First Quarter 2011
Groundwater Monitoring Report
Patchogue Former MGP Site –
Site ID No. 1-52-182
Patchogue, New York

Prepared for

National Grid USA

Hicksville, New York

May 2011

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Prepared for
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175 East Old Country Road
Hicksville, New York 11801

May 2011

Project Number: 138893.316.010

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Section 1

Introduction

Brown and Caldwell Associates (BC) is pleased to submit this report containing the data deliverables related to the First Quarter 2011 groundwater monitoring event conducted at the Patchogue Former Manufactured Gas Plant (MGP) Site (hereinafter referred to as the "Site"). The groundwater monitoring event as well as preparation of this deliverable is part of the routine groundwater monitoring program being conducted at the Site. This report represents the first quarterly monitoring event (First Quarter 2011). This report has been prepared for submittal to the New York State Department of Environmental Conservation (NYSDEC) and includes the following:

- Brief description of the scope of the field activities;
- Table summarizing results of the water level measurements and the gauging for the presence of non-aqueous phase liquids (NAPL) (Table 1);
- Tables summarizing the analytical results of groundwater samples including a comparison to applicable groundwater quality criteria (Table 2);
- Comparison of data from this monitoring period to data from previous periods (Tables 3 and 4);
- Brief discussion of the groundwater quality data;
- Potentiometric surface map depicting generalized direction of groundwater flow based on water level data from shallow wells and deep wells (Figure 1);
- Field Sampling Data Sheets (Appendix A);
- Laboratory Data Report (Appendix B); and
- Data Usability Summary Report (Appendix C).

1.1 Background

A total of seven groundwater monitoring events have been conducted at the Site since March 2008. These seven events include two monitoring events conducted as part of the Remedial Investigation (RI) in March 2008 and July 2008, as well as semi-annual monitoring events beginning in March 2009 and the First Quarter 2011 (January 2011) monitoring event which is the subject of this report. Up until the March 2010 monitoring event, the concentrations and areal distribution of constituents in groundwater had been fairly consistent. Site-related dissolved-phase constituents (e.g., benzene, toluene, ethylbenzene, xylenes [BTEX], and polycyclic aromatic hydrocarbons [PAH]) were found to be present in a limited area near the center of the Site. These concentrations did not extend downgradient to the wells closer to the Patchogue River. However, during the March 2010 and September 2010 monitoring events, detections of BTEX and PAH compounds were more widely distributed than during previous events. It was surmised that this change was the result of a temporary dewatering operation at a construction project across the river from the Site being conducted at the wastewater treatment facility (WWTF). Based on the understanding of Site conditions, it was anticipated that when the dewatering

operations had ceased, concentrations in groundwater would re-equilibrate with steady-state (i.e., pre-dewatering) groundwater flow conditions, and eventually return to levels similar to those prior to dewatering. To assess this, National Grid increased the frequency of the groundwater monitoring from semi-annually to quarterly. The January 2011 monitoring event, descried herein, is the first quarterly monitoring event.

Section 2

Scope of Work

Field activities for the First Quarter 2011 groundwater monitoring event were conducted by BC on January 5 and 6, 2011. On January 5, 2011, prior to conducting groundwater sampling, depth-to-water measurements, and NAPL gauging were conducted on the 14 monitoring wells. Locations of the 14 monitoring wells are depicted on Figure 1.

Groundwater samples were collected from 12 monitoring wells on January 5 and 6, 2011. Wells MW-5 and MW-6 were not sampled this quarter due to presence of NAPL observed during the NAPL gauging activities. Groundwater sampling was conducted using low-flow purging and sampling techniques in accordance with USEPA (1996) protocol. If NAPL was observed in a well during gauging or sampling, groundwater samples were not submitted for laboratory analyses. Samples were submitted to Lancaster and analyzed for: benzene, toluene, ethylbenzene, xylene isomers (BTEX), and methyl tertiary butyl ether (MTBE) using USEPA SW-846 Method 8260B; and polycyclic aromatic hydrocarbons (PAHs) using USEPA SW-846 Method 8270C. The groundwater samples were also analyzed in the field for pH, specific conductivity, temperature, turbidity, and dissolved oxygen (see Appendix A for field data sheets).

The samples were submitted to Lancaster Laboratories, Inc. (Lancaster) located in Lancaster, Pennsylvania for analysis. Lancaster is a certified (Certification No. 10670) through the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP). The laboratory report from Lancaster is provided as Appendix B. The laboratory analytical data were provided to BC in electronic form by Lancaster and have been incorporated into an environmental database for the Site.

In addition to the samples described above, quality assurance/quality control (QA/QC) samples were also collected. The QA/QC samples included: trip blanks (one per cooler containing samples for BTEX analysis), a field duplicate, and an equipment blank. Also, extra sample volume was collected from one location to provide for matrix spike/matrix spike duplicate (MS/MSD) analysis. The trip blanks were analyzed for BTEX only. The other QA/QC samples were analyzed for BTEX, MTBE and PAHs.

Laboratory results for the groundwater sample analyses were forwarded to a data validator, Environmental Data Services, Inc of Williamsburg, Virginia, for review and preparation of a Data Usability Summary Report (DUSR). The DUSR presents a summary of data usability including a discussion of qualified data. The DUSR is provided as Appendix C. As described in the DUSR, the data were considered by the validator to be valid and usable. An Electronic Data Deliverable (EDD) of the validated analytical data formatted to the NYSDEC's recently required specifications is provided in Appendix D.

Section 3

Results and Findings

3.1 Water Level Data

Table 1 provides the water level data generated from the January 5, 2011 measurements. Figure 1 illustrates the elevation contours of the water table based on these data. The contours were developed using water level data from only the shallow wells at the Site (i.e., those with screens that straddle, or are just below, the water table). The water level (hydraulic head) values for the wells screened in deeper intervals are posted on Figure 1 and were not used in developing the contour lines, as the data is not representative of water table conditions. The water table is relatively shallow and is typically positioned in the fill that overlies the alluvial deposits and outwash deposits. The water table contours indicate that lateral groundwater flow is from northwest to southeast across the Site toward the Patchogue River. The upward vertical hydraulic gradient measured at the two well clusters adjacent to the river (MW-4S and D, and MW-9S and D) indicate that groundwater is discharging to the Patchogue River. Historically, a comparison of the groundwater levels in these wells and the river elevation indicates the groundwater elevations in the wells are higher than the river level thus providing further support to the conclusion that the groundwater discharges to the river. However, due to substantial snow and ice cover at the time of the monitoring event, measurements from the existing staff gauges previously installed in the river were not made. The general configuration of the water table contours (as shown on Figure 1), developed using the January 5, 2011 data, and the interpreted groundwater flow patterns, are consistent with those developed from previous rounds of water level measurements with one exception. The exception occurred during the March 2010 sampling event when the large-scale dewatering activities were being conducted on the WWTF site located east of the Site on the opposite side of the river. Operation of this dewatering system altered groundwater flow patterns and levels at the Site.

3.2 NAPL Gauging

Table 1 presents the results of the NAPL gauging conducted during the First Quarter 2011 quarterly groundwater sampling event. NAPL was identified in the following wells during the gauging activities:

- **MW-5:** Viscous NAPL/tar was observed adhering to the base of an oil/water interface probe, as well as on the outside of the base of a disposable polyethylene bailer after each piece of equipment was lowered to the bottom of the well. NAPL blebs were observed on the surface of the water recovered from the well in the bailer. Strong tar-like odor was associated with the observed NAPL. A 0.62-foot thick accumulation of dense NAPL (DNAPL) was measured in MW-5.
- **MW-6:** Viscous NAPL/tar was observed adhering to base of an oil/water interface probe, as well as on the outside of the base of a disposable polyethylene bailer after each piece of equipment was lowered to the bottom of the well. NAPL blebs were observed on the surface of the water recovered from the well in the bailer. Strong tar-like odor was associated with the observed NAPL. A 0.02-foot thick accumulation DNAPL was measured in MW-5.

NAPL had been observed in these two wells on occasion during previous NAPL gauging events.

3.3 Groundwater Quality Data

Table 2 provides the results of the laboratory analyses of the groundwater samples collected during the First Quarter 2011 monitoring event and a comparison of the data to the New York State Class GA groundwater quality criteria (i.e., standards from the 6 NYCRR Part 703 Standards and guidance values from the Division of Water Technical and Operational Guidance Series [TOGS] 1.1.1). Tables that compare total BTEX and total PAH concentrations from this sampling event to previous sampling events are provided as Tables 5 and 6, respectively.

As described above, NAPL was identified in two (MW-5 and MW-6) of the 14 monitoring wells during water level monitoring and gauging activities conducted prior to sampling and, thus, were not sampled. Groundwater samples were collected from the remaining 12 monitoring wells and submitted for analysis. Comparison of the laboratory data with the New York State Class GA groundwater quality criteria noted the presence of naphthalene at a concentration above the Class GA groundwater quality criteria in MW-1. MW-1 is located upgradient of the former MGP operations. Dissolved-phase constituents observed at this location are not considered to be site-related. BTEX compounds, MTBE and PAH compounds were either not detected or detected at concentrations at or below the Class GA groundwater quality criteria in the other 11 monitoring wells sampled during the First Quarter 2011 (January 2011) event.

Section 4

Conclusions

The concentrations of BTEX and PAHs in the shallow groundwater, and the areal distribution of these concentrations, are similar to those from monitoring events which occurred prior to March 2010. This indicates that concentrations of chemical constituents in groundwater have decreased and have nearly re-equilibrated with the steady-state groundwater flow conditions that existed prior to the operation of the large-scale temporary construction dewatering system, as anticipated. Quarterly monitoring will continue to confirm these conditions.

References

USEPA, April 1996. Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures.

Tables

TABLE 1
WATER ELEVATIONS AND NAPL MONITORING DATA
JANUARY 2011
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

Well ID	Top of Casing Elevation (ft., NAVD)	Screened Interval (ft., BGS)	1/5/2011 Depth to Water (ft., BTOC)	Water Elevation (ft., NAVD)	Depth to NAPL (ft., BTOC)	Total Depth (ft., BGS)	NAPL Thickness (feet)	Remarks
MW-1	11.23	7-12	5.92	5.31	ND	16.2	--	
MW-2S	8.97	5-10	4.54	4.43	ND	14.05	--	
MW-2D	8.23	20-25	3.89	4.34	ND	26.2	--	
MW-3	5.39	5-10	2.45	2.94	ND	10.48	--	
MW-4S	7.74	5-10	5.06	2.68	ND	12.1	--	
MW-4D	7.57	20-25	4.82	2.75	ND	26.5	--	
MW-5	7.93	5-15	4.17	3.76	16.03	16.65	0.62	Viscous NAPL/tar was observed adhering to base of oil/water interface probe and noted on outside of the base of a disposable polyethylene bailer; NAPL blebs were observed on surface of evacuated water from bailer; strong tar-like odor was associated with the observed NAPL.
MW-6	8.08	5-20	3.81	4.27	21.78	21.8	0.02	Viscous NAPL/tar was observed adhering to base of oil/water interface probe and noted on outside of the base of a disposable polyethylene bailer; NAPL blebs were observed on surface of evacuated water from bailer; strong tar-like odor was associated with the observed NAPL.
MW-7S	8.21	4-9	4.55	3.66	ND	12.4	--	
MW-7D	8.09	20-25	4.40	3.69	ND	27.9	--	
MW-8S	4.86	4-9	0.75	4.11	ND	9.8	--	
MW-8D	4.77	20-25	0.80	3.97	ND	25.1	--	
MW-9S	4.47	4-9	1.48	2.99	ND	10.23	--	
MW-9D	4.66	20-25	1.51	3.15	ND	23.15	--	
SG-1	5.23	NA	NM	--	ND	NA	--	
SG-2	5.16	NA	NM	--	ND	NA	--	

Notes:
NAVD - North American Vertical Datum
BGS - Below Ground Surface
BTOC - Below Top of Casing
NAPL - Non-aqueous phase liquid
NA - Not applicable

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

	Class GA Groundwater Criteria										
	TOGS 1.1.1	NYS Part 703		Loc ID	MW-1	MW-2S	MW-2D	MW-3	MW-4S	MW-4D	MW-7S
Constituent	Guidance	Standard	Units	Date	1/5/2011	1/6/2011	1/6/2011	1/5/2011	1/5/2011	1/6/2011	1/6/2011
Volitile Organic Compounds											
BTEX											
Benzene	NE	1	µg/L		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	NE	5	µg/L		0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Ethylbenzene	NE	5	µg/L		0.9 J	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
m&p-Xylenes	NE	5	µg/L		0.8 J	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
o-Xylene	NE	5	µg/L		0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Xylenes, Total	NE	NE	µg/L		0.8 J	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Total BTEX	NE	NE	µg/L		1.7	ND	ND	ND	ND	ND	ND
Other VOCs											
Methyl Tertiary Butyl Ether	10	NE	µg/L		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Semi-Volatile Organic Compounds (SVOCs)											
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene	20	NE	µg/L		2 J	1 U	1 U	4 J	1 U	1 U	1 U
Acenaphthylene	NE	NE	µg/L		1 U	1 U	1 U	3 J	1 U	2 J	1 U
Anthracene	50	NE	µg/L		1 U	1 U	1 U	2 J	1 U	1 U	1 U
Benzo(a)anthracene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(a)pyrene	NE	0	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene	NE	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(k)fluoranthene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chrysene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibenzo(a,h)anthracene	NE	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene	50	NE	µg/L		1 J	1 U	1 U	3 J	1 U	1 U	1 U
Fluorene	50	NE	µg/L		1 J	1 U	1 U	1 U	1 U	4 J	1 U
Indeno(1,2,3-cd)pyrene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U	1 U

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

	Class GA Groundwater Criteria										
	TOGS 1.1.1	NYS Part 703		Loc ID	MW-1	MW-2S	MW-2D	MW-3	MW-4S	MW-4D	MW-7S
Constituent	Guidance	Standard	Units	Date	1/5/2011	1/6/2011	1/6/2011	1/5/2011	1/5/2011	1/6/2011	1/6/2011
Naphthalene	10	NE	µg/L		**14**	1 U	1 U	1 U	1 U	1 U	1 U
Phenanthrene	50	NE	µg/L		3 J	1 U	1 U	2 J	1 U	6	1 U
Pyrene	50	NE	µg/L		1 J	1 U	1 U	3 J	1 U	1 U	1 U
Total PAHs	NE	NE	µg/L		22	ND	ND	17	ND	12	ND

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

	Class GA Groundwater Criteria									
	TOGS 1.1.1	NYS Part 703		Loc ID	MW-7D	MW-8S	MW-8D	MW-8D DUP	MW-9S	MW-9D
Constituent	Guidance	Standard	Units	Date	1/6/2011	1/6/2011	1/6/2011	1/6/2011	1/5/2011	1/5/2011
Volitile Organic Compounds										
BTEX										
Benzene	NE	1	µg/L		0.5 U	0.5 U	0.5 U	0.5 U	1 J	0.5 U
Toluene	NE	5	µg/L		0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Ethylbenzene	NE	5	µg/L		0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
m&p-Xylenes	NE	5	µg/L		0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
o-Xylene	NE	5	µg/L		0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Xylenes, Total	NE	NE	µg/L		0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Total BTEX	NE	NE	µg/L		ND	ND	ND	ND	1	ND
Other VOCs										
Methyl Tertiary Butyl Ether	10	NE	µg/L		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Semi-Volatile Organic Compounds (SVOCs)										
Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene	20	NE	µg/L		1 U	1 J	1 U	1 U	12	1 U
Acenaphthylene	NE	NE	µg/L		1 U	1 U	1 U	1 U	8	1 U
Anthracene	50	NE	µg/L		1 U	1 U	1 U	1 U	1 J	1 U
Benzo(a)anthracene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Benzo(a)pyrene	NE	0	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene	NE	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Benzo(k)fluoranthene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Chrysene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Dibenzo(a,h)anthracene	NE	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene	50	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 J
Fluorene	50	NE	µg/L		1 U	1 U	1 U	1 U	9	1 U
Indeno(1,2,3-cd)pyrene	0.002	NE	µg/L		1 U	1 U	1 U	1 U	1 U	1 U

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

	Class GA Groundwater Criteria									
	TOGS 1.1.1	NYS Part 703		Loc ID	MW-7D	MW-8S	MW-8D	MW-8D DUP	MW-9S	MW-9D
Constituent	Guidance	Standard	Units	Date	1/6/2011	1/6/2011	1/6/2011	1/6/2011	1/5/2011	1/5/2011
Naphthalene	10	NE	µg/L		1 U	5 J	1 U	1 U	1 U	1 U
Phenanthrene	50	NE	µg/L		1 U	1 U	1 U	1 U	12	2 J
Pyrene	50	NE	µg/L		1 U	1 U	1 U	1 U	1 U	2 J
Total PAHs	NE	NE	µg/L		ND	6	ND	ND	42	5

Notes:
J - Estimated concentration. The result is below the quantitation limit but above the practical quantitation limit or the method detection limit.
U - The analyte was analyzed for, but was not detected.
µg/L - micrograms per liter
ND - Not detected.
NE - Not established.

Boxed concentrations are above New York State Class GA Groundwater Standards or Guidance values.

TABLE 3
SUMMARY OF HISTORICAL BTEX CONCENTRATIONS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

		Total BTEX Concentrations (µg/L)									
		Sampling Date									
	Total Depth	2008		2009		2010		2011			
Well ID	(ft., bgs)	March	July	March	September	March	September	January	Min	Max	Mean
MW-1	16.2	0	NS	0	0	0	0	1.7	0	1.7	0.28
MW-2S	14.05	0	0	0	0	0	0	0	0	0	0
MW-2D	26.2	0	0	0	0	0	0	0	0	0	0
MW-3	10.48	0	0	0	0	0	0	0	0	0	0
MW-4S	12.1	3.4	0	0	0	0	0	0	0	3.4	0.49
MW-4D	26.5	0	0	0	0	0	0	0	0	0	0
MW-5	16.65	1016	678	975	1257	637	NS	NS	637	1257	913
MW-6	21.8	57.3	0	0	1	2	0	NS	0	57.3	10
MW-7S	12.4	NS	0	0	0	0	0	0	0	0	0
MW-7D	27.9	NS	0	1	0	9	0	0	0	9	1.7
MW-8S	9.8	NS	0	0	0	0	0	0	0	0	0
MW-8D	25.1	NS	0	0	0	0	0	0	0	0	0
MW-9S	10.23	NS	0	0	0	0	27	1	0	27	4.7
MW-9D	23.15	NS	0	0	0	0	0	0	0	0	0

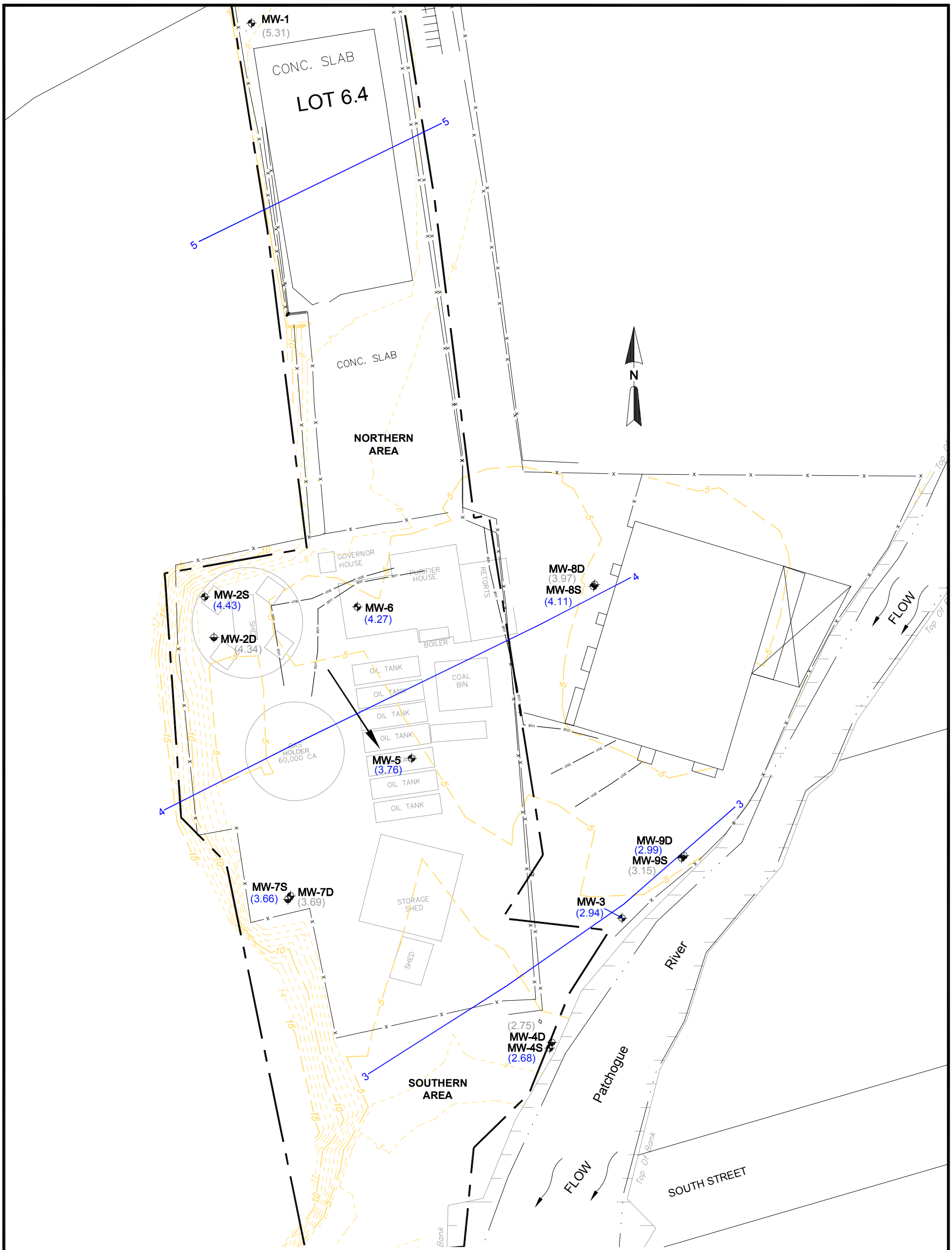
Notes:
BTEX - Benzene, toluene, ethylbenzene and xylene isomers
µg/L - micrograms per liter
NS - Not sampled.

TABLE 4
SUMMARY OF HISTORICALPAH CONCENTRATIONS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

		Total PAH Concentrations (µg/L)									
		Sampling Date									
	Total Depth	2008		2009		2010		2011			
Well ID	(ft., bgs)	March	July	March	September	March	September	January	Min	Max	Mean
MW-1	16.2	0	NS	0	0	0	0	22	0	22	3.7
MW-2S	14.05	0	0.7	0	0	0	0	0	0	0.7	0.12
MW-2D	26.2	0	0	0	0	0	0	0	0	0	0
MW-3	10.48	0.76	0	0	0	0	128	17	0	128	21
MW-4S	12.1	0.6	7.96	0	0	0	0	0	0	7.96	1.2
MW-4D	26.5	4.28	0	0	0	39	6	12	0	39	8.8
MW-5	16.65	1773.9	1798.7	2730	3373	2390	NS	NS	1773.9	3373	2413
MW-6	21.8	214.18	154.2	0	1	17	14	NS	0	214.18	67
MW-7S	12.4	NS	0	0	0	0	0	0	0	0	0
MW-7D	27.9	NS	0.47	0	0	0	0	0	0	0.47	0.078
MW-8S	9.8	NS	0	0	0	22	11	6	0	22	6.5
MW-8D	25.1	NS	0	0	0	0	0	0	0	0	0
MW-9S	10.23	NS	12.01	0	0	2	396	42	0	396	75
MW-9D	23.15	NS	0	0	0	0	0	5	0	5	0.83

Notes:
PAH - Polycyclic aromatic hydrocarbons
µg/L - micrograms per liter
NS - Not sampled.

Figures



LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- PROPERTY LINE
- FENCE
- TOPOGRAPHIC CONTOUR (FT., NAVD)
- UNDERGROUND ELECTRIC
- WATER TABLE CONTOUR (FT., NAVD) DASHED WHERE INFERRED
- GENERALIZED DIRECTION OF GROUNDWATER FLOW
- (3.69) WATER TABLE ELEVATION (FT., NAVD)
- (3.69) GROUNDWATER HEAD ELEVATION (FT., NAVD) FOR WELLS SCREENED BELOW WATER TABLE

FIGURE 1

WATER TABLE CONTOUR MAP
JANUARY 5, 2011

NATIONAL GRID
PATCHOGUE FORMER MGP SITE
VILLAGE OF PATCHOGUE, NEW YORK

DATE	PROJECT NUMBER
2/11	138893.316

Brown AND Caldwell
ASSOCIATES
ALLENDALE, NEW JERSEY

P:\DRAFTING\NATIONAL_GRID\PATCHOGUE\2-SHEETS\B-GEOTECHNICAL\FIGURE 1.DWG 03/25/2011 01:33:30PM By:Rjames XREFS: Rev_Basemap_1-12-11 Layout: Layout1

Appendix A: Field Sampling Data Sheets

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue Groundwater
Project Number:
Personnel: JAJ, NLL
Well ID: MW-9D
Purge/Sample Depth: 22 ft.
Sample ID:

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
11:05	6.16	10.72	181	0.131	3.01	103.0	1.5	300	Slight Coal tar odor
11:08	5.57	12.38	186	0.267	2.39	90.2		300	
11:11	5.42	12.77	190	0.471	2.26	265		300	
11:14	5.36	13.01	195	0.437	2.21	222	1.5	300	
11:17	5.32	13.18	198	0.464	2.22	163		300	
11:20	5.32	13.31	203	0.419	2.25	125		300	
11:23	5.29	13.31	203	0.421	2.23	112		300	
11:26	5.31	13.33	206	0.444	2.24	88.9	1.5	300	
11:29	5.29	13.40	206	0.453	2.24	79.6		300	
11:32	5.29	13.40	207	0.446	2.25	66.5		300	
11:35	5.29	13.46	208	0.440	2.25	58.3		300	
11:38	5.29	13.46	208	0.432	2.25	52.7		30	

Sampled @ 1140
MS/MSD here

[illegible] 1/5/11

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-9D
Sample I.D.: (if different from well no.)

Project: Patchogue GW
Personnel: JAT, NLL

Date: 1/5/11 Time: 1105
Weather: Sunny Air Temp.: 40°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☒ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☒ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 1.51 ft Bottom of Well: 25 ft
DATUM: ☐ Top of Protective Casing ☒ Top of Well Casing ☐ Other: _____
CONDITION: Is Well clearly labeled? ☐ Yes ☒ No Is well clean to bottom? ☐ Yes ☒ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☒ Yes ☐ No
Does Weep Hole adequately drain well head? ☒ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☒ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☒ NA Is Inner Casing Intact? ☒ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☒ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☒ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: (Pump)/Bailer: ☐ Teflon® ☒ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☒ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 300 ml/min Elapsed Time: 33 min Volume Pumped: ~3 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: N/A
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☒ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☒ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: (Pump)/Bailer: ☐ Teflon® ☒ Stainless Steel
Tubing/Rope: ☐ Teflon® ☒ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☒ Field Cleaned
Metals samples field filtered? ☐ Yes ☒ No Method: _____
APPEARANCE: ☒ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 5.29 Meter Model: _____ Meter S/N: _____
Temperature: 13.46 Spec. Cond.: 0.432 Meter Model: Horiba Meter S/N: 0-77
ORP: 208 DO: 2.25 Turbidity: 62.7
DUP : ☒ No ☐ Yes Name: _____
MS/MSD : ☐ No ☒ Yes Name: MS/MSD
Field Lab Results: ☐N/A pH: _____ DO: _____ Temperature: _____

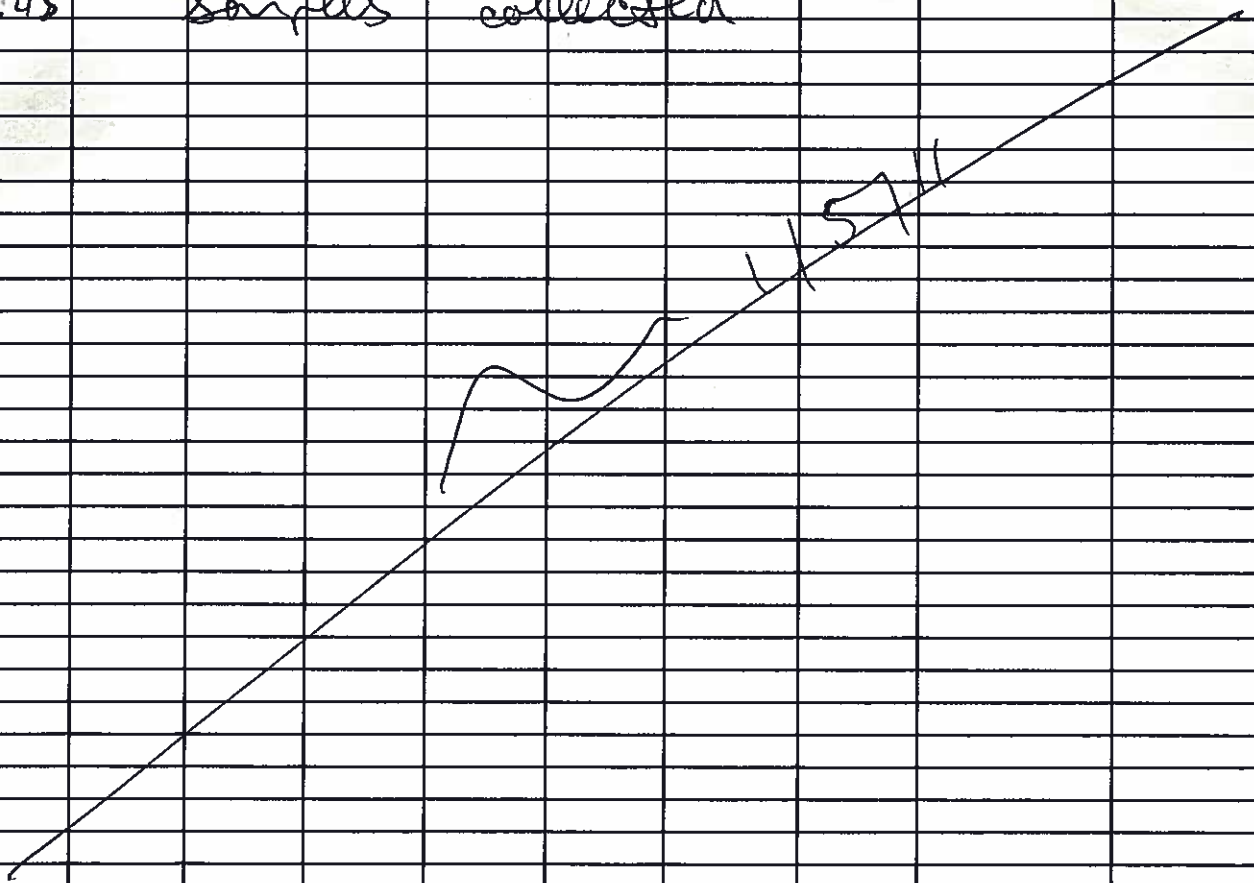
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols
Signature: _____ Date: 1/5/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue GW
Personnel: MW + JAS
Purge/Sample Depth: ~7
Project Number:
Well ID: MW-9S
Sample ID: MW-9S

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (~S/c)	DO (mg/L)	Turbidity (NTU) JAJ NA	DTW (ft)	Pumping Rate (mL/min)	Comments
12:10	6.15	9.67	36	0.345	13.69	[illegible]	1.5	250	Red/Tan, turbid
12:13	6.15	9.67	26	0.439	12.13	281		250	Empty Horiba
12:16	6.16	10.11	14	0.504	11.65	231		250	
12:19	6.23	10.58	-7	0.594	10.71	184		250	
12:22	6.31	10.91	-26	0.626	10.07	140	1.5	250	
12:25	6.38	11.16	-39	0.637	9.19	124		250	
12:28	6.46	11.26	-54	0.629	8.66	104		250	
12:31	6.48	11.27	-58	0.616	8.52	93.1		250	
12:34	6.50	11.38	-64	0.612	6.19	69.4	1.5	250	
12:37	6.54	11.50	-72	0.583	6.04	56.7		250	
12:40	6.56	11.57	-76	0.576	5.77	40.1		250	
12:45		samples		collected					



BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-9S
Sample I.D.: (if different from well no.)

Project: Patchogue GW Sampling
Personnel: MW + DAS

Date: 11/5/11 Time: 1210
Weather: Sunny Air Temp.: 40°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☒ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 1.48 ft Bottom of Well: 9 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☒ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 6.56 Meter Model: Horiba Meter S/N: _____
Temperature: 11.57 Spec. Cond.: 0.576 Meter Model: Horiba Meter S/N: U-22
ORP: -76 DO: 5.77 Turbidity: 40.1
DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☑ No ☐ Yes Name: _____
Field Lab Results: ☐ N/A pH: _____ DO: _____ Temperature: _____

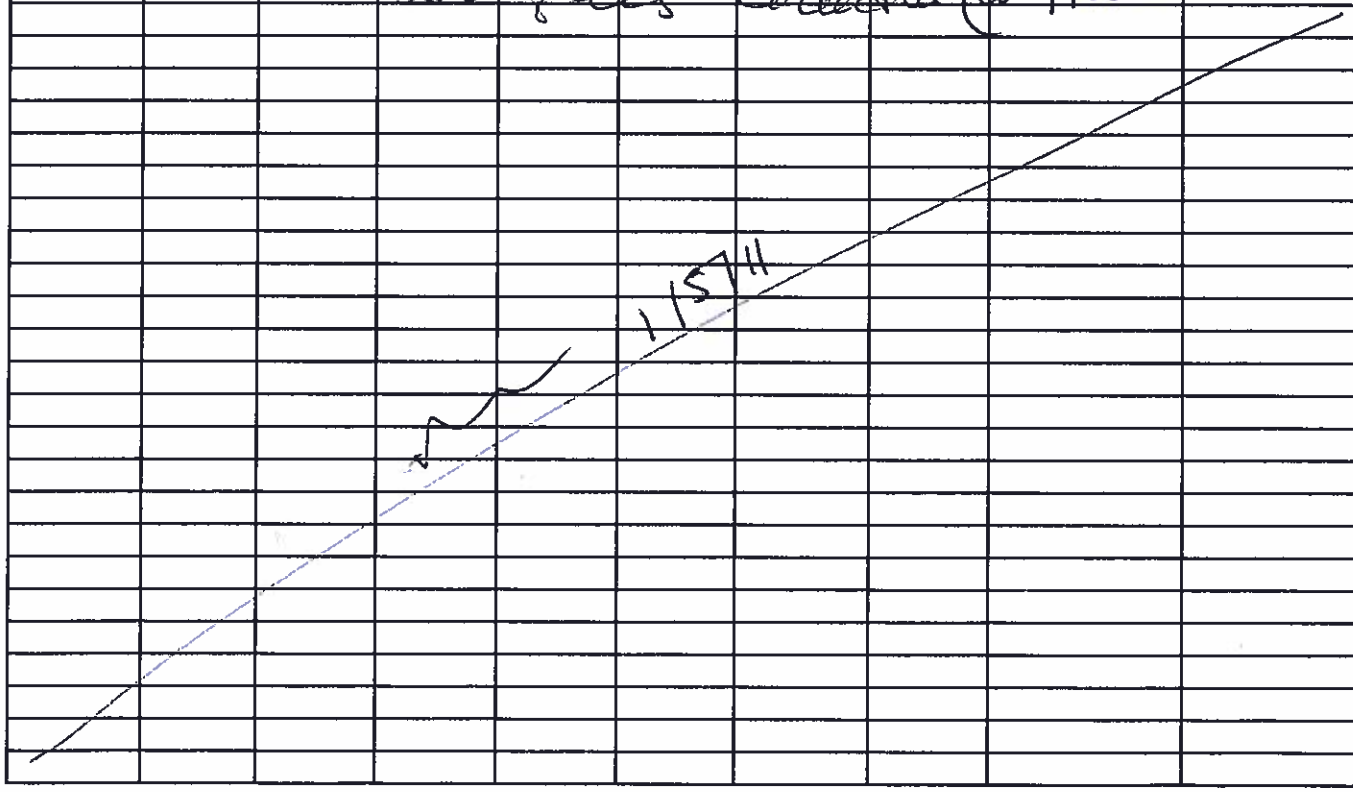
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: _____ Date: 11/5/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Personnel: MH + GA
Purge/Sample Depth: ~8
Project Number:
Well ID: MW-45
Sample ID: MW-45

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
1345	7.31	10.57	61	0.713	5.11	-5.0			very turbid
1348	7.01	10.47	60	0.315	4.74	-5.0		250	
1351	6.68	10.46	59	0.224	3.83	916			
1354	6.53	10.97	55	0.383	7.86	583	5.15		
1357	6.50	10.99	56	0.361	6.13	599			emptied Horiba
1400	6.48	11.00	58	0.359	4.02	630	5.2	250	
1403	6.46	10.83	55	0.385	3.28	504			
1406	6.44	11.00	54	0.351	2.96	347		250	
1409	6.43	11.00	53	0.331	2.85	321			
1412	6.44	11.02	51	0.313	2.76	282	5.2		
1415	6.42	11.16	51	0.292	2.71	243			
1418	6.42	11.43	49	0.273	2.64	196		250	
1421	6.42	11.47	49	0.267	2.62	204			
1424	6.41	11.52	47	0.269	2.59	180			
1427	6.42	11.35	47	0.264	2.58	163			
1430	6.42	11.38	46	0.263	2.58	171			
			Samples			collected @		1435	



4713

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-45
Sample I.D.: (if different from well no.)

Project: Patchogue GW
Personnel: NL + JAT

Date: 1/5/11 Time: 1345
Weather: Sunny Air Temp.: 40°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 5.06 ft Bottom of Well: 10 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 250 mL/min Elapsed Time: 95 min Volume Pumped: 23 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 6.42 Meter Model: Meter S/N:
Temperature: 11.38 Spec. Cond.: 0.263 Meter Model: Meter S/N:
ORP: 46 DO: 2.58 Turbidity: 171
DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:
Field Lab Results: ☐ N/A pH: DO: Temperature:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: Date: 1/5/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue GW
Personnel: M + O JAD
Purge/Sample Depth: ~ 8
Project Number:
Well ID: MW-3
Sample ID: MW-3

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
2:53	6.40	10.26	27	0.328	4.73	61.0	2.45	250	
2:56	6.31	10.74	31	0.323	3.09	49.9		250	
2:59	6.29	10.97	33	0.318	2.78	38.3		250	
3:02	6.28	11.03	35	0.314	2.67	34.4	2.45	250	
3:05	6.28	11.18	37	0.310	2.57	30.5		250	
3:08	6.28	11.28	38	0.308	2.55	25.5		250	
3:11	6.29	11.32	39	0.310	2.53	15.2		250	
3:14	6.29	11.35	39	0.310	2.51	12.4	2.45	250	
3:17	6.29	11.38	40	0.309	2.51	12.0		250	
3:20	6.29	11.38	40	0.308	2.52	11.1		250	
3:23	6.30	11.40	40	0.308	2.61	10.4		250	
3:30			Sample		Taken				

11/5/11

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-3
Sample I.D.: (if different from well no.)

Project: Patchogue GW
Personnel: MLL + JAT

Date: 1/5/11 Time: 1253
Weather: Sunny Air Temp.: 40°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: ____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 2.45 ft Bottom of Well: 10 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other: ____
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: ____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: ____

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☒ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☑ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: ____
APPEARANCE: ☒ Clear ☐ Turbid ☐ Color: ____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 6.30 Meter Model: Horiba Meter S/N: U-22
Temperature: 11.40 Spec. Cond.: 0.308 Meter Model: Horiba Meter S/N: U-22
ORP: 40 DO: 7.61 Turbidity: ____
DUP : ☒ No ☐ Yes Name: ____
MS/MSD : ☒ No ☐ Yes Name: ____
Field Lab Results: ☒ N/A pH: ____ DO: ____ Temperature: ____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: ____ Date: 1/5/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Personnel: ML + JAJT
Purge/Sample Depth: ~11
Project Number:
Well ID: MW-1
Sample ID: MW-1

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
1605	6.95	9.36	-5	0.445	3.54	160	6.0	250	
1608	6.87	9.60	-13	0.499	3.33	138		250	
1611	6.82	9.71	-28	0.583	3.34	151		250	
1614	6.81	9.79	-38	0.562	3.63	132	6.0	250	
1617	6.81	9.98	-44	0.511	3.90	121	6.0	250	
1620	6.81	9.93	-48	0.484	4.14	112		250	
1623	6.82	10.05	-51	0.470	4.37	95.1		250	
1626	6.83	10.11	-54	0.464	4.60	83.1	6.0	250	
1629	6.84	10.11	-55	0.460	4.84	80.1		250	
1632	6.85	9.89	-55	0.456	4.08	85.9		250	
1635	6.85	10.00	-55	0.457	4.12	82.5		250	
1640				Sample	Taken				

[signature] 1/5/11

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-1
Sample I.D.: (if different from well no.)

Project: Patchogue Groundwater
Personnel: JAT, NLL

Date: 1/5/11 Time: 16:05
Weather: Sunny Air Temp.: 40°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 5.72 ft Bottom of Well: 12 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: ~2.5 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene
SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 6.85 Meter Model: _____ Meter S/N: _____
Temperature: 10.00 Spec. Cond.: 0.457 Meter Model: Horiba Meter S/N: U-72
ORP: -55 DO: 4.12 Turbidity: 82.5
DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☑ No ☐ Yes Name: _____
Field Lab Results: ☐N/A pH: _____ DO: _____ Temperature: _____

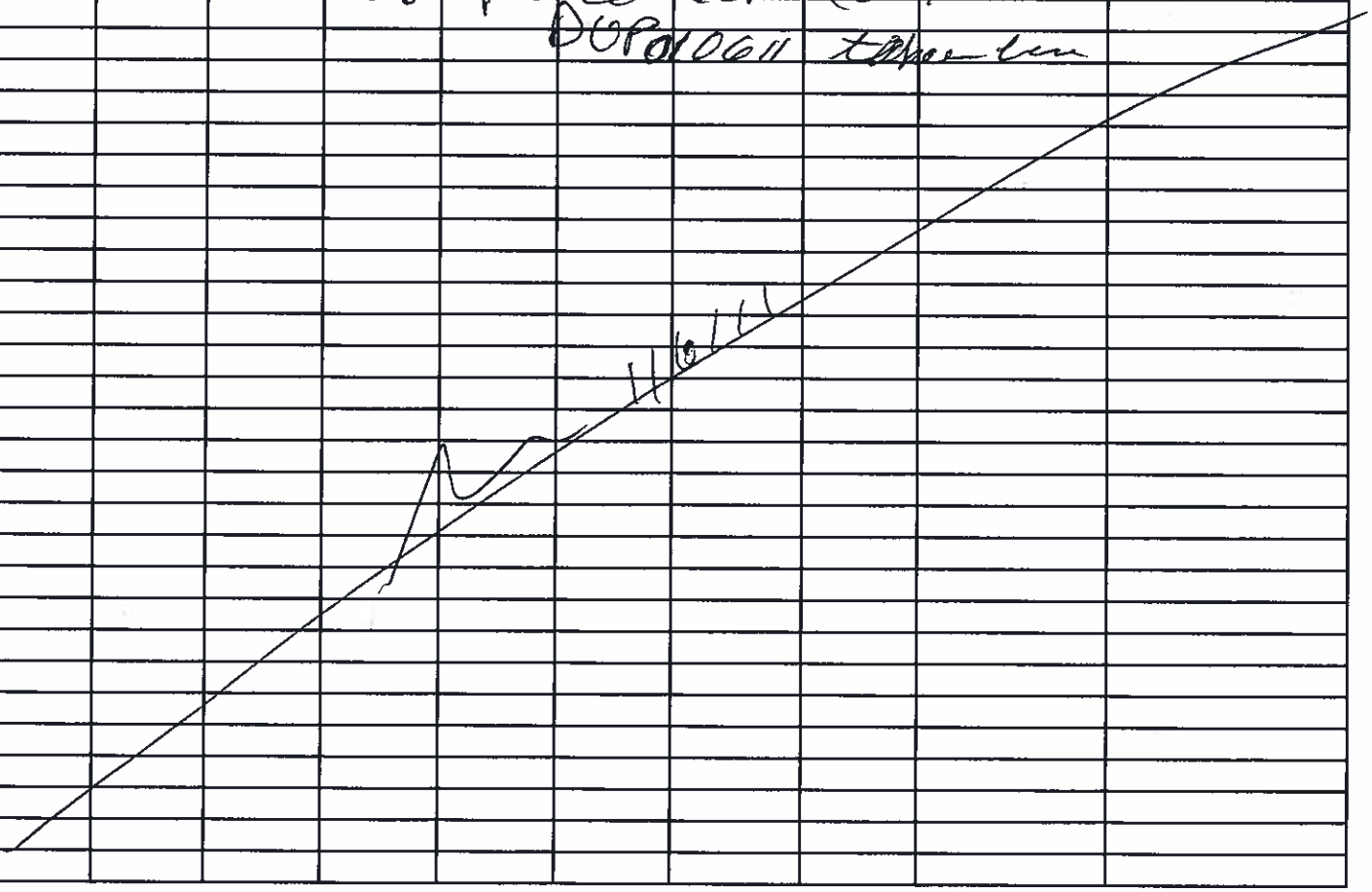
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: _____ Date: 1/5/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue Groundwater
Personnel: JAJ, NLL
Purge/Sample Depth: 22 ft
Project Number:
Well ID: MW-8D
Sample ID: MW-8D

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
8:58	5.49	17.80	170	3.07	3.40	85.6	0.8	200	
9:01	5.60	18.09	162	1.59	4.72	38.5		200	
9:04	5.71	18.04	159	1.13	4.79	38.0		200	
9:07	5.87	18.82	151	0.90	4.52	43.9		200	
9:10	5.93	18.55	150	0.771	4.25	53.4	0.8	200	
9:13	6.00	18.24	148	0.498	4.12	51.3		200	
9:16	6.05	18.53	145	0.418	4.02	48.3		200	
9:19	6.08	18.41	141	0.379	3.94	47.6		200	
9:22	6.12	18.25	135	0.357	3.78	46.2	0.8	200	
9:25	6.18	18.27	127	0.344	3.62	44.2		200	
9:28	6.21	18.36	127	0.338	3.46	47.4		200	
			Sample collected @ 930						
			DUP0001 collected @ same time						



BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-8D
Sample I.D.: MW-8D (if different from well no.)

Project: Patchogue Groundwater
Personnel: JAT, NLL

Date: 1/6/11 Time: 8:58
Weather: Cloudy Air Temp.: 35°F

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☒ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☒ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 0.80 ft Bottom of Well: 25 ft
DATUM: ☐ Top of Protective Casing ☒ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☒ No Is well clean to bottom? ☐ Yes ☒ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☒ Yes ☐ No
Does Weep Hole adequately drain well head? ☒ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☒ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☒ NA Is Inner Casing Intact? ☒ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☒ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☒ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☒ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☒ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 200 mL/min Elapsed Time: 30 min Volume Pumped: ~2 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☒ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☒ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☒ Stainless Steel
Tubing/Rope: ☐ Teflon® ☒ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☒ Field Cleaned
Metals samples field filtered? ☐ Yes ☒ No Method: _____
APPEARANCE: ☒ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 6.21 Meter Model: Horiba Meter S/N: L-22
Temperature: 18.36 Spec. Cond.: 0.338 Meter Model: Horiba Meter S/N: L-22
ORP: 122 DO: 3.46 Turbidity: 42.4
DUP : ☐ No ☒ Yes Name: DUP01011
MS/MSD : ☒ No ☐ Yes Name: _____
Field Lab Results: ☐ N/A pH: _____ DO: _____ Temperature: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: _____ Date: 1/6/11

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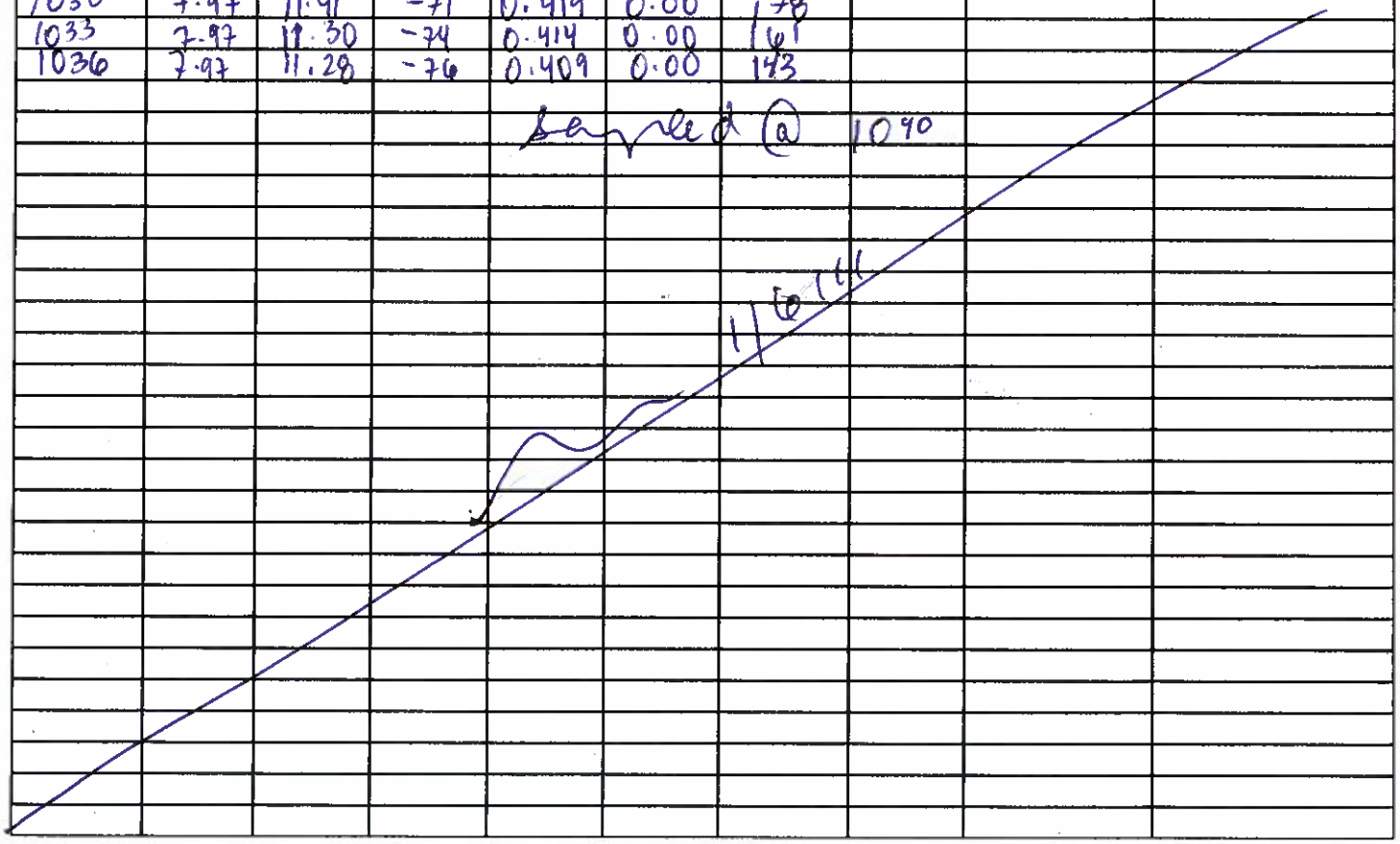
BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Personnel: M + STAFF
Purge/Sample Depth: ~6
Project Number:
Well ID: MW-8S
Sample ID:

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
948	6.65	13.01	68	0.339	2.53	114			
951	6.79	14.33	53	0.409	4.35	170	1.00	300	
954	6.98	14.93	11	0.391	4.01	531			
957	7.50	15.52	-21	0.388	3.60	857			
1000	7.61	14.37	-32	0.374	8.31	537		200	Pumped Hose
1003	7.78	13.01	-43	0.362	8.70	418	1.00		
1006	7.83	9.00	-49	0.371	8.71	424			
1009	7.84	10.84	-51	0.372	8.12	389			
1012	7.86	10.89	-55	0.377	7.26	357		200	Pumped Hose
1015	7.91	12.06	-61	0.381	2.61	238			
1018	7.90	10.77	-62	0.627	0.35	224	1.00		
1021	7.91	10.78	-64	0.407	0.00	226			
1024	7.92	10.03	-67	0.447	0.00	210		200	
1027	7.92	10.31	-68	0.427	0.00	205			
1030	7.97	11.41	-71	0.419	0.00	178			
1033	7.97	11.30	-74	0.414	0.00	161			
1036	7.97	11.28	-76	0.409	0.00	143			
				Sampled @			1090		



BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-8S
Sample I.D.: (if different from well no.)

Project: Patchogue
Personnel: MH + [illegible]

Date: 1/6/11 Time: 948
Weather: Sunny Air Temp.: 30°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 0.8 ft Bottom of Well: 10 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other: _____
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 200 ml/min Elapsed Time: 150 min Volume Pumped: 22.5 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: Not
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 7.97 Meter Model: Horiba Meter S/N: J-22
Temperature: 11.28 Spec. Cond.: 0.409 Meter Model: Horiba Meter S/N: _____
ORP: -78 DO: 0.00 Turbidity: 143
DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☑ No ☐ Yes Name: _____
Field Lab Results: ☐N/A pH: _____ DO: _____ Temperature: _____

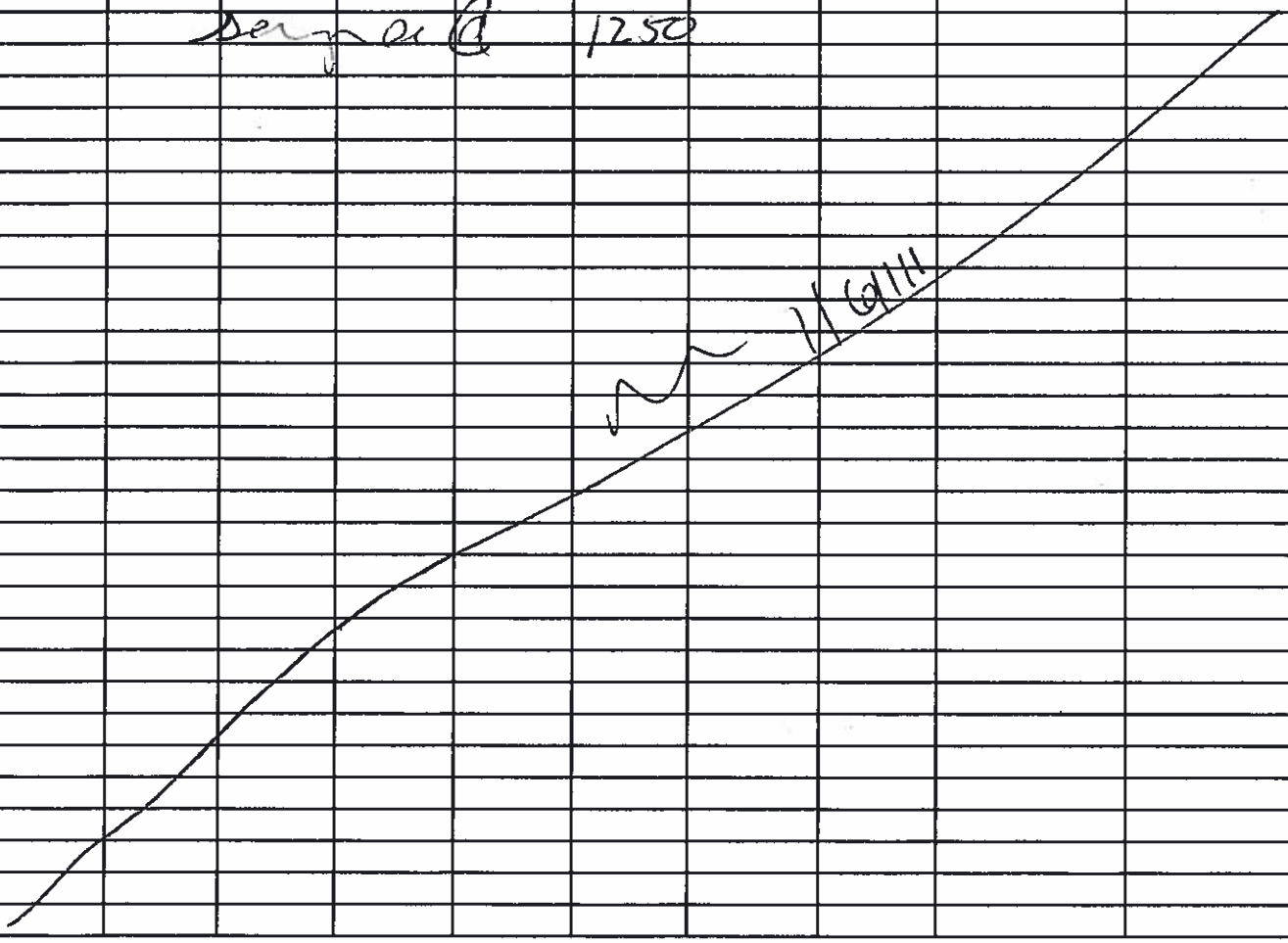
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: [signature] Date: 1/6/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue Groundwater
Personnel: JAJ, NLL
Purge/Sample Depth: 72 ft.
Project Number:
Well ID: MW-70
Sample ID: MW-70

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
12:15	7.28	15.48	59	0.268	3.04	77.5	4.4	200	
12:18	6.71	15.58	77	0.252	1.67	78.6		200	
12:21	6.54	15.78	84	0.253	1.32	61.9		200	
12:24	6.48	16.37	89	0.266	1.17	66.3		200	
12:27	6.40	16.77	93	0.280	0.90	72.1	4.4	200	
12:30	6.36	15.46	96	0.299	0.81	73.1		200	
12:33	6.30	15.44	99	0.290	0.78	65.7		200	
12:36	6.26	15.72	103	0.275	0.69	58.9		200	
12:39	6.22	15.61	107	0.267	0.63	56.8	4.4	200	
12:42	6.16	15.36	111	0.260	0.60	50.4		200	
12:45	6.12	15.10	114	0.251	0.57	50.2		200	
		Demand @			12.50				



BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-7D
Sample I.D.: (if different from well no.)

Project: Patchogue
Personnel: MT + GAJ

Date: 1/6/11 Time: 17:15
Weather: Sun Air Temp.: 30

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 4.4 ft Bottom of Well: 25 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: 1.4 To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 200 mL/min Elapsed Time: 30 min Volume Pumped: 1.5 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☐ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 6.17 Meter Model: Horiba Meter S/N: U-22
Temperature: 15.10 Spec. Cond.: 0.751 Meter Model: Horiba Meter S/N: U-22
ORP: 114 DO: 0.57 Turbidity: 50.2
DUP : ☑ No ☐ Yes Name: —
MS/MSD : ☑ No ☐ Yes Name: —
Field Lab Results: ☐N/A pH: _____ DO: _____ Temperature: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: _____ Date: 1/6/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Personnel: [illegible]
Purge/Sample Depth: ~6
Project Number:
Well ID: MW-75
Sample ID:

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
13:03	8.51	11.18	-95	1.03	0.00	170	4.5	150	
13:06	8.95	11.51	-116	1.05	0.00	121		150	
13:09	9.11	11.32	-126	1.03	0.00	92.8		150	
13:12	9.17	10.86	-132	1.01	0.00	88.5		150	
13:15	9.16	8.62	-134	1.01	0.00	85.3	4.6	150	
13:18	9.15	10.15	-136	1.00	0.00	79.4		150	
13:21	9.14	10.56	-138	1.00	0.00	77.8		150	
13:24	9.13	10.93	-138	1.01	0.00	76.8		150	
13:27	9.12	10.43	-138	1.00	0.00	66.5	4.6	150	
13:30	9.10	11.93	-138	1.00	0.00	74.3			
13:33	9.10	10.41	-139	1.00	0.00	67.5			
			Sample @			1340			

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-7S
Sample I.D.: (if different from well no.)

Project: Patchogue
Personnel: M + [illegible]

Date: 1/6/11 Time: 1303
Weather: Sun Air Temp.: 30°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: ____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 4.51 ft Bottom of Well: 9 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☒ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☒ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: ____
Tubing/Rope: ☐ Teflon® ☒ Polyethylene ☐ Polypropylene ☐ Other: ____

Pumping Rate: 150 ml/min Elapsed Time: 30 min Volume Pumped: 21.5 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: ____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 9.10 Meter Model: ____ Meter S/N: ____
Temperature: 10.4 Spec. Cond.: 1.00 Meter Model: Horiba Meter S/N: U-22
ORP: -139 DO: 0. Turbidity: 67.5
DUP : ☑ No ☐ Yes Name: ____
MS/MSD : ☑ No ☐ Yes Name: ____
Field Lab Results: ☐ N/A pH: ____ DO: ____ Temperature: ____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols
Signature: [signature] Date: 1/6/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patelco
Personnel: [illegible]
Purge/Sample Depth: ~23
Project Number:
Well ID: MW-2D
Sample ID:

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
13:47	6.16	11.67	145	0.370	0.33	29.7	3.9	200	
13:50	4.98	12.43	227	0.387	0.00	34.9		200	
13:53	4.53	13.14	246	0.563	0.00	32.0	3.9	200	
13:56	4.27	13.10	267	0.991	0.00	30.7		200	
13:59	4.11	12.27	278	0.999	0.00	29.9		200	
14:02	4.09	12.97	286	0.999	0.00	30.1	3.9	200	
14:05	4.09	12.72	287	0.999	0.00	36.7		200	
14:08	4.02	12.52	298	0.90	0.00	35.4		200	
14:11	3.99	12.90	301	0.999	0.00	30.9	3.9	200	
14:14	3.96	12.93	301	0.981	0.00	30.6		200	
14:17	3.98	13.24	302	0.982	0.00	30.4		200	
				Sensu	@		1420		

1/6/11

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-2D
Sample I.D.: (if different from well no.)

Project: Pathogen
Personnel: [illegible]

Date: 1/6/11 Time: 1247
Weather: Sun Air Temp.: 30

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: ______
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 3.1 ft Bottom of Well: 25 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other: ______
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ~~☐ No~~ NA
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ______

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: ______
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: ______

Pumping Rate: 200 mL/min Elapsed Time: 30 min Volume Pumped: ~2 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ______

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: ______
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ______ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 3.98 Meter Model: Horiba Meter S/N: U-22
Temperature: 13.24 Spec. Cond.: 0.987 Meter Model: Horiba Meter S/N: U-22
ORP: 307 DO: 0.00 Turbidity: 30.4
DUP : ☑ No ☐ Yes Name: ——
MS/MSD : ☑ No ☐ Yes Name: ——
Field Lab Results: ☐N/A pH: —— DO: —— Temperature: ——

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: [signature] Date: 1/6/11

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BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue GW
Personnel: MW + JAS
Purge/Sample Depth: ~~[illegible]~~ ~22
Project Number:
Well ID: MW-4D
Sample ID: MW-4D

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
Initial	5.58	9.72	217	0.212	6.88	98			
1st well	5.49	10.12	219	0.224	4.68	53	4.78		
2nd well	5.39	11.82	218	0.243	2.72	0	4.81		
3rd well	5.44	11.65	211	0.257	2.64	0	4.81		
Final	5.45	11.63	209	0.251	2.83	0	4.81		

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-4D
Sample I.D.: MW-4D (if different from well no.)

Project: Patchogue
Personnel: ML + JAS

Date: 1/6/11 Time: _____
Weather: Sunny Air Temp.: 40°

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 4.78 ft Bottom of Well: 25 ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other: _____
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: ~~AW~~ 3 gal To be purged: ~~AW~~ 9 gal

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ~~☑ Bladder Pump~~ (AW) ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ~~☑~~ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ ~~Stainless Steel~~ (AW) ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 400 mL/min Elapsed Time: 60 min Volume Pumped: 9 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: ~~AW~~ 3
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 5.45 Meter Model: Horiba Meter S/N: _____
Temperature: 11.63 Spec. Cond.: 0.251 Meter Model: Horiba Meter S/N: _____
ORP: 209 DO: 2.83 Turbidity: 0
DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☑ No ☐ Yes Name: _____
Field Lab Results: ☐ N/A pH: _____ DO: _____ Temperature: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: _____ Date: 1/5/11

BROWN AND CALDWELL

LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patrick
Personnel: [illegible]
Purge/Sample Depth: ~8
Project Number:
Well ID: MW-25
Sample ID: MW-25

Actual Time	pH	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	DTW (ft)	Pumping Rate (mL/min)	Comments
15:28	5.58	11.71	192	0.277	0.00	53.0	4.55	250	
15:31	5.47	12.56	198	0.290	0.00	65.0		250	
15:34	5.37	8.79	205	0.296	0.00	62.0	4.55	250	
15:37	5.32	7.62	208	0.299	0.26	62.5		250	
15:40	5.34	8.47	210	0.314	0.62	53.7		250	
15:43	5.31	9.07	211	0.322	0.83	44.2		300	
15:46	5.33	9.50	210	0.323	0.90	40.3	4.55	300	
15:49	5.34	8.48	210	0.329	1.17	35.1		300	
15:52	5.38	9.52	210	0.334	0.94	32.0		300	
15:55	5.39	9.35	209	0.337	0.96	30.3		300	
15:58	5.39	9.46	209	0.339	0.97	24.6		300	
16:00			Sample		Taken				

11/6/11

BROWN AND CALDWELL

Allendale, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-25
Sample I.D.: (if different from well no.)

Project: Pathogen
Personnel: [illegible]

Date: 1/6/14 Time: 1525
Weather: Sun Air Temp.: 30

WELL DATA:

Casing Diameter: 4 ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2 ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: _____ ft Bottom of Well: _____ ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 300 mL/min Elapsed Time: 30 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☒ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: pH: 5.39 Meter Model: _____ Meter S/N: _____
Temperature: 9.46 Spec. Cond.: 0.339 Meter Model: Horiba Meter S/N: 0-77
ORP: 209 DO: 0.97 Turbidity: 29.6
DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:
Field Lab Results: ☐N/A pH: _____ DO: _____ Temperature: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols
Signature: 1/6/14 Date:

Appendix B: Laboratory Reports (CD-ROM)

Appendix C: Data Usability Summary Report

ENVIRONMENTAL
Data Services, Inc.

February 25, 2011

Mr. Jim Marolda
Brown and Caldwell
110 Commerce Drive
Allendale, New Jersey 07401

Re: Transmittal of Completed Data Usability Summary Reports for the Patchogue Site, SDGs PCH05, PCH06

Dear Mr. Marolda:

Environmental Data Services, Inc. (EDS) is pleased to submit the Data Usability Summary Reports with attached annotated Form Is for the above referenced SDGs.

Please contact me at (757) 564-0090 or via email at nweaver@env-data.com if you have any questions.

Sincerely,
Environmental Data Services, Inc.

Nancy Weaver
Senior Chemist

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
PATCHOGUE, NEY YORK

Client: Brown and Caldwell, Allendale, New Jersey
SDG: PCH05
Laboratory: Lancaster Laboratories, Lancaster, Pennsylvania
Site: Patchogue, New York
Date: February 23, 2011

VOC, SVOC			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MW-9D	6179990	Water
1MS	MW-9DMS	6179991MS	Water
1MSD	MW-9DMSD	6179992MSD	Water
2	MW-9S	6179993	Water
3	MW-4S	6179994	Water
4	MW-3	6179995	Water
5	FB010511	6179996	Water
6	MW-1	6179997	Water
7	MW-8D	6179998	Water
8	MW-8S	6179999	Water
9	DUP010611	6180000	Water
10	TRIP BLANK	6180001	Water
11	MW-7D	6180002	Water
12	MW-7S	6180003	Water
13	MW-2D	6180004	Water
14	MW-4D	6180005	Water
15	MW-2S	6180006	Water

A Data Usability Summary Review was performed on the analytical data for thirteen water samples, one aqueous trip blank sample, and one aqueous field blank sample collected January 5-6, 2011 by Brown and Caldwell at the Patchogue, New York Site. The samples were analyzed under Environmental Protection Agency (USEPA) *"Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions".*

Specific method references are as follows:

Analysis	*Method References*
VOC (BTEX)	USEPA SW-846 Method 8260B
SVOC (PAH)	USEPA SW-846 Method 8270C

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-24, Revision 2, August 2008: Validating Volatile Organic Compounds by SW-846 Method 8260B;

- SOP Number HW-22, Revision 4, August 2008: Validating Semivolatile Organic Compounds by SW-846 Method 8270D;
- and the reviewer's professional judgment.

Organics

The following items/criteria were reviewed:

- Data Completeness
- Holding times and sample preservation
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Duplicate (LCS/LCSD) recoveries
- Method blank and field blank contamination
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Initial and continuing calibration summaries
- Compound Quantitation
- Internal standard area and retention time summary forms
- Field Duplicate sample precision

Overall Usability Issues:

There were no rejections of data.

The data is acceptable for the intended purposes. There were no qualifications.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Volatile Organic Compounds (BTEX)

Holding Times

- All samples were analyzed within 14 days for preserved water samples.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and/or relative percent differences (RPD).

Laboratory Control Samples

- The LCS sample exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- The following table summarizes field blank contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
FB010511	None- ND	-	-	-	-
TRIP BLANK	None- ND	-	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and average RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- No discrepancies were identified.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

VOC				
Compound	MW-8D ug/L	DUP010611 ug/L	RPD	Qualifier
None	ND	ND	-	-

Polynuclear Aromatic Hydrocarbons (PAH)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and/or relative percent differences (RPD).

Laboratory Control Samples

- The LCS sample exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blanks

- The following table summarizes field blank contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
FB010511	None- ND	-	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and average RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- No discrepancies were identified.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

PAH				
Compound	MW-8D ug/L	DUP010611 ug/L	RPD	Qualifier
None	ND	ND	-	-

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 2/25/11

Nancy Weaver
Senior Chemist

Data Qualifiers

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

R = The sample results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

Analysis Report

Lancaster Laboratories

Sample Description: MW-9D Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179990
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011 11:40 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW9D- SDG#: PCH05-01BKG

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	
10903	Benzene	71-43-2	N.D.		0.5	1
10903	Ethylbenzene	100-41-4	N.D.		0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1
10903	Toluene	108-88-3	N.D.		0.7	1
10903	m+p-Xylene	179601-23-1	N.D.		0.8	1
10903	o-Xylene	95-47-6	N.D.		0.8	1
10903	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l		ug/l	
07805	Acenaphthene	83-32-9	N.D.		1	1
07805	Acenaphthylene	208-96-8	N.D.		1	1
07805	Anthracene	120-12-7	N.D.		1	1
07805	Benzo(a)anthracene	56-55-3	N.D.		1	1
07805	Benzo(a)pyrene	50-32-8	N.D.		1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.		1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.		1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.		1	1
07805	Chrysene	218-01-9	N.D.		1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.		1	1
07805	**Fluoranthene**	206-44-0	1	J	1	1
07805	Fluorene	86-73-7	N.D.		1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1	1
07805	Naphthalene	91-20-3	N.D.		1	1
07805	**Phenanthrene**	85-01-8	2	J	1	1
07805	**Pyrene**	129-00-0	2	J	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 12:58	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 12:58	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 12:26	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0010

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

llw 2/23/11

Analysis Report

Lancaster Laboratories

2

Sample Description: MW-9S Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179993
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011 12:45 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW9S- SDG#: PCH05-02

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	
10903	**Benzene**	71-43-2	1	J	0.5	1
10903	Ethylbenzene	100-41-4	N.D.		0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1
10903	Toluene	108-88-3	N.D.		0.7	1
10903	m-p-Xylene	179601-23-1	N.D.		0.8	1
10903	o-Xylene	95-47-6	N.D.		0.8	1
10903	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l		ug/l	
07805	**Acenaphthene**	83-32-9	12		1	1
07805	**Acenaphthylene**	208-96-8	8		1	1
07805	**Anthracene**	120-12-7	1	J	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.		1	1
07805	Benzo(a)pyrene	50-32-8	N.D.		1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.		1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.		1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.		1	1
07805	Chrysene	218-01-9	N.D.		1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.		1	1
07805	Fluoranthene	206-44-0	N.D.		1	1
07805	**Fluorene**	86-73-7	9		1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1	1
07805	Naphthalene	91-20-3	N.D.		1	1
07805	**Phenanthrene**	85-01-8	12		1	1
07805	Pyrene	129-00-0	N.D.		1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 14:06	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 14:08	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 14:27	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0013

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

MW 2/23/11

Analysis Report

3

Lancaster Laboratories

Sample Description: MW-4S Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179994
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011 14:35 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW4S- SDG#: PCH05-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 14:31	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 14:31	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 15:07	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0014

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

MW
2/23/11

Analysis Report

Lancaster Laboratories

4

Sample Description: MW-3 Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179995
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011 15:30 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

-MW3- SDG#: PCH05-04

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10903	Benzene	71-43-2	N.D.		0.5	1
10903	Ethylbenzene	100-41-4	N.D.		0.6	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1
10903	Toluene	108-88-3	N.D.		0.7	1
10903	m+p-Xylene	179601-23-1	N.D.		0.8	1
10903	o-Xylene	95-47-6	N.D.		0.8	1
10903	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
07805	**Acenaphthene**	83-32-9	**4**	**J**	1	1
07805	**Acenaphthylene**	208-96-8	**3**	**J**	1	1
07805	**Anthracene**	120-12-7	**2**	**J**	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.		1	1
07805	Benzo(a)pyrene	50-32-8	N.D.		1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.		1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.		1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.		1	1
07805	Chrysene	218-01-9	N.D.		1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.		1	1
07805	**Fluoranthene**	206-44-0	**3**	**J**	1	1
07805	Fluorene	86-73-7	N.D.		1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1	1
07805	Naphthalene	91-20-3	N.D.		1	1
07805	**Phenanthrene**	85-01-8	**2**	**J**	1	1
07805	**Pyrene**	129-00-0	**3**	**J**	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 14:55	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 14:55	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 15:48	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 :0015

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Analysis Report

Lancaster Laboratories

5

Sample Description: FB010511 Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179996
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011 16:15 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

FB105 SDG#: PCH05-05FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 15:16	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 15:16	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 16:28	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0016

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Analysis Report

Lancaster Laboratories

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Sample Description: MW-1 Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179997
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011 16:40 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

-MW1- SDG#: PCH05-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10903	Benzene	71-43-2	N.D.		0.5	1
10903	**Ethylbenzene**	100-41-4	**0.9**	**J**	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1
10903	Toluene	108-88-3	N.D.		0.7	1
10903	**m+p-Xylene**	179601-23-1	**0.8**	**J**	0.8	1
10903	o-Xylene	95-47-6	N.D.		0.8	1
10903	**Xylene (Total)**	1330-20-7	**0.8**	**J**	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
07805	**Acenaphthene**	83-32-9	**2**	**J**	1	1
07805	Acenaphthylene	208-96-8	N.D.		1	1
07805	Anthracene	120-12-7	N.D.		1	1
07805	Benzo(a)anthracene	56-55-3	N.D.		1	1
07805	Benzo(a)pyrene	50-32-8	N.D.		1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.		1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.		1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.		1	1
07805	Chrysene	218-01-9	N.D.		1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.		1	1
07805	**Fluoranthene**	206-44-0	**1**	**J**	1	1
07805	**Fluorene**	86-73-7	**1**	**J**	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1	1
07805	**Naphthalene**	91-20-3	**14**		1	1
07805	**Phenanthrene**	85-01-8	**3**	**J**	1	1
07805	**Pyrene**	129-00-0	**1**	**J**	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 15:42	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 15:42	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 17:09	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0017

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Analysis Report

7

Lancaster Laboratories

Sample Description: MW-8D Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179998
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 09:30 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW-8D SDG#: PCH05-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 16:05	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 16:05	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 17:51	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0810

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Analysis Report

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Lancaster Laboratories

Sample Description: MW-8S Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6179999
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 10:40 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW-8S SDG#: PCH05-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10903	Benzene	71-43-2	N.D.		0.5	1
10903	Ethylbenzene	100-41-4	N.D.		0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1
10903	Toluene	108-88-3	N.D.		0.7	1
10903	m+p-Xylene	179601-23-1	N.D.		0.8	1
10903	o-Xylene	95-47-6	N.D.		0.8	1
10903	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
07805	**Acenaphthene**	83-32-9	**1**	**J**	1	1
07805	Acenaphthylene	208-96-8	N.D.		1	1
07805	Anthracene	120-12-7	N.D.		1	1
07805	Benzo(a)anthracene	56-55-3	N.D.		1	1
07805	Benzo(a)pyrene	50-32-8	N.D.		1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.		1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.		1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.		1	1
07805	Chrysene	218-01-9	N.D.		1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.		1	1
07805	Fluoranthene	206-44-0	N.D.		1	1
07805	Fluorene	86-73-7	N.D.		1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1	1
07805	**Naphthalene**	91-20-3	**5**	**J**	1	1
07805	Phenanthrene	85-01-8	N.D.		1	1
07805	Pyrene	129-00-0	N.D.		1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 16:29	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 16:29	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 18:31	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0019

MW
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Analysis Report

Lancaster Laboratories

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Sample Description: DUP010611 Grab Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6180000
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

FD106 SDG#: PCH05-09FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 16:53	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 16:53	Emily R Styer	1
07605	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 19:12	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:25	Denise L Trimby	1

PCH05 0020

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Analysis Report

10

Lancaster Laboratories

Sample Description: Trip Blank Water
COC# 253492
Patchogue, NY

LLI Sample # WW 6180001
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/05/2011

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

TB15- SDG#: PCH05-10TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10503	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 12:34	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 12:34	Emily R Styer	1

PCH05 0021

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Analysis Report

Lancaster Laboratories

11

Sample Description: MW-7D Grab Water
COC# 253496
Patchogue, NY

LLI Sample # WW 6180002
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 12:50 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
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MW-7D SDG#: PCH05-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 17:16	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 17:16	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 19:53	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0022

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MW
2/23/11

Analysis Report

Lancaster Laboratories

12

Sample Description: MW-7S Grab Water
COC# 253496
Patchogue, NY

LLI Sample # WW 6180003
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 13:40 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW-7S SDG#: PCH05-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 17:40	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 17:40	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 20:33	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0023

Lancaster Laboratories, Inc
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MW
2/23/11

Analysis Report

Lancaster Laboratories

13

Sample Description: MW-2D Grab Water
COC# 253496
Patchogue, NY

LLI Sample # WW 6180004
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 14:20 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW2D- SDG#: PCH05-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	WI10121AA	01/12/2011 18:03	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	WI10121AA	01/12/2011 18:03	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/11/2011 21:14	Matthew S Woods	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0024

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MW 2/23/11

Analysis Report

Lancaster Laboratories

14

Sample Description: MW-4D Grab Water
COC# 253496
Patchogue, NY

LLI Sample # WW 6180005
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 15:15 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW-4D SDG#: PCH05-14

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10903	Benzene	71-43-2	N.D.		0.5	1
10903	Ethylbenzene	100-41-4	N.D.		0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1
10903	Toluene	108-88-3	N.D.		0.7	1
10903	m+p-Xylene	179601-23-1	N.D.		0.8	1
10903	o-Xylene	95-47-6	N.D.		0.8	1
10903	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
07805	Acenaphthene	83-32-9	N.D.		1	1
07805	**Acenaphthylene**	208-96-8	2	J	1	1
07805	Anthracene	120-12-7	N.D.		1	1
07805	Benzo(a)anthracene	56-55-3	N.D.		1	1
07805	Benzo(a)pyrene	50-32-8	N.D.		1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.		1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.		1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.		1	1
07805	Chrysene	218-01-9	N.D.		1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.		1	1
07805	Fluoranthene	206-44-0	N.D.		1	1
07805	**Fluorene**	86-73-7	4	J	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1	1
07805	Naphthalene	91-20-3	N.D.		1	1
07805	**Phenanthrene**	85-01-8	6		1	1
07805	Pyrene	129-00-0	N.D.		1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 18:27	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 18:27	Emily R Styer	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/12/2011 03:35	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05 0025

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MW 2/23/11

Analysis Report

Lancaster Laboratories

15

Sample Description: MW-2S Grab Water
COC# 253496
Patchogue, NY

LLI Sample # WW 6180006
LLI Group # 1228338
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 16:00 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/14/2011 11:14

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

MW-2S SDG#: PCH05-15*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	
07805	Acenaphthene	83-32-9	N.D.	1	1
07805	Acenaphthylene	208-96-8	N.D.	1	1
07805	Anthracene	120-12-7	N.D.	1	1
07805	Benzo(a)anthracene	56-55-3	N.D.	1	1
07805	Benzo(a)pyrene	50-32-8	N.D.	1	1
07805	Benzo(b)fluoranthene	205-99-2	N.D.	1	1
07805	Benzo(g,h,i)perylene	191-24-2	N.D.	1	1
07805	Benzo(k)fluoranthene	207-08-9	N.D.	1	1
07805	Chrysene	218-01-9	N.D.	1	1
07805	Dibenz(a,h)anthracene	53-70-3	N.D.	1	1
07805	Fluoranthene	206-44-0	N.D.	1	1
07805	Fluorene	86-73-7	N.D.	1	1
07805	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	1	1
07805	Naphthalene	91-20-3	N.D.	1	1
07805	Phenanthrene	85-01-8	N.D.	1	1
07805	Pyrene	129-00-0	N.D.	1	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	OST VOCs 8260 (Water)	SW-846 8260B	1	W110121AA	01/12/2011 18:50	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W110121AA	01/12/2011 18:50	Emily R Styer	1
07805	PAEs in Water by GC/MS	SW-846 8270C	1	11008WAC026	01/12/2011 04:15	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	11008WAC026	01/10/2011 09:15	Denise L Trimby	1

PCH05-8026

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MW 2/23/11

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
PATCHOGUE, NEY YORK

Client: Brown and Caldwell, Allendale, New Jersey
SDG: PCH06
Laboratory: Lancaster Laboratories, Lancaster, Pennsylvania
Site: Patchogue, New York
Date: February 23, 2011

VOC, SVOC			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	WC-010611	6180011	Water
2	TRIP BLANK	6180014	Water

A Data Usability Summary Review was performed on the analytical data for one water samples and one aqueous trip blank sample collected January 6, 2011 by Brown and Caldwell at the Patchogue, New York Site. The samples were analyzed under Environmental Protection Agency (USEPA) *"Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions".*

Specific method references are as follows:

Analysis	*Method References*
VOC (BTEX)	USEPA SW-846 Method 8260B
SVOC (PAH)	USEPA SW-846 Method 8270C

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-24, Revision 2, August 2008: Validating Volatile Organic Compounds by SW-846 Method 8260B;
- SOP Number HW-22, Revision 4, August 2008: Validating Semivolatile Organic Compounds by SW-846 Method 8270D;
- and the reviewer's professional judgment.

Organics

The following items/criteria were reviewed:

- Data Completeness
- Holding times and sample preservation
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Duplicate (LCS/LCSD) recoveries

- Method blank and field blank contamination
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Initial and continuing calibration summaries
- Compound Quantitation
- Internal standard area and retention time summary forms
- Field Duplicate sample precision

Overall Usability Issues:

There were no rejections of data.

The data is acceptable for the intended purposes. There were no qualifications.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Volatile Organic Compounds (BTEX)

Holding Times

- All samples were analyzed within 14 days for preserved water samples.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- A MS/MSD sample was not analyzed.

Laboratory Control Samples

- The LCS sample exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- The following table summarizes field blank contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
FB010511	None- ND	-	-	-	-
TRIP BLANK	None- ND	-	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and average RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- EDS sample ID #1 was analyzed at a 50X dilution due to sample matrix interference.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate samples were not analyzed.

Polynuclear Aromatic Hydrocarbons (PAH)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

Surrogate Spike Recoveries

- The following table presents surrogate percent recoveries (%R) outside the QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

Sample ID	Surrogate	%R	Qualifier
1	Terphenyl-d14	"36D"	None due to dilution
	2-Fluorobiphenyl	"119D"	

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- A MS/MSD sample was not analyzed.

Laboratory Control Samples

- The LCS sample exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blanks

- The following table summarizes field blank contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
FB010511	None- ND	-	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and average RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- EDS sample ID #1 was analyzed at a 10X dilution due to sample matrix interference.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate samples were not analyzed.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 2/25/11

Nancy Weaver
Senior Chemist

Data Qualifiers

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

R = The sample results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

Analysis Report

Lancaster Laboratories

Sample Description: WC-010611 Grab Water Sample
COC #255677
Patchogue, NY

LLI Sample # WW 6180011
LLI Group # 1228341
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011 14:55 by JAJ

Submitted: 01/07/2011 17:57
Reported: 01/25/2011 13:58

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

WC16- SDG#: PCH06-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	
10903	Benzene	71-43-2	N.D.		25	50
10903	Ethylbenzene	100-41-4	N.D.		40	50
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		25	50
10903	Toluene	108-88-3	N.D.		35	50
10903	m+p-Xylene	179601-23-1	N.D.		40	50
10903	o-Xylene	95-47-6	N.D.		40	50
10903	Xylene (Total)	1330-20-7	N.D.		40	50

Preservation requirements were not met. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH = 7.

Reporting limits were raised due to sample foaming.

GC/MS Semivolatiles	**SW-846 8270C**		ug/l		ug/l	
07605	Acenaphthene	83-32-9	N.D.		50	10
07605	Acenaphthylene	208-96-8	N.D.		50	10
07605	Anthracene	120-12-7	N.D.		50	10
07605	Benzo(a)anthracene	56-55-3	N.D.		50	10
07605	Benzo(a)pyrene	50-32-8	N.D.		50	10
07605	Benzo(b)fluoranthene	205-99-2	N.D.		50	10
07605	Benzo(g,h,i)perylene	191-24-2	N.D.		50	10
07605	Benzo(k)fluoranthene	207-08-9	N.D.		50	10
07605	Chrysene	218-01-9	N.D.		50	10
07605	Dibenz(a,h)anthracene	53-70-3	N.D.		50	10
07605	Fluoranthene	206-44-0	N.D.		50	10
07605	Fluorene	86-73-7	N.D.		50	10
07605	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		50	10
07605	2-Methylnaphthalene	91-57-6	N.D.		50	10
07605	**Naphthalene**	91-20-3	**110**	J	50	10
07605	Phenanthrene	85-01-8	N.D.		50	10
07605	Pyrene	129-00-0	N.D.		50	10

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8082**		ug/l		ug/l	
10227	PCB-1016	12674-11-2	N.D.		0.20	1
10227	PCB-1221	11104-28-2	N.D.		0.20	1
10227	PCB-1232	11141-16-5	N.D.		0.40	1
10227	PCB-1242	53469-21-9	N.D.		0.20	1
10227	PCB-1248	12672-29-6	N.D.		0.20	1
10227	PCB-1254	11097-69-1	N.D.		0.20	1
10227	PCB-1260	11096-82-5	N.D.		0.20	1

Reporting limits were raised due to interference from the sample matrix.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

PCH06 6003

Metals	**SW-846 6010B**		ug/l		ug/l	
07055	Lead	7439-92-1	N.D.		6.9	1

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RLW 2/23/11

Analysis Report

Lancaster Laboratories

2

Sample Description: Trip Blank Water Sample
COC #255677
Patchogue, NY

LLI Sample # WW 6180014
LLI Group # 1228341
Account # 09286

Project Name: Patchogue, NY

Collected: 01/06/2011

Submitted: 01/07/2011 17:57
Reported: 01/25/2011 13:58

Brown & Caldwell
110 Commerce Drive
Allendale NJ 07401

SDG#: PCH06-04TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	m+p-Xylene	179601-23-1	N.D.	0.8	1
10903	o-Xylene	95-47-6	N.D.	0.8	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	UST VOCs 8260 (Water)	SW-846 8260B	1	L110181AA	01/18/2011 12:15	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L110181AA	01/18/2011 12:15	Linda C Pape	1

PCH06 8811

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MW
2/23/11

Appendix D: Electronic Data Deliverable (CD-ROM)