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Technical Memorandum

Prepared for: General Electric Company

Project Title: Supplemental Site Characterization Activities, Former Baron Blakeslee Site, Site No.152204

Project No: 141247

Progress Report for December 11, 2012 through January 31, 2013

Date: February 13, 2013

To: Robert Corcoran, PE, Project Manager, Division of Environmental Remediation

From: Frank Williams, PG, Project Manager

Copy to: John Uruskyj, CPG (GE)

This progress report addresses supplemental Site Characterization activities conducted at the Former Baron Blakeslee Site from December 11, 2012 through January 31, 2013. Except as noted below, the activities have been conducted in accordance with the approved Site Characterization Work Plan Addendum (Brown and Caldwell Associates, October 2012). Attachment A summarizes significant developments and resolutions of any problems.

Field Activities

Installation of replacement monitoring well MW-GWP-6R was completed on December 14, 2012. Development of the well was completed on December 17, 2012. Because grout injected during well decommissioning could temporarily alter the pH of nearby groundwater and affect the concentrations of dissolved metals, the original well (MW-GWP-6) will not be abandoned until the nearby replacement well is no longer needed for monitoring purposes.

Sampling of monitoring wells MW-GWP-1, MW-GWP-3 and MW-GWP-6R for TAL metals and hexavalent chromium was completed on January 14, 2013. The sampling was initially scheduled for December 28, 2012 but was postponed because the laboratory notified Brown and Caldwell Associates (BC) that the ion chromatograph utilized for hexavalent chromium analysis required servicing.

BC is coordinating with the subcontractor responsible for investigation-derived waste (IDW) disposal.

Office Activities

BC received the analytical results for soil, soil vapor, indoor air, and the initial round of groundwater samples. Data Usability Summary Reports (DUSRs) have been completed. The data validation indicates all data are acceptable for the intended purposes. No data were rejected as a result of this review. Minor data quality issues were identified, resulting in qualification of some results. All hexavalent chromium results for the initial round of groundwater samples were non-detect, but qualified (UJ) because holding times were exceeded.

Tables summarizing the analytical results for shallow soil, soil vapor/indoor air/outdoor air, and groundwater are included with this progress report (Attachment C). Sample locations are shown on Figure 3-1 (Attachment C).

BC received the analytical results for the January round of groundwater samples. A Data Usability Summary Report (DUSR) is being prepared for these data. Concentrations of metals appear to be similar to those for the initial round of groundwater sampling. Hexavalent chromium concentrations in the January samples were all below method detection limits.

BC is preparing a draft Site Characterization Report Addendum (SCRA). It is anticipated that the SCRA will be submitted to DEC in March.

Frank Williams, Supervising Geologist

Appendix A:

Significant Developments / Actions Performed / Problems / Resolutions

PROGRESS REPORT
DECEMBER 11, 2012 THROUGH JANUARY 31, 2013
FORMER BARON BLAKESLEE SITE – SUPPLEMENTAL SITE CHARACTERIZATION ACTIVITIES

Significant Developments / Actions Performed	Start Date	Finish Date	Analytical Results	Problems or Significant Events Encountered / Anticipated	Resolution Achieved / Planned
Groundwater Sampling	11/15/12	1/14/13	Unvalidated analytical data attached.	The re-sampling of MW-GWP-1 and MW-GWP-3 and the initial sampling of MW-GWP-6R was completed January 14, 2013. No problems were encountered.	
SC Report Addendum	12/31/12	Anticipated March 2013	NA	No problems anticipated.	
IDW Disposal	2/1/13	Anticipated March 2013	NA	No problems anticipated.	

Appendix B:

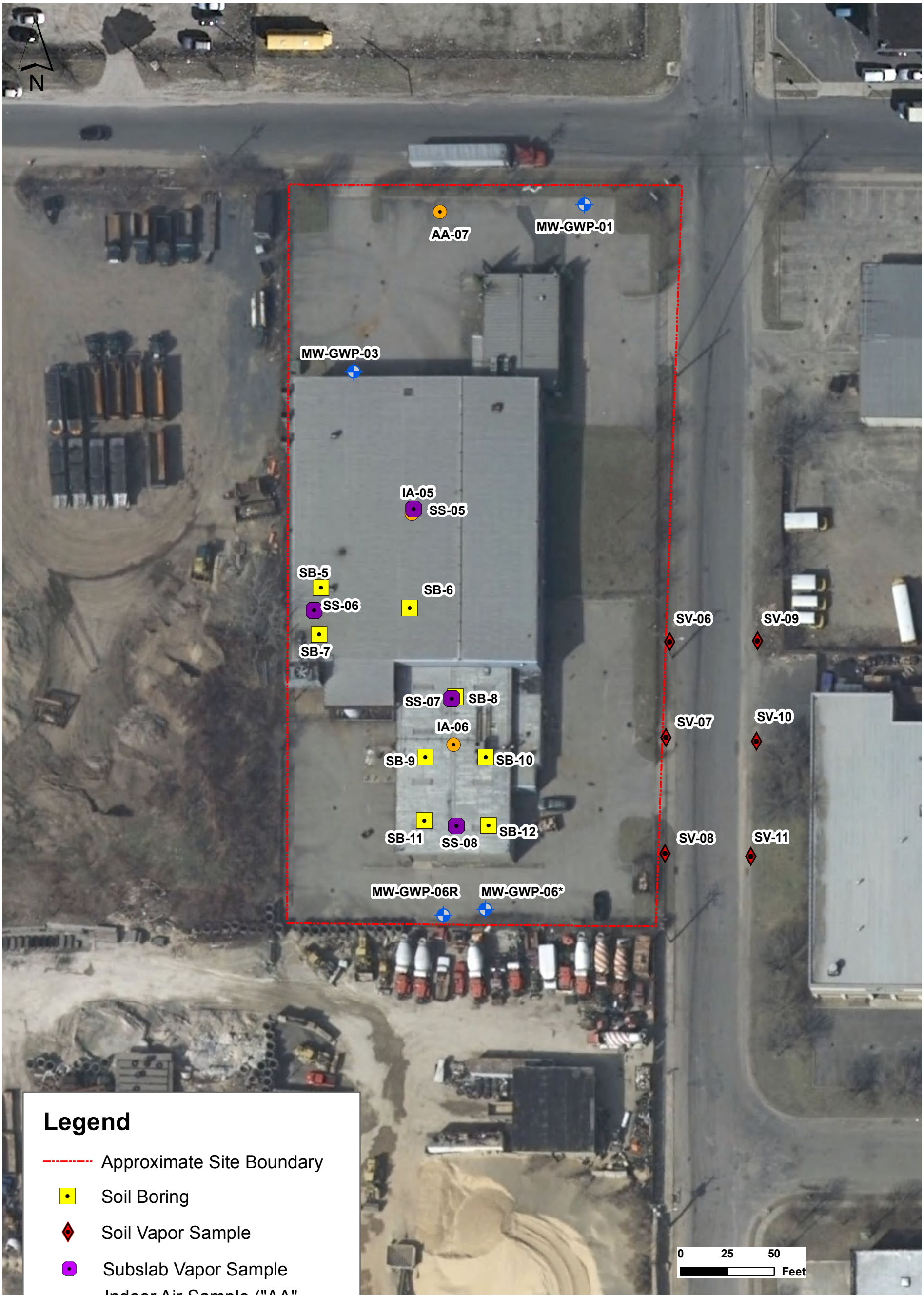
Unvalidated Laboratory Data

Laboratory data packages can be downloaded from the following link:

http://www.yousendit.com/download/UW13ZHlvNHZiR0lPd3NUQw

Appendix C:

Figure and Tables



Legend

- Approximate Site Boundary
- Soil Boring
- Soil Vapor Sample
- Subslab Vapor Sample
- Indoor Air Sample ("AA" indicates Ambient Air Sample)
- Monitoring Well

Note:
* - Indicates that monitoring well installed incorrectly and proposed for abandonment.

FIGURE 3-1

2012 SUPPLEMENTAL SITE CHARACTERIZATION INVESTIGATION SAMPLE LOCATIONS

FORMER BARON BLAKESLEE SITE
86 CLEVELAND AVE
BAY SHORE, NEW YORK

DATE: 01/11/13

PROJECT NUMBER: 141247.200

BROWN AND CALDWELL
ASSOCIATES

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TABLE 1
Groundwater Analytical Results
Supplemental Site Characterization Investigation
Former Baron Blakeslee Site
Bay Shore, New York

GW Quality

Analyte Group: Metals *Analyte Name*	Class GA Groundwater Criteria NYS Part 703(1) Standard	Federal MCL	*Units*	*Location:* / *Sample Name:* / *Sample Date:*	*MW-GWP-1* *MW-GWP-1F* *11/15/2012*	*MW-GWP-1* *MW-GWP-1U* *11/15/2012*	*MW-GWP-1* *DUP111512 F* *11/15/2012*	*MW-GWP-1* *DUP111512 U* *11/15/2012*	*MW-GWP-1* *MW-GWP-01-D* *1/14/2013*	*MW-GWP-1* *MW-GWP-01-T* *1/14/2013*
Aluminum	NE	200	UG/L		72.9 J	188 J	72.1 U	86.4 J	72.1 U	185 J
Barium	1000	2000	UG/L		333	338	330	332	286	281
Calcium	NE	NE	UG/L		24300	24300	23600	23400	21600	21200
Iron	300	300	UG/L		73.6 U	217 J	73.6 U	81.1 J	84.9 J	277
Magnesium	NE	NE	UG/L		3920 J	3880 J	3800 J	3790 J	3940 J	3840 J
Manganese	300	50	UG/L		*104 J	*102 J	*56.5 J	*64.4 J	*58.6	*84.2
Potassium	NE	NE	UG/L		18600	18700	18200	18400	17100	17000
Selenium	10	50	UG/L		5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U
Sodium	20000	NE	UG/L		*97700	*98100	*98200	*98200	*94900	*93500
Thallium	NE	2	UG/L		5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
Zinc	NE	5000	UG/L		6.4 J	6.6 J	5.8 U	5.8 U	5.8 U	5.8 U

TABLE 1
Groundwater Analytical Results
Supplemental Site Characterization Investigation
Former Baron Blakeslee Site
Bay Shore, New York

GW Quality

Analyte Group: Metals *Analyte Name*	Class GA Groundwater Criteria NYS Part 703(1) Standard	Federal MCL	*Units*	*Location:*	*MW-GWP-3*	*MW-GWP-3*	*MW-GWP-3*	*MW-GWP-3*	*MW-GWP-6R*	*MW-GWP-6R*	*MW-GWP-6R*
				Sample Name:	*MW-GWP-3F*	*MW-GWP-3U*	*MW-GWP-03-D*	*MW-GWP-03-T*	*MW-GWP-06R-D*	*MW-GWP-06R-T*	*DUP 011413-D*
				Sample Date:	*11/15/2012*	*11/15/2012*	*1/14/2013*	*1/14/2013*	*1/14/2013*	*1/14/2013*	*1/14/2013*
Aluminum	NE	200	UG/L		72.1 U	*280	72.1 U	*675	72.1 U	*231	72.1 U
Barium	1000	2000	UG/L		63.6 J	64.8 J	41.9 J	46 J	60 J	62.1 J	60.3 J
Calcium	NE	NE	UG/L		25600	26500	8170	8720	15400	16000	15600
Iron	300	300	UG/L		73.6 U	*332	73.6 U	*959	73.6 U	*617	73.6 U
Magnesium	NE	NE	UG/L		1230 J	1310 J	1250 J	1340 J	2010 J	2180 J	2040 J
Manganese	300	50	UG/L		*70.6	*99	22.1	*97.4	37	47.1	38
Potassium	NE	NE	UG/L		8340	8320	6280	6190	3480 J	3490 J	3480 J
Selenium	10	50	UG/L		5.8 U	5.8 U	5.8 U	5.8 U	7 J	5.8 U	9.1 J
Sodium	20000	NE	UG/L		6270	5930	4890 J	4890 J	*53500	*53900	*54200
Thallium	NE	2	UG/L		5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	*5.2 J	5.2 U
Zinc	NE	5000	UG/L		5.8 U	6.4 J	5.8 U	7.4 J	5.8 U	10.2 J	5.8 U

Notes:
U – The analyte was analyzed for, but was not detected. Value shown is the method detection limit (MDL) for the analyzed constituent.
J – Estimated concentration. The result is below the quantitation limit but above the method detection limit.
NE – Standard and/or guidance value not established.

* (Red) concentrations are above New York State Class GA Groundwater Standards or Guidance values or above the Federal MCL values.

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TABLE 2
Soil Analytical Results
Supplemental Site Characterization Investigation
Former Baron Blakeslee Site
Bay Shore, New York

Soil Results:

Analyte Group: VOCs	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]												
Analyte Name	Protection of Public Health - Industrial Use	Protection of Groundwater	*Units*	*Location:*	*SB-5*	*SB-6*	*SB-7*	*SB-8*	*SB-9*	*SB-9*	*SB-10*	*SB-11*	*SB-12*
				SampleName:	*SB-5-6-6.5*	*SB-6-5-5.5*	*SB-7-5-5.5*	*SB-8-1.5-2*	*SB-9-1-1.5*	*DUP-112912*	*SB-10-3-3.5*	*SB-11-1-1.5*	*SB-12-1-1.5*
1,1,1-Trichloroethane	1000	0.68	MG/KG		0.00022 J	*2.4	0.007 U	0.0066 U	0.1 J	0.077 J	0.00086 J	0.019 J	0.024 J
1,1-Dichloroethane	480	0.27	MG/KG		0.00029 J	0.035 J	0.015 U	0.014 U	0.014 U	0.016 U	0.00011 U	0.015 U	0.00011 U
1,2-Dimethylbenzene (o-xylene)	NE	NE	MG/KG		0.012	0.019 J	0.057 J	0.014 U	0.014 U	0.016 U	0.00018 U	0.015 U	0.00019 UJ
2-Butanone (MEK)	1000	0.12	MG/KG		0.011	0.28 U	0.26 U	0.24 U	0.25 U	0.29 U	0.0046 J	0.27 U	0.00064 U
2-Hexanone	NE	NE	MG/KG		0.00014 U	0.061 U	0.056 U	0.053 U	0.055 U	0.063 U	0.00083 J	0.058 U	0.00013 U
4-Methyl-2-pentanone (MIBK)	NE	NE	MG/KG		0.00022 U	0.12 U	0.11 U	0.1 U	0.11 U	0.12 U	0.00084 J	0.11 U	0.0002 U
Acetone	1000	0.05	MG/KG		*0.071	0.33 U	0.3 U	0.28 U	0.29 U	0.34 U	0.02	0.31 U	0.006 UJ
Carbon disulfide	NE	NE	MG/KG		0.00018 J	0.015 U	0.014 U	0.013 U	0.014 U	0.016 U	0.00031 J	0.014 U	0.00015 U
Chloroform	700	0.37	MG/KG		0.00026 U	0.0095 U	0.0088 U	0.0083 U	0.0086 U	0.0099 U	0.00023 U	0.0091 U	0.00072 J
cis-1,2-Dichloroethene	1000	0.25	MG/KG		0.00012 U	*2.3	0.02 U	0.019 U	0.019 U	0.022 U	0.00011 U	0.02 U	0.00011 U
Ethylbenzene	780	1	MG/KG		0.0031	0.014 J	0.11	0.01 U	0.01 U	0.012 U	0.00017 U	0.011 U	0.00017 UJ
Isopropylbenzene (Cumene)	NE	NE	MG/KG		0.00027 J	0.0093 U	0.09 J	0.0081 U	0.0084 U	0.0097 U	0.00011 U	0.0089 U	0.00011 UJ
m,p-Xylene (sum of isomers)	1000	1.6	MG/KG		0.0064	0.05 J	0.055 J	0.026 U	0.027 U	0.031 U	0.00057 U	0.028 U	0.0006 UJ
Methylcyclohexane	NE	NE	MG/KG		0.0072	0.021 J	4.5	0.014 U	0.015 U	0.017 U	0.000097 U	0.016 U	0.0001 UJ
Tetrachloroethene (PCE)	300	1.3	MG/KG		0.015	*8.3	0.062 J	*6.3 J	*11	*10	0.054	*11	0.35
Toluene	1000	0.7	MG/KG		0.0053	0.021 J	0.018 J	0.016 U	0.016 U	0.019 U	0.0002 J	0.017 U	0.00017 J
Trichloroethene (TCE)	400	0.47	MG/KG		0.0036	0.22	0.01 U	0.0097 U	0.17	0.14	0.00099	0.073 J	0.063 J

Notes:

U – The analyte was analyzed for, but was not detected. Value shown is the practical quantitation limit (PQL) for the analyzed constituent.
J – Estimated concentration. The result is below the quantitation limit but above the method detection limit.
UJ – The analyte was not detected above the reported method detection limit. However, based on data validation, the reported method detection limit is approximate and may or may not represent the actual limit of the detection necessary to accurately and precisely measure the analyte in the sample.
NE – Standard and/or guidance value not established.
* (Red) concentrations are above Soil Cleanup Objectives (NYCRR Subpart 375-6) Protection of Public Health (Industrial Use) and/or protection of groundwater

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TABLE 3
Vapor Intrusion Analytical Results
Supplemental Site Characterization Investigation
Former Baron Blakeslee Site
Bay Shore, New York

Air Results:

Analyte Group: VOCs	NYSDOH Air Guidelines	OSWER Air Guidelines		*Location:*	*IA-05*	*IA-05*	*IA-06*	*AA-07*
Analyte Name			***Units***	***SampleName:***	***IA-05***	***DUP-112712-2***	***IA-06***	***AA-07***
1,1,1-Trichloroethane	NE	2200	UG/M3		0.31	0.22 U	0.43	0.22 U
1,1,2,2-Tetrachloroethane	NE	0.042	UG/M3		*0.28	0.27 U	0.27 U	0.27 U
1,2-Dimethylbenzene (o-xylene)	NE	7000	UG/M3		0.57	0.4	1.9	0.48
1,3,5-Trimethylbenzene (mesitylene)	NE	6	UG/M3		0.39 U	0.39 U	0.39 U	0.39 U
1,3-Butadiene	NE	0.0087	UG/M3		*0.3	0.18 U	*0.34	*0.41
2,2,4-Trimethylpentane	NE	NE	UG/M3		1.2 J	0.58 J	0.61	0.66
4-Ethyltoluene	NE	NE	UG/M3		0.3	0.2 U	0.22	0.2 U
Benzene	NE	0.31	UG/M3		*0.99 J	*0.52 J	*0.9	*0.95
Bromodichloromethane	NE	0.14	UG/M3		0.27 U	0.27 U	0.27 U	0.27 U
Carbon tetrachloride	NE	0.16	UG/M3		*0.5 J	*0.3 J	*0.43	*0.55
Chloroform	NE	0.11	UG/M3		*0.2	0.2 U	0.2 U	0.2 U
Cyclohexane	NE	NE	UG/M3		1 J	0.53 J	6.2	0.43
Dibromochloromethane	NE	0.1	UG/M3		0.34 U	0.34 U	0.34 U	0.34 U
Dichlorodifluoromethane (Freon 12)	NE	200	UG/M3		6 J	3.9 J	7.8	3.8
Ethylbenzene	NE	2.2	UG/M3		0.54	0.35	1.8	0.37
m,p-Xylene (sum of isomers)	NE	NE	UG/M3		1.8	1.1	7	1.2
Methylene chloride	60	5.2	UG/M3		1.8 J	*9 J	4.2	1.5
n-Heptane (C7)	NE	NE	UG/M3		0.97 J	0.44 J	4.4	0.81
n-Hexane (C6)	NE	200	UG/M3		1.3 J	0.73 J	2.6	0.88
tert-Butyl methyl ether (MTBE)	NE	3000	UG/M3		0.14 U	0.14 U	0.14 U	0.14 U
Tetrachloroethene (PCE)	100	0.81	UG/M3		*4.3 J	*2.3 J	*3.5	*1.2
Toluene	NE	400	UG/M3		6.9 J	4.2 J	12	7.1
Trichloroethene (TCE)	5	0.022	UG/M3		*0.59 J	*0.28 J	*3.3	*0.33
Trichlorofluoromethane (Freon 11)	NE	700	UG/M3		2.4 J	1.6 J	3	2
Xylenes, total	NE	NE	UG/M3		2.4	1.5	9	1.7

TABLE 3
Vapor Intrusion Analytical Results
Supplemental Site Characterization Investigation
Former Baron Blakeslee Site
Bay Shore, New York

Air Results:

Analyte Group: VOCs	NYSDOH Air Guidelines	OSWER Air Guidelines		***Location:***	***SS-05***	***SS-05***	***SS-06***	***SS-07***	***SS-08***	***SV-06***	***SV-07***	***SV-08***	***SV-09***	***SV-10***	***SV-11***
Analyte Name			***Units***	***SampleName:***	***SS-05***	***DUP-112712-1***	***SS-06***	***SS-07***	***SS-08***	***SV-06***	***SV-07***	***SV-08***	***SV-09***	***SV-10***	***SV-11***
1,1,1-Trichloroethane	NE	22000	UG/M3		570	650	870	6300	*120000	9.4	11 J	4.1	0.27 U	1.9 J	1.9
1,1,2,2-Tetrachloroethane	NE	0.42	UG/M3		1.9 U	2.1 U	0.76 U	110 U	110 U	0.12 U	1.7 U	0.076 U	0.19 U	0.14 U	0.076 U
1,2-Dimethylbenzene (o-xylene)	NE	70000	UG/M3		1.7 U	1.9 U	4.4 J	97 U	97 U	12	4.9 J	8.5	15	14	14
1,3,5-Trimethylbenzene (mesitylene)	NE	60	UG/M3		2.3 U	2.6 U	13	130 U	130 U	6	2.1 U	6.1	6.3	8.5	8.7
1,3-Butadiene	NE	0.087	UG/M3		1.4 U	1.5 U	*2.7 J	77 U	77 U	0.088 U	1.2 U	*1.2	*1.5	*1.4	*0.91
2,2,4-Trimethylpentane	NE	NE	UG/M3		1.7 U	1.9 U	0.7 U	98 U	98 U	1.1 J	1.6 U	0.5 J	2.1 J	0.55 J	1.7
4-Ethyltoluene	NE	NE	UG/M3		1.8 U	2 U	8.7 J	100 U	100 U	5.1	1.6 U	5.3	5.9	8.5	7.1
Benzene	NE	3.1	UG/M3		1.4 U	1.6 U	*7.3	81 U	81 U	1.6	1.3 U	1.9	2.9	2	2.1
Bromodichloromethane	NE	1.4	UG/M3		2 U	2.2 U	0.8 U	110 U	110 U	0.13 U	1.8 U	0.08 U	0.2 U	0.14 U	*13
Carbon tetrachloride	NE	1.6	UG/M3		2 U	2.2 U	0.82 U	110 U	110 U	0.13 U	1.8 U	0.082 U	0.2 U	0.15 U	0.35 J
Chloroform	NE	1.1	UG/M3		2.9 U	3.2 U	1.2 U	160 U	*2100	0.58 J	2.6 U	0.25 J	0.29 U	0.9 J	*110
Cyclohexane	NE	NE	UG/M3		1.6 U	1.8 U	0.65 U	92 U	92 U	1.7	1.5 U	0.48 J	2.4	0.44 J	2.3
Dibromochloromethane	NE	1	UG/M3		2.3 U	2.6 U	0.94 U	130 U	130 U	0.15 U	2.1 U	0.094 U	0.23 U	0.17 U	*1.9
Dichlorodifluoromethane (Freon 12)	NE	2000	UG/M3		41 J	45 J	20 J	140 U	140 U	2.7 J	2.2 U	2.7	2.4 J	2.7 J	3.3
Ethylbenzene	NE	22	UG/M3		1.6 U	1.8 U	2.2 J	91 U	91 U	9.1	3.8 J	5.9	11	8.9	9.5
m,p-Xylene (sum of isomers)	NE	NE	UG/M3		2.4 U	2.6 U	6.3 J	130 U	130 U	37	16 J	25	41	41	40
Methylene chloride	60	52	UG/M3		2 U	2.2 U	0.8 U	110 U	110 U	1.2 J	1.8 U	0.61 J	0.81 J	0.73 J	1.6 J
n-Heptane (C7)	NE	NE	UG/M3		1.7 U	1.9 U	3.8 UJ	98 U	98 U	4.1	1.6 U	3.3	8	4	6.7
n-Hexane (C6)	NE	2000	UG/M3		1.7 U	1.9 U	0.7 U	99 U	99 U	2.2	1.6 U	2	4.2	1.9	6
tert-Butyl methyl ether (MTBE)	NE	30000	UG/M3		1.3 U	1.5 U	0.54 U	76 U	76 U	0.087 U	1.2 U	0.054 U	0.14 U	0.097 U	0.08 J
Tetrachloroethene (PCE)	100	8.1	UG/M3		*6400	*6400	*2300	*220000	*240000	*400	*4200	*45	*63	*370	*92
Toluene	NE	4000	UG/M3		1.8 J	1.4 U	8.2	74 U	74 U	22	8.9 J	14	26	17	19
Trichloroethene (TCE)	5	0.22	UG/M3		*76	*83	*74	*1600	*120000	*20	*94	*1.4	*0.87 J	*1.9 J	*0.89 J
Trichlorofluoromethane (Freon 11)	NE	7000	UG/M3		2.9 U	3.2 U	1.2 U	170 U	170 U	2	2.6 U	1.9	2.4 J	5.5	2.7
Xylenes, total	NE	NE	UG/M3		1.7 U	1.9 U	11	97 U	97 U	48	21	34	56	55	54

Notes:

U - Analyte was not detected; Method Detection limit is reported.
J - Concentration is estimated.
ft bgs - feet below ground surface.
All values in ug/m3 - micrograms per cubic meter.
AA- Indicates Ambient Air Sample
IA-Indicates Indoor Air Sample
SS-Indicates Sub-Slab Vapor Sample
SV-Indicates an exterior Soil Vapor Sample
*Red concentrations exceedence NYSDOH or OSWER Guidance Values.
1 NYSDOH Air Guideline Values (Guidance for Evaluating Vapor Intrusion in the State of New York, 2006, Table 3.1).
2 USEPA OSWER Target Indoor Air Concentration (Risk Level = 1x10-6).
3 USEPA OSWER Target Shallow Gas Concentration corresponding to Target Indoor Air Concentration where the soil gas to indoor air attenuation factor = 0.1.

SAMPLE SUMMARY

Client: Brown and Caldwell

Job Number: 200-13963-1
Sdg Number: 200-13963-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-13963-1	SS-05	Air	11/27/2012 1510	12/03/2012 1005
200-13963-2	DUP-112712-1	Air	11/27/2012 0000	12/03/2012 1005
200-13963-3	SS-06	Air	11/27/2012 1730	12/03/2012 1005
200-13963-4	SS-07	Air	11/27/2012 1725	12/03/2012 1005
200-13963-5	SS-08	Air	11/27/2012 1640	12/03/2012 1005
200-13963-6	IA-06	Air	11/27/2012 1420	12/03/2012 1005
200-13963-7	IA-05	Air	11/27/2012 1645	12/03/2012 1005
200-13963-8	DUP-112712-2	Air	11/27/2012 0000	12/03/2012 1005
200-13963-9	AA-07	Air	11/27/2012 1520	12/03/2012 1005
200-13963-10	SV-6	Air	11/28/2012 1640	12/03/2012 1005
200-13963-11	SV-7	Air	11/28/2012 1613	12/03/2012 1005
200-13963-12	SV-8	Air	11/28/2012 1532	12/03/2012 1005
200-13963-13	SV-9	Air	11/28/2012 1715	12/03/2012 1005
200-13963-14	SV-10	Air	11/28/2012 1710	12/03/2012 1005
200-13963-15	SV-11	Air	11/28/2012 1705	12/03/2012 1005

This page copied from the data validation report.
Added because it provides sample dates.