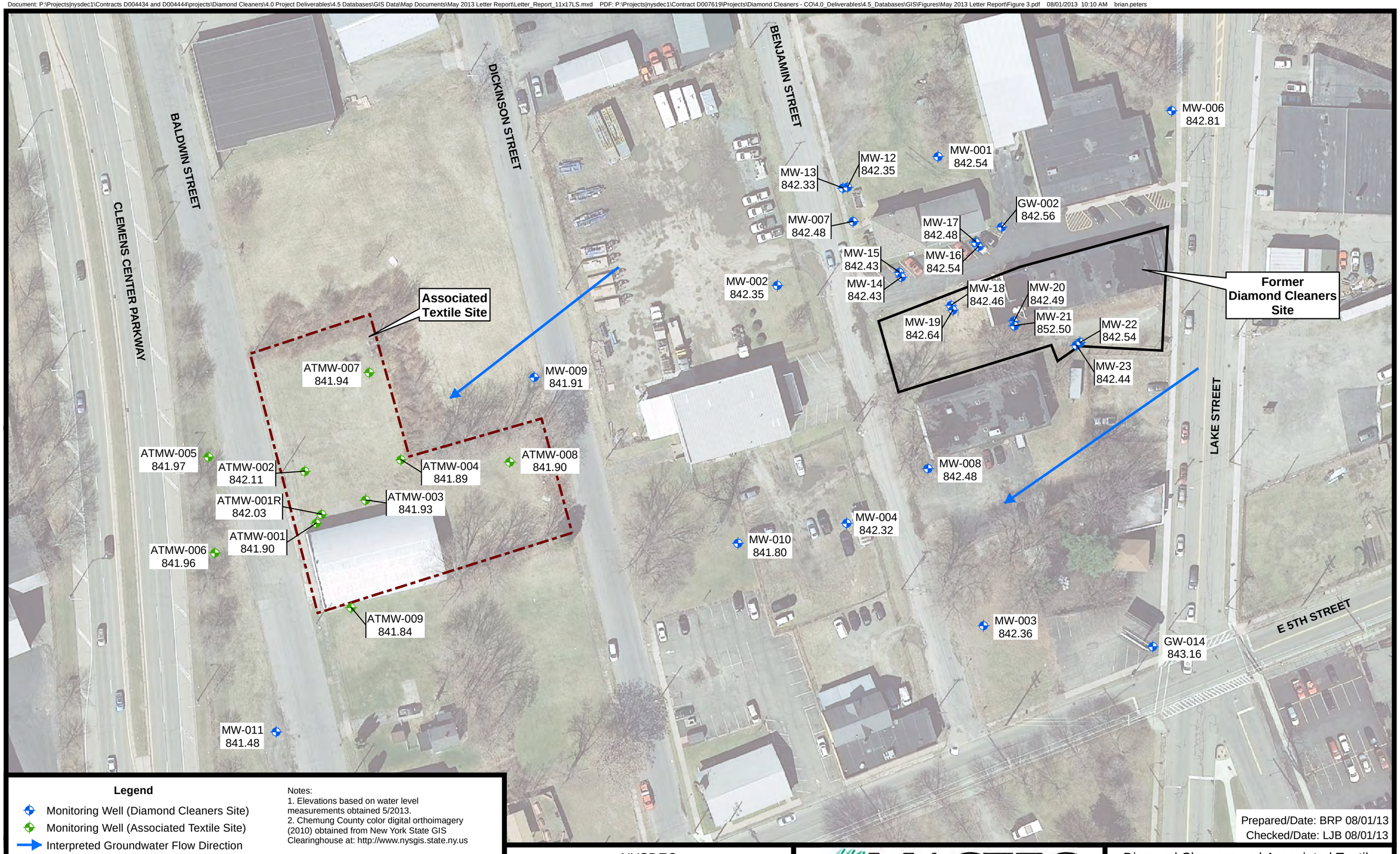
0 35 70 Feet

Prepared/Date: DBW 08/08/13
Checked/Date: LJB 08/08/13

NYSDEC
FORMER DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

MACTEC

Diamond Cleaners and Associated Textile
Soil and Groundwater Sampling Locations
Project 3612112209 Figure 2



Legend

- Monitoring Well (Diamond Cleaners Site)
- Monitoring Well (Associated Textile Site)
- Interpreted Groundwater Flow Direction
- Diamond Cleaners Property
- Former ATRS Property

Notes:
1. Elevations based on water level measurements obtained 5/2013.
2. Chemung County color digital orthoimagery (2010) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

N

0 35 70 Feet

Prepared/Date: BRP 08/01/13
Checked/Date: LJB 08/01/13

NYSDEC
FORMER DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

MACTEC

Diamond Cleaners and Associated Textile
Groundwater Elevations
Project 3612112209 Figure 3

MW-001				
Date	8/13/2008	10/13/2010	5/8/2012	5/7/2013
PCE	17	15	11	7.4
TCE	6.3	6.1	3.5	3.2
CIS	4.8	3.7	2.2	2.4 J

MW-006				
Date	8/13/2008	10/14/2010	5/8/2012	5/7/2013
PCE	0.72 J	ND	0.5 J	0.11 J
TCE	ND	0.56 J	ND	0.39 J
CIS	18	12	9.1	13 J

MW-013		
Date	5/8/2013	
PCE	250	
TCE	54	
CIS	270 J	

MW-012		
Date	5/8/2013	
PCE	200	
TCE	24	
CIS	81 J	

MW-007				
Date	8/12/2008	10/13/2010	5/7/2012	5/7/2013
PCE	230 D	320 D	740 D	190
TCE	13	38	87	29
CIS	960 D	480 D	1000 D	130 J

MW-017		
Date	5/9/2013	
PCE	67	
TCE	11	
CIS	8.1	

GW-002				
Date	8/12/2008	10/13/2010	5/8/2012	5/7/2013
PCE	280 DJ	200 D	370 D	130
TCE	21	11	9.1	4.9
CIS	20	3.7	4.8	1.7 J

ATMW-002		
Date	11/7/2006	5/6/2013
PCE	ND	2.9 J
TCE	ND	ND
CIS	ND	ND

MW-002				
Date	8/12/2008	10/14/2010	5/7/2012	5/8/2013
PCE	100 D	97 D	97	100
TCE	14	17	10	16
CIS	48	160 D	74	220 J

MW-015		
Date	5/8/2013	
PCE	ND	
TCE	ND	
CIS	ND	

MW-016		
Date	5/9/2013	
PCE	250	
TCE	7.8	
CIS	2.7	

ATMW-007		
Date	11/7/2006	5/6/2013
PCE	ND	ND
TCE	ND	ND
CIS	ND	0.55 J

ATMW-001R		
Date	11/7/2006	5/7/2013
PCE	ND	ND
TCE	ND	ND
CIS	ND	ND

MW-009				
Date	8/13/2008	10/14/2010	5/7/2012	5/7/2013
PCE	41	48	42	50
TCE	13	12	7.1	11
CIS	55 D	83	97	150 J

MW-014		
Date	5/8/2013	
PCE	150	
TCE	19	
CIS	92	

MW-020		
Date	5/9/2013	
PCE	2	
TCE	1.1	
CIS	100	

ATMW-001		
Date	11/9/2006	5/7/2013
PCE	ND	ND
TCE	ND	ND
CIS	ND	ND

MW-018		
Date	5/9/2013	
PCE	110	
TCE	9.6	
CIS	84	

MW-022		
Date	5/9/2013	
PCE	65	
TCE	3	
CIS	12	

ATMW-004		
Date	11/6/2006	5/7/2013
PCE	ND	0.26
TCE	ND	0.81
CIS	2.7 J	ND

MW-021		
Date	5/9/2013	
PCE	ND	
TCE	ND	
CIS	ND	

MW-023		
Date	5/9/2013	
PCE	1	
TCE	ND	
CIS	ND	

ATMW-005		
Date	11/8/2006	5/6/2013
PCE	ND	ND
TCE	ND	ND
CIS	ND	ND

MW-019		
Date	5/9/2013	
PCE	1.2	
TCE	ND	
CIS	2	

ATMW-008		
Date	8/14/2008	5/7/2013
PCE	3.1	1.5
TCE	9.1	33
CIS	8.5	12 J

GW-013			
Date	8/14/2008	10/14/2010	5/8/2013
PCE	ND	ND	ND
TCE	ND	ND	ND
CIS	ND	ND	ND

MW-005 (Destroyed)			
Date	8/12/2008	10/13/2010	5/8/2012
PCE	590 DJ	87	40
TCE	71	14	6.2
CIS	600 D	820 D	2200 D

ATMW-006		
Date	11/7/2006	5/6/2013
PCE	ND	ND
TCE	ND	ND
CIS	ND	ND

ATMW-003		
Date	11/6/2006	5/6/2013
PCE	ND	ND
TCE	ND	0.11 J
CIS	ND	ND

MW-004				
Date	8/12/2008	10/14/2010	5/7/2012	5/8/2013
PCE	1300 DJ	590 D	590 D	660
TCE	11	2.8	2.7	3.7 J
CIS	17	3.9	4.4	10 J

MW-008				
Date	8/12/2008	10/13/2010	5/7/2012	5/7/2013
PCE	140 D	130 D	110	85
TCE	11	15	8.2	8.2
CIS	62	54	38	42 J

ATMW-009		
Date	8/14/2008	5/7/2013
PCE	4.9	2.1
TCE	26	3
CIS	290 D	2.4 J

ATGW-002/002A		
Date	11/10/2006	5/9/2013
PCE	2100	12 J
TCE	190 J	2.1 J
CIS	250 J	1

MW-010				
Date	8/13/2008	10/14/2010	5/7/2012	5/7/2013
PCE	370 DJ	370 D	380 D	270
TCE	3.5	3.7	2.2	2.2
CIS	8.5	8.6	6.3	5.9 J

ATGW-026/026A		
Date	11/17/2006	5/8/2013
PCE	4300 D	730
TCE	200	36
CIS	16	63 J

ATGW-045/045A		
Date	8/28/2007	5/9/2013
PCE	900 D	670
TCE	100 D	61
CIS	91 D	47

MW-003				
Date	8/13/2008	10/14/2010	5/7/2012	5/7/2013
PCE	66	49	51	46
TCE	8.6	5.5	3.9	4.7
CIS	31	14	10	14 J

GW-014				
Date	8/13/2008	10/14/2010	5/7/2012	5/8/2013
PCE	1.8	1	ND	0.15 J
TCE	ND	ND	ND	0.29 J
CIS	ND	ND	0.81 J	2

MW-011				
Date	8/14/2008	10/14/2010	5/7/2012	5/6/2013
PCE	ND	370 D	380 D	0.15 J
TCE	1.4	3.7	2.2	1.4
CIS	0.58 J	8.6	6.3	ND

ATGW-046/046A		
Date	8/29/2007	5/8/2013
PCE	470 DJ	27
TCE	82 J	6.6
CIS	81 J	14 J

ATGW-043/043A		
Date	8/28/2007	5/8/2013
PCE	850 DJ	940
TCE	76 J	54 J
CIS	11 J	79 J

Legend

- Monitoring Well (Diamond Cleaners Site)
- Monitoring Well (Associated Textiles Site)
- Direct Push Soil Boring
- Destroyed Monitoring Well
- Diamond Cleaners Property
- Former ATRS Property

Note: Chemung County color digital orthoimagery (2010) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

N

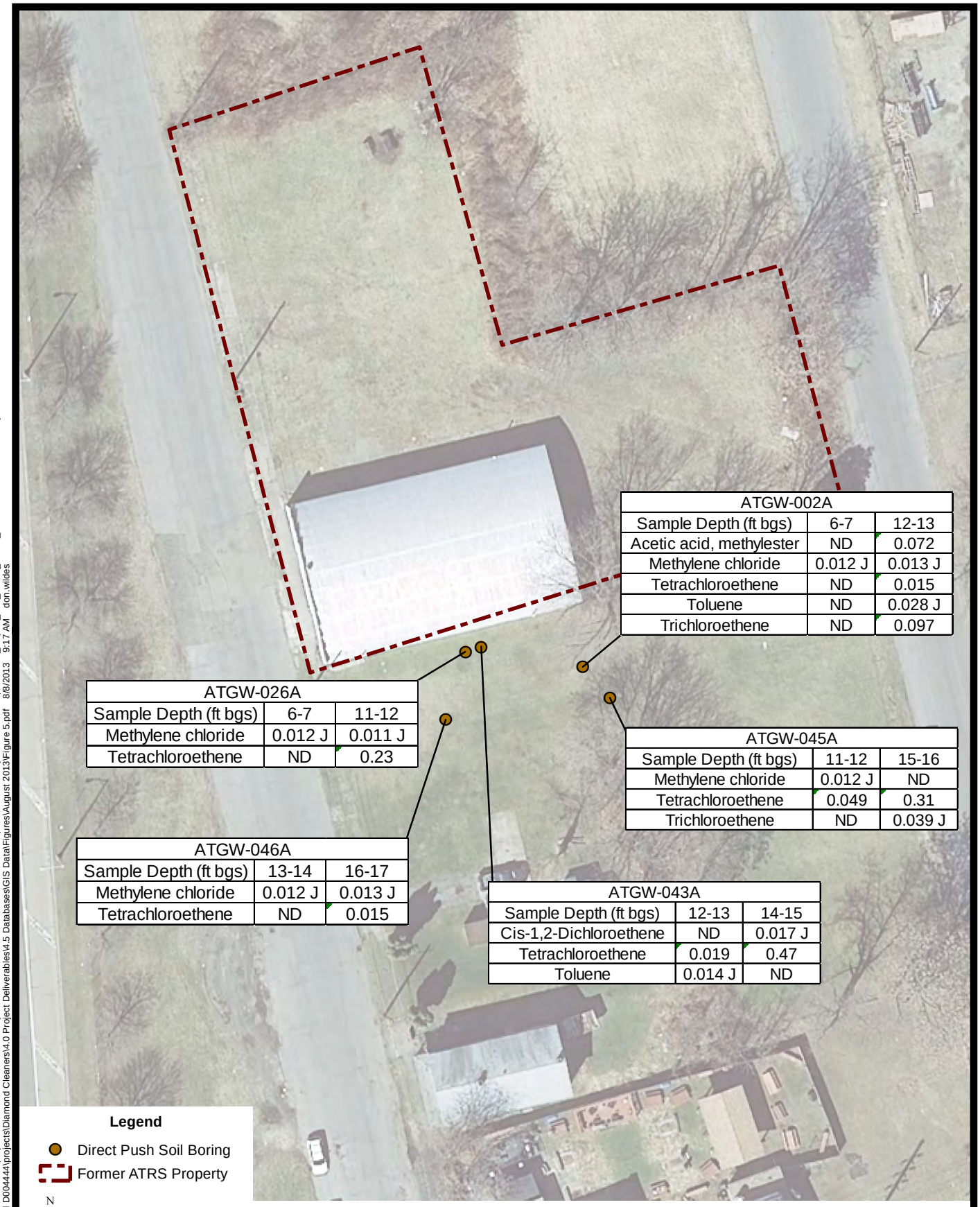
0 35 70 Feet

Prepared/Date: BRP 07/31/13
Checked/Date: LJB 07/31/13

NYSDEC
FORMER DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

MACTEC

Maximum PCE, TCE and Cis-1,2-DCE Detections in Groundwater – 2006 to 2013
Project 3612112209 Figure 4



ATGW-002A		
Sample Depth (ft bgs)	6-7	12-13
Acetic acid, methylester	ND	0.072
Methylene chloride	0.012 J	0.013 J
Tetrachloroethene	ND	0.015
Toluene	ND	0.028 J
Trichloroethene	ND	0.097

ATGW-026A		
Sample Depth (ft bgs)	6-7	11-12
Methylene chloride	0.012 J	0.011 J
Tetrachloroethene	ND	0.23

ATGW-045A		
Sample Depth (ft bgs)	11-12	15-16
Methylene chloride	0.012 J	ND
Tetrachloroethene	0.049	0.31
Trichloroethene	ND	0.039 J

ATGW-046A		
Sample Depth (ft bgs)	13-14	16-17
Methylene chloride	0.012 J	0.013 J
Tetrachloroethene	ND	0.015

ATGW-043A		
Sample Depth (ft bgs)	12-13	14-15
Cis-1,2-Dichloroethene	ND	0.017 J
Tetrachloroethene	0.019	0.47
Toluene	0.014 J	ND

Legend

Direct Push Soil Boring

Former ATRS Property

N

0 25 50 Feet

Note: Chemung County color digital orthoimagery (2010) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: DBW 08/08/13
Checked/Date: LJB 08/08/13

NYSDEC
FORMER DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

MACTEC

Soil Borings with VOC Data

Project 3612112209 Figure 5

Table 1: Analytical Data Summary - Groundwater

	Location	GW-002		GW-013		GW-014		MW-001		MW-002		MW-003	
	Sample Date	5/7/2013		5/8/2013		5/8/2013		5/7/2013		5/8/2013		5/7/2013	
	Sample ID	DCGW00212013XX		DCGW01312013XX		DCGW01413013XX		DCMW00112013XX		DCMW00212013XX		DCMW00312013XX	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	**0.12**	J	1	U	1	U	1	U	**0.087**	J	**0.11**	J
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	**3.4**		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	**0.44**	J	1	U
1,2-Dichloroethane	0.6	1	U	1	U	1	U	1	U	**2.1**		1	U
1,3-Dichlorobenzene	3	1	U	1	UJ	1	UJ	1	U	1	U	1	U
1,4-Dichlorobenzene	3	1	U	1	UJ	1	UJ	1	U	1	U	1	U
2-Butanone	50	5	UJ	5	UJ	5	UJ	5	UJ	**11**	J	5	UJ
Acetone	50	5	UJ	**13**	J	5	UJ	5	UJ	**2.8**	J	5	UJ
Benzene	1	1	U	**0.15**	J	1	U	1	U	**0.17**	J	1	U
Bromoform	50	1	U	1	UJ	1	UJ	1	U	1	U	1	U
Bromomethane	5	1	U	1	UJ	1	UJ	1	U	**0.25**	J	1	U
Carbon disulfide	60	1	U	**0.42**	J	**0.31**	J	1	U	1	U	1	U
Chlorodibromomethane	50	1	U	1	UJ	1	UJ	1	U	**89**		1	U
Chloroethane	5	1	U	1	U	1	U	1	U	**0.41**	J	1	U
Chloroform	7	1	U	1	U	1	U	1	U	**0.11**	J	**0.28**	J
Chloromethane	5	1	U	1	U	1	U	1	U	**0.19**	J	1	U
Cis-1,2-Dichloroethene	5	**1.7**	J	1	U	**2**		**2.4**	J	**220**	J	**14**	J
Cyclohexane		1	UJ	1	U	1	U	1	UJ	1	UJ	1	UJ
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
Methyl cyclohexane		1	U	1	U	1	U	1	U	**0.18**	J	1	U
Methyl Tertbutyl Ether		1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**130**		1	U	**0.15**	J	**7.4**		**100**		**46**	
Toluene	5	1	U	**0.27**	J	**0.18**	J	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	UJ	1	U	1	U	1	UJ	**0.99**	J	1	UJ
Trichloroethene	5	**4.9**		1	U	**0.29**	J	**3.2**		**16**		**4.7**	
Vinyl chloride	2	1	U	1	U	1	U	1	U	**0.93**	J	1	U
Xylenes, Total	5	3	U	3	U	3	U	3	U	3	U	3	U

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
FS = Field Sample; FD = Field Duplicate

Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
Qualifiers:
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J = Estimated value
H = Exceeded method hold time

Table 1: Analytical Data Summary - Groundwater

	Location	MW-004		MW-004		MW-006		MW-007		MW-008		MW-009	
	Sample Date	5/8/2013		5/8/2013		5/7/2013		5/7/2013		5/7/2013		5/7/2013	
	Sample ID	DCMW00412013XD		DCMW00412013XX		DCMW00612013XX		DCMW00712013XX		DCMW00812013XX		DCMW00912013XX	
	Qc Code	FD		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	5	U	5	U	1	U	1	U	1	U	**0.12**	J
1,1,2-Trichloroethane	1	5	U	5	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	5	U	5	U	**0.25**	J	1	U	1	U	1	U
1,1-Dichloroethene	5	5	U	5	U	1	U	**0.31**	J	1	U	**0.19**	J
1,2-Dichloroethane	0.6	5	U	5	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	3	5	U	5	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	3	5	U	5	U	1	U	1	U	1	U	1	U
2-Butanone	50	25	UJ	25	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Acetone	50	25	UJ	25	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzene	1	5	U	5	U	1	U	**0.1**	J	1	U	**0.099**	J
Bromoform	50	5	UJ	5	UJ	1	UJ	1	U	1	U	1	UJ
Bromomethane	5	5	U	5	U	1	U	1	U	1	U	1	U
Carbon disulfide	60	5	U	5	U	1	U	1	U	1	U	1	U
Chlorodibromomethane	50	5	U	5	U	1	U	1	U	1	U	1	U
Chloroethane	5	5	U	5	U	1	U	1	U	1	U	1	U
Chloroform	7	5	U	5	U	1	U	1	U	**0.17**	J	1	U
Chloromethane	5	5	U	5	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**9.4**	J	**10**	J	**13**	J	**130**	J	**42**	J	**150**	J
Cyclohexane		5	UJ	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ
Ethyl benzene	5	5	U	5	U	1	U	1	U	1	U	1	U
Isopropylbenzene	5	5	U	5	U	1	U	1	U	1	U	1	U
Methyl cyclohexane		5	UJ	5	UJ	1	UJ	1	U	1	U	1	UJ
Methyl Tertbutyl Ether		5	U	5	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**620**		**660**		**0.11**	J	**190**		**85**		**50**	
Toluene	5	5	U	5	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	5	UJ	5	UJ	1	UJ	**0.74**	J	**0.33**	J	**0.81**	J
Trichloroethene	5	**4.4**	J	**3.7**	J	**0.39**	J	**29**		**8.2**		**11**	
Vinyl chloride	2	5	U	5	U	**0.21**	J	**1.1**		**0.59**	J	**0.15**	J
Xylenes, Total	5	15	U	15	U	3	U	3	U	3	U	3	U

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
FS = Field Sample; FD = Field Duplicate

Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
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H = Exceeded method hold time

Table 1: Analytical Data Summary - Groundwater

	Location	MW-010		MW-011		MW-012		MW-013		MW-014		MW-015	
	Sample Date	5/7/2013		5/6/2013		5/8/2013		5/8/2013		5/8/2013		5/8/2013	
	Sample ID	DCMW01012013XX		DCMW01112013XX		DCMW1212013XX		DCMW1312013XX		DCMW1412013XX		DCMW1512013XX	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	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-Dichloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	5	1	U	1	U	**0.12**	J	**0.6**	J	1	U	1	U
1,2-Dichloroethane	0.6	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	UJ	5	UJ	5	UJ	5	UJ	5	U	5	U
Acetone	50	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzene	1	1	U	1	U	**0.084**	J	**0.13**	J	1	U	1	U
Bromoform	50	1	U	1	UJ	1	U	1	UJ	1	U	1	U
Bromomethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60	1	U	1	U	1	U	1	U	1	U	1	U
Chlorodibromomethane	50	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	**0.18**	J	1	U	1	U	1	U	1	U	1	U
Chloromethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**5.9**	J	1	UJ	**81**	J	**270**	J	**92**		1	U
Cyclohexane		1	UJ	1	UJ	1	UJ	1	UJ	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
Methyl cyclohexane		1	U	1	UJ	1	U	1	UJ	1	U	1	U
Methyl Tertbutyl Ether		1	U	**1.3**		1	U	1	U	1	U	1	U
Tetrachloroethene	5	**270**		**0.15**	J	**200**		**250**		**150**		1	U
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	UJ	1	UJ	**0.55**	J	**1.5**	J	**0.76**	J	1	U
Trichloroethene	5	**2.2**		**1.4**		**24**		**54**		**19**		1	U
Vinyl chloride	2	1	U	1	U	1	U	**2.2**		**2.1**		1	U
Xylenes, Total	5	3	U	3	U	3	U	3	U	3	U	3	U

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
FS = Field Sample; FD = Field Duplicate

Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
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Qualifiers:
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H = Exceeded method hold time

Table 1: Analytical Data Summary - Groundwater

	Location	MW-016		MW-017		MW-018		MW-019		MW-020		MW-021	
	Sample Date	5/9/2013		5/9/2013		5/9/2013		5/9/2013		5/9/2013		5/9/2013	
	Sample ID	DCMW1612013XX		DCMW1712013XX		DCMW1812013XX		DCMW1912013XX		DCMW2012013XX		DCMW2112013XX	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	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-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-Dichloroethane	0.6	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	**18**	
Acetone	50	5	UJ	5	UJ	5	UJ	**36**	J	5	UJ	**440**	J
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	50	1	U	1	U	1	U	1	U	1	U	**4**	
Bromomethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60	1	U	1	U	1	U	1	U	1	U	1	U
Chlorodibromomethane	50	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	**0.68**	J
Chloromethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	**2.7**		**8.1**		**84**		**2**		**100**		1	U
Cyclohexane		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
Methyl cyclohexane		1	U	1	U	1	U	1	U	1	U	1	U
Methyl Tertbutyl Ether		1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5	**250**		**67**		**110**		**1.2**		**2**		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	**0.38**	J	1	U	1	U	1	U
Trichloroethene	5	**7.8**		**11**		**9.6**		1	U	**1.1**		1	U
Vinyl chloride	2	1	U	**0.54**	J	**1.4**		1	U	**6.2**		1	U
Xylenes, Total	5	3	U	3	U	3	U	3	U	3	U	3	U

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
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Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
Qualifiers:
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H = Exceeded method hold time

Table 1: Analytical Data Summary - Groundwater

	Location	MW-022		MW-023		ATGW-002A		ATGW-002A		ATGW-026A		ATGW-043A	
	Sample Date	5/9/2013		5/9/2013		5/9/2013		5/9/2013		5/8/2013		5/8/2013	
	Sample ID	DCMW2212013XX		DCMW2312013XX		ATGW00212013XD		ATGW00212013XX		ATGW02612013XX		ATGW04312013XX	
	Qc Code	FS		FS		FD		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	5	U	10	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	5	U	10	U
1,1-Dichloroethane	5	1	U	1	U	1	U	1	U	5	U	10	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	5	U	10	U
1,2-Dichloroethane	0.6	1	U	1	U	1	UJ	**2**	J	5	U	10	U
1,3-Dichlorobenzene	3	1	U	1	U	1	U	1	U	5	U	10	UJ
1,4-Dichlorobenzene	3	1	U	1	U	1	U	1	U	5	U	10	UJ
2-Butanone	50	5	U	5	U	5	U	5	U	25	UJ	50	UJ
Acetone	50	5	UJ	5	UJ	5	UJ	5	UJ	25	UJ	50	UJ
Benzene	1	1	U	1	U	1	U	**0.21**	J	5	U	10	U
Bromoform	50	1	U	1	U	1	U	1	U	5	UJ	10	UJ
Bromomethane	5	1	U	1	U	1	U	1	U	5	U	10	UJ
Carbon disulfide	60	1	U	1	U	1	U	1	U	5	U	**2.7**	J
Chlorodibromomethane	50	1	U	1	U	1	U	1	U	5	U	10	UJ
Chloroethane	5	1	U	1	U	1	U	1	U	5	U	10	U
Chloroform	7	1	U	1	U	1	U	1	U	5	U	10	U
Chloromethane	5	1	U	1	U	1	U	1	U	5	U	10	U
Cis-1,2-Dichloroethene	5	**12**		1	U	1	U	**1**		**63**	J	**79**	J
Cyclohexane		1	U	1	U	1	U	1	U	5	UJ	10	U
Ethyl benzene	5	1	U	1	U	1	U	1	U	5	U	10	U
Isopropylbenzene	5	**1.4**		1	U	1	U	1	U	5	U	10	U
Methyl cyclohexane		1	U	1	U	1	U	1	U	5	UJ	10	U
Methyl Tertbutyl Ether		1	U	1	U	1	U	1	U	5	U	10	U
Tetrachloroethene	5	**65**		**1**		**4.5**	J	**12**	J	**730**		**940**	
Toluene	5	1	U	1	U	1	U	1	U	**2**	J	10	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	5	UJ	10	U
Trichloroethene	5	**3**		1	U	**0.97**	J	**2.1**	J	**36**		**54**	J
Vinyl chloride	2	**2**		1	U	1	U	1	U	5	U	10	U
Xylenes, Total	5	3	U	3	U	3	U	3	U	15	U	30	U

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
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Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
Qualifiers:
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H = Exceeded method hold time

Table 1: Analytical Data Summary - Groundwater

	Location	ATGW-045A		ATGW-046A		ATMW-001		ATMW-001R		ATMW-002		ATMW-003	
	Sample Date	5/9/2013		5/8/2013		5/7/2013		5/7/2013		5/6/2013		5/6/2013	
	Sample ID	ATGW04512013XX		ATGW04612013XX		ATMW00112013XX		ATMW001R12013XX		ATMW00212013XX		ATMW00312013XX	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	5	U	**0.34**	J	1	U	1	U	5	U	1	U
1,1,2-Trichloroethane	1	5	U	1	U	1	U	1	U	5	U	1	U
1,1-Dichloroethane	5	5	U	1	U	1	U	1	U	5	U	1	U
1,1-Dichloroethene	5	5	U	1	U	1	U	1	U	5	U	1	U
1,2-Dichloroethane	0.6	5	U	1	U	1	U	1	U	5	U	1	U
1,3-Dichlorobenzene	3	5	U	1	U	1	U	1	UJ	5	U	1	U
1,4-Dichlorobenzene	3	5	U	1	U	1	U	1	UJ	5	U	1	U
2-Butanone	50	25	U	5	UJ	5	UJ	5	UJ	25	UJ	5	UJ
Acetone	50	**37**	J	**6**	J	5	UJ	5	UJ	25	UJ	5	UJ
Benzene	1	5	U	**0.33**	J	**25**		**8.8**		**920**		1	U
Bromoform	50	5	U	1	UJ	1	UJ	1	UJ	5	UJ	1	UJ
Bromomethane	5	5	U	1	U	1	UJ	1	UJ	5	U	1	U
Carbon disulfide	60	5	U	**0.18**	J	1	U	**0.15**	J	5	U	1	U
Chlorodibromomethane	50	5	U	1	U	1	U	1	UJ	5	U	1	U
Chloroethane	5	5	U	1	U	1	U	1	U	5	U	1	U
Chloroform	7	5	U	1	U	1	U	1	U	5	U	**0.44**	J
Chloromethane	5	5	U	1	U	1	U	1	U	5	U	1	U
Cis-1,2-Dichloroethene	5	**47**		**14**	J	1	UJ	1	U	5	UJ	1	UJ
Cyclohexane		5	U	1	UJ	**52**	J	**14**	J	**85**	J	1	UJ
Ethyl benzene	5	5	U	1	U	**130**		**27**		**370**		1	U
Isopropylbenzene	5	5	U	1	U	**15**		**2**		**19**		1	U
Methyl cyclohexane		5	U	1	UJ	**18**	J	**8.9**		**60**	J	1	UJ
Methyl Tertbutyl Ether		5	U	**0.88**	J	**5.3**		**3**		**7**		1	U
Tetrachloroethene	5	**670**		**27**		1	U	1	U	**2.9**	J	1	U
Toluene	5	5	U	**0.38**	J	**37**		**9.8**		**160**		1	U
trans-1,2-Dichloroethene	5	5	U	1	UJ	1	UJ	1	U	5	UJ	1	UJ
Trichloroethene	5	**61**		**6.6**		1	U	1	U	5	U	**0.11**	J
Vinyl chloride	2	5	U	1	U	1	U	1	U	5	U	1	U
Xylenes, Total	5	15	U	3	U	**140**		**27**		**660**		3	U

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
FS = Field Sample; FD = Field Duplicate

Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
Qualifiers:
U = Not detected above reporting limit
J = Estimated value
H = Exceeded method hold time

Table 1: Analytical Data Summary - Groundwater

	Location	ATMW-004		ATMW-005		ATMW-006		ATMW-007		ATMW-008		ATMW-009	
	Sample Date	5/7/2013		5/6/2013		5/6/2013		5/6/2013		5/7/2013		5/7/2013	
	Sample ID	ATMW00412013XX		ATMW00512013XX		ATMW00612013XX		ATMW00712013XX		ATMW00812013XX		ATMW00912013XX	
	Qc Code	FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	1	U	1	U	1	U	1	U	**47**		1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	1	U	1	U	**0.15**	J	1	U	**1.5**		1	U
1,1-Dichloroethene	5	1	U	1	U	1	U	1	U	**0.55**	J	1	U
1,2-Dichloroethane	0.6	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	3	1	U	1	U	**0.43**	J	1	U	1	U	1	U
1,4-Dichlorobenzene	3	1	U	1	U	**1.4**		1	U	1	U	1	U
2-Butanone	50	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Acetone	50	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzene	1	**80**		1	U	**0.11**	J	**0.11**	J	1	U	**0.13**	J
Bromoform	50	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	U
Bromomethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	60	1	U	1	U	1	U	1	U	1	U	1	U
Chlorodibromomethane	50	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	**0.12**	J	1	U
Chloromethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	5	1	UJ	1	UJ	1	UJ	**0.55**	J	**12**	J	**2.4**	J
Cyclohexane		**170**	JH	1	UJ	1	UJ	**0.63**	J	1	UJ	**12**	J
Ethyl benzene	5	**47**		1	U	1	U	1	U	1	U	**11**	
Isopropylbenzene	5	**14**		1	U	**0.1**	J	1	U	1	U	**2.2**	
Methyl cyclohexane		**100**	J	1	UJ	1	UJ	1	UJ	1	UJ	**3.3**	
Methyl Tertbutyl Ether		1	U	**0.14**	J	1	U	**3.9**		**2**		**3.5**	
Tetrachloroethene	5	**0.26**	J	1	U	1	U	1	U	**1.5**		**2.1**	
Toluene	5	**11**		1	U	1	U	1	U	1	U	**1.5**	
trans-1,2-Dichloroethene	5	1	UJ	1	UJ	**0.23**	J	1	UJ	**0.13**	J	1	UJ
Trichloroethene	5	**0.81**	J	1	U	1	U	1	U	**33**		**3**	
Vinyl chloride	2	1	U	1	U	1	U	1	U	**0.58**	J	1	U
Xylenes, Total	5	**13**		3	U	3	U	3	U	3	U	**25**	

Notes:
Samples analyzed for VOCs by SW846 8260
QC Code:
FS = Field Sample; FD = Field Duplicate

Criteria = Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2008).
Only detected compounds shown.
Detections are indicated in **BOLD**
Highlighted results exceed criteria
Qualifiers:
U = Not detected above reporting limit
J = Estimated value
H = Exceeded method hold time

Table 2: Monitoring Well and Groundwater Elevation Data

Site	Location ID	Northing	Easting	Casing Elevation	Measuring Point Elevation	Installation Date	Screen Length	Well Depth (ft BMP) (May 2013)	Depth to Water (BMP) (May 2013)	Water Elevation (May 2013)
Associated Textile	ATMW-001	764548.87	759502.73	856.98	856.72	Unknown	Unknown	18.9	14.82	841.90
Associated Textile	ATMW-001R	764555.81	759507.05	856.85	856.41	Unknown	Unknown	19.7	14.38	842.03
Associated Textile	ATMW-002	764589.62	759493.77	857.04	856.41	Unknown	Unknown	18.8	14.30	842.11
Associated Textile	ATMW-003	764566.98	759541.70	856.85	856.54	Unknown	Unknown	19.9	14.61	841.93
Associated Textile	ATMW-004	764598.80	759569.38	856.96	856.58	Unknown	Unknown	17.7	14.69	841.89
Associated Textile	ATMW-005	764600.99	759417.90	856.02	855.59	Unknown	Unknown	19.5	13.62	841.97
Associated Textile	ATMW-006	764525.40	759423.11	856.34	855.84	Unknown	Unknown	19.0	13.88	841.96
Associated Textile	ATMW-007	764667.29	759544.45	856.82	856.26	Unknown	Unknown	19.2	14.32	841.94
Associated Textile	ATMW-008	764596.84	759655.03	856.41	856.10	Unknown	Unknown	19.1	14.20	841.90
Associated Textile	ATMW-009	764482.61	759530.17	856.70	856.45	Unknown	Unknown	19.5	14.61	841.84
Diamond Cleaners	GW-002	764781.61	760041.85	855.91	855.47	6/27/2005	10	19.3	12.91	842.56
Diamond Cleaners	GW-013	764563.66	760228.71	854.46	854.05	6/27/2005	10	NM	NM	NC
Diamond Cleaners	GW-014	764451.76	760160.74	854.20	853.79	6/27/2005	10	14.8	10.63	843.16
Diamond Cleaners	MW-001	764837.05	759991.92	855.59	854.64	10/3/2005	10	23.5	12.10	842.54
Diamond Cleaners	MW-002	764735.59	759865.46	855.02	854.57	10/4/2005	10	24.1	12.22	842.35
Diamond Cleaners	MW-003	764468.08	760027.58	854.19	853.81	10/4/2005	10	24.0	11.45	842.36
Diamond Cleaners	MW-004	764548.73	759920.06	854.18	853.90	10/5/2005	10	21.2	11.58	842.32
Diamond Cleaners	MW-006	764873.30	760175.71	852.71	852.25	7/22/2008	10	19.5	9.44	842.81
Diamond Cleaners	MW-007	764786.09	759925.09	855.08	854.58	7/23/2008	10	22.0	12.10	842.48
Diamond Cleaners	MW-008	764597.74	759983.96	854.50	853.97	7/23/2008	10	22.0	11.49	842.48
Diamond Cleaners	MW-009	764663.53	759674.17	854.28	853.71	7/21/2008	10	20.8	11.80	841.91
Diamond Cleaners	MW-010	764533.08	759834.54	854.69	854.15	7/22/2008	10	21.7	12.35	841.80
Diamond Cleaners	MW-011	764384.59	759471.21	856.39	855.89	7/21/2008	10	22.0	14.41	841.48
Diamond Cleaners	MW-012	764814.90	759919.90	855.16	854.32	8/29/2012	10	21.3	11.97	842.35
Diamond Cleaners	MW-013	764814.00	759915.80	855.04	854.62	8/29/2012	5	28.8	12.29	842.33
Diamond Cleaners	MW-014	764743.70	759961.40	855.23	854.93	8/29/2012	10	21.5	12.50	842.43
Diamond Cleaners	MW-015	764747.80	759959.80	855.27	854.83	8/30/2012	5	28.9	12.40	842.43
Diamond Cleaners	MW-016	764767.70	760022.20	855.61	855.23	8/30/2012	10	22.0	12.69	842.54
Diamond Cleaners	MW-017	764771.20	760020.70	855.78	855.55	8/30/2012	5	29.2	13.07	842.48
Diamond Cleaners	MW-018	764721.90	760001.00	855.00	854.80	9/5/2012	10	22.0	12.34	842.46
Diamond Cleaners	MW-019	764718.10	760002.10	854.98	854.79	9/5/2012	5	29.1	12.15	842.64
Diamond Cleaners	MW-020	764708.90	760050.60	855.02	854.64	9/5/2012	10	22.0	12.15	842.49
Diamond Cleaners	MW-021	764705.50	760051.00	854.99	864.66	9/6/2012	5	29.4	12.16	852.50
Diamond Cleaners	MW-022	764692.00	760102.50	854.69	854.37	9/6/2012	10	22.0	11.83	842.54
Diamond Cleaners	MW-023	764690.00	760100.00	854.69	854.39	9/6/2012	5	29.6	11.95	842.44

Notes:

Horizontal locations are tied to the New York State Plane Coordinate System using NAD of 1983. Vertical elevations were tied to msl, NAVD of 1988.

BMP - Below Measuring Point
NM = Not Measured.
NC = Not Calculated

Table 3: Analytical Data Summary - Soil

	Location	ATGW-002A		ATGW-002A		ATGW-026A		ATGW-026A		ATGW-026A		ATGW-043A	
	Sample Date	5/9/2013		5/9/2013		5/8/2013		5/8/2013		5/8/2013		5/8/2013	
	Sample ID	ATGW002072013XX		ATGW002132013XX		ATGW026072013XX		ATGW026072013XD		ATGW026122013XX		ATGW043132013XX	
	Sample Depth (ft bgs)	6-7		12-13		6-7		6-7		11-12		12-13	
	Qc Code	FS		FS		FS		FD		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Acetic acid, methyl ester		0.047	U	**0.072**		0.052	U	0.053	U	0.052	U	0.045	U
Cis-1,2-Dichloroethene	0.25	0.047	U	0.067	U	0.052	U	0.053	U	0.052	U	0.045	U
Methylene chloride	0.05	0.047	U	**0.016**	J	**0.012**	J	0.053	U	**0.011**	J	0.045	U
Tetrachloroethene	1.3	0.047	U	**0.058**	J	0.052	U	0.053	U	**0.23**		**0.19**	
Toluene	0.7	0.047	U	**0.028**	J	0.052	U	0.053	U	0.052	U	**0.014**	J
Trichloroethene	0.47	0.047	U	**0.097**		0.052	U	0.053	U	0.052	U	0.045	U

Notes:
Results in milligrams per kilogram (mg/Kg)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample; FD = Field Duplicate
Qualifiers:
U = Not detected above the reporting limit
J = Estimated value
Criteria = Soil Cleanup Objective for Protection of
Groundwater Use Scenarios - 6 NYCRR Part 375-6.8
Detections are indicated in **BOLD**

Table 3: Analytical Data Summary - Soil

	Location	ATGW-043A		ATGW-045A		ATGW-045A		ATGW-046A		ATGW-046A	
	Sample Date	5/8/2013		5/9/2013		5/9/2013		5/8/2013		5/8/2013	
	Sample ID	ATGW043152013XX		ATGW045122013XX		ATGW045162013XX		ATGW046142013XX		ATGW046172013XX	
	Sample Depth (ft bgs)	14-15		11-12		15-16		13-14		16-17	
	Qc Code	FS		FS		FS		FS		FS	
Parameter	**Criteria**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Acetic acid, methyl ester		0.051	U	0.043	U	0.059	U	0.046	U	0.054	U
Cis-1,2-Dichloroethene	0.25	**0.017**	J	0.043	U	0.059	U	0.046	U	0.054	U
Methylene chloride	0.05	0.051	U	**0.012**	J	0.059	U	**0.012**	J	**0.013**	J
Tetrachloroethene	1.3	**0.47**		**0.049**		**0.31**		0.046	U	**0.15**	
Toluene	0.7	0.051	U	0.043	U	0.059	U	0.046	U	0.054	U
Trichloroethene	0.47	0.051	U	0.043	U	**0.039**	J	0.046	U	0.054	U

Notes:
Results in milligrams per kilogram (mg/Kg)
Only detected compounds shown.
Samples analyzed for VOCs by EPA Method 8260B
ft bgs = feet below ground surface
QC Code:
FS = Field Sample; FD = Field Duplicate
Qualifiers:
U = Not detected above the reporting limit
J = Estimated value
Criteria = Soil Cleanup Objective for Protection of
Groundwater Use Scenarios - 6 NYCRR Part 375-6.8
Detections are indicated in **BOLD**

ATTACHMENT 1

FIELD DATA RECORDS

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-12	DATE: 5-8-13
PROJECT NUMBER: 3612112209.02		START TIME: 12:25	END TIME: 13:30
SAMPLE ID: DCMW12-12013XX	SAMPLE TIME: 13:25	SITE NAME/NUMBER: —	PAGE 1 OF 1

WELL DIAMETER (INCHES) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER ______

TUBING ID (INCHES) ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER ______

MEASUREMENT POINT (MP) ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER ______

WELL INTEGRITY	YES	NO	N/A
CAP	✓	—	—
CASING	✓	—	—
LOCKED	✓	—	—
COLLAR	✓	—	—

INITIAL DTW (BMP)	11.97 FT	FINAL DTW (BMP)	11.99 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	~0.85 FT
WELL DEPTH (BMP)	21.25 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.28 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.0033 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.52 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.7 GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
12:35	BEGIN PURGING @ 210 mL/min.									
12:40	11.99	210	12.19	0.989	7.23	2.56	52.8	90.1	3' off bottom	
12:45	11.99	210	12.20	0.989	7.18	1.79	39.1	87.9	—	
12:55	11.99	200	12.13	1.002	7.16	1.26	43.2	79.6	—	
13:00	11.99	200	12.17	1.007	7.16	1.36	20.6	77.9	—	
13:10	11.99	200	12.17	1.088	7.16	1.14	19.3	74.2		
13:13	11.99	200	12.10	1.012	7.15	1.15	16.5	76.0		13:13 time
13:18	11.99	200	12.07	1.016	7.16	1.11	13.5	73.5		
13:21	11.99	230	11.95	1.021	7.16	1.04	11.9	71.3		
13:24	11.99	230	11.97	1.020	7.16	1.02	11.3	70.9		
13:25	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

		TEMP.	SP. COND.	pH	DO	TURB.	REDOX
		12	1.02	7.2	1.0	11.3	71

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOCs	8260B	N	HCL 4oC	3X40ml	Y	—	—

PURGE OBSERVATIONS

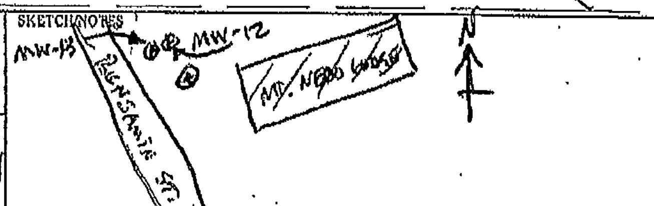
PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NUMBER OF GALLONS GENERATED: ~2.7

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

If yes, purged approximately 1 standing volume prior to sampling or ______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas B. Tingley

Checked By: [signature] Date: 5/22/13

MACTEC

511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-13	DATE: 5-8-13
PROJECT NUMBER: 36121132209.02		START TIME: 13:50	END TIME: 14:40
SAMPLE ID: DCMW13132013XX	SAMPLE TIME: 14:30	SITE NAME/NUMBER: ←	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.29 FT	FINAL DTW (BMP)	12.31 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.4 FT
WELL DEPTH (BMP)	28.8 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	16.51 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.003 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.71 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~1.9 GAL	DRAWDOWN/ TOTAL PURGED	0.0015	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
13:57	BEGIN PURGING @ 210 mL/min.									
14:02	12.30	210	12.77	1.223	7.06	2.50	70.6	71.2	3' up	From Bottom
14:08	12.31	210	12.67	1.230	7.05	1.13	29.1	64.7	—	
14:13	12.31	230	12.47	1.231	7.04	0.87	16.5	53.3	—	Δ RATE
14:18	12.31	230	12.52	1.231	7.04	0.75	11.4	43.6	—	
14:23	12.31	210	12.51	1.233	7.03	0.58	8.93	39.9		
14:26	12.31	210	12.62	1.232	7.02	0.56	8.21	38.9		
14:29	12.31	210	12.56	1.232	7.03	0.53	6.67	38.9		
14:30	Sample.									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	13	1.23	7.0	0.5	6.7	39

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.695)
pH: nearest tenth (ex. 5.51 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER deepurge ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. N TYPE

ANALYTICAL PARAMETERS

✓	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCl, 4°C	3X40ml	Y	—	—

PURGE OBSERVATIONS

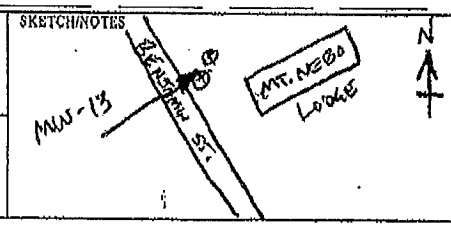
PURGE WATER CONTAINERIZED: ☑ YES ☐ NO

NO PURGE METHOD UTILIZED: ☐ YES ☑ NO

NUMBER OF GALLONS GENERATED: ~1.9

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Imbrey Print Name: Thomas D. Imbrey

Checked By: RS Date: 5/22/13

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511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-14	DATE: 5-8-13
PROJECT NUMBER: 3612-112209.02		START TIME: 14:57	END TIME: 16:20
SAMPLE ID: DC-MW14-2013XX	SAMPLE TIME: 16:15	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.50 FT	FINAL DTW (BMP)	12.52 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.3 FT
WELL DEPTH (BMP)	21.5 FT	SCREEN LENGTH (12'-22')	10 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.003 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.48 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~4.0 GAL	DRAWDOWN/ TOTAL PURGED	0.00075	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME (3-5 Minutes)	DTW (FT) (0.0-0.33 ft Drawdown)	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:04	BEGIN PURGING @ 230 mL/min.									
15:09	12.51	230	14.32	1.474	7.12	3.00	104	85.9	3' 0/6	of bottom
15:18	12.51	250	14.12	1.496	7.07	1.26	89.8	78.6	—	15:18 TIME
15:25	12.51	250	14.06	1.494	7.06	1.12	59.5	76.8	—	
15:35	12.51	250	13.98	1.500	7.07	0.76	46.7	70.9	—	
15:45	12.52	250	13.96	1.509	7.06	0.64	39.9	67.0	—	
15:55	12.52	250	14.01	1.500	7.06	0.55	20.7	66.1	—	
16:05	12.52	240	14.13	1.504	7.05	0.49	17.7	63.8	—	
16:08	12.52	240	13.99	1.511	7.05	0.48	12.5	65.5	—	
16:11	12.52	240	13.93	1.514	7.05	0.45	14.0	64.0	—	
16:15	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

14	1.51	7.1	0.5	14.0	64	

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geo pump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☑ HDPE TUBING ☐ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. — TYPE —

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCl, 4°C	3 X 40 mL	Y	—	

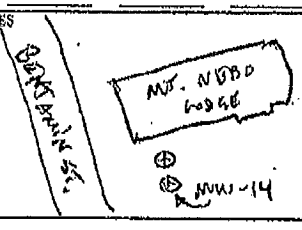
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED: ~4.0

If you purged approximately 1 standing volume prior to sampling or ____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Langley Print Name: Thomas D. Langley

Checked By: [signature] Date: 5/22/13

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511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-15	DATE: 5-8-13
PROJECT NUMBER: 36211.2209.02		START TIME: 16:20	END TIME: 16:23
SAMPLE ID: DCMW15120131XX	SAMPLE TIME: 17:15	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED			
COLLAR	✓		

INITIAL DTW (BMP)	12.40 FT	FINAL DTW (BMP)	12.61 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.46 FT
WELL DEPTH (BMP)	28.9 FT	SCREEN LENGTH (24-29)	5 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	16.5 FT	DRAWDOWN VOLUME (Initial DTW- final DTW X well diam. squared X 0.041)	0.034 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.7 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.000026 gal/mL)	~3.6 GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:29	BEGIN PURGING @ 300 mL/min									
16:36	12.62	300	14.36	1.216	7.31	5.00	487	60.1	3' off of bottom	
16:40	12.61	300	14.40	1.217	7.29	1.32	299	1.0	—	
16:50	12.61	300	14.45	1.224	7.27	0.66	99.8	-59.7	—	
17:00	12.61	300	14.42	1.224	7.27	0.51	26.8	-73.2	—	
17:05	12.61	300	14.49	1.224	7.26	0.45	17.2	-77.4		
17:08	12.61	300	14.42	1.223	7.26	0.44	16.8	-79.3		
17:11	12.61	300	14.40	1.224	7.26	0.42	12.0	-78.3		
17:15	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	14	1.22	7.3	0.4	12.0	-78

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 1333 = 1330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB.: 3 SF max, nearest tenth (0.19 = 0.2, 101 = 101)
ORP: 2 SF (45.1 = 45, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☑ OTHER Geopump
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ HDPE TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER
- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☑ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. — TYPE —

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOCs	8260 B	N	HCl, 4°C	3X40ml	Y	—	—

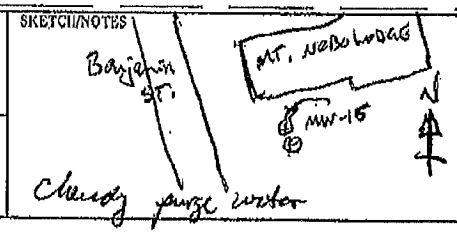
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED: ~3.6

If you purged approximately 3 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Longley

Checked By: [signature] Date: 5/22

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: MW-16
PROJECT NUMBER: 3612 1132 09.02	DATE: 5/9/13
SAMPLE ID: DCMW16120132XX	START TIME: 757
SAMPLE TIME: 838	END TIME: 838
	SITE NAME/NUMBER: —
	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☒ TOP OF CASING (TOC) TOL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

INITIAL DTW (BMP)	12.69 FT	FINAL DTW (BMP)	12.76 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	FT
WELL DEPTH (BMP)	22.0 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.31 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0011 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.5 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.000026 gal/mL)	~3.1 GAL	DRAWDOWN/ TOTAL PURGED	0.0035	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
757	BEGIN PURGING									
802	12.76	300	12.99	0.982	7.10	7.47	63.95	98.8	17.0	
807	12.76	300	12.65	0.975	7.02	6.28	58.36	97.3	17.0	
812	12.76	300	12.48	0.992	6.99	6.31	43.02	92.0	17.0	
817	12.76	300	12.44	1.005	6.97	5.70	28.61	83.8	17.0	
822	12.76	300	12.44	1.012	6.97	5.40	18.41	82.4	17.0	
827	12.76	300	12.45	1.014	6.97	5.25	16.72	79.2	17.0	
830	12.76	300	12.43	1.017	6.97	5.20	10.54	77.9	17.0	
833	12.76	300	12.43	1.017	6.98	5.18	9.93	77.3	17.0	
836	12.76	300	12.43	1.018	6.98	5.11	8.89	76.9	17.0	
	Collect	Sample	@ 838	8260						

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

12	1.02	7.0	5.1	8.9	77	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.096 = 0.096)
pH: nearest tenth (ex. 5.33 = 5.3)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☑ PUMP Geopump ☐ OTHER ☐ FILTERS NO. — TYPE —

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260	N	HCL	3x40mL	✓	N	—

PURGE OBSERVATIONS

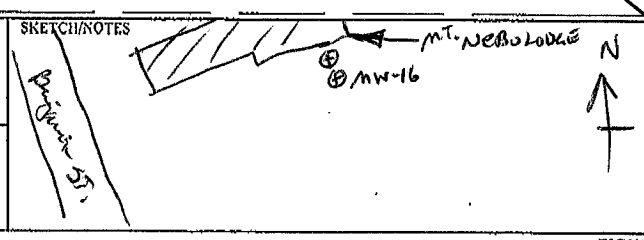
PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: 3.1

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Ryan Tolley Print Name: Ryan Tolley

Checked By: TDL Date: 5-21-13

MACTEC
511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-17	DATE: 5-9-13
PROJECT NUMBER: 3612-122209.02		START TIME: 0715	END TIME: 0820
SAMPLE ID: DCMW171 2013 XX	SAMPLE TIME: 0820	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	13.07 FT	FINAL DTW (BMP)	13.16 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.27 FT
WELL DEPTH (BMP)	29.2 FT	SCREEN LENGTH (24'-29')	5 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	16.13 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.015 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.64 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.3 GAL	DRAWDOWN/ TOTAL PURGED	0.00064	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0737	BEGIN PURGING @ 250 mL/min									
0744	13.15	250	13.47	1.161	7.05	2.66	41.4	221.9	3' up off Bottom	
0750	13.16	250	13.53	1.189	7.03	0.90	23.1	205.0	—	
0800	13.16	250	13.46	1.207	7.01	0.57	9.68	179.8	—	
0805	13.16	250	13.44	1.210	7.01	0.45	7.31	171.3	—	
0810	13.16	300	13.42	1.212	7.01	0.51	6.69	164.6		
0813	13.16	300	13.42	1.214	7.02	0.49	5.21	160.8		
0816	13.16	300	13.42	1.215	7.01	0.50	8.71	158.5		
0820	SAmple.									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	13	1.22	7.0	0.5	8.7	160

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 SF max (ex. 3333 = 3330, 0.666 = 0.666)
pH: nearest tenth (ex. 3.53 = 3.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☐ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING PUMP BLADDER MATERIALS: ☐ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☑ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

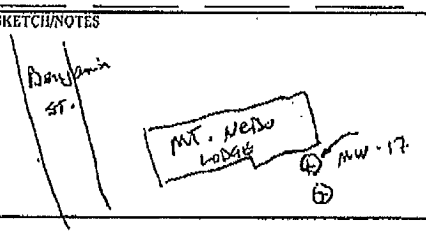
PURGE WATER CONTAINERIZED: ☑ YES ☐ NO

NO-PURGE METHOD UTILIZED: ☐ YES ☑ NO

NUMBER OF GALLONS GENERATED: ~~~2 TX~~ ~2.3 GAL

If pre-purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Loyley

Checked By: [signature] Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Diamond Cleaners
PROJECT NUMBER	3612112209-02
SAMPLE ID	DCMW1812013XX
SAMPLE TIME	0940
LOCATION ID	MW-18
DATE	5-9-13
START TIME	0830
END TIME	09:45
SITE NAME/NUMBER	—
PAGE	1 OF 1

WELL DIAMETER (INCHES) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER ______

TUBING ID (INCHES) ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER ______

MEASUREMENT POINT (MP) ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER ______

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.34 FT	FINAL DTW (BMP)	12.46 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	-0.25 FT
WELL DEPTH (BMP)	22.0 FT	SCREEN LENGTH (12'-22')	10' FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.66 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	~0.020 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.58 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~5 GAL	DRAWDOWN/ TOTAL PURGED	0.004	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O₂ (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0836	BEGIN PURGING @ 300 mL/min									
0845	12.45	300	12.57	0.839	7.10	5.00	117	142.2	3' off of bottom	
0855	12.45	300	12.46	0.870	7.07	2.81	64.4	138.2	—	
0905	12.46	300	12.46	0.906	7.06	2.13	50.5	133.8	—	
0915	12.46	300	12.50	0.941	7.07	2.10	34.5	126.8	—	
0925	12.46	300	12.51	0.946	7.07	1.34	31.4	123.8	—	
0928	12.46	300	12.55	0.949	7.07	1.21	23.8	122.6	—	
0935	12.46	300	12.52	0.957	7.07	1.00	17.2	119.6		09:35 Time
0938	12.46	300	12.53	0.960	7.07	0.95	20.0	120.2		
0940	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

TEMP.	SP. CONDUCTANCE	pH	DISS. O₂	TURBIDITY	REDOX
13	0.960	7.1	1.0	20.0	120

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3331 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☑ OTHER Geopump
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☑ HDPE TUBING
- ☐ LDPE TUBING
- ☐ OTHER
- ☐ OTHER
- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☐ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOCs	8260B	N	HCL 4°C	3 x 40ml	yes	—	—

PURGE OBSERVATIONS

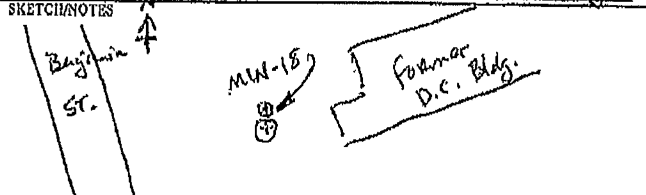
PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NUMBER OF GALLONS GENERATED: ~5 GAL.

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

If yes, purged approximately 1 standing volume prior to sampling or ______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Lingley

Checked By: [signature] Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-19	DATE: 5-9-13
PROJECT NUMBER: 362112209.02		START TIME: 0948	END TIME: —
SAMPLE ID: DCMW1912013XX	SAMPLE TIME: 13:20	SITE NAME/NUMBER: —	PAGE: 1 OF

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER —

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER —

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER —

WELL INTEGRITY

	YES	NO	N/A
CAP	✓	—	—
CASING	✓	—	—
LOCKED	✓	—	—
COLLAR	✓	—	—

INITIAL DTW (BMP)	12.15 FT	FINAL DTW (BMP)	17.65 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.3 FT
WELL DEPTH (BMP)	29.1 FT	SCREEN LENGTH (24-29)	5' FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	16.95 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	— GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.8 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	— GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0955	BEGIN PURGING @ 320 mL/min.									
10:00	15.00	320	13.44	0.886	10.45	2.24	72.3	71.7	3' up	from bottom
10:05	16.45	210	13.35	0.887	10.47	2.18	76.8	66.3	—	A speed to purge
10:08	17.17	200	13.40	0.882	10.45	2.07	66.0	62.0	—	
10:13	18.30	200	13.42	0.881	10.45	2.00	61.0	59.6	—	
10:18	19.55	200	13.52	0.874	10.41	1.94	60.5	54.3	—	
~~10:28~~	TDL								—	~~10:28 TIME~~
10:23	20.85	No Recharge occurring in this well, so pump OFF ↑								
		Sample the Rebound Water today -								
	PURGED	OFF to ~ 24' bgs. & TURN off pump @ 10:29 ↑								
10:29:30	23.7'									
13:20	17.65'	Return to Collect sample								

1.13
1.25

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

N/A	—	—	—	—	—	—

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.33 = 5.3)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ✓ PERISTALTIC; ☐ SUBMERSIBLE; ☐ BLADDER; ☐ WATTERA; ☐ OTHER Gaspump; ☐ OTHER —

DECON FLUIDS USED: ✓ LIQUINOX; ✓ DEIONIZED WATER; ☐ POTABLE WATER; ☐ NITRIC ACID; ☐ HEXANE; ☐ METHANOL; ☐ OTHER —

TUBING PUMP BLADDER MATERIALS: ✓ SILICON TUBING; ☐ TEFLON TUBING; ☐ TEFLON LINED TUBING; ☐ HDPE TUBING; ✓ LDPE TUBING; ☐ OTHER —; ☐ OTHER —

☐ S. STEEL PUMP MATERIAL; ☐ PVC PUMP MATERIAL; ☐ GEOPROBE SCREEN; ☐ TEFLON BLADDER; ☐ OTHER —; ☐ OTHER —; ☐ OTHER —

EQUIPMENT USED: ✓ WL METER —; ✓ PID —; ✓ WQ METER —; ✓ TURB. METER —; ☐ PUMP —; ☐ OTHER —; ☐ FILTERS NO. — TYPE —

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

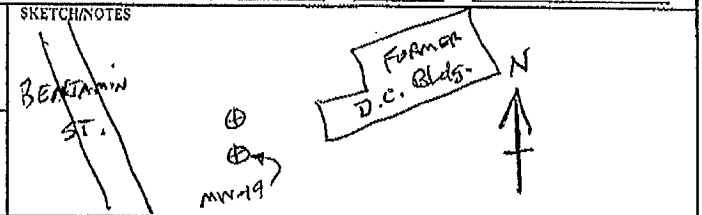
PURGE WATER CONTAINERIZED: YES ✓ NO ☐

NO-PURGE METHOD UTILIZED: YES ☐ NO ✓

NUMBER OF GALLONS GENERATED: —

If yes, purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: T.D.L. Print Name: RYAN JORREY

Checked By: Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

20.85 @ 10:23

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-20	DATE: 5-9-13
PROJECT NUMBER: 361217209.02		START TIME: 10:46	END TIME:
SAMPLE ID: DCMW20120130XX	SAMPLE TIME: 11:20	SITE NAME/NUMBER:	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.15 FT	FINAL DTW (BMP)	12.15 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.4 FT
WELL DEPTH (BMP)	22.0 FT	SCREEN LENGTH (12-22')	10 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.85 FT	DRAWDOWN VOLUME (Initial DTW - final DTW X well diam. squared X 0.041)	— GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.6 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.5 GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
10:44	BEGIN PURGING @ 200 mL/min.									
10:49	12.15	200	12.73	1.196	7.31	2.00	95.5	10.7	3' off bottom	
10:51	pump up purge rate to 280 mL/min									
10:53	12.15	300	12.34	1.200	7.20	0.56	17.6	-7.2	—	
10:58	12.15	300	12.24	1.202	7.20	0.33	13.5	-14.5	—	
11:08	12.15	300	12.41	1.203	7.20	0.21	13.2	-22.1	—	
11:11	12.15	300	12.52	1.205	7.20	0.21	10.3	-22.7	—	
11:16	12.15	300	12.59	1.206	7.20	0.21	10.7	-23	—	
11:19	12.15	300	12.62	1.206	7.20	0.19	10.4	-23.4	—	
11:20	SAMPLE									

TDL 11:13

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures(SF))

13	1.21	7.2	0.2	10.4	-23	

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 7.5 = 7.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☑ OTHER Geopump
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ HDPE TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER
- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☑ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. TYPE

ANALYTICAL PARAMETERS

☑	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOC's	~~8260B~~ 8260B	N	HCL, 4°C	3X40ml	1	—	—

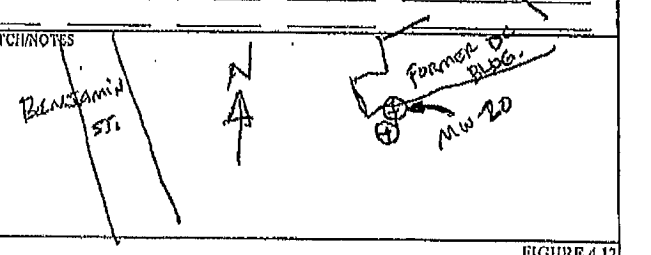
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☑	☐
NO-PURGE METHOD UTILIZED	☐	☑

NUMBER OF GALLONS GENERATED: ~2.5 Gal.

If yes, purged approximately 4 standing volumes prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: T.D. Longley Print Name: Thomas D. Longley

Checked By: RDG Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-21	DATE: 5-9-13
PROJECT NUMBER: 362122.09.02		START TIME: 11:26	END TIME:
SAMPLE ID: DCMW21120130XX	SAMPLE TIME: 12:20	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.16 FT	FINAL DTW (BMP)	12.18 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.35 FT
WELL DEPTH (BMP)	29.4 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	17.24 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.003 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.8 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~3.0 GAL	DRAWDOWN/ TOTAL PURGED		PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (Ft) 0.0-0.33 ft. Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
11:32	BEGIN PURGING @ 260 mL/min				(*) Deep purple to development water (*)					
11:43	12.18	260	13.27	2.637	7.13	3.00	25.6	614.3	4' off of bottom	
11:53	12.18	260	13.25	2.546	7.13	0.45	15.5	614.9	—	
12:03	12.18	260	13.09	2.654	7.11	0.31	11.8	635.9	—	
12:08	12.18	260	13.14	2.675	7.11	0.28	7.21	630.5	—	
12:13	12.18	260	13.07	2.601	7.12	0.25	5.99	635.8	—	
12:16	12.18	260	13.08	2.599	7.11	0.58	4.72	638.0	—	
12:20	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	2.60	7.1	0.6	4.7*	640	

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
DRDN: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☑ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER; ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	6200B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

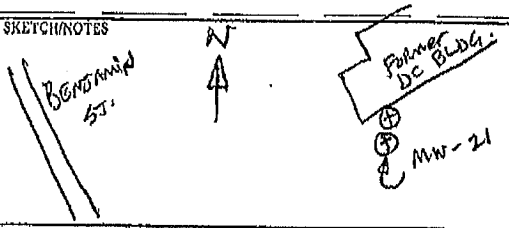
PURGE WATER CONTAINERIZED: ☑ YES ☐ NO

NO-PURGE METHOD UTILIZED: ☐ YES ☑ NO

NUMBER OF GALLONS GENERATED: ~3.0gal

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Longley Print Name: Thomas D. Longley

Checked By: [signature] Date: 5/22/13

MACTEC (*) Deep purple to development water

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-22	DATE: 5/9/13
PROJECT NUMBER: ~~DCMW22120137X~~ 361211209.02		START TIME: 1223	END TIME: 1307
SAMPLE ID: DCMW22120137XX	SAMPLE TIME: 1307	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ ~~1/8~~ ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☒ TOP OF CASING (TOC) TDL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	☒	—	—
CASING	☒	—	—
LOCKED	☒	—	—
COLLAR	☒	—	—

INITIAL DTW (BMP)	11.83 FT	FINAL DTW (BMP)	11.90 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	22 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	10.17 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	0.011 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.67 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.8 GAL	DRAWDOWN/ TOTAL PURGED	0.0039	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1224	BEGIN PURGING									
1228	11.89	250	12.29	1.194	6.83	0.75	11.78	32.6	17.0	
1233	11.89	250	12.10	1.172	6.77	0.57	6.05	34.6	17.0	
1238	11.90	250	12.00	1.067	6.77	1.02	4.52	37.9	17.0	
1243	11.90	250	11.78	1.023	6.80	1.51	1.53	35.8	17.0	
1248	11.90	250	11.91	1.009	6.77	2.10	2.11	38.6	17.0	
1253	11.90	250	11.96	0.996	6.79	1.99	1.57	42.6	17.0	
1256	11.90	250	11.27	0.997	6.80	1.77	1.48	40.6	17.0	
1259	11.90	250	11.29	0.989	6.78	1.60	1.17	44.1	17.0	
1302	11.90	250	11.53	0.985	6.80	1.62	1.50	45.5	17.0	
1305	11.90	250	11.58	0.986	6.82	1.58	0.20	42.6	17.0	
	Collect Sample @ 1307									
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])			12	0.986	6.8	1.6	0.9	43		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.1, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☒ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☐ OTHER
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING-PUMP BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ HDPE TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER
- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☐ WL METER
- ☒ PID
- ☒ WQ METER
- ☒ TURB. METER
- ☒ PUMP
- ☐ OTHER
- ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOC	8260	N	HCl	3x40mL	✓	✓	

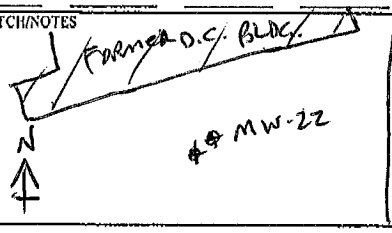
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☑	☐
NO-PURGE METHOD UTILIZED	☐	☑

NUMBER OF GALLONS GENERATED: ~2.8

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Print Name: RYAN JORREY

Checked By: TDL Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Diamond Cleaners
PROJECT NUMBER	3612112289.02
SAMPLE ID	DCMW23|2013XX
SAMPLE TIME	14:10
LOCATION ID	MW-23
DATE	5-9-13
START TIME	12:50
END TIME	14:20
SITE NAME/NUMBER	—
PAGE	1 OF 1

WELL DIAMETER (INCHES) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES) ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP) ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	11.95 FT	FINAL DTW (BMP)	20.00 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	-0.3 FT
WELL DEPTH (BMP)	29.6 FT	SCREEN LENGTH (24'-29')	5 FT	PID AMBIENT AIR	0.6 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	17.65 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	— GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.9 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	— GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/-3%)	pH (units) (+/-0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
13:01	BEGIN PURGING @ 220 mL/min									
13:10	14.75	220	12.46	0.843	7.14	2.40	36.8	575.0		
13:15	16.20	220	12.44	0.823	7.12	1.63	34.1	562.9		Δ purge rate
	well does not recharge - turn up pump after seeing ∇ drop at lowest pump setting; will sample the recharge after it comes back									
13:23	20.4	Water still drops @ 200 ml/min pump rate ; @ 180 mL/min, still drops								
13:33	Purge to 23.7' B.T.O.R. - will let rebound then sample.									
14:10	Collect sample									
14:10	20.00									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. — TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCL; 4°C	3X40mL	Y	—	—

PURGE OBSERVATIONS

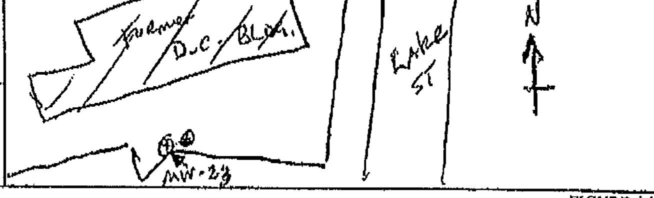
PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: ______

If yes, purged approximately 1 standing volume prior to sampling or ______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Longley

Checked By: [signature] Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: GW-002	DATE: 5/7/13
PROJECT NUMBER: 36121122009.02		START TIME: 1620	END TIME: 1650
SAMPLE ID: DCGW002120513XX	SAMPLE TIME: 1650	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): [X] 1 [ ] 3 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES): [X] 1/8 [✓] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP): [X] TOP OF RISER (TOR) [ ] ~~TOP OF CASING~~ TOC (TOC) [ ] OTHER — TDL

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	✓		
LOCKED	X		
COLLAR	X		

INITIAL DTW (BMP)	12.91 FT	FINAL DTW (BMP)	12.94 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	19.3 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	6.39 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam, squared X 0.041)	0.0012 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.26 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2 GAL	DRAWDOWN/ TOTAL PURGED	0.006	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1620	BEGIN PURGING									
1625	12.93	250	14.35	1.489	6.82	3.77	23.90	51.4	16.5	
1630	12.94	250	13.88	1.474	6.81	3.23	8.11	45.9	16.5	
1635	12.94	250	13.59	1.459	6.84	3.09	2.73	47.1	16.5	
1640	12.94	250	13.62	1.451	6.86	3.00	1.85	50.4	16.5	
1645	12.94	250	13.89	1.447	6.87	3.04	1.14	51.8	16.5	
1650	12.99	250	13.78	1.450	6.84	3.05	1.17	53.3	16.5	Collect Sample

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	14	1.45	6.8	3.1	1.2	53

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] BLADDER [ ] WATTERA [ ] OTHER [ ] OTHER

DECON FLUIDS USED: [✓] LIQUINOX [X] DEIONIZED WATER [ ] POTABLE WATER [ ] NITRIC ACID [ ] HEXANE [ ] METHANOL [ ] OTHER

TUBING/PUMP BLADDER MATERIALS: [✓] SILICON TUBING [ ] TEFLON TUBING [ ] TEFLON LINED TUBING [ ] HDPE TUBING [✓] LDPE TUBING [ ] OTHER [ ] OTHER

[ ] S. STEEL PUMP MATERIAL [ ] PVC PUMP MATERIAL [ ] GEOPROBE SCREEN [ ] TEFLON BLADDER [ ] OTHER [ ] OTHER [ ] OTHER

EQUIPMENT USED: [X] WL METER [X] PID [X] WQ METER [X] TURB. METER [X] PUMP [ ] OTHER [ ] FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260	N	HCl	3x40ml	✓	✓	—

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [✓] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [✓]

NUMBER OF GALLONS GENERATED: ~3.0

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: [signature] Print Name: Ryan Torrey

Checked By: TDL Date: 5-21-13

SKETCH/NOTES

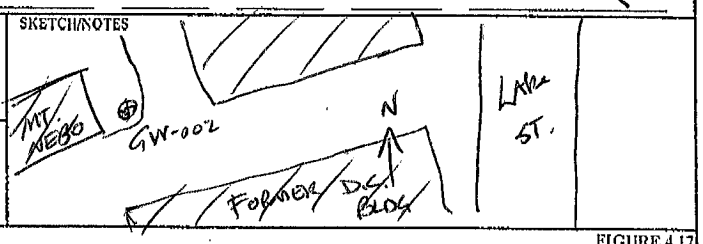

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: DIAMOND CLEANERS		LOCATION ID: GW-013	DATE: 5/7/13
PROJECT NUMBER: 36121 2209.02		START TIME: 1208	END TIME:
SAMPLE ID: DCGW013120 13XX	SAMPLE TIME: 0830 5/8/13	SITE NAME/NUMBER:	PAGE: 1 OF 1

WELL DIAMETER (INCHES): [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER
TUBING ID (INCHES): [X] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER
MEASUREMENT POINT (MP): [ ] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

Blockage @ ~6.1' unable to collect water level

INITIAL DTW (BMP)	N/A FT	FINAL DTW (BMP)	FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	~0.5 FT
WELL DEPTH (BMP)	FT	SCREEN LENGTH	FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	SEC
WATER COLUMN	FT	DRAWDOWN VOLUME (Initial DTW- final OTW X well diam. squared X 0.041)	GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	GAL	DRAWDOWN/ TOTAL PURGED		PRESSURE TO PUMP	PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1208	BEGIN PURGING									
1212	N/A	200	14.12	1032	6.82	0.12	>	-53.0		GW is VERY turbid.
1215		200	14.16	1.019	6.41	0.08	>	-45.5		Dark Gray Sediment
1216	Well	pumped	Dry.	Based	on	Previous	Sampling,			
	Will	return	in	12-24	Hours	to	Collect	Sample		
	Water	Remained	Very	Turbid.	No	PID	Hits,	PID@	0.0ppm	
	slight	organic	odor.							
7/8/13	Tom	Longley	to	Collect	Sample	–	Collect	3 X 40ml	vials	@ 0820 on 5-8-13
		Extremely	turbid	&	Muddy	water				

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 2333 = 3330, 0.016 = 0.0160)
pH: nearest tenth (ex. 5.51 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (441 = 44, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] PERISTALTIC [ ] SUBMERSIBLE [ ] BLADDER [ ] WATTERA [✓] OTHER Grundfos [ ] OTHER

DECON FLUIDS USED: [✓] LIQUINOX [✓] DEIONIZED WATER [ ] POTABLE WATER [ ] NITRIC ACID [ ] HEXANE [ ] METHANOL [ ] OTHER

TUBING PUMP BLADDER MATERIALS: [✓] SILICON TUBING [ ] TEFLON TUBING [ ] TEFLON LINED TUBING [ ] HDPE TUBING [✓] LDPE TUBING [ ] OTHER [ ] OTHER

[ ] S. STEEL PUMP MATERIAL [ ] PVC PUMP MATERIAL [ ] GEOPROBE SCREEN [ ] TEFLON BLADDER [ ] OTHER [ ] OTHER [ ] OTHER

EQUIPMENT USED: [✓] WL METER [✓] PID [✓] WQ METER [ ] TURB. METER [ ] PUMP [ ] OTHER [ ] FILTERS NO. ✓ TYPE

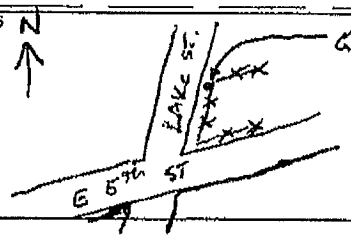
ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
VOCs	8260	N	HCl, 4°C	3X40ml	Y		

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [ ] NO [ ]
NO-PURGE METHOD UTILIZED: YES [ ] NO [ ]
NUMBER OF GALLONS GENERATED:
(If you purged approximately 1 standing volume prior to sampling or _____ mL for dirt sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Longley Print Name: Thomas D. Longley
Checked By: RJO Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: GW-014
PROJECT NUMBER: 3647133709.02	DATE: 5-8-13
SAMPLE ID: DCGW014120132xx	SAMPLE TIME: 1045
	START TIME: 0725
	END TIME: 1045
	SITE NAME/NUMBER: Diamond Cleaners
	PAGE: 1 OF 1

WELL DIAMETER (INCHES): [✓] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES): [ ] 1/8 [✓] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP): [✓] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

Historic

INITIAL DTW (BMP)	10.63 FT	FINAL DTW (BMP)	— FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.45 FT
WELL DEPTH (BMP)	14.8 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	4.17 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	— GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	TDL ~~0.04~~ 0.17 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	— GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0739	BEGIN PURGING @									
	Well pumps dry - can't keep up w/ pumps								~1' off Bottom	
	~5G diameter & come back w/ in the day to collect									
	Samples									
0758	— pull off Site/well									
1045	Return & Collect Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

N/A	—					

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2; 101 = 101)
ORP: 3 SF (44.1 = 44, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP BLADDER MATERIALS		EQUIPMENT USED
[✓] PERISTALTIC	[✓] LIQUINOX	[✓] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[✓] WL METER
[ ] SUBMERSIBLE	[✓] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[✓] PID
[ ] BLADDER	[ ] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[✓] WQ METER
[ ] WATTERA	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[✓] TURB. METER
[ ] OTHER	[ ] HEXANE	[✓] LDPE TUBING	[ ] OTHER	[✓] PUMP
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER
	[ ] OTHER	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
[✓]	VOCs	8260B	N	HCl	3x40mL	3	—	

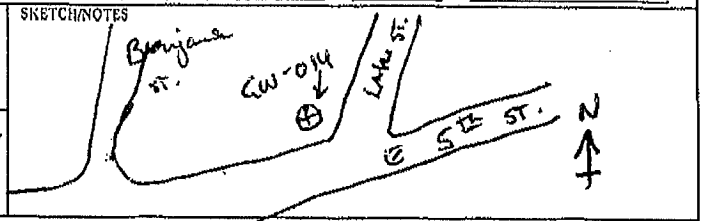
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	[ ]	[✓]
NO-PURGE METHOD UTILIZED	[ ]	[✓]

NUMBER OF GALLONS GENERATED: —

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Ryan Torrey

Checked By: TDL Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Diamond Cleaners
PROJECT NUMBER	361211209.07
SAMPLE ID	DCMW001I2013KX
SAMPLE TIME	15:55
LOCATION ID	MW-001
DATE	5-7-13
START TIME	14:50
END TIME	16:00
SITE NAME/NUMBER	Diamond Cleaners
PAGE	1 OF 1

NO BOLTS TO STEEL COVER

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.10 FT	FINAL DTW (BMP)	12.19 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	~~2.2~~ 1.0 FT
WELL DEPTH (BMP)	23.50 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	NA PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	11.4 FT	DRAWDOWN VOLUME (Initial DTW - final DTW X well diam. squared X 0.041)	0.015 GAL	PID WELL MOUTH	NA PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.87 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.000226 gal/mL)	~2.7 GAL	DRAWDOWN/ TOTAL PURGED	0.0055	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1500	BEGIN PURGING @ 200mL/min.									
15:10	12.19	200	14.57	0.636	7.31	3.60	61.4	71.3	3' up off bottom	
15:15	12.19	200	14.25	0.644	7.30	2.62	41.7	68.8	—	
15:20	12.19	200	14.25	0.662	7.19	2.35	29.8	65.3	—	
15:25	12.19	200	14.22	0.710	7.19	1.93	23.2	61.3	—	
15:35 TOL ~~16:05~~	12.19	200	14.13	0.787	7.18	1.70	15.8	57.0		15:35 Time
15:40	12.19	200	13.66	0.803	7.18	1.72	15.2	57.1		
15:45	12.19	200	13.85	0.821	7.17	1.47	13.8	56.7		
15:48	12.19	250	13.65	0.834	7.17	1.42	12.8	56.5		
15:51	12.19	250	13.86	0.834	7.17	1.40	10.5	55.8		
15:55	SAmple									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

14	0.834	7.2	1.4	10.5	56	

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (-44.1 = -44, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERRA ☑ OTHER Geo Pump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING-PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

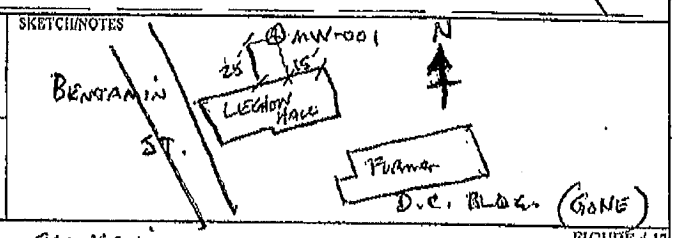
NUMBER OF GALLONS GENERATED: ~2.7

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

Sampler Signature: Thom. Langley Print Name: Thomas D. Langley

Checked By: RJG Date: 5/22/13

SKETCH/NOTES



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FINE, black, suspended flecks in well water

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Diamond Cleaners
PROJECT NUMBER	3612112209.02
SAMPLE ID	DCMW0021 2013XX
SAMPLE TIME	11:40
LOCATION ID	MW-002
DATE	5-8-12
START TIME	10:30
END TIME	11:45
SITE NAME/NUMBER	Diamond Cleaners
PAGE	1 OF 1

WELL DIAMETER (INCHES) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES) ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP) ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	12.22 FT	FINAL DTW (BMP)	12.25 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	~0.5 FT
WELL DEPTH (BMP)	24.1 FT	SCREEN LENGTH	? FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	11.88 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.005 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.95 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.8 GAL	DRAWDOWN/ TOTAL PURGED	0.0018	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/-3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
10:39	BEGIN PURGING @ 200 ml/min.									
10:48	12.25	200	12.26	1.011	7.15	0.87	53.2	90.2	3' off	bottom
10:55	12.25	200	12.20	1.010	7.14	0.48	37.8	85.2	—	
11:00	12.25	200	12.30	1.005	7.16	0.38	26.0	87.0		
11:10	12.25	200	12.23	1.009	7.16	0.83*	18.0	86.0		*Had to adjust seal of flow-thru cell
11:15	12.25	200	12.32	1.008	7.14	0.35	12.9	83.0		
11:25	12.25	200	12.35	1.008	7.13	0.30	8.86	78.6		
11:30	12.25	200	12.33	1.009	7.13	0.27	6.20	77.1		
11:33	12.25	200	12.38	1.008	7.13	0.25	6.85	75.6		
Sample - Coll Time @ 11:40										
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])			12	1.01	7.1	0.3	6.9	76		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☑ OTHER Geopump
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☑ HDPE TUBING
- ☐ LDPE TUBING
- ☐ OTHER
- ☐ OTHER
- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☑ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. — TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOCs	8260B	N	HCL, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

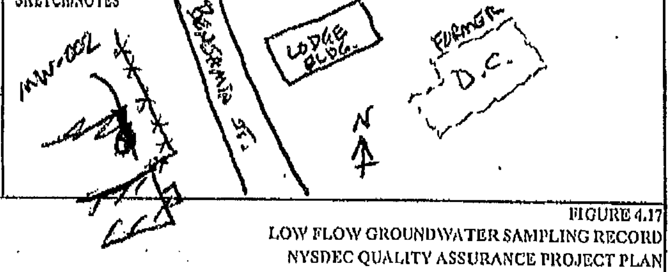
PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: ~2.8

If yes, purged approximately 1 standing volume prior to sampling or _______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Langley

Checked By: [signature] Date: 5/22/12

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-003	DATE: 5-7-13
PROJECT NUMBER: 36121122 09.02		START TIME: 12:50	END TIME: 13:50
SAMPLE ID: DCMW00312013XX	SAMPLE TIME: 13:45	SITE NAME/NUMBER: Diamond Cleaners	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	11.45 FT	FINAL DTW (BMP)	11.5 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.4 FT
WELL DEPTH (BMP)	24.00 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	NA PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	12.55 FT	DRAWDOWN VOLUME (Initial DTW- final DTW X well diam. squared X 0.041)	0.009 GAL	PID WELL MOUTH	NA PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.06 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.000026 gal/mL)	~2.8 GAL	DRAWDOWN/ TOTAL PURGED	0.0029	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
12:59	BEGIN PURGING Time on @ 240 ml/min.									
13:08	11.50	230	12.45	1.127	6.82	3.00	21.6	100.1	4' up	From Bottom
13:15	11.50	230	12.46	1.078	6.91	1.95	13.8	89.5	—	
13:20	11.51	230	12.30	1.061	6.88	1.55	11.2	89.4	—	
13:25	11.50	230	12.29	1.043	6.92	1.28	10.6	92.8	—	
13:30	11.50	230	12.07	1.036	6.96	1.16	7.40	85.4	—	
13:35	11.50	230	12.03	1.032	6.96	1.10	6.07	81.4	—	
13:40	11.50	230	12.15	1.026	6.98	1.15	5.37	78.2		
13:45	SAMPLE.									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

12	1.03	7.0	1.2	5.4	78	

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATERRA
- ☑ OTHER Geoflow
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ HDPE TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER

- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☐ PID
- ☑ WQ METER
- ☐ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
VOCs	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☑	☐
NON-PURGE METHOD UTILIZED	☐	☑

NUMBER OF GALLONS GENERATED: ~2.8

If yes, purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

Sampler Signature: Thomas D. Loughry Print Name: Thomas D. Loughry

Checked By: [signature] Date: 5/22/13

SKETCH/NOTES

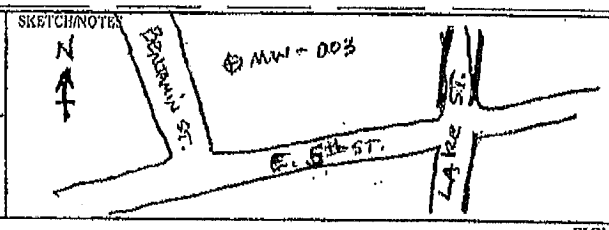

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-004	DATE: 5-8-13
PROJECT NUMBER: 361211223 09.02		START TIME: 0845	END TIME: 10:10
SAMPLE ID: DC-MW 004 20130508XX	SAMPLE TIME: 10:00	SITE NAME/NUMBER: —	PAGE: 1 OF 1

NO BOLTS for cover TOP - SURFACE WATER ISSUE HERE!

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	11.58 FT	FINAL DTW (BMP)	12.10 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	+0.3 FT
WELL DEPTH (BMP)	21.2 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.62 FT	DRAWDOWN VOLUME (Initial DTW - final DTW X well diam. squared X 0.041)	0.085 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.58 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.000026 gal/mL)	~4.1 GAL	DRAWDOWN/ TOTAL PURGED	0.0907	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0854	BEGIN PURGING @ 220 mL/min									
0900	12.03	220	11.49	0.553	7.17	7.15	39.1	90.4	3' up	from bottom
0910	12.11	250	11.26	0.582	7.19	5.33	27.8	87.2	—	
0920	12.18	250	11.28	0.638	7.19	4.54	18.0	85.5	—	
0930	12.20	250	11.32	0.656	7.20	4.16	12.4	83.0	—	
0935	~~11.17~~	250	11.17	0.673	7.21	4.15	15.2	85.4	—	12.31 ✓
0940	~~11.33~~	250	11.33	0.680	7.21	4.16	13.3	83.7	—	12.24 ✓
0945	12.21	250	11.38	0.690	7.21	3.95	11.0	82.8	—	
0950	12.21 ✓	250 ✓	11.37 ✓	0.698 ✓	7.21 ✓	3.76	7.50	81.4	—	
0955	12.10	250	11.49	0.706	7.21	3.51	6.34	79.4	—	
0958	12.10	250	11.53	0.717	7.22	3.49	5.43	76.3	—	
10:00	Collect Sample.									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	12	0.72	7.2	3.5	5.4	76

TEMP: 2 decimal degrees (ex. 10.1 → 10)
COND.: 3 SF max (ex. 3333 → 3330, 0.696 → 0.696)
pH: 1 decimal tenth (ex. 5.53 → 5.5)
DO: 2 decimal tenth (ex. 3.51 → 3.5)
TURB: 3 SF max., 1 decimal tenth (6.19 → 6.2, 101 → 101)
ORP: 3 SF (44.1 → 44, 101 → 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☑ OTHER Geopump
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ RODR TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER
- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☑ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

✓	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCl, 4°C	12 x 40 ml	Y	Y	

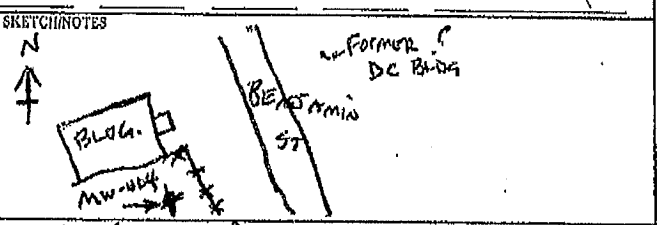
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED: ~4.1

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Lyle Print Name: Thomas D. Lyle

Checked By: RDG Date: 5/22/13

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Collect Dup + MS + MSD (12 VIALS)
XD - MS - MD

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

XD ✓
MS MD ✓

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: MW-006
PROJECT NUMBER: 36621122-09.02	START TIME: 11:10
SAMPLE ID: DCMW006I2013XK	SAMPLE TIME: 12:35
SITE NAME/NUMBER: —	DATE: 5-7-13
	END TIME: 12:40
	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	9.44 FT	FINAL DTW (BMP)	9.71 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	NA FT
WELL DEPTH (BMP)	19.5 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	NA PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	10.06 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.044 GAL	PID WELL MOUTH	NA PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.65 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~4.6 GAL	DRAWDOWN/ TOTAL PURGED	~0.0096	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TDL

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PUROE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
~~11:44~~	BEGIN PURGING @ 11:22. Thor on pump @ 220 mL/min.									
11:30	9.69	230	12.91	1.261	7.33	4.00	51.5	42.5	4' off Bottom (9.69 D.T.W.)	
11:35	9.71	260	12.83	1.274	7.26	1.95	31.7	60.1	—	
~~11:45~~	9.75	260	12.81	1.360	7.22	1.05	21.2	54.0	—	Δ speed on pump
11:50	9.72	240	12.83	1.438	7.21	0.89	21.3	49.5	—	
11:55	9.73	240	12.91	1.487	7.19	0.69	18.3	48.9	—	
12:05	9.74	240	13.09	1.543	7.17	0.59	15.2	57.0	—	
12:15	9.71	~~240~~	13.18	1.577	7.16	0.49	7.82	48.0	—	240 mL/min Rate
~~12:20~~	9.71	240	13.29	1.590	7.13	0.45	7.30	52.2	—	
~~12:25~~ 12:26 TDL	9.71	240	13.21	1.599	7.14	0.46	5.77	59.0	—	
12:30	9.71	240	13.16	1.610	7.10	0.42	5.43	59.8	—	
12:35	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF]) TDL

	13	1.61	7.1	0.4	5.4	59.8

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.096 = 0.096)
pH: nearest tenth (ex. 5.52 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB.: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

60

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☐ WATTERA
- ☑ OTHER Geopump
- ☐ OTHER

DECON FLUIDS USED
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP BLADDER MATERIALS
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ HDPE TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER

- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED
- ☑ WL METER
- ☐ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. — TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☒	VOCs	8260B	N	HCl 4°C	3x40ml	Yes	—	—

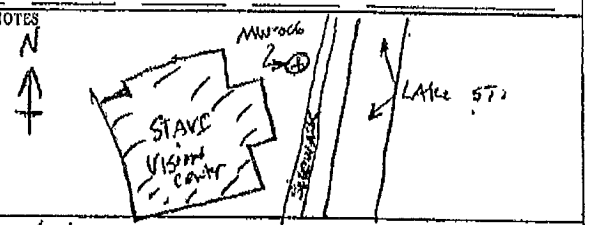
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☐	☑
NO PURGE METHOD UTILIZED	☐	☑

NUMBER OF GALLONS GENERATED: ~4.6

If yes, purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Lofty Print Name: Thomas D. Lofty

Checked By: BJ Date: 5/22/13

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Well had dedicated Tubing, but too short - had to replace w/ new Tubing

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-007	DATE: 5/7/13
PROJECT NUMBER: 361211209.02		START TIME: 1451	END TIME: 1525
SAMPLE ID: DCMW007/2013XX	SAMPLE TIME: 15 20 1525	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☒ ~~TOP OF CASING (TOC)~~ TDL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	☑		
CASING	☑		
LOCKED	☑		
COLLAR	☒		

INITIAL DTW (BMP)	12.10 FT	FINAL DTW (BMP)	12.12 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	22 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.9 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.0032 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.6 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.1 GAL	DRAWDOWN/ TOTAL PURGED	0.0015	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (Ft) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1451	BEGIN PURGING									
1457	12.12	250	16.07	1,310	6.94	6.70	23.38	44.1		
1502	12.12	250	15.04	1,293	6.73	3.65	10.21	43.2		
1507	12.12	250	14.94	1,300	6.80	3.46	3.99	37.0		
1512	12.12	250	14.70	1,302	6.79	3.44	3.82	37.2		
1517	12.12	250	14.50	1,300	6.79	3.61	2.68	35.0		~~Collect Sample~~
1520	12.12	250	14.37	1,303	6.76	3.68	2.37	37.4		
1523	12.12	250	14.38	1,303	6.79	3.68	0.38	33.0		√ Collect Sample

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	14	1,30	6.8	3.7	0.4	33

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☑ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER; ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☐ TURB. METER ☑ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
1	VOC	8260	N	HCl	3x40ml	Y	N	—

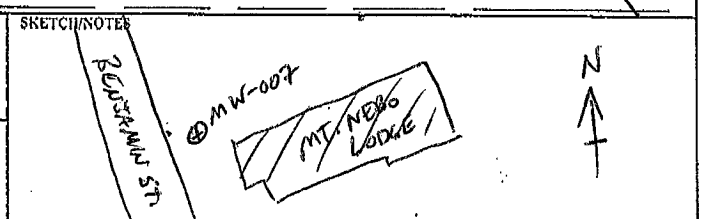
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☑	☐
NO-PURGE METHOD UTILIZED	☐	☑

NUMBER OF GALLONS GENERATED: ~2.1

If yes, purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Ryan Torrey

Checked By: TDL Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-008	DATE: 5/7/13
PROJECT NUMBER: 361211209.02		START TIME: 1328	END TIME: 1415
SAMPLE ID: DCMW008120I3XX	SAMPLE TIME: 1415	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☒ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☑ ~~TOP OF CASING (TOC)~~ TOC ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	11.45 FT	FINAL DTW (BMP)	11.50 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	22 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	10.55 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	0.0082 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.7 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~3.3 GAL	DRAWDOWN/ TOTAL PURGED	0.0035	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1328	BEGIN PURGING									
1333	11.49	200	14.10	0.893	6.76	2.71	69.14	40.4		
1338	11.50	200	13.58	0.899	6.79	2.47	11.78	37.0		
1343	11.50	200	13.80	0.888	6.81	1.88	3.86	40.1		
1348	11.50	200	13.68	0.880	6.87	1.42	2.06	31.7		
1353	11.50	200	13.52	0.864	6.80	1.13	0.84	40.5		
1358	11.50	200	13.65	0.854	6.87	1.08	1.26	32.9		
1403	11.50	200	13.46	0.839	6.86	1.08	5.67	27.8		
1406	11.50	200	13.45	0.839	6.85	0.84	2.54	23.0		
1409	11.50	200	13.46	0.837	6.86	0.79	1.86	24.1		
1412	11.50	200	13.47	0.837	6.82	0.77	1.38	29.9		

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	0.837	6.8	0.8	1.4	30	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 1333 = 1330, 0.096 = 0.096)
pH: nearest tenth (ex. 5.55 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☐ TURB. METER ☑ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
VOC	8260	N	HCl	3x40mL	Y	N	

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: ☑ YES ☐ NO

NO-PURGE METHOD UTILIZED: ☐ YES ☑ NO

NUMBER OF GALLONS GENERATED: ~3.3

If you purged approximately 3 standing volume prior to sampling or _____ mL for this sample location.

Sampler Signature: [signature] Print Name: Ryan Toney

Checked By: TDL Date: 5-21-13

SKETCH/NOTES

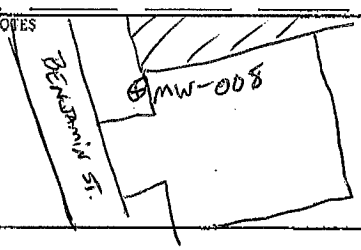

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: DIAmond Cleaners		LOCATION ID: MW-009	DATE: 5-7-2013
PROJECT NUMBER: 3612112304.02		START TIME: 10:10	END TIME: 11:00
SAMPLE ID: DCMW009|2013XX	SAMPLE TIME: 10:55	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER ______

TUBING ID (INCHES) ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER ______

MEASUREMENT POINT (MP) ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER ______

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP): 11.80 FT	FINAL DTW (BMP): 11.81 FT	PROT. CASING STICKUP (AGS): Flush FT	TOC/TOR DIFFERENCE: ~0.6 FT
WELL DEPTH (BMP): 20.8 FT	SCREEN LENGTH: — FT	PID AMBIENT AIR: NA PPM	REFILL TIMER SETTING: — SEC
WATER COLUMN: 9.00 FT	DRAWDOWN VOLUME: — GAL (initial DTW - final DTW X well diam. squared X 0.041)	PID WELL MOUTH: NA PPM	DISCHARGE TIMER SETTING: — SEC
CALCULATED GAL/VOL: 1.48 GAL (column X well diameter squared X 0.041)	TOTAL VOL. PURGED: ~2.8 GAL (mL per minute X total minutes X 0.00026 gal/mL)	DRAWDOWN/ TOTAL PURGED: —	PRESSURE TO PUMP: — PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
10:16	BEGIN PURGING @ 350 - turn down									
10:25	11.81	250	11.41	0.775	6.98	2.73	4.44	74.8	3' off	bottom
10:30	11.81	250	11.44	0.801	7.01	2.27	2.61	72.0	—	
10:35	11.81	250	11.39	0.822	7.03	1.90	1.68	68.9	—	
10:40	11.81	250	11.41	0.847	7.05	1.49	1.31	66.1	—	
10:45	11.81	250	11.39	0.869	7.06	1.34	0.82	63.1	—	
10:50	11.81	250	11.39	0.876	7.06	1.52	0.64	62.3		
10:53	11.81	250	11.42	0.885	7.07	1.30	0.55	61.0		
10:55	Sample.									
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])			11	0.885	7.1	1.3	0.5	61		

TEMP.: nearest degree (ex. 10.1 = 10); COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696); pH: nearest tenth (ex. 5.53 = 5.5); DO: nearest tenth (ex. 3.51 = 3.5); TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101); ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. — TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	TCL VOA	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

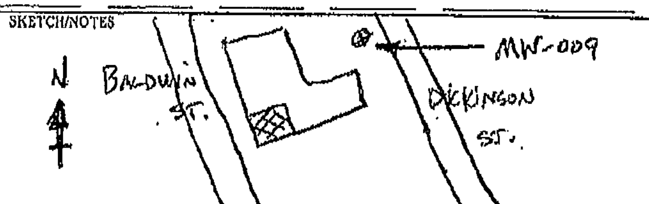
PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NUMBER OF GALLONS GENERATED: ~2.86

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

If yes, purged approximately 1 standing volume prior to sampling or ______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Longley

Checked By: [signature] Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: MW-010	DATE: 5-7-13
PROJECT NUMBER: 3617122 09.02		START TIME: 16:05	END TIME: 17:00
SAMPLE ID: DCMW010120 13XX	SAMPLE TIME: 16:50	SITE NAME/NUMBER: DIAMOND CLEANERS	PAGE 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY (YES / NO / N/A): CAP ✓ YES; CASING ✓ YES; LOCKED ✓ YES; COLLAR ✓ YES

12.35

INITIAL DTW (BMP)	12.35 FT	FINAL DTW (BMP)	12.42 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	~0.5 FT
WELL DEPTH (BMP)	21.70 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	9.35 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.011 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.5 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.2 GAL	DRAWDOWN/ TOTAL PURGED	0.005	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O₂ (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:14	BEGIN PURGING @ 250 mL/min.									
16:18	12.41	250	11.70	0.727	7.18	8.00	15.0	97.8	3' up	off bottom
16:25	12.41	250	11.58	0.733	7.19	5.75	13.5	87.7	—	
16:30	12.42	250	11.16	0.735	7.19	5.52	10.00	82.0	—	
16:35	12.42	300	11.00	0.735	7.19	5.44	9.23	78.2	—	
16:40	12.42	270	10.99	0.736	7.19	~~4.235~~ 5.37	~~9.06~~ 6.29	75.5	—	5.37 D.O. / 6.29 NTU
16:45	12.42	270	11.01	0.738	7.20	5.21	5.49	72.4	—	
16:50	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

TEMP	SP. COND.	pH	DO	TURB.	REDOX
11	0.738	7.2	5.2	5.5	72

TEMP.: nearest degree (ex. 10.5 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOCs	8260B	N	HCL, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

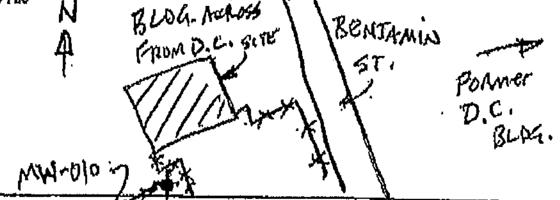
PURGE WATER CONTAINERIZED: ☑ YES ☐ NO

NUMBER OF GALLONS GENERATED: ~2.2

NO-PURGE METHOD UTILIZED: ☐ YES ☑ NO

If yes, purged approximately 1 standing volume prior to sampling or ______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Thomas D. Longley

Checked By: [signature] Date: 5/22/13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Region 4 Dry Cleaners Groundwater Assn.		LOCATION ID: MW-011	DATE: 5/6/13
PROJECT NUMBER: 36121132 09.02 MW-011		START TIME: 1340	END TIME: 1419
SAMPLE ID: DXMW011120132XX	SAMPLE TIME: 1419	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☑ ~~TOP OF CASING (TOC)~~ TDL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

INITIAL DTW (BMP)	14.41 FT	FINAL DTW (BMP)	14.64 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	21.96 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	7.55 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.038 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.24 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.1 GAL	DRAWDOWN/ TOTAL PURGED	0.018	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1340	BEGIN PURGING									
1343	14.54	200	13.75	1163	5.43	9.78	16.78	254.6		
1348	~~13.35~~ 14.62	200	13.35	1127	6.13	10.11	10.27	141.7		
1353	14.63	200	12.59	1122	6.30	9.30	8.10	121.7		
1358	14.63	200	12.62	1129	5.96	7.32	5.41	136.4		
1403	14.64	200	12.71	1131	5.71	7.04	2.71	153.3		
1407	14.64	200	12.73	1129	5.81	7.36	3.61	155.5		
1410	14.64	200	12.71	1127	5.54	7.03	1.76	169.3		
1413	14.64	200	12.66	1129	5.52	7.11	1.23	109.2		
1416	14.64	200	12.56	1128	6.52	7.74	1.64	106.4		
1419	14.64	200	12.58	1127	6.54	7.40	1.80	106.2		-Collect Sample

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	1230	6.5	7.4	1.80	110	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☒ LIQUINOX ☒ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER; ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☒ WL METER ☐ PID ☒ WQ METER ☒ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE —

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓ VOC	8260	N	HCL	3x40mL	✓	N	

PURGE OBSERVATIONS

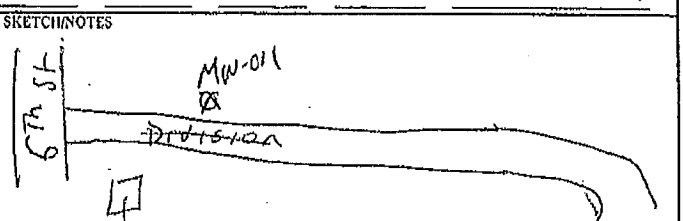
PURGE WATER CONTAINERIZED: YES ☐ NO ☑

NO PURGE METHOD UTILIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: ~2.1

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Ryan Tarrey Print Name: Ryan Tarrey

Checked By: TDL Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: ATMW-001
PROJECT NUMBER: 36121122209.02	DATE: 5/7/13
SAMPLE ID: ATMW001120513XX	START TIME: 748
SAMPLE TIME: 830	END TIME: 830
SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☒ 1/8 ☐ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☒ ~~TOP OF CASING (TOC)~~ TSC ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	☒		
CASING	☒		
LOCKED	☒		
COLLAR	☒		

INITIAL DTW (BMP)	14.82 FT	FINAL DTW (BMP)	15.14 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	18.9 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	4.08 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam, squared X 0.041)	0.052 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.67 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	2.16 GAL	DRAWDOWN/ TOTAL PURGED	0.024	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
748	BEGIN PURGING									
754	15.14	200	10.96	0.896	6.50	6.74	37.06	-116.4	16.5	
759	15.14	200	10.93	0.923	6.51	0.23	29.83	-106.1	16.5	
804	15.14	200	11.07	0.940	6.50	0.23	19.52	-102.9	16.5	
809	15.14	200	11.06	0.950	6.38	0.26	11.70	-85.0	16.5	
814	15.14	200	11.05	0.956	6.29	0.22	8.18	-72.0	16.5	
817	15.14	200	11.25	0.956	6.27	0.24	7.47	-87.9	16.5	
820	15.14	200	11.31	0.959	6.27	0.23	6.28	-89.7	16.5	
823	15.14	200	11.34	0.960	6.26	0.19	4.23	-90.1	16.5	
826	15.14	200	11.33	0.962	6.31	0.17	3.94	-95.8	16.5	
829	15.14	200	11.29	0.965	6.25	0.16	2.89	-91.1	16.5	
—										

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	11	0.965	6.3	0.2	2.9	-91	

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☒ LIQUINOX ☒ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☐ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☒ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☒ WL METER ☒ PID ☒ WQ METER ☒ TURB. METER ☒ PUMP ☐ OTHER ☐ FILTERS NO. — TYPE —

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓ VOC	8260	N	HCl	3x40mL	Y	N	

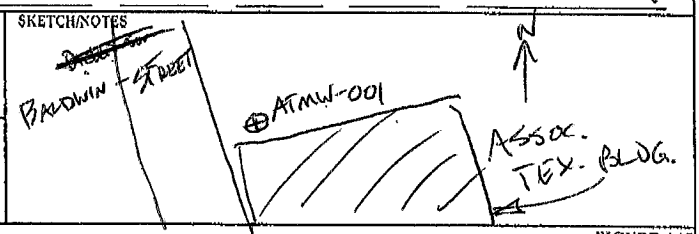
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☐	☒
NO-PURGE METHOD UTILIZED	☐	☐

NUMBER OF GALLONS GENERATED: ~2.16

If you purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Ryan Jorrey

Checked By: TDL Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: ATMW-002	DATE: 5-6-13
PROJECT NUMBER: 361211209.02		START TIME: 16:40	END TIME: 17:40
SAMPLE ID: ATMW0021 2013 XX	SAMPLE TIME: 17:35	SITE NAME/NUMBER: Assoc. Textile	PAGE: 1 OF 1

NO BOLTS TO ANCHOR DOWN THE WELL COVER

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	14.30 FT	FINAL DTW (BMP)	14.91 FT	PROT. CASING STICKUP (ACS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.6 FT
WELL DEPTH (BMP)	~18.80 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	4.5 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	0.10 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.74 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.1 GAL	DRAWDOWN/ TOTAL PURGED	0.047	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:48	BEGIN PURGING START @ 300 ml - Scaled back TO 220									
16:55	14.95	220	12.93	0.720	6.42	1.51	17.62	-61.9	3' off bottom	
17:00	14.95	220	12.85	0.779	6.40	0.34	19.47	-70.3	—	fine suspended black flecks
17:05	14.95	220	12.65	0.881	6.44	0.32	4.65	-75.8	—	
17:10	14.95	220	12.56	0.947	6.50	0.23	8.60	-76.7	—	
~~17:15~~ TOL	~~14.80~~									
17:20	14.89	200	12.60	1.059	6.60	0.17	5.35	-77.2		
17:25	14.84	200	12.69	1.101	6.61	0.27	9.49	-73.7		
17:30	14.91	220	12.53	1.110	6.60	0.26	7.86	-72.5		
17:35	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	1.11	6.6	0.3	7.9	-73	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.096 = 0.690)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (441 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER GeoPump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WI METER ☑ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
VOC	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

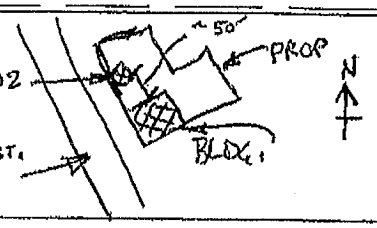
PURGE WATER CONTAINERIZED: YES ☐ NO ☑

NO PURGE METHOD UTILIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: ~2.1

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Langley Print Name: Thomas D. Langley

Checked By: Date: 5-6-13 5/22/13

MACTEC
511 Congress Street, Portland Maine 04101

musty "old" fuel odor
Looks like well may be flooded in high water
Lot of air bubbles comes up line

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: ATMW-003	DATE: 5-6-13
PROJECT NUMBER: 36121122209.02		START TIME: 15:30	END TIME: 16:25
SAMPLE ID: ATMW00312013XX	SAMPLE TIME: 16:25	SITE NAME/NUMBER: Assoc. Textile	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	14.61 FT	FINAL DTW (BMP)	14.72 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	-0.35 FT
WELL DEPTH (BMP)	19.90 FT	SCREEN LENGTH	2 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	5.29 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.018 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.87 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~3.6 GAL	DRAWDOWN/ TOTAL PURGED	0.005	PRESSURE TO PUMP	— PSI

HISTORIC

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:35	BEGIN PURGING @ 300 mL/min.									
15:45	14.71	300	11.20	0.443	6.48	5.54	24.36	176.8	3' up from bottom	
15:55	14.72	300	11.33	0.493	6.72	3.69	18.80	166.7	—	
16:00	14.72	300	11.36	0.514	6.74	3.27	4.73	164.1	—	
16:05	14.72	300	11.33	0.532	6.77	3.11	16.14	163.9	—	
16:10	14.72	300	11.38	0.536	6.80	3.05	1.52	163.7	—	
16:15	14.72	300	11.32	0.541	6.79	2.89	0.00	164.2	—	
16:20	14.72	300	11.28	0.544	6.79	2.84	0.00	164.8	—	
	Sample @ 16:25									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures|SF|)

11	0.544	6.8	2.8	0.00	160	

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (0.19 = 0.1, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER GeoPump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☑ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
VOCs	8260B	N	HCl, 4°C	3x40ml	Y	—	—

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☐	☑
NO-PURGE METHOD UTILIZED	☐	☑

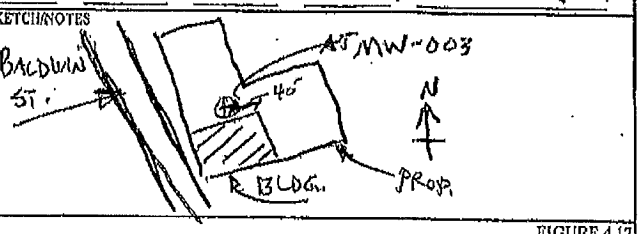
NUMBER OF GALLONS GENERATED: ~3.6

If yes, gauged approximately 1 standing volume prior to sampling or _____ mL for this sample location

Sampler Signature: Thomas D. Langley Print Name: Thomas D. Langley

Checked By: [signature] Date: 5/22/13

SKETCH/NOTES



PLACED NEW SILASTIC TUBING & ¼" LDPE - DEDICATED TO THE WELL -

MACTEC
511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: ATMW-0004
PROJECT NUMBER: 36121122 09.02	DATE: 5-7-13
SAMPLE ID: ATMW0004/2013XX	SAMPLE TIME: 0840
START TIME: 07:30	END TIME: 0850
SITE NAME/NUMBER: Assoc. Textile	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☐ 2 ☑ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	14.69 FT	FINAL DTW (BMP)	14.77 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	-0.4 FT
WELL DEPTH (BMP)	17.7 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	3.01 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	0.013 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	1.97 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~3.9 GAL	DRAWDOWN/ TOTAL PURGED	0.07	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0744	BEGIN PURGING @ 300 mL/min									
0755	14.77	300	10.54	0.943	6.61	0.72	18.9	-102.2	1" off	bottom
0800	14.77	300	10.48	0.948	6.58	0.44	14.3	-125.3	—	
TDL 0805 0810	14.77	300	10.58	0.951	6.55	0.37	10.2	-141.0	—	
0810	14.77	300	10.68	0.966	6.54	0.37	5.99	-112.0	—	
0815	14.77	300	10.74	0.977	6.53	0.33	5.92	-92.8	—	
0820	14.77	300	10.75	0.986	6.53	0.26	3.57	-112.6	—	
0825	14.77	300	10.84	0.989	6.53	0.21	2.51	-108.5	—	
0830	14.77	300	10.91	0.995	6.53	0.19	1.96	-107.1		
0835	14.77	300	10.93	0.996	6.53	0.19	1.96	-106.4		
0840	Sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

11	0.996	6.5	0.2	2.0	110	

TEMP: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☑ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☑ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☑ LIQUINOX ☑ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☐ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☑ LDPE TUBING ☐ OTHER ☐ OTHER; ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☐ PID ☑ WQ METER ☑ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓ VOAs	8260B	N	HCl, 4C	3x40ml	Y	—	—

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☐	☑
NON-PURGE METHOD UTILIZED	☐	☑

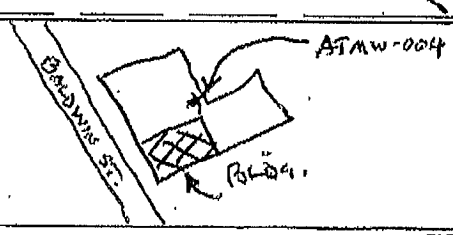
NUMBER OF GALLONS GENERATED: ~3.9

If yes, purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

Sampler Signature: Thomas D. Lyly Print Name: Thomas D. Lyly

Checked By: RJG Date: ~~5-6-13~~ 5/22/13

SKETCH/NOTES



OLD "Fuel-Like" odor

MACTEC
511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: ATMW-005
PROJECT NUMBER: 36121122209.02	DATE: 5/6/13
SAMPLE ID: ATMW005120132XX	START TIME: 1632
SAMPLE TIME: 1715	END TIME: 1715
SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☑ ~~TOP OF CASING (TOC)~~ TDL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓	—	—
CASING	✓	—	—
LOCKED	✓	—	—
COLLAR	✓	—	—

INITIAL DTW (BMP)	13.62 FT	FINAL DTW (BMP)	14.72 FT	PROT. CASING STICKUP (AGS)	FLUSH FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	19.50 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	5.88 FT	DRAWDOWN VOLUME (Initial DTW- final DTW X well diam. squared X 0.041)	2.03 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	3.84 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.5 GAL	DRAWDOWN/ TOTAL PURGED	0.812	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1632	BEGIN PURGING									
1637	14.31	300	13.58	760	6.56	6.52	5.57	69.3	~~17.50~~	
1642	14.84	300	13.35	762	6.68	6.39	4.74	59.1	17.50	
1647	15.44	300	13.19	762	6.74	6.40	7.03	62.0	17.50	
1652	16.89	300	13.49	760	6.79	6.41	11.53	54.5	17.50	
1657	16.24	250	13.51	763	6.80	6.34	7.90	55.6	17.50	
1702	16.40	175	13.30	764	6.80	6.50	9.80	47.7	17.50	
1707	16.55	175	13.50	766	6.84	6.46	12.70	43.9	17.50	
1710	16.72	175	13.77	763	6.82	6.31	15.06	45.4	17.50	
	Collect	Sample @	1715							
			~~14~~	~~763~~	~~6.8~~	~~6.3~~	15.1	45		

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

14	763	6.8	6.3	15.1	45	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ✓ PERISTALTIC; ☐ SUBMERSIBLE; ☐ BLADDER; ☐ WATTERA; ☐ OTHER; ☐ OTHER

DECON FLUIDS USED: ✓ LIQUINOX; ✓ DEIONIZED WATER; ☐ POTABLE WATER; ☐ NITRIC ACID; ☐ HEXANE; ☐ METHANOL; ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ✓ SILICON TUBING; ☐ TEFLON TUBING; ☐ TEFLON LINED TUBING; ☐ HDPE TUBING; ✓ LDPE TUBING; ☐ OTHER; ☐ OTHER

☐ S. STEEL PUMP MATERIAL; ☐ PVC PUMP MATERIAL; ☐ GEOPROBE SCREEN; ☐ TEFLON BLADDER; ☐ OTHER; ☐ OTHER; ☐ OTHER

EQUIPMENT USED: ✓ WL METER; ✓ PID; ✓ WQ METER; ✓ TURB. METER; ✓ PUMP; ☐ OTHER; ☐ FILTERS NO. — TYPE —

ANALYTICAL PARAMETERS

✓	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260	N	HCl	3x40mL	✓	N	

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☐ NO ✓

NO-PURGE METHOD UTILIZED: YES ☐ NO ✓

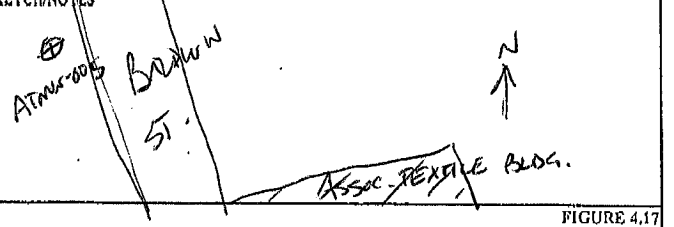
NUMBER OF GALLONS GENERATED: ~2.5

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

Sampler Signature: [signature] Print Name: Ryan Jones

Checked By: TDL Date: 5-21-13

SKETCH/NOTES



MACTEC
511 Congress Street, Portland Maine 04101

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: ATMW006	DATE: 5/16/13
PROJECT NUMBER: 3612112209.02		START TIME: 1457	END TIME: 1526
SAMPLE ID: ATMW00612013XX	SAMPLE TIME: 1526	SITE NAME/NUMBER: —	PAGE 1 OF 1

WELL DIAMETER (INCHES) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ 8 ☐ OTHER ______

TUBING ID (INCHES) ☒ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER ______

MEASUREMENT POINT (MP) ☒ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER ______

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

INITIAL DTW (BMP)	13.88 FT	FINAL DTW (BMP)	15.42 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	0.50 FT
WELL DEPTH (BMP)	19.01 FT	SCREEN LENGTH	N/A FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	5.13 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	1.06 GAL	PID WELL MOUTH	0.0 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.84 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	1.69 GAL	DRAWDOWN/ TOTAL PURGED	~0.6	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1457	BEGIN PURGING									
1500	14.29	250	13.40	1644	6.42	0.83	22.70	-72.8	18.0	
1505	14.46	250	13.28	1640	6.28	0.47	16.84	-52.7	18.0	
1510	14.57	250	13.09	1631	6.33	0.31	19.27	-64.2	18.0	
1515	15.14	250	13.19	1624	6.36	0.30	7.09	-67.6	18.0	
1520	15.35	250	13.31	1632	6.35	0.29	6.71	-62.7	18.0	
1523	15.42	250	13.34	1632	6.39	0.32	4.43	-65.7	18.0	Collect Sample @ 1526
~~152~~										

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])	TEMP.	SP. COND.	pH	DO	TURB.	REDOX
	13	1630	6.4	0.3	4.43	-66

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED
☒ PERISTALTIC	☒ LIQUINOX	☐ SILICON TUBING	☐ S. STEEL PUMP MATERIAL	☒ WL METER
☐ SUBMERSIBLE	☒ DEIONIZED WATER	☐ TEFLON TUBING	☐ PVC PUMP MATERIAL	☒ PID
☐ BLADDER	☐ POTABLE WATER	☐ TEFLON LINED TUBING	☐ GEOPROBE SCREEN	☒ WQ METER
☐ WATTERA	☐ NITRIC ACID	☐ HDPE TUBING	☐ TEFLON BLADDER	☒ TURB. METER
☐ OTHER	☐ HEXANE	☐ LDPE TUBING	☐ OTHER	☒ PUMP
☐ OTHER	☐ METHANOL	☐ OTHER	☐ OTHER	☐ OTHER
	☐ OTHER	☐ OTHER	☐ OTHER	☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
☑	VOC	8260	N	HCl	3x40mL	✓	N	

PURGE OBSERVATIONS

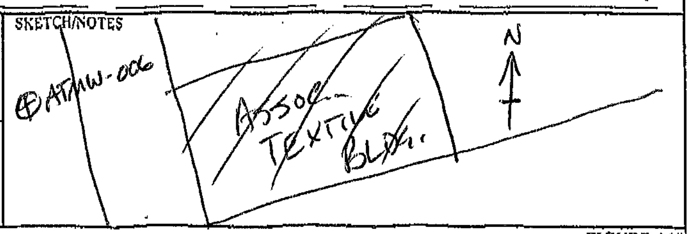
PURGE WATER CONTAINERIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: ~1.7

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

If yes, purged approximately 1 standing volume prior to sampling or ______ mL for this sample location.

SKETCH/NOTES



Sampler Signature: [signature] Print Name: Ryan Torrey

Checked By: TDL Date: 5-21-13

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners & Assoc. Test	LOCATION ID: ATMW-007
PROJECT NUMBER: 36121122209.02	DATE: 5-6-13
SAMPLE ID: ATMW007(2013XX	SAMPLE TIME: 15:10
	START TIME: 13:27
	END TIME: 15:10
	SITE NAME/NUMBER: Assoc. Texaco
	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☒ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		✓
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	14.32 FT	FINAL DTW (BMP)	14.31 FT	PROT. CASING STICKUP (AGS)	— FT	TOC/TOR DIFFERENCE	-0.50 FT
WELL DEPTH (BMP)	19.15 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	NA PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	4.83 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	0.004 GAL	PID WELL MOUTH	NA PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	3.17 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	4.4 GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
13:56	BEGIN PURGING									
13:56	14:31	250	12.86	1.015	6.44	1.56	182.3	54.6	3' up	from bottom
14:05	14.32	260	12.38	0.890	6.18	0.45	80.53	17.9		
14:12	14.32	320	12.28	0.867	6.47	1.38	74.32	-9.3		Δ speed
14:20	14.32	320	12.02	0.873	6.57	0.35	62.28	-19.4		
14:30	14.32	300	11.93	0.882	6.65	0.30	39.59	-27.0		
14:35	14.32	300	12.03	0.891	6.68	0.23	26.29	-29.4		
14:45	14.32	300	11.90	0.903	6.71	0.21	21.40	-32.4		
14:55	14.31	330	11.96	0.906	6.73	0.18	18.80	-33.5		
15:00	14.31	330	11.81	0.906	6.76	0.20	16.69	-32.4		
15:05	14.31	330	11.98	0.910	6.75	0.20	10.11	-33.4		
15:10	14:31	330	11.96	0.911	6.76	0.20	10.08	-33.0		
Sample	FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])									TEMP: nearest degree (ex. 10.1 = 10) COND: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696) pH: nearest tenth (ex. 5.53 = 5.5) DO: nearest tenth (ex. 3.51 = 3.5) TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101) ORP: 3 SF (44.1 = 44, 191 = 190)
			12	0.911	6.8	0.2	10.1	-33		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☒ OTHER Geopump ☐ OTHER

DECON FLUIDS USED: ☒ LIQUINOX ☒ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☒ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☒ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☑ WL METER ☑ PID ☑ WQ METER ☑ TURB. METER ☑ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

✓	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	8260B VOC	8260 B	—	HCl, 4°C	3 x 40ml	yes	—	—

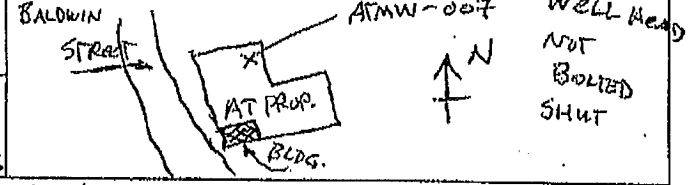
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	☐	☒
NON-PURGE METHOD UTILIZED	☐	☒

NUMBER OF GALLONS GENERATED: —

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

SKETCH/NOTES



Sampler Signature: Thomas D. Lyle Print Name: Thomas D. Lyle

Checked By: [illegible] Date: ~~5-6-13~~ 5/22/13

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PLACED NEW ¼" TUBING ? SILASTIC TUBING - DEDICATED TO WELL

FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners	LOCATION ID: ATMW-008
PROJECT NUMBER: 36121122209.02	DATE: 5-7-13
SAMPLE ID: ATMW008/2013XX	SAMPLE TIME: 10:00
	START TIME: 0900
	END TIME: 1005
	SITE NAME/NUMBER: Assoc. Textile
	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☐ 2 ☑ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☐ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☑ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	14.20 FT	FINAL DTW (BMP)	14.26 FT	PROT. CASING STICKUP (AGS)	Flush TDL 0.5 FT	TOC/TOR DIFFERENCE	-0.3 FT
WELL DEPTH (BMP)	19.1 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	4.9 FT	DRAWDOWN VOLUME (initial DTW - final DTW X well diam. squared X 0.041)	0.010 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	3.2 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.7 GAL	DRAWDOWN/ TOTAL PURGED	0.004	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0909	BEGIN PURGING @ 300 mL/min									
0915	14.27	300	11.46	1.010	6.79	4.95	12.8	52.8	15 ft	bottom
0920	14.28	300	11.30	1.004	6.80	4.20	10.1	59.3	—	
0925	14.28	300	11.31	1.002	6.82	3.60	7.03	62.7	—	
~~0930~~ 0935	14.25	270	11.53	1.002	6.83	3.16	6.19	67.8	—	
0940	14.26	270	11.52	0.998	6.84	3.04	3.42	68.7	—	
0945	14.26	270	11.59	0.993	6.84	2.50	4.25	70.8	—	
0950	14.26	270	11.52	0.997	6.84	2.30	2.64	71.0	—	
0955	14.26	270	11.53	0.993	6.85	2.20	2.50	71.6	—	
10:00	Sample									
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures/SF)			12	0.993	6.8	2.2	2.5	72		

TDL 0935

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.690)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (441 = 45, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP:
- ☑ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ BLADDER
- ☑ WATTERA
- ☑ OTHER GeoPump
- ☐ OTHER

DECON FLUIDS USED:
- ☑ LIQUINOX
- ☑ DEIONIZED WATER
- ☐ POTABLE WATER
- ☐ NITRIC ACID
- ☐ HEXANE
- ☐ METHANOL
- ☐ OTHER

TUBING/PUMP BLADDER MATERIALS:
- ☑ SILICON TUBING
- ☐ TEFLON TUBING
- ☐ TEFLON LINED TUBING
- ☐ HDPE TUBING
- ☑ LDPE TUBING
- ☐ OTHER
- ☐ OTHER

- ☐ S. STEEL PUMP MATERIAL
- ☐ PVC PUMP MATERIAL
- ☐ GEOPROBE SCREEN
- ☐ TEFLON BLADDER
- ☐ OTHER
- ☐ OTHER
- ☐ OTHER

EQUIPMENT USED:
- ☑ WL METER
- ☐ PID
- ☑ WQ METER
- ☑ TURB. METER
- ☐ PUMP
- ☐ OTHER
- ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOCs	8260B	N	HCL, 4C	3x40ml	Y	—	—

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED: ~2.7

If you purged approximately 1 standing volume prior to sampling or _____ mL for this sample location.

Sampler Signature: Thomas D. Lyly Print Name: Thomas D. Lyly

Checked By: [signature] Date: 5-7-13, 5/22/13

SKETCH/NOTES

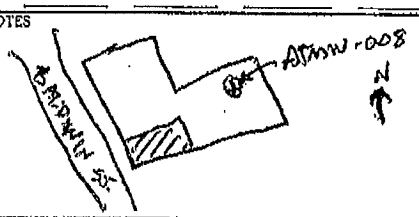

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: ATMW-009	DATE: 5/7/13
PROJECT NUMBER: 3612 1122 09.02		START TIME: 1022	END TIME: 1106
SAMPLE ID: ATMW009120513XX	SAMPLE TIME: 1106	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☒ 1/8 ☑ 1/4 ☐ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☒ ~~TOP OF CASING (TOC)~~ TDL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

INITIAL DTW (BMP)	14.61 FT	FINAL DTW (BMP)	14.65 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	19.5 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	4.89 FT	DRAWDOWN VOLUME (Initial DTW- final DTW X well diam. squared X 0.041)	0.0065 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.8 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~2.2 GAL	DRAWDOWN/ TOTAL PURGED	0.0029	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1022	BEGIN PURGING									
1027	14.65	200	11.83	0.407	6.44	4.22	23.16	75.4	17.0	
1032	14.65	200	11.44	0.463	6.04	3.36	16.37	67.3	17.0	
1037	14.65	200	11.19	0.546	6.19	2.57	2.76	65.4	17.0	
1042	14.65	200	11.16	0.598	6.32	2.07	3.34	65.3	17.0	
1047	14.65	200	11.40	0.640	6.59	1.54	0.09	63.0	17.0	
1052	14.65	200	11.36	0.667	6.56	1.30	0.17	63.4	17.0	
1055	14.65	200	11.41	0.682	6.65	1.14	0.71	58.5	17.0	
1058	14.65	200	11.36	0.696	6.65	1.00	0.00	58.4	17.0	
1101	14.65	200	11.47	0.703	6.68	1.04	0.00	55.4	17.0	
1104	14.65	200	11.47	0.706	6.69	1.04	0.00	54.1	17.0	
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])			11	0.706	6.7	1.0	0.0	54		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 3 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☒ LIQUINOX ☒ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP BLADDER MATERIALS: ☒ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☐ HDPE TUBING ☒ LDPE TUBING ☐ OTHER ☐ OTHER ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☒ WL METER ☒ PID ☒ WQ METER ☒ TURB. METER ☒ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓ VOC	8260	N	HCl	3x40mL	Y	N	

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☑ NO ☐

NO-PURGE METHOD UTILIZED: YES ☐ NO ☑

NUMBER OF GALLONS GENERATED: ~2.2

If you purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: [signature] Print Name: Ryan Jimmy

Checked By: T.D.L. Date: 5-21-13

SKETCH/NOTES

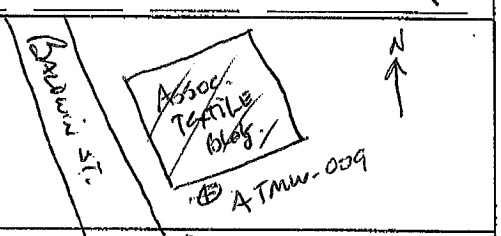

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Diamond Cleaners		LOCATION ID: ATMW-001R	DATE: 5/7/13
PROJECT NUMBER: 361211220902		START TIME: 900	END TIME: 940
SAMPLE ID: ATMW001R12013XX	SAMPLE TIME: 940	SITE NAME/NUMBER: —	PAGE: 1 OF 1

WELL DIAMETER (INCHES): ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES): ☒ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP): ☒ TOP OF RISER (TOR) ☒ ~~TOP OF CASING (TOC)~~ TSL ☐ OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

INITIAL DTW (BMP)	14.38 FT	FINAL DTW (BMP)	14.72 FT	PROT. CASING STICKUP (AGS)	Flush FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (BMP)	19.67 FT	SCREEN LENGTH	— FT	PID AMBIENT AIR	— PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	5.29 FT	DRAWDOWN VOLUME (Initial DTW - final DTW X well diam. squared X 0.041)	0.22 GAL	PID WELL MOUTH	— PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	3.47 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~1.9 GAL	DRAWDOWN/ TOTAL PURGED	0.12	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
900 ~~855~~	BEGIN PURGING									
905	14.63	200	11.91	0.409	6.30	0.52	15.38	-28.6	16.6	
910	14.71	200	11.62	0.406	6.20	0.26	13.51	-29.6	16.6	
915	14.72	200	11.68	0.416	6.24	0.24	15.18	-39.0	16.6	
920	14.72	200	11.82	0.439	6.27	0.26	6.20	-37.5	16.6	
925	14.72	200	11.79	0.486	6.30	0.21	4.71	-41.2	16.6	
930	14.72	200	11.87	0.527	6.34	0.19	4.91	-49.6	16.6	
933	14.72	200	11.90	0.542	6.36	0.15	3.99	-49.2	16.6	
936	14.72	200	11.93	0.550	6.38	0.16	3.49	-50.2	16.6	
	Collect	Sample	@ 940							
				~~0.550~~	~~6.4~~	~~0.2~~	~~3.5~~	~~-50~~		

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	12	0.550	6.4	0.2	3.5	-50

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATTERA ☐ OTHER ☐ OTHER

DECON FLUIDS USED: ☒ LIQUINOX ☒ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING PUMP BLADDER MATERIALS: ☐ SILICON TUBING ☐ TEFLON TUBING ☐ TEFLON LINED TUBING ☒ HDPE TUBING ☐ LDPE TUBING ☐ OTHER ☐ OTHER

☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ TEFLON BLADDER ☐ OTHER ☐ OTHER ☐ OTHER

EQUIPMENT USED: ☒ WL METER ☒ PID ☒ WQ METER ☒ TURB. METER ☒ PUMP ☐ OTHER ☐ FILTERS NO. ✓ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260	N	HCl	3x40mL	Yes	N	

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☐ NO ☒

NO-PURGE METHOD UTILIZED: YES ☐ NO ☒

NUMBER OF GALLONS GENERATED: ~1.9

If you purged approximately 1 standing column prior to sampling or _____ mL for this sample location.

Sampler Signature: Ryan Torrey Print Name: Ryan Torrey

Checked By: T.D.L. Date: 5-21-13

SKETCH/NOTES

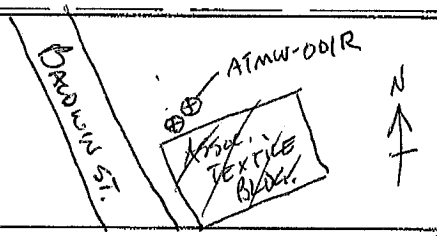

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

amec VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 361211 22009	PROJECT NAME: Diamond Cleaners		
BORING NUMBER: ATGW-002	COORDINATES:	DATE: 5/9/13	
ELEVATION: —	GWL: Depth 12.9' Date/Time	DATE STARTED:	
ENGINEER/GEOLOGIST: RST	Depth N/A Date/Time	DATE COMPLETED:	
DRILLING METHODS: Geoprobe - Direct Push		PAGE: 1 OF 1	

DEPTH ( )	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER ( )	RECOVERY %	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS PID
			50	0-0.2 Topsoil 0.2-3.8 S+G 3.8-4 Black-Brown med S				0.0
			75	4-4.3 SAA 4.3-5.0 Brown to Blk S+G				
	7' XX, MS, MD		100	5.0-5.2 Red/Brown G 5.2-8 Lt Brown C, V dense (clay) 8-9.5 S+G, some S+C, Wet Ceramic Pieces @ 9.4'				10.3 Moist 20.0 DRY 0.0 Wet
			100	9.5-12 LT Brown C, Very dense, dry				0.0 dry
	13' 8260C			12-12.9 DK Brown S+G, some C, wet 12.9-14.5 Brown C+S, Wet 14.5-15.7 Brown S+G, C 15.7-16 Lt Brn C, V. dense, dry 16-18 Lt Brown C, VV Dense EOB @ 18'				Saturated @ 12.9' 0.0 Dry

NOTES:

Drilling Contractor: Empire Drilling

Drilling Equipment: Geoprobe

Driller: Tony

REVIEWED BY: [signature] 8/2/13

945 ATGW00213 2013XX

1000 ATGW00207 2013XX 5.1

ATGW00207 2013MS

ATGW00207 2013MD

1015 ATGW00212013XX water

ATGW00212013XD

ATGW00212013MS

ATGW00212013MD

243C-3-00

amec

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 361211209	PROJECT NAME: Diamond Cleaners		
BORING NUMBER: ATGW-026	COORDINATES: —	DATE: 5/8/13	
ELEVATION: —	GWL: Depth 9.7 Date/Time	DATE STARTED: 5/8/13	
ENGINEER/GEOLOGIST: RSJ	Depth Date/Time	DATE COMPLETED: 5/8/13	
DRILLING METHODS: Geoprobe-Direct Push		PAGE: 1 OF 1	

DEPTH ( )	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER ( )	RECOVERY ( )	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
1 2 3 4			55%	0-0.5 Topsoil 1-2' Black Gravel Fill 2-2.5 Brown Silt 2.5-3 Red Brick 3-4 Brn-Lt Brown Silt				DRY 0.0 ↓
	sample @7 +Dup		100%	4-4.5' Red-Brown C some f 4.5-6.3' Lt Brown C & some f 6.3-8 Gray & Brown C, dense				5' 0.1 ppm 6.5' 0.5 ppm DRY 7' 3.5 7.5 0.2 8 0.1
	12'		100	8-8.4' SAA 8.4-8.9' DK Brown-Black S&G, some C 8.9-11.5' Lt Brown-Gray C, dense 11.5-12 m-C Sand G				9.0 to 11' Wet @ 9.7 11.5' 0.4 ppm 15' 0.4 ppm
	~~151~~ ~~15~~		60	12-12.5 SAA 12.5-13 Brwn C+f 13-16 Brwn S&G Wet Collect water @ ~~1255~~ 1400 ATGW026/2013XX				

NOTES:

Drilling Contractor: Empire Drilling

Drilling Equipment: Geoprobe-track mtd 50' D

Driller: Tony

Reviewed By: [signature] 8/2/13

Water

$ ATGW026072013XX@1230

$ ATGW026072013XD@1237

$ ATGW026122013XX@1245

ATGW026/2013XX

243C-3-00

amec VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 36121112009	PROJECT NAME: Diamond Cleaners		
BORING NUMBER: ATGW 043	COORDINATES: —	DATE: 5/8/13	
ELEVATION: —	GWL: Depth 13.7 Date/Time	DATE STARTED:	
ENGINEER/GEOLOGIST: RST	Depth Date/Time	DATE COMPLETED:	
DRILLING METHODS: Geoprobe - Direct Push		PAGE: 1 OF 1	

DEPTH ( )	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER ( )	RECOVERY ( )	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
			80	0-0.5 Topsoil 0.5-3 Brwn-Black Gravel 3-3.5 Brown f				PID 0.0
			95	3.5-3.7 Stone 3.7-4 Red Brick 4-5.2 Lt Brown C, f 5.2-8 Brwn-Gray C, f, dense to 8' (5.3-6.3, loose)				Wet 5.3-6.3
	13'		90	8-10 SAA 10-10.2 Blk, Red Gravel, S				PID 0.7ppm @ 12'
	15'			10.2-12 Gray-lt Brown C, very dense, moist 12-13 lt Brown clay 13-13.2 Dk Brown-Black S+G 13.2-16 Brwn S+G, some f ~~ATGW043 13+5~~				Wet @ 13.7' 2.0 @ 13' 15' → 0.2 ppm
			S	ATGW043132013XX @ 1330				
			S	ATGW043152013XX @ 1345				
			GW	ATGW04312013 XX @ 1350				
				EOB @ 16'				

NOTES:

Drilling Contractor: Empire Drilling

Drilling Equipment: Geoprobe - Track Mount

Driller: Tony

REVIEWED BY: [signature] 8/2/13

243C-3-00

amec VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 36121122O9	PROJECT NAME: Diamond Cleaners		
BORING NUMBER: ATGW-045	COORDINATES: —	DATE: 5/9/13	
ELEVATION: —	GWL: Depth 14.4 Date/Time	DATE STARTED:	
ENGINEER/GEOLOGIST: RSJ	Depth Date/Time	DATE COMPLETED:	
DRILLING METHODS: Geoprobe-Direct Push		PAGE: 1 OF 1	

DEPTH ( )	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER ( )	RECOVERY %	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS PID	REMARKS Comments
			70	0-0.3 Top Soil 0.3-2.5 SaG Fill Material 2.5-4 Lt Brown C				0.0	Dry
			100	Rock@4.2' 4.2-8 Lt Brown C, Dense				0.0	Dry
				8-8.5 SAA				10.1@8.2	
	1115' 8260		100	8.5-8.8 Brown-Black S+G 8.8-10.7 Lt Brown C				3.5 4.8@9.6	
				10.7-12 Brown C, S+G				18.4@11.7'	
			100	12-13' SAA				7.8@12.8'	
				13-13.6 Lt Brown C, some J				9.4@13.1'	
	16'		80	13.6-13.9 Dk Brown-Blk S+G, C				12.3@13.8'	
				13.9-15' C, S, G. Lt Brown					Wet@14.4'
			100	15-16' C+G, Dk Gray				0.0	
				16-16.5 Brown-Gray C+S					
				16.5-19' Rounded Stone Large-Small				0.0	Saturated
				EOB@19'					

NOTES:

Drilling Contractor: Empire Drilling

Drilling Equipment: Geoprobe-track mounted

Driller: Tony

Reviewed By: [signature] 8/2/13

1058 ATGW045122013XY Soil

1107 ATGW045162013XY

1115 ATGW045120013XY Water

Water Sample reacting w/ HCl Effervescing

243C-3-00

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 36121209	PROJECT NAME: Diamond Cleaners		
BORING NUMBER: ATGW046	COORDINATES: —	DATE: 5/8/13	
ELEVATION: —	GWL: Depth 14.7 Date/Time	DATE STARTED: "	
ENGINEER/GEOLOGIST: RST	Depth Date/Time	DATE COMPLETED: "	
DRILLING METHODS: GP - Direct Push		PAGE: 1 OF 1	

DEPTH ( )	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER ( )	RECOVERY ( )	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
			85	0-0.5 Topsoil				P.I 0.0
				0.5-3.2 Gray Stone (FILL)				Dry
				3.2-4 Black Gravel				
				4.0 (-4.2) Lt Brown C, dense				0.2 @ 5.7'
			100	4.2-4.9 Gravel				
				4.9-8.0 Lt Brown, Gray clay, V dense				Dry
				8-9.3 STONE				
		14		9.3-9.11 Brown-Gray C, dense				0.2 @ 10.5'
		8260C		9.11 Rock				Moist @ 10.2'
				9.11-11 Brown mSand, some C				0.3 @ 13.7, DM
				11-11.3 Lt Brown C				
				11.3-12 Lt Brown C & G				
				12-13 SAA				wet @ 14.7
		17		13-14.7 Brown S+G, some C, lessening towards 15				0.0
		8260C		14.7-15.2 Lt Brown C, wet @ 14.7				
				15.2-16 Brown S+G, C				0.2 @ 17'
				16-17 Brown, Red S+C, G				
				17-19 G+S, some C				

NOTES: EOB @ 19', GW Effervescing, Reacting to HCL, in Vials

Drilling Contractor: Empire Drilling

Drilling Equipment: Geoprobe

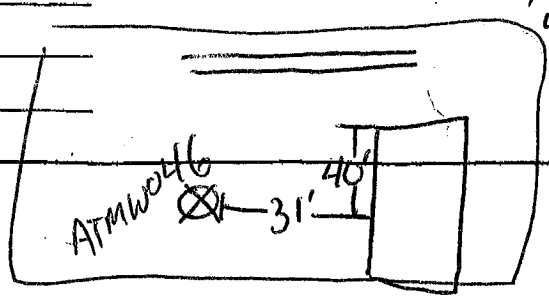
Driller: Tony

S ATGW046142013XX @ 1432

S ATGW046172013XX @ 1435

W ATGW046122013XX @ 1503

Reviewed By: [signature] 8/2/13



243C-3-00

ATTACHMENT 2

LABORATORY DATA AND DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING EVENT
DIAMOND CLEANERS SITE
AND
ASSOCIATED TEXTILES RENTAL SERVICES SITE
ELMIRA, NEW YORK

1.0 INTRODUCTION

Groundwater and soil samples were collected at the Diamond Cleaners Site (DCS) and at nearby Associated Textiles Rental Services Site (ATRS) in Elmira, New York, in May 2013 and submitted for analysis to TestAmerica Laboratory, located in Buffalo, New York and Edison, New Jersey. Sample results were reported in Sample Delivery Groups (SDGs) 480-38011-1, 480-38151-1, and 480-38152-1. Samples were analyzed for one or more of the following methods:

- Volatile organic compounds (VOCs) by USEPA Method 8260B
- Total solids by EPA Method 160.3

A listing of samples included in this Data Usability Summary Report (DUSR) is presented in Table 1. A summary of the analytical results is presented in Table 2. A summary of sample results qualified during this review is presented in Table 3 (Summary of Data Validation Actions). Tentatively identified compound (TICs) were not evaluated or reported by the laboratory for VOC samples.

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

A data usability review was completed based on NYSDEC Division of Environmental Remediation guidance for data usability summary reports (NYSDEC, 2010). Quality control (QC) limits from USEPA Region 2 data validation guidelines were used during the data evaluation for VOCs. The remaining methods were evaluated based on lab control limits and the judgment of the chemist. The DUSR review included evaluations of the following items:

- Lab Report Narrative Review
- Data Package Completeness and COC records (Table 1 verification)
- Sample Preservation and Holding Times
- Initial and Continuing Calibration (including tunes for GC/MS)
- QC Blanks
- Laboratory Control Samples (LCS)
- Matrix Spike/Matrix Spike Duplicates (MS/MSD)
- Surrogate Spikes
- Internal Standard Response and Retention Times
- Field Duplicates
- Raw Data (chromatograms), Calculation Checks and Transcription Verifications
- Reporting Limits
- Electronic Data Qualification and Verification

U = target analyte is not detected above the reported detection limit
J = concentration is estimated
UJ = target analyte is not detected and the reported detection limit is estimated
H = lab qualifier indicating that the result was reported from an analysis that exceeded the method hold time

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

2.0 Volatile Organic Compounds (VOCs)

VOC - Hold Times

SDG 480-38011-1

Sample ATMW00412013XX was collected on May 7, 2013 and first analyzed on May 19, 2013 within the 14 day hold time. The sample was re-analyzed at a dilution on May 28, 2013 outside the 14-day hold time. Cyclohexane was reported from the dilution analysis and was qualified (H) by the laboratory due to the exceedence of the hold time and was also qualified estimated (J) during validation.

VOC - Initial and Continuing Calibration

SDG 480-38011-1

The initial calibration (April 19, 2013, VOAMS5) associated with samples in SDG 480-38011-1 had average relative response factors (RRF) less than 0.05 for acetone (0.0145) and 2-butanone (0.0310). The analytical instrument demonstrated a response at the low end of the calibration (5 µg/l) for both compounds. Based on professional judgment, non-detect results for acetone and 2-butanone in the associated samples were not rejected. Results for acetone and 2-butanone in the associated samples were qualified as estimated (J/UJ).

In the continuing calibration analyzed on May 19, 2013, the following compounds had a percent difference that exceeded the control limit of 20: dichlorodifluoromethane (-41), 1,1,2-trichloro-1,2,2-trifluoroethane (36), trans-1,2-dichloroethene (21), cis-1,2-dichloroethene (22),

cyclohexane (48), methylcyclohexane (25), and bromoform (-20.1). Results and reporting limits for these compounds were qualified estimated (J/UJ) in the associated samples. The RRF for acetone (0.0144) and 2-butanone (0.032) in this continuing calibration was less than 0.05. Results were qualified as estimated (J/UJ).

The following compounds had a percent difference that was greater than 20 in the continuing calibration analyzed on May 20, 2013: dichlorodifluoromethane (-28), 1,1,2-trichloro-1,2,2-trifluoroethane (23), trans-1,2-dichloroethene (27), cis-1,2-dichloroethene (29), and cyclohexane (26). These compounds were qualified estimated (J/UJ) in associated samples. The RRF was less than 0.05 for acetone (0.0134) and 2-butanone (0.0322) in this continuing calibration and results were qualified as estimated (J/UJ).

The following compounds had a percent difference that was greater than 20 in the continuing calibration analyzed on May 21, 2013 (at 05:24): dichlorodifluoromethane (-26), bromomethane (-31), 4-methyl-2-pentanone (-20.9), chlorodibromomethane (-22), 2-hexanone (-23), bromoform (-31), 1,3-dichlorobenzene (-20.2), 1,4-dichlorobenzene (-21), 1,2-dichlorobenzene (-23), 1,2-dibromo-3-chloropropane (-34), and 1,2,4-trichlorobenzene (-30) . These compounds were qualified estimated (J/UJ) in associated samples. The RRF was less than 0.05 for acetone (0.0130) and 2-butanone (0.026) in this continuing calibration and results were as estimated (J/UJ).

The following compounds had a percent difference that was greater than 20 in the continuing calibration analyzed on May 21, 2013 (at 18:40): dichlorodifluoromethane (-32), bromomethane (-33), 1,1,2-trichloro-1,2,2-trifluoroethane (39), trans-1,2,-dichloroethene (20.6), cis-1,2-dichloroethene (24), cyclohexane (41), methylcyclohexane (27), bromoform (-21), 1,2-dibromo-3-chloropropane (-24), and 1,2,4-trichlorobenzene (-22) . These compounds were qualified estimated (J/UJ) in associated samples. The RRF was less than 0.05 for acetone (0.0127) and 2-butanone (0.0292) in this continuing calibration and results were as estimated (J/UJ).

SDG 480-38151-1

The following compounds had a percent difference that was greater than 20 in the continuing calibration analyzed on May 21, 2013: acetone (22), 4-methyl-2-pentanone (26), 2-hexanone (22). These compounds were qualified estimated (J/UJ) in all samples reported in SDG 480-38151-1.

SDG 480-38152-1

The following compounds had a percent difference that was greater than 20 in the continuing calibration analyzed on May 15, 2013: 1,1,2-trichloro-1,2,2-trifluoroethane (31), cyclohexane (20.9), and methylcyclohexane (21). These compounds were qualified estimated (J/UJ) in all samples reported in SDG 480-38151-1.

The results qualified during the review of the initial and continuing calibration data were assigned a reason code of ICVRRF, CCVRRF, and/or CCV%D and are summarized in Table 3.

LCS

SDG 480-38011-1

The following compounds had percent recoveries that were outside of the USEPA Region 2 control limits of 70-130 in the LCS analyzed on May 19, 2013 at 08:22: cyclohexane (150), methyl cyclohexane (133) and dichlorodifluoromethane (64). Detections of cyclohexane and methyl cyclohexane in associated samples were qualified estimated (J). Dichlorodifluoromethane was not detected in associated samples and the reporting limit was qualified as estimated (UJ) in the final data set.

Cyclohexane (144 to 147) was recovered above the upper control limit of 130 percent in the LCS samples analyzed on May 20 and 21st, 2013. Detections of cyclohexane in associated samples were qualified estimated (J).

Qualified results for cyclohexane, methyl cyclohexane and dichlorodifluoromethane were assigned a reason code of LCS-H or LCS-L and are summarized in Table 3.

VOC - Matrix Spikes

Matrix spike and matrix spike duplicates were evaluated based on Region 2 control limits of 70 – 130 percent and relative percent differences (RPDs) between the MS and MSD recoveries of 20.

SDG 480-38011-1

Matrix spike and matrix spike duplicate analyses were performed on the following groundwater samples: DCMW00412013XX, ATGW04312013XX, and ATMW00112013XX.

The following compounds had percent recoveries outside the control limits in the spikes analyzed on DCMW00412013XX: dichlorodifluoromethane (MS = 36 and MSD = 39), tetrachloroethene (MS = -17 and MSD = 21), trichlorofluoromethane (MS = 64), 1,2,4-trichlorobenzene (RPD = 25). Dichlorodifluoromethane, trichlorofluoromethane and 1,2,4-trichlorobenzene were not detected in the un-spiked sample and the reporting limit was qualified estimated (UJ) in the final data set. The concentration of tetrachloroethene in the un-spiked sample was greater than four times the concentration spike into the MS and MSD and therefore the spike recoveries were not evaluated.

The following compounds had percent recoveries and RPDs outside the control limits in the spikes analyzed on ATGW04312013XX: tetrachloroethene (MS = 879 and MSD = 935), cis-1,2 dichloroethene (MSD = 149), and trichloroethene (MS = 135), 1,2,4-trichlorobenzene (RPD = 31), 1,2-dibromo-3-chloropropane (RPD = 28), and 2-hexanone (RPD = 27). Positive detections of cis-1,2 dichloroethene and trichloroethene were qualified estimated (J) in un-spiked sample. 1,2,4-Trichlorobenzene, 1,2-dibromo-3-chloropropane, and 2-hexanone were not detected in the un-spiked sample and the reporting limit was qualified estimated (UJ). The concentration of tetrachloroethene in the un-spiked sample was greater than four times the concentration spike into the MS and MSD and therefore the spike recoveries were not evaluated. Thirteen other compounds had percent recoveries ranging from 132 to 166, but were not detected in the un-spiked sample and no qualifiers were added to the data set.

The following compounds had percent recoveries and RPDs outside the control limits in the spikes analyzed on ATMW00112013XX: 1,1,2-trichloro-1,2,2-trifluoroethane (MS = 132 and MSD = 140), dichlorodifluoromethane (66), 1,2-dichloropropane (MS = 131), 1,2-dichloropropane (MS = 131), cis-1,2-dichloroethene (MSD = 133), and cyclohexane (MSD = 141). 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,2-dichloropropane, 1,2-dichloropropane, and cis-

1,2-dichloroethene were not detected in the un-spiked sample and no qualifiers were added to the un-spiked sample for these compounds. The results for cyclohexane and dichlorodifluoromethane were qualified estimated (J/UJ) in the final data set.

SDG 480-38151-1

A matrix spike and matrix spike duplicate was performed on groundwater sample ATGW00212013XXXX. Tetrachloroethene (MS = 56) was recovered below the Region 2 QC limit of 70. The result for tetrachloroethene was qualified estimated (J) in ATGW00212013XXXX and the field duplicate sample, ATGW00212013XXXD.

SDG 480-38152-1

A matrix spike and matrix spike duplicate was performed on soil sample ATGW002072013XX. The following samples had recoveries that were below the Region 2 QC limit of 70: acetone (MS = 61 and MSD = 58), bromoform (MS = 69), carbon disulfide (MS = 56 and MSD = 58), and chloroethane (MS = 53 and MSD = 54). These compounds were not detected in the un-spiked sample and the reporting limits were qualified estimated (UJ).

Qualified results were assigned reason codes of MS-L, MS-H and/or MS-RPD and are summarized in Table 3.

VOC - Field Duplicates

SDG 480-38151-1

A field duplicate sample was submitted with field sample ATGW00212013XX. The following compounds had a RPD that was above the control limit of 50. Results for these compounds were qualified estimated (J/UJ) in the final data set. Qualified results were assigned reason codes of FD and are summarized in Table 3.

field_sample_id	qc_code	lab_sample_id	param_name	Final Result (ug/L)	Lab Qual	RPD
ATGW00212013XX	FS	480-38151-10	1,2-Dichloroethane	2		66.67%
ATGW00212013XD	FD	480-38151-11	1,2-Dichloroethane	1	U	
ATGW00212013XD	FD	480-38151-11	Tetrachloroethene	4.5	J	90.91%
ATGW00212013XX	FS	480-38151-10	Tetrachloroethene	12	J	
ATGW00212013XD	FD	480-38151-11	Trichloroethene	0.97	J	73.62%
ATGW00212013XX	FS	480-38151-10	Trichloroethene	2.1		

VOC - Sample Reporting

SDG 480-38011-1

During sample collection, a field sample was incorrectly labeled and recorded on the chain of custody (COC). The sample ID DCMW01312013XX should have been recorded as DCGW01312013XX on the COC. The sample ID was changed to DCGW01312013XX in the AMEC database.

Due to elevated concentrations of target analytes the following samples were analyzed at a dilution and non-detects were reported at elevated reporting levels:

SDG	field_sample_id	qc_code	lab_sample_id	dilution_factor
480-38011-1	DCMW00412013XD	FD	480-38011-2	5
480-38011-1	DCMW00412013XX	FS	480-38011-1	5
480-38011-1	ATGW02612013XX	FS	480-38011-7	5
480-38011-1	ATGW04312013XX	FS	480-38011-8	10
480-38011-1	ATMW00212013XX	FS	480-38011-12	5
480-38151-1	ATGW04512013XX	FS	480-38151-12	5

2.3 Total Solids

Results are interpreted to be usable as reported by the laboratory

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

USEPA Region 2, 2008. "Validating Volatile Organic Compounds by SW-846 Method 8260B"; SOP # HW-24, Revision 2, Hazardous Waste Support Branch; August 2008.

Data Validator: Tige Cunningham

WC for Tige Cunningham

Date: 6/24/13

Reviewed by Wolfgang Calicchio
Senior Environmental Scientist

Date: 7/22/13

TABLE 1
SAMPLE SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

					Class	VOC
					Analysis Method	SW8260B
					Fraction	T
SDG	Media	Location	Sample Date	Sample ID	Qc Code	
480-38011-1	GW	GW-002	5/7/2013	DCGW00212013XX	FS	48
480-38011-1	GW	GW-013	5/8/2013	DCGW01312013XX	FS	48
480-38011-1	GW	GW-014	5/8/2013	DCGW01413013XX	FS	48
480-38011-1	GW	GW-026	5/8/2013	ATGW02612013XX	FS	48
480-38011-1	GW	GW-043	5/8/2013	ATGW04312013XX	FS	48
480-38011-1	GW	GW-046	5/8/2013	ATGW04612013XX	FS	48
480-38011-1	GW	MW-001	5/7/2013	ATMW00112013XX	FS	48
480-38011-1	GW	MW-001	5/7/2013	DCMW00112013XX	FS	48
480-38011-1	GW	MW-001R	5/7/2013	ATMW001R12013XX	FS	48
480-38011-1	GW	MW-002	5/6/2013	ATMW00212013XX	FS	48
480-38011-1	GW	MW-002	5/8/2013	DCMW00212013XX	FS	48
480-38011-1	GW	MW-003	5/6/2013	ATMW00312013XX	FS	48
480-38011-1	GW	MW-003	5/7/2013	DCMW00312013XX	FS	48
480-38011-1	GW	MW-004	5/7/2013	ATMW00412013XX	FS	48
480-38011-1	GW	MW-004	5/8/2013	DCMW00412013XD	FD	48
480-38011-1	GW	MW-004	5/8/2013	DCMW00412013XX	FS	48
480-38011-1	GW	MW-005	5/6/2013	ATMW00512013XX	FS	48
480-38011-1	GW	MW-006	5/6/2013	ATMW00612013XX	FS	48
480-38011-1	GW	MW-006	5/7/2013	DCMW00612013XX	FS	48
480-38011-1	GW	MW-007	5/6/2013	ATMW00712013XX	FS	48
480-38011-1	GW	MW-007	5/7/2013	DCMW00712013XX	FS	48
480-38011-1	GW	MW-008	5/7/2013	ATMW00812013XX	FS	48
480-38011-1	GW	MW-008	5/7/2013	DCMW00812013XX	FS	48
480-38011-1	GW	MW-009	5/7/2013	DCMW00912013XX	FS	48
480-38011-1	GW	MW-009	5/7/2013	ATMW00912013XX	FS	48
480-38011-1	GW	MW-010	5/7/2013	DCMW01012013XX	FS	48
480-38011-1	GW	MW-011	5/6/2013	DCMW01112013XX	FS	48
480-38011-1	GW	MW-012	5/8/2013	DCMW1212013XX	FS	48
480-38011-1	GW	MW-013	5/8/2013	DCMW1312013XX	FS	48
480-38011-1	BW	QC	5/8/2013	TRIP BLANK	TB	48

Notes:
FS = Field Sample
FD = Field Duplicate

TABLE 1
SAMPLE SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

					Class	VOC
					Analysis Method	SW8260B
					Fraction	T
SDG	Media	Location	Sample Date	Sample ID	Qc Code	
480-38151-1	GW	GW-021	5/9/2013	ATGW00212013XD	FD	48
480-38151-1	GW	GW-021	5/9/2013	ATGW00212013XX	FS	48
480-38151-1	GW	GW-045	5/9/2013	ATGW04512013XX	FS	48
480-38151-1	GW	MW-014	5/8/2013	DCMW1412013XX	FS	48
480-38151-1	GW	MW-015	5/8/2013	DCMW1512013XX	FS	48
480-38151-1	GW	MW-016	5/9/2013	DCMW1612013XX	FS	48
480-38151-1	GW	MW-017	5/9/2013	DCMW1712013XX	FS	48
480-38151-1	GW	MW-018	5/9/2013	DCMW1812013XX	FS	48
480-38151-1	GW	MW-019	5/9/2013	DCMW1912013XX	FS	48
480-38151-1	GW	MW-020	5/9/2013	DCMW2012013XX	FS	48
480-38151-1	GW	MW-021	5/9/2013	DCMW2112013XX	FS	48
480-38151-1	GW	MW-022	5/9/2013	DCMW2212013XX	FS	48
480-38151-1	GW	MW-023	5/9/2013	DCMW2312013XX	FS	48
480-38151-1	BW	QC	5/9/2013	TRIP BLANK	FS	48

Notes:
FS = Field Sample
FD = Field Duplicate

TABLE 1
SAMPLE SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

SDG	Media	Location	Sample Date	Sample ID	Class / Analysis Method / Fraction / Qc Code	VOC SW8260B T	Solids E160.3 T
480-38152-1	SOIL	GW-002	5/9/2013	ATGW002072013XX	FS	48	2
480-38152-1	SOIL	GW-021	5/9/2013	ATGW002132013XX	FS	48	2
480-38152-1	SOIL	GW-026	5/8/2013	ATGW026072013XX	FS	48	2
480-38152-1	SOIL	GW-026	5/8/2013	ATGW026072013XD	FD	48	2
480-38152-1	SOIL	GW-026	5/8/2013	ATGW026122013XX	FS	48	2
480-38152-1	SOIL	GW-043	5/8/2013	ATGW043132013XX	FS	48	2
480-38152-1	SOIL	GW-043	5/8/2013	ATGW043152013XX	FS	48	2
480-38152-1	SOIL	GW-045	5/9/2013	ATGW045162013XX	FS	48	2
480-38152-1	SOIL	GW-045	5/9/2013	ATGW045122013XX	FS	48	2
480-38152-1	SOIL	GW-046	5/8/2013	ATGW046142013XX	FS	48	2
480-38152-1	SOIL	GW-046	5/8/2013	ATGW046172013XX	FS	48	2

Notes:
FS = Field Sample
FD = Field Duplicate

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	GW-002		GW-021		GW-026		GW-026		GW-026		GW-043	
			COC Sample	ATGW002072013XX		ATGW002132013XX		ATGW026072013XD		ATGW026072013XX		ATGW026122013XX		ATGW043132013XX	
			Date Sampled	05/09/13		05/09/13		05/08/13		05/08/13		05/08/13		05/08/13	
			Sample Type	FS		FS		FD		FS		FS		FS	
			Report Number	480-38152-1		480-38152-1		480-38152-1		480-38152-1		480-38152-1		480-38152-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg	47	UJ	67	UJ	53	UJ	52	UJ	52	UJ	45	UJ
N	SW8260B	1,1,2-Trichloroethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,1-Dichloroethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,1-Dichloroethene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,2-Dibromoethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,2-Dichlorobenzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,2-Dichloroethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,2-Dichloropropane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,3-Dichlorobenzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	1,4-Dichlorobenzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	2-Butanone	ug/kg	230	U	330	U	260	U	260	U	260	U	220	U
N	SW8260B	2-Hexanone	ug/kg	230	U	330	U	260	U	260	U	260	U	220	U
N	SW8260B	4-Methyl-2-pentanone	ug/kg	230	U	330	U	260	U	260	U	260	U	220	U
N	SW8260B	Acetic acid, methyl ester	ug/kg	47	U	72		53	U	52	U	52	U	45	U
N	SW8260B	Acetone	ug/kg	230	UJ	330	U	260	U	260	U	260	U	220	U
N	SW8260B	Benzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Bromodichloromethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Bromoform	ug/kg	47	UJ	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Bromomethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Carbon disulfide	ug/kg	47	UJ	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Carbon tetrachloride	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Chlorobenzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Chlorodibromomethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Chloroethane	ug/kg	47	UJ	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Chloroform	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Chloromethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	cis-1,3-Dichloropropene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Cyclohexane	ug/kg	47	UJ	67	UJ	53	UJ	52	UJ	52	UJ	45	UJ
N	SW8260B	Dichlorodifluoromethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Ethyl benzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Isopropylbenzene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	GW-002		GW-021		GW-026		GW-026		GW-026		GW-043	
			COC Sample	ATGW002072013XX		ATGW002132013XX		ATGW026072013XD		ATGW026072013XX		ATGW026122013XX		ATGW043132013XX	
			Date Sampled	05/09/13		05/09/13		05/08/13		05/08/13		05/08/13		05/08/13	
			Sample Type	FS		FS		FD		FS		FS		FS	
			Report Number	480-38152-1		480-38152-1		480-38152-1		480-38152-1		480-38152-1		480-38152-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/kg	47	UJ	67	UJ	53	UJ	52	UJ	52	UJ	45	UJ
N	SW8260B	Methyl Tertbutyl Ether	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Methylene chloride	ug/kg	47	U	16	J	53	U	12	J	11	J	45	U
N	SW8260B	Styrene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Tetrachloroethene	ug/kg	47	U	58	J	53	U	52	U	230		190	
N	SW8260B	Toluene	ug/kg	47	U	28	J	53	U	52	U	52	U	14	J
N	SW8260B	trans-1,2-Dichloroethene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	trans-1,3-Dichloropropene	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Trichloroethene	ug/kg	47	U	97		53	U	52	U	52	U	45	U
N	SW8260B	Trichlorofluoromethane	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Vinyl chloride	ug/kg	47	U	67	U	53	U	52	U	52	U	45	U
N	SW8260B	Xylenes, Total	ug/kg	94	U	130	U	110	U	100	U	100	U	89	U
N	E160.3	Percent Moisture	percent	16		29		18		18		15		16	
N	E160.3	Percent Solids	percent	84		71		82		82		85		84	

Notes:
N = normal
FS = field sample
FD = field duplicate
U = not detected, value is the reporting limit
J = value is estimated
ug/kg = microgram per kilogram

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	GW-043		GW-045		GW-045		GW-046		GW-046	
			COC Sample	ATGW043152013XX		ATGW045122013XX		ATGW045162013XX		ATGW046142013XX		ATGW046172013XX	
			Date Sampled	05/08/13		05/09/13		05/09/13		05/08/13		05/08/13	
			Sample Type	FS		FS		FS		FS		FS	
			Report Number	480-38152-1		480-38152-1		480-38152-1		480-38152-1		480-38152-1	
Frac	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg	51	UJ	43	UJ	59	UJ	46	UJ	54	UJ
N	SW8260B	1,1,2-Trichloroethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,1-Dichloroethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,1-Dichloroethene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,2-Dibromoethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,2-Dichlorobenzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,2-Dichloroethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,2-Dichloropropane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,3-Dichlorobenzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	1,4-Dichlorobenzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	2-Butanone	ug/kg	250	U	220	U	290	U	230	U	270	U
N	SW8260B	2-Hexanone	ug/kg	250	U	220	U	290	U	230	U	270	U
N	SW8260B	4-Methyl-2-pentanone	ug/kg	250	U	220	U	290	U	230	U	270	U
N	SW8260B	Acetic acid, methyl ester	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Acetone	ug/kg	250	U	220	U	290	U	230	U	270	U
N	SW8260B	Benzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Bromodichloromethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Bromoform	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Bromomethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Carbon disulfide	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Carbon tetrachloride	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Chlorobenzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Chlorodibromomethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Chloroethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Chloroform	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Chloromethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/kg	17	J	43	U	59	U	46	U	54	U
N	SW8260B	cis-1,3-Dichloropropene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Cyclohexane	ug/kg	51	UJ	43	UJ	59	UJ	46	UJ	54	UJ
N	SW8260B	Dichlorodifluoromethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Ethyl benzene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Isopropylbenzene	ug/kg	51	U	43	U	59	U	46	U	54	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	GW-043		GW-045		GW-045		GW-046		GW-046	
			COC Sample	ATGW043152013XX		ATGW045122013XX		ATGW045162013XX		ATGW046142013XX		ATGW046172013XX	
			Date Sampled	05/08/13		05/09/13		05/09/13		05/08/13		05/08/13	
			Sample Type	FS		FS		FS		FS		FS	
			Report Number	480-38152-1		480-38152-1		480-38152-1		480-38152-1		480-38152-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/kg	51	UJ	43	UJ	59	UJ	46	UJ	54	UJ
N	SW8260B	Methyl Tertbutyl Ether	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Methylene chloride	ug/kg	51	U	12	J	59	U	12	J	13	J
N	SW8260B	Styrene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Tetrachloroethene	ug/kg	470		49		310		46	U	150	
N	SW8260B	Toluene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	trans-1,2-Dichloroethene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	trans-1,3-Dichloropropene	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Trichloroethene	ug/kg	51	U	43	U	39	J	46	U	54	U
N	SW8260B	Trichlorofluoromethane	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Vinyl chloride	ug/kg	51	U	43	U	59	U	46	U	54	U
N	SW8260B	Xylenes, Total	ug/kg	100	U	87	U	120	U	92	U	110	U
N	E160.3	Percent Moisture	percent	19		12		22		13		19	
N	E160.3	Percent Solids	percent	81		88		78		87		81	

Notes:

N = normal

FS = field sample

FD = field duplicate

U = not detected, value is the reporting limit

J = value is estimated

ug/kg = microgram per kilogram

Prepared by / Date: KJC 06/26/13

Checked by / Date: TLC 07/12/13

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	GW-002		GW-013		GW-014		GW-021		GW-021		GW-026	
			COC Sample	DCGW00212013XX		DCGW01312013XX		DCGW01413013XX		ATGW00212013XD		ATGW00212013XX		ATGW02612013XX	
			Date Sampled	05/07/13		05/08/13		05/08/13		05/09/13		05/09/13		05/08/13	
			Sample Type	FS		FS		FS		FD		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38151-1		480-38151-1		480-38011-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	0.12	J	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	UJ	1	U	1	U	1	U	1	U	5	UJ
N	SW8260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,1-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,1-Dichloroethene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	1,2-Dibromoethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	1	UJ	2	J	5	U
N	SW8260B	1,2-Dichloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	2-Butanone	ug/l	5	UJ	5	UJ	5	UJ	5	U	5	U	25	UJ
N	SW8260B	2-Hexanone	ug/l	5	U	5	UJ	5	UJ	5	UJ	5	UJ	25	U
N	SW8260B	4-Methyl-2-pentanone	ug/l	5	U	5	UJ	5	UJ	5	UJ	5	UJ	25	U
N	SW8260B	Acetic acid, methyl ester	ug/l	2	U	2	U	2	U	2	U	2	U	10	U
N	SW8260B	Acetone	ug/l	5	UJ	13	J	5	UJ	5	UJ	5	UJ	25	UJ
N	SW8260B	Benzene	ug/l	1	U	0.15	J	1	U	1	U	0.21	J	5	U
N	SW8260B	Bromodichloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Bromoform	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	UJ
N	SW8260B	Bromomethane	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	Carbon disulfide	ug/l	1	U	0.42	J	0.31	J	1	U	1	U	5	U
N	SW8260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Chlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Chlorodibromomethane	ug/l	1	U	1	UJ	1	UJ	1	U	1	U	5	U
N	SW8260B	Chloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Chloroform	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Chloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	1.7	J	1	U	2		1	U	1		63	J
N	SW8260B	cis-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Cyclohexane	ug/l	1	UJ	1	U	1	U	1	U	1	U	5	UJ
N	SW8260B	Dichlorodifluoromethane	ug/l	1	UJ	1	UJ	1	UJ	1	U	1	U	5	UJ
N	SW8260B	Ethyl benzene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Isopropylbenzene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U

TABLE 2
FINAL RESULTS SUMMARY
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			Location	GW-002		GW-013		GW-014		GW-021		GW-021		GW-026	
			COC Sample	DCGW00212013XX		DCGW01312013XX		DCGW01413013XX		ATGW00212013XD		ATGW00212013XX		ATGW02612013XX	
			Date Sampled	05/07/13		05/08/13		05/08/13		05/09/13		05/09/13		05/08/13	
			Sample Type	FS		FS		FS		FD		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38151-1		480-38151-1		480-38011-1	
Fraci	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	1	U	1	U	1	U	1	U	1	U	5	UJ
N	SW8260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Methylene chloride	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Styrene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Tetrachloroethene	ug/l	130		1	U	0.15	J	4.5	J	12	J	730	
N	SW8260B	Toluene	ug/l	1	U	0.27	J	0.18	J	1	U	1	U	2	J
N	SW8260B	trans-1,2-Dichloroethene	ug/l	1	UJ	1	U	1	U	1	U	1	U	5	UJ
N	SW8260B	trans-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Trichloroethene	ug/l	4.9		1	U	0.29	J	0.97	J	2.1	J	36	
N	SW8260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Vinyl chloride	ug/l	1	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Xylenes, Total	ug/l	3	U	3	U	3	U	3	U	3	U	15	U

Notes:
N = normal
FS = field sample
FD = field duplicate
U = not detected, value is the reporting limit
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H = exceeds holding time
ug/l = microgram per liter

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
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			Location	GW-043		GW-045		GW-046		MW-001		MW-001		MW-001R	
			COC Sample	ATGW04312013XX		ATGW04512013XX		ATGW04612013XX		ATMW00112013XX		DCMW00112013XX		ATMW001R12013XX	
			Date Sampled	05/08/13		05/09/13		05/08/13		05/07/13		05/07/13		05/07/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38151-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Frac	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	10	U	5	U	0.34	J	1	U	1	U	1	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	10	U	5	U	1	UJ	1	UJ	1	UJ	1	U
N	SW8260B	1,1,2-Trichloroethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethene	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	10	UJ	5	U	1	U	1	UJ	1	U	1	UJ
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	10	UJ	5	U	1	U	1	UJ	1	U	1	UJ
N	SW8260B	1,2-Dibromoethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	10	UJ	5	U	1	U	1	U	1	U	1	UJ
N	SW8260B	1,2-Dichloroethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloropropane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	10	UJ	5	U	1	U	1	U	1	U	1	UJ
N	SW8260B	1,4-Dichlorobenzene	ug/l	10	UJ	5	U	1	U	1	U	1	U	1	UJ
N	SW8260B	2-Butanone	ug/l	50	UJ	25	U	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	2-Hexanone	ug/l	50	UJ	25	UJ	5	U	5	U	5	U	5	UJ
N	SW8260B	4-Methyl-2-pentanone	ug/l	50	UJ	25	UJ	5	U	5	U	5	U	5	UJ
N	SW8260B	Acetic acid, methyl ester	ug/l	20	U	10	U	2	U	2	U	2	U	2	U
N	SW8260B	Acetone	ug/l	50	UJ	37	J	6	J	5	UJ	5	UJ	5	UJ
N	SW8260B	Benzene	ug/l	10	U	5	U	0.33	J	25		1	U	8.8	
N	SW8260B	Bromodichloromethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Bromoform	ug/l	10	UJ	5	U	1	UJ	1	UJ	1	U	1	UJ
N	SW8260B	Bromomethane	ug/l	10	UJ	5	U	1	U	1	UJ	1	U	1	UJ
N	SW8260B	Carbon disulfide	ug/l	2.7	J	5	U	0.18	J	1	U	1	U	0.15	J
N	SW8260B	Carbon tetrachloride	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorobenzene	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorodibromomethane	ug/l	10	UJ	5	U	1	U	1	U	1	U	1	UJ
N	SW8260B	Chloroethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroform	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloromethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	79	J	47		14	J	1	UJ	2.4	J	1	U
N	SW8260B	cis-1,3-Dichloropropene	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Cyclohexane	ug/l	10	U	5	U	1	UJ	52	J	1	UJ	14	J
N	SW8260B	Dichlorodifluoromethane	ug/l	10	UJ	5	U	1	UJ	1	UJ	1	UJ	1	UJ
N	SW8260B	Ethyl benzene	ug/l	10	U	5	U	1	U	130		1	U	27	
N	SW8260B	Isopropylbenzene	ug/l	10	U	5	U	1	U	15		1	U	2	

TABLE 2
FINAL RESULTS SUMMARY
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DIAMOND CLEANERS SITE
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			Location	GW-043		GW-045		GW-046		MW-001		MW-001		MW-001R	
			COC Sample	ATGW04312013XX		ATGW04512013XX		ATGW04612013XX		ATMW00112013XX		DCMW00112013XX		ATMW001R12013XX	
			Date Sampled	05/08/13		05/09/13		05/08/13		05/07/13		05/07/13		05/07/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38151-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	10	U	5	U	1	UJ	18	J	1	U	8.9	
N	SW8260B	Methyl Tertbutyl Ether	ug/l	10	U	5	U	0.88	J	5.3		1	U	3	
N	SW8260B	Methylene chloride	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Styrene	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Tetrachloroethene	ug/l	940		670		27		1	U	7.4		1	U
N	SW8260B	Toluene	ug/l	10	U	5	U	0.38	J	37		1	U	9.8	
N	SW8260B	trans-1,2-Dichloroethene	ug/l	10	U	5	U	1	UJ	1	UJ	1	UJ	1	U
N	SW8260B	trans-1,3-Dichloropropene	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Trichloroethene	ug/l	54	J	61		6.6		1	U	3.2		1	U
N	SW8260B	Trichlorofluoromethane	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Vinyl chloride	ug/l	10	U	5	U	1	U	1	U	1	U	1	U
N	SW8260B	Xylenes, Total	ug/l	30	U	15	U	3	U	140		3	U	27	

Notes:
N = normal
FS = field sample
FD = field duplicate
U = not detected, value is the reporting limit
J = value is estimated
H = exceeds holding time
ug/l = microgram per liter

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-002		MW-002		MW-003		MW-003		MW-004		MW-004	
			COC Sample	ATMW00212013XX		DCMW00212013XX		ATMW00312013XX		DCMW00312013XX		ATMW00412013XX		DCMW00412013XD	
			Date Sampled	05/06/13		05/08/13		05/06/13		05/07/13		05/07/13		05/08/13	
			Sample Type	FS		FS		FS		FS		FS		FD	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Frac	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	5	U	0.087	J	1	U	0.11	J	1	U	5	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ	5	UJ
N	SW8260B	1,1,2-Trichloroethane	ug/l	5	U	3.4		1	U	1	U	1	U	5	U
N	SW8260B	1,1-Dichloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,1-Dichloroethene	ug/l	5	U	0.44	J	1	U	1	U	1	U	5	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,2-Dibromoethane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,2-Dichloroethane	ug/l	5	U	2.1		1	U	1	U	1	U	5	U
N	SW8260B	1,2-Dichloropropane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	2-Butanone	ug/l	25	UJ	11	J	5	UJ	5	UJ	5	UJ	25	UJ
N	SW8260B	2-Hexanone	ug/l	25	U	5	U	5	U	5	U	5	U	25	U
N	SW8260B	4-Methyl-2-pentanone	ug/l	25	U	5	U	5	U	5	U	5	U	25	U
N	SW8260B	Acetic acid, methyl ester	ug/l	10	U	2	U	2	U	2	U	2	U	10	U
N	SW8260B	Acetone	ug/l	25	UJ	2.8	J	5	UJ	5	UJ	5	UJ	25	UJ
N	SW8260B	Benzene	ug/l	920		0.17	J	1	U	1	U	80		5	U
N	SW8260B	Bromodichloromethane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Bromoform	ug/l	5	UJ	1	U	1	UJ	1	U	1	UJ	5	UJ
N	SW8260B	Bromomethane	ug/l	5	U	0.25	J	1	U	1	U	1	U	5	U
N	SW8260B	Carbon disulfide	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Carbon tetrachloride	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Chlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Chlorodibromomethane	ug/l	5	U	89		1	U	1	U	1	U	5	U
N	SW8260B	Chloroethane	ug/l	5	U	0.41	J	1	U	1	U	1	U	5	U
N	SW8260B	Chloroform	ug/l	5	U	0.11	J	0.44	J	0.28	J	1	U	5	U
N	SW8260B	Chloromethane	ug/l	5	U	0.19	J	1	U	1	U	1	U	5	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	5	UJ	220	J	1	UJ	14	J	1	UJ	9.4	J
N	SW8260B	cis-1,3-Dichloropropene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Cyclohexane	ug/l	85	J	1	UJ	1	UJ	1	UJ	170	JH	5	UJ
N	SW8260B	Dichlorodifluoromethane	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ	5	UJ
N	SW8260B	Ethyl benzene	ug/l	370		1	U	1	U	1	U	47		5	U
N	SW8260B	Isopropylbenzene	ug/l	19		1	U	1	U	1	U	14		5	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-002		MW-002		MW-003		MW-003		MW-004		MW-004	
			COC Sample	ATMW00212013XX		DCMW00212013XX		ATMW00312013XX		DCMW00312013XX		ATMW00412013XX		DCMW00412013XD	
			Date Sampled	05/06/13		05/08/13		05/06/13		05/07/13		05/07/13		05/08/13	
			Sample Type	FS		FS		FS		FS		FS		FD	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Fraction	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	60	J	0.18	J	1	UJ	1	U	100	J	5	UJ
N	SW8260B	Methyl Tertbutyl Ether	ug/l	7		1	U	1	U	1	U	1	U	5	U
N	SW8260B	Methylene chloride	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Styrene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Tetrachloroethene	ug/l	2.9	J	100		1	U	46		0.26	J	620	
N	SW8260B	Toluene	ug/l	160		1	U	1	U	1	U	11		5	U
N	SW8260B	trans-1,2-Dichloroethene	ug/l	5	UJ	0.99	J	1	UJ	1	UJ	1	UJ	5	UJ
N	SW8260B	trans-1,3-Dichloropropene	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Trichloroethene	ug/l	5	U	16		0.11	J	4.7		0.81	J	4.4	J
N	SW8260B	Trichlorofluoromethane	ug/l	5	U	1	U	1	U	1	U	1	U	5	U
N	SW8260B	Vinyl chloride	ug/l	5	U	0.93	J	1	U	1	U	1	U	5	U
N	SW8260B	Xylenes, Total	ug/l	660		3	U	3	U	3	U	13		15	U

Notes:
N = normal
FS = field sample
FD = field duplicate
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H = exceeds holding time
ug/l = microgram per liter

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-004		MW-005		MW-006		MW-006		MW-007		MW-007	
			COC Sample	DCMW00412013XX		ATMW00512013XX		ATMW00612013XX		DCMW00612013XX		ATMW00712013XX		DCMW00712013XX	
			Date Sampled	05/08/13		05/06/13		05/06/13		05/07/13		05/06/13		05/07/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
N	SW8260B	1,1,2-Trichloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethane	ug/l	5	U	1	U	0.15	J	0.25	J	1	U	1	U
N	SW8260B	1,1-Dichloroethene	ug/l	5	U	1	U	1	U	1	U	1	U	0.31	J
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	5	UJ	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromoethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloropropane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	5	U	1	U	0.43	J	1	U	1	U	1	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	5	U	1	U	1.4		1	U	1	U	1	U
N	SW8260B	2-Butanone	ug/l	25	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	2-Hexanone	ug/l	25	U	5	U	5	U	5	U	5	U	5	U
N	SW8260B	4-Methyl-2-pentanone	ug/l	25	U	5	U	5	U	5	U	5	U	5	U
N	SW8260B	Acetic acid, methyl ester	ug/l	10	U	2	U	2	U	2	U	2	U	2	U
N	SW8260B	Acetone	ug/l	25	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	Benzene	ug/l	5	U	1	U	0.11	J	1	U	0.11	J	0.1	J
N	SW8260B	Bromodichloromethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Bromoform	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	U
N	SW8260B	Bromomethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon disulfide	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon tetrachloride	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorobenzene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorodibromomethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroform	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloromethane	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	10	J	1	UJ	1	UJ	13	J	0.55	J	130	J
N	SW8260B	cis-1,3-Dichloropropene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cyclohexane	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	0.63	J	1	UJ
N	SW8260B	Dichlorodifluoromethane	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
N	SW8260B	Ethyl benzene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Isopropylbenzene	ug/l	5	U	1	U	0.1	J	1	U	1	U	1	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-004		MW-005		MW-006		MW-006		MW-007		MW-007	
			COC Sample	DCMW00412013XX		ATMW00512013XX		ATMW00612013XX		DCMW00612013XX		ATMW00712013XX		DCMW00712013XX	
			Date Sampled	05/08/13		05/06/13		05/06/13		05/07/13		05/06/13		05/07/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	5	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	U
N	SW8260B	Methyl Tertbutyl Ether	ug/l	5	U	0.14	J	1	U	1	U	3.9		1	U
N	SW8260B	Methylene chloride	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Styrene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Tetrachloroethene	ug/l	660		1	U	1	U	0.11	J	1	U	190	
N	SW8260B	Toluene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	trans-1,2-Dichloroethene	ug/l	5	UJ	1	UJ	0.23	J	1	UJ	1	UJ	0.74	J
N	SW8260B	trans-1,3-Dichloropropene	ug/l	5	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Trichloroethene	ug/l	3.7	J	1	U	1	U	0.39	J	1	U	29	
N	SW8260B	Trichlorofluoromethane	ug/l	5	UJ	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Vinyl chloride	ug/l	5	U	1	U	1	U	0.21	J	1	U	1.1	
N	SW8260B	Xylenes, Total	ug/l	15	U	3	U	3	U	3	U	3	U	3	U

Notes:
N = normal
FS = field sample
FD = field duplicate
U = not detected, value is the reporting limit
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H = exceeds holding time
ug/l = microgram per liter

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-008		MW-008		MW-009		MW-009		MW-010		MW-011	
			COC Sample	ATMW00812013XX		DCMW00812013XX		ATMW00912013XX		DCMW00912013XX		DCMW01012013XX		DCMW01112013XX	
			Date Sampled	05/07/13		05/07/13		05/07/13		05/07/13		05/07/13		05/06/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	47		1	U	1	U	0.12	J	1	U	1	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
N	SW8260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethane	ug/l	1.5		1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethene	ug/l	0.55	J	1	U	1	U	0.19	J	1	U	1	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromoethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	2-Butanone	ug/l	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	2-Hexanone	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8260B	4-Methyl-2-pentanone	ug/l	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8260B	Acetic acid, methyl ester	ug/l	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8260B	Acetone	ug/l	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	Benzene	ug/l	1	U	1	U	0.13	J	0.099	J	1	U	1	U
N	SW8260B	Bromodichloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Bromoform	ug/l	1	UJ	1	U	1	U	1	UJ	1	U	1	UJ
N	SW8260B	Bromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon disulfide	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorodibromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroform	ug/l	0.12	J	0.17	J	1	U	1	U	0.18	J	1	U
N	SW8260B	Chloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	12	J	42	J	2.4	J	150	J	5.9	J	1	UJ
N	SW8260B	cis-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cyclohexane	ug/l	1	UJ	1	UJ	12	J	1	UJ	1	UJ	1	UJ
N	SW8260B	Dichlorodifluoromethane	ug/l	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
N	SW8260B	Ethyl benzene	ug/l	1	U	1	U	11		1	U	1	U	1	U
N	SW8260B	Isopropylbenzene	ug/l	1	U	1	U	2.2		1	U	1	U	1	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-008		MW-008		MW-009		MW-009		MW-010		MW-011	
			COC Sample	ATMW00812013XX		DCMW00812013XX		ATMW00912013XX		DCMW00912013XX		DCMW01012013XX		DCMW01112013XX	
			Date Sampled	05/07/13		05/07/13		05/07/13		05/07/13		05/07/13		05/06/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1		480-38011-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	1	UJ	1	U	3.3		1	UJ	1	U	1	UJ
N	SW8260B	Methyl Tertbutyl Ether	ug/l	2		1	U	3.5		1	U	1	U	1.3	
N	SW8260B	Methylene chloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Styrene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Tetrachloroethene	ug/l	1.5		85		2.1		50		270		0.15	J
N	SW8260B	Toluene	ug/l	1	U	1	U	1.5		1	U	1	U	1	U
N	SW8260B	trans-1,2-Dichloroethene	ug/l	0.13	J	0.33	J	1	UJ	0.81	J	1	UJ	1	UJ
N	SW8260B	trans-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Trichloroethene	ug/l	33		8.2		3		11		2.2		1.4	
N	SW8260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Vinyl chloride	ug/l	0.58	J	0.59	J	1	U	0.15	J	1	U	1	U
N	SW8260B	Xylenes, Total	ug/l	3	U	3	U	25		3	U	3	U	3	U

Notes:
N = normal
FS = field sample
FD = field duplicate
U = not detected, value is the reporting limit
J = value is estimated
H = exceeds holding time
ug/l = microgram per liter

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-012		MW-013		MW-014		MW-015		MW-016		MW-017	
			COC Sample	DCMW1212013XX		DCMW1312013XX		DCMW1412013XX		DCMW1512013XX		DCMW1612013XX		DCMW1712013XX	
			Date Sampled	05/08/13		05/08/13		05/08/13		05/08/13		05/09/13		05/09/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38151-1		480-38151-1		480-38151-1		480-38151-1	
Frac	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	UJ	1	UJ	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethene	ug/l	0.12	J	0.6	J	1	U	1	U	1	U	1	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromoethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	2-Butanone	ug/l	5	UJ	5	UJ	5	U	5	U	5	U	5	U
N	SW8260B	2-Hexanone	ug/l	5	U	5	U	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	4-Methyl-2-pentanone	ug/l	5	U	5	U	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	Acetic acid, methyl ester	ug/l	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8260B	Acetone	ug/l	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	Benzene	ug/l	0.084	J	0.13	J	1	U	1	U	1	U	1	U
N	SW8260B	Bromodichloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Bromoform	ug/l	1	U	1	UJ	1	U	1	U	1	U	1	U
N	SW8260B	Bromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon disulfide	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorodibromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroform	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	81	J	270	J	92		1	U	2.7		8.1	
N	SW8260B	cis-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cyclohexane	ug/l	1	UJ	1	UJ	1	U	1	U	1	U	1	U
N	SW8260B	Dichlorodifluoromethane	ug/l	1	UJ	1	UJ	1	U	1	U	1	U	1	U
N	SW8260B	Ethyl benzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Isopropylbenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-012		MW-013		MW-014		MW-015		MW-016		MW-017	
			COC Sample	DCMW1212013XX		DCMW1312013XX		DCMW1412013XX		DCMW1512013XX		DCMW1612013XX		DCMW1712013XX	
			Date Sampled	05/08/13		05/08/13		05/08/13		05/08/13		05/09/13		05/09/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38011-1		480-38011-1		480-38151-1		480-38151-1		480-38151-1		480-38151-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	1	U	1	UJ	1	U	1	U	1	U	1	U
N	SW8260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Methylene chloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Styrene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Tetrachloroethene	ug/l	200		250		150		1	U	250		67	
N	SW8260B	Toluene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	trans-1,2-Dichloroethene	ug/l	0.55	J	1.5	J	0.76	J	1	U	1	U	1	U
N	SW8260B	trans-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Trichloroethene	ug/l	24		54		19		1	U	7.8		11	
N	SW8260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Vinyl chloride	ug/l	1	U	2.2		2.1		1	U	1	U	0.54	J
N	SW8260B	Xylenes, Total	ug/l	3	U	3	U	3	U	3	U	3	U	3	U

Notes:
N = normal
FS = field sample
FD = field duplicate
U = not detected, value is the reporting limit
J = value is estimated
H = exceeds holding time
ug/l = microgram per liter

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-018		MW-019		MW-020		MW-021		MW-022		MW-023	
			COC Sample	DCMW1812013XX		DCMW1912013XX		DCMW2012013XX		DCMW2112013XX		DCMW2212013XX		DCMW2312013XX	
			Date Sampled	05/09/13		05/09/13		05/09/13		05/09/13		05/09/13		05/09/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38151-1		480-38151-1		480-38151-1		480-38151-1		480-38151-1		480-38151-1	
Frac	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,1-Dichloroethene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dibromoethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,2-Dichloropropane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	2-Butanone	ug/l	5	U	5	U	5	U	18		5	U	5	U
N	SW8260B	2-Hexanone	ug/l	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	4-Methyl-2-pentanone	ug/l	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
N	SW8260B	Acetic acid, methyl ester	ug/l	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8260B	Acetone	ug/l	5	UJ	36	J	5	UJ	440	J	5	UJ	5	UJ
N	SW8260B	Benzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Bromodichloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Bromoform	ug/l	1	U	1	U	1	U	4		1	U	1	U
N	SW8260B	Bromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon disulfide	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chlorodibromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Chloroform	ug/l	1	U	1	U	1	U	0.68	J	1	U	1	U
N	SW8260B	Chloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	84		2		100		1	U	12		1	U
N	SW8260B	cis-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Cyclohexane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Dichlorodifluoromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Ethyl benzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Isopropylbenzene	ug/l	1	U	1	U	1	U	1	U	1.4		1	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	MW-018		MW-019		MW-020		MW-021		MW-022		MW-023	
			COC Sample	DCMW1812013XX		DCMW1912013XX		DCMW2012013XX		DCMW2112013XX		DCMW2212013XX		DCMW2312013XX	
			Date Sampled	05/09/13		05/09/13		05/09/13		05/09/13		05/09/13		05/09/13	
			Sample Type	FS		FS		FS		FS		FS		FS	
			Report Number	480-38151-1		480-38151-1		480-38151-1		480-38151-1		480-38151-1		480-38151-1	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8260B	Methyl cyclohexane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Methylene chloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Styrene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Tetrachloroethene	ug/l	110		1.2		2		1	U	65		1	
N	SW8260B	Toluene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	trans-1,2-Dichloroethene	ug/l	0.38	J	1	U	1	U	1	U	1	U	1	U
N	SW8260B	trans-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Trichloroethene	ug/l	9.6		1	U	1.1		1	U	3		1	U
N	SW8260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8260B	Vinyl chloride	ug/l	1.4		1	U	6.2		1	U	2		1	U
N	SW8260B	Xylenes, Total	ug/l	3	U	3	U	3	U	3	U	3	U	3	U

Notes:

N = normal

FS = field sample

FD = field duplicate

U = not detected, value is the reporting limit

J = value is estimated

H = exceeds holding time

ug/l = microgram per liter

Prepared by / Date: KJC 06/26/13

Checked by / Date: TLC 07/12/13

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	QC		QC	
			COC Sample	TRIP BLANK		TRIP BLANK	
			Date Sampled	05/08/13		05/09/13	
			Sample Type	TB		TB	
			Report Number	480-38011-1		480-38151-1	
Fraction	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual
N	SW8260B	1,1,1-Trichloroethane	ug/l	1	U	1	U
N	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U
N	SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	U	1	U
N	SW8260B	1,1,2-Trichloroethane	ug/l	1	U	1	U
N	SW8260B	1,1-Dichloroethane	ug/l	1	U	1	U
N	SW8260B	1,1-Dichloroethene	ug/l	1	U	1	U
N	SW8260B	1,2,4-Trichlorobenzene	ug/l	1	U	1	U
N	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	U	1	U
N	SW8260B	1,2-Dibromoethane	ug/l	1	U	1	U
N	SW8260B	1,2-Dichlorobenzene	ug/l	1	U	1	U
N	SW8260B	1,2-Dichloroethane	ug/l	1	U	1	U
N	SW8260B	1,2-Dichloropropane	ug/l	1	U	1	U
N	SW8260B	1,3-Dichlorobenzene	ug/l	1	U	1	U
N	SW8260B	1,4-Dichlorobenzene	ug/l	1	U	1	U
N	SW8260B	2-Butanone	ug/l	5	U	5	U
N	SW8260B	2-Hexanone	ug/l	5	U	5	U
N	SW8260B	4-Methyl-2-pentanone	ug/l	5	U	5	U
N	SW8260B	Acetic acid, methyl ester	ug/l	2	U	2	U
N	SW8260B	Acetone	ug/l	5	U	5	U
N	SW8260B	Benzene	ug/l	1	U	1	U
N	SW8260B	Bromodichloromethane	ug/l	1	U	1	U
N	SW8260B	Bromoform	ug/l	1	U	1	U
N	SW8260B	Bromomethane	ug/l	1	U	1	U
N	SW8260B	Carbon disulfide	ug/l	1	U	1	U
N	SW8260B	Carbon tetrachloride	ug/l	1	U	1	U
N	SW8260B	Chlorobenzene	ug/l	1	U	1	U
N	SW8260B	Chlorodibromomethane	ug/l	1	U	1	U
N	SW8260B	Chloroethane	ug/l	1	U	1	U
N	SW8260B	Chloroform	ug/l	1	U	1	U
N	SW8260B	Chloromethane	ug/l	1	U	1	U
N	SW8260B	Cis-1,2-Dichloroethene	ug/l	1	U	1	U
N	SW8260B	cis-1,3-Dichloropropene	ug/l	1	U	1	U
N	SW8260B	Cyclohexane	ug/l	1	U	1	U
N	SW8260B	Dichlorodifluoromethane	ug/l	1	U	1	U
N	SW8260B	Ethyl benzene	ug/l	1	U	1	U
N	SW8260B	Isopropylbenzene	ug/l	1	U	1	U
N	SW8260B	Methyl cyclohexane	ug/l	1	U	1	U
N	SW8260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U
N	SW8260B	Methylene chloride	ug/l	0.67	J	1	U
N	SW8260B	Styrene	ug/l	1	U	1	U
N	SW8260B	Tetrachloroethene	ug/l	1	U	1	U
N	SW8260B	Toluene	ug/l	1	U	1	U

TABLE 2
FINAL RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

			Location	QC		QC	
			COC Sample	TRIP BLANK		TRIP BLANK	
			Date Sampled	05/08/13		05/09/13	
			Sample Type	TB		TB	
			Report Number	480-38011-1		480-38151-1	
Fraction	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual
N	SW8260B	trans-1,2-Dichloroethene	ug/l	1	U	1	U
N	SW8260B	trans-1,3-Dichloropropene	ug/l	1	U	1	U
N	SW8260B	Trichloroethene	ug/l	1	U	1	U
N	SW8260B	Trichlorofluoromethane	ug/l	1	U	1	U
N	SW8260B	Vinyl chloride	ug/l	1	U	1	U
N	SW8260B	Xylenes, Total	ug/l	3	U	3	U

Notes:
N = normal
TB = trip blank
U = not detected, value is the reporting limit
J = value is estimated
ug/l = microgram per liter

Prepared by / Date: KJC 06/26/13
Checked by / Date: TLC 07/12/13

TABLE 3
VALIDATION QUALIFICATION ACTION SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

SDG	Lab Sample ID	Analytical Method	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	1,2,4-Trichlorobenzene	5.0	U	5.0	UJ	MS-RPD	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	2-Butanone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Acetone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Bromoform	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Cis-1,2-Dichloroethene	10		10	J	CCV%D	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Cyclohexane	5.0	U *	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Dichlorodifluoromethane	5.0	U	5.0	UJ	CCV%D, LCS-L, MS-L	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Methyl cyclohexane	5.0	U *	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	trans-1,2-Dichloroethene	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-1	SW8260B	DCMW00412013XX	Trichlorofluoromethane	5.0	U	5.0	UJ	MS-L	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	Cis-1,2-Dichloroethene	0.55	J	0.55	J	CCV%D	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	Cyclohexane	0.63	J *	0.63	J	CCV%D, LCS-H	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-10	SW8260B	ATMW00712013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	Cis-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-11	SW8260B	ATMW00312013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	2-Butanone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	Acetone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	Bromoform	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	Cis-1,2-Dichloroethene	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	Cyclohexane	85	*	85	J	CCV%D, LCS-H	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	Dichlorodifluoromethane	5.0	U	5.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	Methyl cyclohexane	60	*	60	J	CCV%D, LCS-H	ug/l
480-38011-1	480-38011-12	SW8260B	ATMW00212013XX	trans-1,2-Dichloroethene	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	Cis-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	Cyclohexane	170	H	170	JH	HT	ug/l

TABLE 3
VALIDATION QUALIFICATION ACTION SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

SDG	Lab Sample ID	Analytical Method	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	Methyl cyclohexane	100	*	100	J	CCV%D, LCS-H	ug/l
480-38011-1	480-38011-13	SW8260B	ATMW00412013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	Cis-1,2-Dichloroethene	12		12	J	CCV%D	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-14	SW8260B	ATMW00812013XX	trans-1,2-Dichloroethene	0.13	J	0.13	J	CCV%D	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	Cis-1,2-Dichloroethene	150		150	J	CCV%D	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-15	SW8260B	DCMW00912013XX	trans-1,2-Dichloroethene	0.81	J	0.81	J	CCV%D	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	Cis-1,2-Dichloroethene	13		13	J	CCV%D	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-16	SW8260B	DCMW00612013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	Cis-1,2-Dichloroethene	14		14	J	CCV%D	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-17	SW8260B	DCMW00312013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	Cis-1,2-Dichloroethene	2.4		2.4	J	CCV%D	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-18	SW8260B	DCMW00112013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l

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SDG	Lab Sample ID	Analytical Method	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	Cis-1,2-Dichloroethene	5.9		5.9	J	CCV%D	ug/l
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-19	SW8260B	DCMW01012013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	2-Butanone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	Acetone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	Bromoform	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	Cis-1,2-Dichloroethene	9.4		9.4	J	CCV%D	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	Cyclohexane	5.0	U *	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	Dichlorodifluoromethane	5.0	U	5.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	Methyl cyclohexane	5.0	U *	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-2	SW8260B	DCMW00412013XD	trans-1,2-Dichloroethene	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	1,2,4-Trichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	1,2-Dibromo-3-chloropropane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	1,2-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	1,3-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	1,4-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	Acetone	13		13	J	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	Bromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	Chlorodibromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-20	SW8260B	DCGW01312013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	Cis-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-21	SW8260B	DCMW01112013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	Cis-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l

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480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-22	SW8260B	ATMW00612013XX	trans-1,2-Dichloroethene	0.23	J	0.23	J	CCV%D	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	Cis-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-23	SW8260B	ATMW00512013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	1,2,4-Trichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	1,2-Dibromo-3-chloropropane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Bromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Cis-1,2-Dichloroethene	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Cyclohexane	52	*	52	J	CCV%D, LCS-H, MS-H	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, MS-L	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	Methyl cyclohexane	18		18	J	CCV%D	ug/l
480-38011-1	480-38011-24	SW8260B	ATMW00112013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	1,2,4-Trichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	1,2-Dibromo-3-chloropropane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	1,2-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	1,3-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	1,4-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	Bromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	Chlorodibromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	Cyclohexane	14	*	14	J	LCS-L	ug/l
480-38011-1	480-38011-25	SW8260B	ATMW001R12013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	Cis-1,2-Dichloroethene	2.4		2.4	J	CCV%D	ug/l
480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	Cyclohexane	12	*	12	J	CCV%D, LCS-H	ug/l
480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l

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480-38011-1	480-38011-26	SW8260B	ATMW00912013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	Cis-1,2-Dichloroethene	42		42	J	CCV%D	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-27	SW8260B	DCMW00812013XX	trans-1,2-Dichloroethene	0.33	J	0.33	J	CCV%D	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	Cis-1,2-Dichloroethene	130		130	J	CCV%D	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-28	SW8260B	DCMW00712013XX	trans-1,2-Dichloroethene	0.74	J	0.74	J	CCV%D	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	Cis-1,2-Dichloroethene	1.7		1.7	J	CCV%D	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-29	SW8260B	DCGW00212013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	2-Butanone	11		11	J	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	Acetone	2.8	J	2.8	J	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	Cis-1,2-Dichloroethene	220		220	J	CCV%D	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-3	SW8260B	DCMW00212013XX	trans-1,2-Dichloroethene	0.99	J	0.99	J	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	1,2,4-Trichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	1,2-Dibromo-3-chloropropane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	1,2-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	1,3-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	1,4-Dichlorobenzene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	Bromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	Chlorodibromomethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-30	SW8260B	DCGW01413013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l

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SDG	Lab Sample ID	Analytical Method	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	Cis-1,2-Dichloroethene	81		81	J	CCV%D	ug/l
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-4	SW8260B	DCMW1212013XX	trans-1,2-Dichloroethene	0.55	J	0.55	J	CCV%D	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	Acetone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	Cis-1,2-Dichloroethene	270		270	J	CCV%D	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-5	SW8260B	DCMW1312013XX	trans-1,2-Dichloroethene	1.5		1.5	J	CCV%D	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	2-Butanone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	Acetone	25	U	25	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	Bromoform	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	Cis-1,2-Dichloroethene	63		63	J	CCV%D	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	Cyclohexane	5.0	U *	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	Dichlorodifluoromethane	5.0	U	5.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	Methyl cyclohexane	5.0	U *	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-7	SW8260B	ATGW02612013XX	trans-1,2-Dichloroethene	5.0	U	5.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	1,2,4-Trichlorobenzene	10	U	10	UJ	CCV%D, MS-RPD	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	1,2-Dibromo-3-chloropropane	10	U	10	UJ	CCV%D, MS-RPD	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	1,2-Dichlorobenzene	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	1,3-Dichlorobenzene	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	1,4-Dichlorobenzene	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	2-Butanone	50	U	50	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	2-Hexanone	50	U	50	UJ	CCV%D, MS-RPD	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	4-Methyl-2-pentanone	50	U	50	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Acetone	50	U	50	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Bromoform	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Bromomethane	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Chlorodibromomethane	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Cis-1,2-Dichloroethene	79		79	J	MS-H	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Dichlorodifluoromethane	10	U	10	UJ	CCV%D	ug/l
480-38011-1	480-38011-8	SW8260B	ATGW04312013XX	Trichloroethene	54		54	J	MS-H	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	2-Butanone	5.0	U	5.0	UJ	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	Acetone	6.0		6.0	J	ICVRRF, CCVRRF	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	Bromoform	1.0	U	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	Cis-1,2-Dichloroethene	14		14	J	CCV%D	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	Cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l

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480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	Dichlorodifluoromethane	1.0	U	1.0	UJ	CCV%D, LCS-L	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	Methyl cyclohexane	1.0	U *	1.0	UJ	CCV%D	ug/l
480-38011-1	480-38011-9	SW8260B	ATGW04612013XX	trans-1,2-Dichloroethene	1.0	U	1.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-1	SW8260B	DCMW1412013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-1	SW8260B	DCMW1412013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-1	SW8260B	DCMW1412013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-10	SW8260B	ATGW00212013XX	1,2-Dichloroethane	2.0		2.0	J	FD	ug/l
480-38151-1	480-38151-10	SW8260B	ATGW00212013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-10	SW8260B	ATGW00212013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-10	SW8260B	ATGW00212013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-10	SW8260B	ATGW00212013XX	Tetrachloroethene	12		12	J	MS-L, FD	ug/l
480-38151-1	480-38151-10	SW8260B	ATGW00212013XX	Trichloroethene	2.1		2.1	J	FD	ug/l
480-38151-1	480-38151-11	SW8260B	ATGW00212013XD	1,2-Dichloroethane	1.0	U	1.0	UJ	FD	ug/l
480-38151-1	480-38151-11	SW8260B	ATGW00212013XD	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-11	SW8260B	ATGW00212013XD	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-11	SW8260B	ATGW00212013XD	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-11	SW8260B	ATGW00212013XD	Tetrachloroethene	4.5		4.5	J	MS-L, FD	ug/l
480-38151-1	480-38151-11	SW8260B	ATGW00212013XD	Trichloroethene	0.97	J	0.97	J	FD	ug/l
480-38151-1	480-38151-12	SW8260B	ATGW04512013XX	2-Hexanone	25	U	25	UJ	CCV%D	ug/l
480-38151-1	480-38151-12	SW8260B	ATGW04512013XX	4-Methyl-2-pentanone	25	U	25	UJ	CCV%D	ug/l
480-38151-1	480-38151-12	SW8260B	ATGW04512013XX	Acetone	37		37	J	CCV%D	ug/l
480-38151-1	480-38151-13	SW8260B	DCMW2212013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-13	SW8260B	DCMW2212013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-13	SW8260B	DCMW2212013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-14	SW8260B	DCMW1912013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-14	SW8260B	DCMW1912013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-14	SW8260B	DCMW1912013XX	Acetone	36		36	J	CCV%D	ug/l
480-38151-1	480-38151-2	SW8260B	DCMW1512013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-2	SW8260B	DCMW1512013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-2	SW8260B	DCMW1512013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-3	SW8260B	DCMW1712013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-3	SW8260B	DCMW1712013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-3	SW8260B	DCMW1712013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-4	SW8260B	DCMW1812013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-4	SW8260B	DCMW1812013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-4	SW8260B	DCMW1812013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-5	SW8260B	DCMW2012013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-5	SW8260B	DCMW2012013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-5	SW8260B	DCMW2012013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-6	SW8260B	DCMW2112013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-6	SW8260B	DCMW2112013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-6	SW8260B	DCMW2112013XX	Acetone	440		440	J	CCV%D	ug/l
480-38151-1	480-38151-8	SW8260B	DCMW2312013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-8	SW8260B	DCMW2312013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l

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480-38151-1	480-38151-8	SW8260B	DCMW2312013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-9	SW8260B	DCMW1612013XX	2-Hexanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-9	SW8260B	DCMW1612013XX	4-Methyl-2-pentanone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38151-1	480-38151-9	SW8260B	DCMW1612013XX	Acetone	5.0	U	5.0	UJ	CCV%D	ug/l
480-38152-1	480-38152-1	SW8260B	ATGW026072013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	52	U	52	UJ	CCV%D	ug/kg
480-38152-1	480-38152-1	SW8260B	ATGW026072013XX	Cyclohexane	52	U	52	UJ	CCV%D	ug/kg
480-38152-1	480-38152-1	SW8260B	ATGW026072013XX	Methyl cyclohexane	52	U	52	UJ	CCV%D	ug/kg
480-38152-1	480-38152-10	SW8260B	ATGW045122013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	43	U	43	UJ	CCV%D	ug/kg
480-38152-1	480-38152-10	SW8260B	ATGW045122013XX	Cyclohexane	43	U	43	UJ	CCV%D	ug/kg
480-38152-1	480-38152-10	SW8260B	ATGW045122013XX	Methyl cyclohexane	43	U	43	UJ	CCV%D	ug/kg
480-38152-1	480-38152-11	SW8260B	ATGW045162013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	59	U	59	UJ	CCV%D	ug/kg
480-38152-1	480-38152-11	SW8260B	ATGW045162013XX	Cyclohexane	59	U	59	UJ	CCV%D	ug/kg
480-38152-1	480-38152-11	SW8260B	ATGW045162013XX	Methyl cyclohexane	59	U	59	UJ	CCV%D	ug/kg
480-38152-1	480-38152-2	SW8260B	ATGW026072013XD	1,1,2-Trichloro-1,2,2-Trifluoroethane	53	U	53	UJ	CCV%D	ug/kg
480-38152-1	480-38152-2	SW8260B	ATGW026072013XD	Cyclohexane	53	U	53	UJ	CCV%D	ug/kg
480-38152-1	480-38152-2	SW8260B	ATGW026072013XD	Methyl cyclohexane	53	U	53	UJ	CCV%D	ug/kg
480-38152-1	480-38152-3	SW8260B	ATGW026122013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	52	U	52	UJ	CCV%D	ug/kg
480-38152-1	480-38152-3	SW8260B	ATGW026122013XX	Cyclohexane	52	U	52	UJ	CCV%D	ug/kg
480-38152-1	480-38152-3	SW8260B	ATGW026122013XX	Methyl cyclohexane	52	U	52	UJ	CCV%D	ug/kg
480-38152-1	480-38152-4	SW8260B	ATGW043132013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	45	U	45	UJ	CCV%D	ug/kg
480-38152-1	480-38152-4	SW8260B	ATGW043132013XX	Cyclohexane	45	U	45	UJ	CCV%D	ug/kg
480-38152-1	480-38152-4	SW8260B	ATGW043132013XX	Methyl cyclohexane	45	U	45	UJ	CCV%D	ug/kg
480-38152-1	480-38152-5	SW8260B	ATGW043152013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	51	U	51	UJ	CCV%D	ug/kg
480-38152-1	480-38152-5	SW8260B	ATGW043152013XX	Cyclohexane	51	U	51	UJ	CCV%D	ug/kg
480-38152-1	480-38152-5	SW8260B	ATGW043152013XX	Methyl cyclohexane	51	U	51	UJ	CCV%D	ug/kg
480-38152-1	480-38152-6	SW8260B	ATGW046142013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	46	U	46	UJ	CCV%D	ug/kg
480-38152-1	480-38152-6	SW8260B	ATGW046142013XX	Cyclohexane	46	U	46	UJ	CCV%D	ug/kg
480-38152-1	480-38152-6	SW8260B	ATGW046142013XX	Methyl cyclohexane	46	U	46	UJ	CCV%D	ug/kg
480-38152-1	480-38152-7	SW8260B	ATGW046172013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	54	U	54	UJ	CCV%D	ug/kg
480-38152-1	480-38152-7	SW8260B	ATGW046172013XX	Cyclohexane	54	U	54	UJ	CCV%D	ug/kg
480-38152-1	480-38152-7	SW8260B	ATGW046172013XX	Methyl cyclohexane	54	U	54	UJ	CCV%D	ug/kg
480-38152-1	480-38152-8	SW8260B	ATGW002132013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	67	U	67	UJ	CCV%D	ug/kg
480-38152-1	480-38152-8	SW8260B	ATGW002132013XX	Cyclohexane	67	U	67	UJ	CCV%D	ug/kg
480-38152-1	480-38152-8	SW8260B	ATGW002132013XX	Methyl cyclohexane	67	U	67	UJ	CCV%D	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	1,1,2-Trichloro-1,2,2-Trifluoroethane	47	U	47	UJ	CCV%D	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	Acetone	230	U	230	UJ	MS-L	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	Bromoform	47	U	47	UJ	MS-L	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	Carbon disulfide	47	U	47	UJ	MS-L	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	Chloroethane	47	U	47	UJ	MS-L	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	Cyclohexane	47	U	47	UJ	CCV%D	ug/kg
480-38152-1	480-38152-9	SW8260B	ATGW002072013XX	Methyl cyclohexane	47	U	47	UJ	CCV%D	ug/kg

Units:
ug/kg = microgram per kilogram

Validation Reason Codes:
CCV%D =

Prepared by / Date: KJC 06/26/13
Checked by / Date: TLC 07/12/13

TABLE 3
VALIDATION QUALIFICATION ACTION SUMMARY
DATA USABILITY SUMMARY REPORT
MAY 2013 SOIL AND GROUNDWATER SAMPLING
DIAMOND CLEANERS SITE
ELMIRA, NEW YORK

SDG	Lab Sample ID	Analytical Method	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units

ug/l = microgram per liter

Validation Qualifier:

J = Value is estimated

U = not detected, value is the reporting limit

H = Holding time exceeded

CCVRRF =

FD =

HT = Holding time for analysis exceeded

ICVRRF =

LCS-H = LCS recovery high

LCS-L = LCS recovery low

MS-H = MS and/or MSD recovery high

MS-L = MS and/or MSD recovery low

MS-RPD = MS-MSD RPD limit exceeded