
**SITEWIDE SOIL SAMPLING EVENT
2010 SAMPLING OF MAIN CAMPUS PROPERTY
FORMER TEXACO RESEARCH CENTER
Beacon, New York**

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LIST OF ACRONYMS

µg/L	Micrograms per liter
bgs	Below ground surface
Class GA Water Standards	Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, dated June 1998 (NYSDEC document).
DOT	Department of Transportation
DUSR	Data Usability Summary Report
EMC	Environmental Management Company
ESA	Environmental Site Assessment
IDW	Investigative Derived Waste
NAD-1983	New York State Plane Coordinate System, East Zone – 1983
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
Permit	6 NYCRR Part 373 Hazardous Waste Management Permit #3-1330-00048/16.0
PID	Photoionization Detector
PVC	Polyvinyl Chloride
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SRFI	Supplemental RCRA Facility Investigation
SVOCs	Semivolatile organic compounds
TAL	Target Analyte List
Tank Farm	Washington Avenue Tank Farm
TRC	Texaco Research Center (Beacon)
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

Parsons completed a Sitewide Soil Sampling event in 2010 for Chevron Environmental Management Company (EMC) that further characterized site soil conditions, and supplemented previous environmental investigations that had been completed at the Former Texaco Research Center (TRCB) facility located in Glenham (Beacon), New York (see Figure 1). This report summarizes all activities associated with the Sitewide Soil Sampling Event that was performed at the TRC facility during the months of June and July 2010. The scope of work performed was conducted in order to collect soil samples in areas located onsite where no soil sampling was performed during previous subsurface investigations. The additional soil samples collected during the Sitewide Soil Sampling Event will be used determine the extent of impacted soil to be addressed for remediation purposes. This report provides a description of all associated activities that were performed, a summary of all soil and groundwater data collected, figures depicting soil boring locations and analytical data, a photographic log, conclusion, and recommendations.

2.0 SITE CHARACTERIZATION (SITEWIDE SOIL SAMPLING EVENT) PROJECT SCOPE

Between July 2 and 20, 2010, sitewide soil investigation field activities were conducted at the Former Texaco Research Center Beacon facility. Project activities consisted of three main tasks. The tasks were as follows:

- Preparation/Submittal of a Work Plan
- Geoprobe™ Drilling at Main Campus Site of Chevron TRC Beacon Facility
- Surveying of Newly Installed Soil Boring Locations

Each task listed above was performed in accordance with the Parsons proposal to Chevron EMC and followed all New York State Department of Environmental Conservation (NYSDEC) guidelines. Each of the tasks is described in detail below.

Preparation/Submittal of a Work Plan

A work plan was prepared for the investigative work. The work plan included a detailed scope of work, quality assurance/quality control plan (QAPP), site project safety plan, and a sampling and analysis plan, as typically required by the NYSDEC. The draft work plan was submitted to Chevron EMC for comment. Comments were addressed and the work plan was then submitted to NYSDEC. Comments on the work plan were solicited from NYSDEC to confirm that the data collected were acceptable for site characterization and remediation purposes. A copy of the approved Work Plan is provided in Appendix A.

Geoprobe™ Drilling at Main Campus Site of Chevron TRC Beacon Facility

A total of forty-eight (48) soil borings, one of which was converted into a temporary one-inch diameter well point, were installed on the Main Campus Site of the Chevron TRC Beacon facility. Locations of the soil borings are indicated on Figure 2. The soil borings were installed to determine the volume of impacted soil to be addressed for remediation purposes, assist in the development of site conceptual models, and assist in identifying potential remedial alternatives for the site. Actual drilling locations were based on information collected during previous

drilling activities and utility constraints/access. Justification for the placement of each soil boring is provided in Table 1.

Prior to initiation of field activities, the facility overseer was contacted to identify potential buried utility locations. Based on those discussions, and a review of the available site utility maps, a Parsons geologist located soil boring locations to avoid any underground or aboveground utilities. In areas where there was a concern that underground services may exist, subsurface clearing to 5 feet below ground surface (bgs) was completed prior to beginning drilling work. Subsurface clearing was performed using an air-knife unit and/or hand auger. All excavated material was containerized and then placed back into the borehole following utility clearing activities at the drilling location. If utilities were identified at the drilling location, then an alternative location was chosen until a utility free location was observed. Dig Safely New York (telephone number: *811) was contacted to provide clearance of outside underground utilities that were potentially located near the work areas.

All drilling equipment that came into contact with the subsurface was thoroughly decontaminated by utilizing an Alconox and distilled water wash and rinse. Each boring was advanced using Geoprobe™ drilling techniques between the depths of 1.0 to 20 feet bgs. All soil samples were logged in the field by a Parsons geologist. All soil samples retrieved from the borings were visually inspected for signs of staining and for the presence of hydrocarbon odors and the evolution of organic vapors with a photoionization detector (PID). The soil sample with the highest PID reading from each boring and/or just above the water table was selected for chemical analyses. If no elevated PID measurements or groundwater were encountered, then a soil sample was collected from the bottom of the borehole. Each soil sample was analyzed for volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260, semivolatile organic compounds (SVOCs) by EPA Method 8270, target analytical list (TAL) Metals, and California Oxygenated by EPA Method 8260. Soil boring logs are provided in Appendix B.

In addition, one groundwater sample was also collected during field activities from soil boring PGSB-40. During drilling activities at soil boring PGSB-40, impacted soil and groundwater (hydrocarbon odors and a sheen) were observed. A temporary one-inch diameter PVC well point was installed within the borehole and a groundwater sample was collected utilizing dedicated Teflon tubing and a peristaltic pump. The sample was analyzed for the same parameters as the soil samples.

A chain-of-custody record accompanied each sample from preparation of the sample container at the laboratory, to sample collection in the field and back to the laboratory.

Following the completion of drilling and sampling activities at each soil boring location, any installed PVC well material was removed and any excess soil cuttings from the drilling of the soil boring were placed back into the borehole and bentonite pellets were then placed into the borehole to within three-inches of the top of the surface. The remaining void space was then backfilled with asphalt, concrete, or topsoil to match the surrounding surface.

Any investigation-derived waste (IDW) including excess soil cuttings were placed in 55-gallon Department of Transportation (DOT) approved 17-H type drums and securely staged at an approved location (Building 83) onsite for future disposal by Chevron EMC. Liquids IDW consisting of decontamination and development water was placed in a polyurethane tank, transported to the onsite wastewater treatment plant (WWTP), and transferred into the WWTP for disposal.

Surveying of Newly Installed Soil Boring Locations

After all field activities were performed, each new soil boring location was surveyed for position and ground surface elevation. The horizontal locations of each soil boring were referenced to both the existing Texaco site datum and New York State Plane (NAD83) coordinate system. The survey work was performed by Badey and Watson Surveying Engineering, P.C. located in Cold Springs, New York, a New York State licensed land surveyor.

3.0 ANALYTICAL RESULTS

Forty-eight soil samples and one groundwater sample were submitted for laboratory analyses. The analytical results are summarized in Tables 2 and 3 and graphically depicted on Figures 3 through 6. A copy of the analytical laboratory report and chain-of-custody documentation is included in Appendix C and a brief discussion of the results is presented below.

All samples collected were analyzed by Lancaster Laboratories located in Lancaster, Pennsylvania following the procedures outlined in the Parsons Generic Work Plan.

The data submitted by the laboratory have been reviewed and validated, following the guidelines outlined in the project QAPP. The analytical data were found to be acceptable in terms of deliverable completeness, accuracy, precision, representativeness, completeness and comparability. A copy of the Data Usability Summary Report (DUSR) for the soil and groundwater samples is included in Appendix D.

Soil Samples

No VOCs were detected in any soil sampled collected, while SVOCs were detected in a total of six soil samples (PGSB-1 (0'-1.5'), PGSB-22 (2'-4'), (PGSB-122 (2'-4') [*duplicate of PGSB-22(2'-4')*], PGSB-40 (10'-12'), PGSB-41 (12'-16'), and PGSB-50 (0'-1')) that exceed the NYSDEC 6NYCRR Part 375 Residential Soil Criteria. In addition, no TAL Metals were detected in any of the soil samples collected with the exception of two (PGSB-35 (2'-4') and PGSB-50 (0'-1')). Both soil samples indicated concentrations for arsenic and only one (PGSB-35 (2'-4')) indicated a concentration for mercury that exceeded 6NYCRR Part 375 Residential Soil Criteria. Soil boring PGSB-35 (2'-4') indicated an arsenic concentration of 20.3 milligrams per kilograms (mg/kg) and a mercury concentration of 1.07 mg/kg, while soil boring PGSB-50 (0'-1') indicated an arsenic concentration of 19.2 mg/kg. Table 2 summarizes soil analytical results.

Groundwater Sample

No VOCs were detected in the groundwater sample (PGSB-40) collected during field activities, while several SVOC and TAL metal parameters were detected at concentrations that exceeded the NYSDEC TOGS Groundwater criteria. Table 3 summarizes groundwater analytical results.

4.0 CONCLUSIONS

Based on the results of the drilling program, the areas where soil borings were drilled exhibited the same general subsurface conditions as observed during previous subsurface investigations (fill material, fine to coarse sand, silt, minor amounts of clay material, and fine to

coarse gravel). Groundwater was encountered at a depth of approximately 12 to 14 feet bgs at one soil boring location (PGSB-40).

Analytical results from both soil and groundwater samples indicated that no VOCs were present, while both SVOCs and TAL metals were present in both sample matrices at varying concentrations.

5.0 RECOMMENDATIONS

Based on the results of the investigation, the following recommendations are suggested.

- Reevaluate the soil data collected from the RCRA Facility Investigation (RFI) performed in 2006-2007, Supplemental RFI (SRFI) performed in 2008-2009, and Potter Brothers Property Phase I/II Environmental Site Assessment (ESA) in comparison with NYSDEC 6NYCRR Part 375 Residential Soil Criteria.
- Incorporate Sitewide Soil Sampling Event soil data with RFI, SRFI, and Potter Brothers Property Phase I/II ESA soil data and estimate the volume of impacted soil that would be required to be addressed for remediation purposes.

TABLE 1

**RATIONALE TABLE FOR SOIL BORING LOCATIONS
SITEWIDE SOIL SAMPLING EVENT
FORMER TEXACO RESEARCH FACILITY
BEACON, NEW YORK**

Well I.D. #	Location
PGSB-1	North of Building 50 (Main Site)
PGSB-2	North of Building 50 (Main Site)
PGSB-3	North of Building 50 (Main Site)
PGSB-4	North of Building 50 (Main Site)
PGSB-5	North of Building 50 (Main Site)
PGSB-6	North of Building 50 (Main Site)
PGSB-7	North of Building 74 (Main Site)
PGSB-8	North of Building 74 (Main Site)
PGSB-9	North of Building 74 (Main Site)
PGSB-10	North of Building 74 (Main Site)
PGSB-11	North of Building 74 (Main Site)
PGSB-12	North of Building 74 (Main Site)
PGSB-13	North of Building 74 (Main Site)
PGSB-16	North of Building 74 (Main Site)
PGSB-17	North of Building 74 (Main Site)
PGSB-18	North of Building 74 (Main Site)
PGSB-19	North of Building 74 (Main Site)
PGSB-20	North of Building 74 (Main Site)
PGSB-21	North of Building 74 (Main Site)
PGSB-22	North of Building 74 (Main Site)
PGSB-23	North of Building 74 (Main Site)
PGSB-24	North of Building 74 (Main Site)
PGSB-25	North of Building 74 (Main Site)
PGSB-26	North of Building 74 (Main Site)
PGSB-27	North of Building 74 (Main Site)
PGSB-28	North of Building 74 (Main Site)
PGSB-29	West of Building 67 (Main Site)
PGSB-30	West of Building 67 (Main Site)
PGSB-31	Main Service Road Adjacent to Buildings 74 and 68
PGSB-32	Main Service Road Adjacent to Buildings 74 and 68

TABLE 1

**RATIONALE TABLE FOR SOIL BORING LOCATIONS
SITEWIDE SOIL SAMPLING EVENT
FORMER TEXACO RESEARCH FACILITY
BEACON, NEW YORK**

Well I.D. #	Location
PGSB-33	Main Service Road Adjacent to Buildings 74 and 68
PGSB-34	East of Building 1 (Main Site)
PGSB-35	East of Building 1 (Main Site)
PGSB-36	East of Building 1 (Main Site)
PGSB-37	East of Building 1 (Main Site)
PGSB-38	East of Building 1 (Main Site)
PGSB-39	West of Building 1 (Main Site)
PGSB-40	West of Building 1 (Main Site)
PGSB-41	West of Building 1 (Main Site)
PGSB-42	Building 58/83 Area (Main Site)
PGSB-43	Building 36 Area (Main Site)
PGSB-44	Building 36 Area (Main Site)
PGSB-45	Building 45/55 Area (Main Site)
PGSB-46	Building 45/55 Area (Main Site)
PGSB-47	West of Building 50 (Main Site)
PGSB-48	West of Building 50 (Main Site)
PGSB-49	West of Building 50 (Main Site)
PGSB-50	West of Building 50 (Main Site)

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-1(0-1.5)(7-2-10)	PGSB-2(0-2)(7-2-10)	PGSB-3(0-1)(7-2-10)	PGSB-4(0-4)(7-2-10)	PGSB-5(2-6)(7-2-10)	PGSB-6(2-4)(7-2-10)	PGSB-7(2-6)(7-2-10)	PGSB-8(2-4)(7-2-10)	PGSB-9(2-4)(7-7-10)	PGSB-10(2-4)(7-7-10)
			Location				PGSB-1	PGSB-2	PGSB-3	PGSB-4	PGSB-5	PGSB-6	PGSB-7	PGSB-8	PGSB-9	PGSB-10
			Sample Date				07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/07/2010	07/07/2010
			Sample Delivery Group				1201611	1201611	1201611	1201611	1201611	1201611	1201611	1201611	1202451	1202451
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
Percent Moisture by SM2540G																
Moisture	SM20 2540 G	%	NS	NS	NS	NS	8	5.2	6.5	9	8	4.5	15.1	18.2	5.1	10
Metals by EPA Method 6010B																
Aluminum	SW-846 6010B	mg/kg	NS	NS	NS	NS	19700	20600	18600	18600	19100	12400	15500	16700	15900	17100
Antimony	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.46 J	1.69 J	1.07 U	1.09 U	1.33 J	1.04 U	1.61 J	1.65 J	1.14 J	1.11 J
Arsenic	SW-846 6010B	mg/Kg	16	16	16	16	9.48	9.58	8.12	7.2	7.8	6.02	3.91	5.2	5.98	6.63
Barium	SW-846 6010B	mg/kg	400	10000	400	350	98.5	73.7	78.5	55.4	81	46	49.2	64	57	58.8
Beryllium	SW-846 6010B	mg/Kg	590	2700	72	14	0.896	0.794	0.745	0.685	0.767	1.02	1.3	0.666	0.594	0.554
Cadmium	SW-846 6010B	mg/kg	9.3	60	4.3	2.5	0.335 J	0.377 J	0.434 J	0.3 J	0.374 J	0.365 J	0.352 J	0.366 J	0.198 J	0.195 J
Calcium	SW-846 6010B	mg/kg	NS	NS	NS	NS	4820	1370	6670	15100	7820	2510	1450	974	2980	1640
Chromium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	48.3	33.7	31.8	21.4	41.6	18.7	17.7	16	18.7	18.3
Cobalt	SW-846 6010B	mg/kg	NS	NS	NS	NS	9	9.76	8.95	11.7	9.87	6.5	8.22	9.11	9.84	10.8
Copper	SW-846 6010B	mg/kg	270	10000	270	270	34.6	25.4	25.9	31.7	34.2	14.4	23.3	21.8	24.3	22.6
Iron	SW-846 6010B	mg/kg	NS	NS	NS	NS	28000	27100	26500	31900	27500	26300	36000	30500	27900	28200
Lead	SW-846 6010B	mg/Kg	1000000	3900	400	400	98.8	40.7	51.6	26.1	66.1	32.7	26.1	54.5	54.5	46.4
Magnesium	SW-846 6010B	mg/kg	NS	NS	NS	NS	5580	5320	7560	12200	8010	4000	6370	4860	5520	5750
Manganese	SW-846 6010B	mg/kg	10000000	10000	2000	2000	801	657	721	697	790	479	423	831	524	656
Nickel	SW-846 6010B	mg/Kg	310	10000	310	140	19.5	21.2	19.1	24	20.2	9.45	12	18.5	18.6	20.6
Potassium	SW-846 6010B	mg/kg	NS	NS	NS	NS	1320	1440	1490	1580	1450	1040	1590	888	1710	1660
Selenium	SW-846 6010B	mg/Kg	1500	6800	180	36	1.07 U	1 U	1.05 U	1.07 U	1.04 U	1.02 U	1.14 U	1.15 U	1.01 U	1.08 U
Silver	SW-846 6010B	mg/Kg	1500	6800	180	36	0.196 U	0.184 U	0.193 U	0.196 U	0.192 U	0.187 U	0.21 U	0.212 U	0.186 U	0.198 U
Sodium	SW-846 6010B	mg/kg	NS	NS	NS	NS	73.4 J	50.7 J	66 J	118	72 J	113	196	53.5 J	87.1 J	60.1 J
Thallium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	2.58 J	2.37 J	2.1 J	3.03 J	2.39 J	1.5 U	2.96 J	2.52 J	1.5 U	1.6 U
Vanadium	SW-846 6010B	mg/kg	NS	NS	NS	NS	29.8	31	28.1	23.9	25.3	21.7	31.3	21.4	22.2	26.2
Zinc	SW-846 6010B	mg/Kg	10000	10000	10000000	2200	103	85.9	90.3	82.2	85.9	67.2	67.6	74.1	113	124
Mercury by Method 7471A																
Mercury	SW-846 7471A	mg/Kg	2.8	5.7	0.81	0.81	0.314	0.13	0.203	0.0567 J	0.278	0.131	0.0493 J	0.0732 J	0.0391 J	0.0644 J
VOCs by EPA Method 8260B																
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/kg	240000	480000	26000	19000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	30000	60000	3100	2300	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	5 U	4 U	4 U	4 U	4 U	4 U	5 U	5 U	4 U	4 U
2-Hexanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	8 J	3 U	3 U	3 U	3 U	3 U	4 U	4 U	3 U	3 U
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	3 U	3 U	3 U	3 U	4 U	4 U	3 U	3 U
Acetone	SW-846 8260B	ug/kg	500000	1000000	100000	100000	8 U	8 U	7 U	11 J	7 U	8 U	23 J	13 J	9 J	7 U
Benzene	SW-846 8260B	ug/kg	44000	89000	4800	2900	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	3 U	2 U	2 U	2 U
Carbon Disulfide	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/Kg	22000	44000	2400	14000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	1000000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	3 U	2 U	2 U	2 U
Chloroform ⁽²⁾	SW-846 8260B	ug/Kg	350000	700000	49000	10000	1 J	1 U	1 U	1 U	1 J	1 U	1 U	1 U	1 U	1 U
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	3 U	2 U	2 U	2 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	59000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diisopropyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl-t-butylether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U			

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-1(0-1.5)(7-2-10)	PGSB-2(0-2)(7-2-10)	PGSB-3(0-1)(7-2-10)	PGSB-4(0-4)(7-2-10)	PGSB-5(2-6)(7-2-10)	PGSB-6(2-4)(7-2-10)	PGSB-7(2-6)(7-2-10)	PGSB-8(2-4)(7-2-10)	PGSB-9(2-4)(7-7-10)	PGSB-10(2-4)(7-7-10)
			Location				PGSB-1	PGSB-2	PGSB-3	PGSB-4	PGSB-5	PGSB-6	PGSB-7	PGSB-8	PGSB-9	PGSB-10
			Sample Date				07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/02/2010	07/07/2010	07/07/2010
			Sample Delivery Group				1201611	1201611	1201611	1201611	1201611	1201611	1201611	1201611	1202451	1202451
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
SVOCs by EPA Method 8270C																
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/Kg	500000	1000000	100000	100000	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	280000	560000	49000	1700	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	130000	250000	13000	9800	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2,4-Dichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2,4-Dimethylphenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
2,4-Dinitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	720 U	700 U	710 UJ	730 UJ	720 UJ	700 UJ	790 UJ	810 UJ	700 U	740 U
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2-Chloronaphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2-Methyl-naphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	43 J	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	100000	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/kg	NS	NS	NS	NS	110 U	110 U	110 U	110 U	110 U	100 U	120 U	120 U	110 U	110 U
3-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 U	180 U	180 U	180 U	170 U	200 U	200 U	180 U	190 U
4-Bromophenylphenylether	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
4-Chloroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 UJ	73 U	72 U	70 U	79 U	81 U	70 U	74 U
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
4-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
4-Nitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 U	180 U	180 U	180 U	170 U	200 U	200 U	180 U	190 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	120 J	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Acenaphthylene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	590	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Anthracene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	970	35 U	38 J	37 U	49 J	35 U	39 U	91 J	35 U	37 U
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	3200	72 J	140 J	59 J	150 J	50 J	72 J	320	130 J	52 J
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/kg	1000	1100	1000	1000	2500	76 J	150 J	53 J	130 J	48 J	72 J	310	130 J	37 J
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	2900	110 J	220	68 J	170 J	79 J	96 J	440	190	53 J
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	1400	58 J	100 J	60 J	94 J	44 J	54 J	220	100 J	37 U
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	1300	35 U	91 J	37 U	76 J	35 U	46 J	150 J	90 J	48 J
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
bis(2-Chloroethyl) ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/Kg	NS	NS	NS	NS	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	130 J	140 J	440	1100	70 U	410	500	1800	1300
Butylbenzylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
Carbazole	SW-846 8270C	ug/kg	NS	NS	NS	NS	160 J	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Chrysene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	2900	81 J	180 J	53 J	160 J	60 J	77 J	360	150 J	88 J
Di-n-butylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
Di-n-octylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/kg	560	1100	330	330	420	35 U	36 U	37 U	36 U	35 U	39 U	51 J	35 U	37 U
Dibenzofuran	SW-846 8270C	ug/kg	350000	1000000	59000	14000	130 J	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Diethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
Dimethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	6600	150 J	290	93 J	310	97 J	130 J	760	310	130 J
Fluorene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	270	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Hexachlorobenzene	SW-846 8270C	ug/kg	6000	12000	1200	330	36 U	35 U	36 U	37 U	36 U	35 U	39 U	41 U	35 U	37 U
Hexachlorobutadiene	SW-846 8270C	ug/kg	NS	NS	NS	NS	72 U	70 U	71 U	73 U	72 U	70 U	79 U	81 U	70 U	74 U
Hexachlorocyclopentadiene	SW-846 8270C	ug/kg	NS	NS	NS	NS										

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-11(2-4)(7-7-10)	PGSB-11(6-10)(7-7-10)	PGSB-12(2-4)(7-8-10)	PGSB-13(12-16)(7-8-10)	PGSB-16(4-8)(7-12-10)	PGSB-17(4-6)(7-14-10)	PGSB-18(4-6)(7-12-10)	PGSB-19(2-4)(7-12-10)	PGSB-20(8-8.5)(7-8-10)	PGSB-21(2-4)(7-8-10)
			Location				PGSB-11	PGSB-11	PGSB-12	PGSB-13	PGSB-16	PGSB-17	PGSB-18	PGSB-19	PGSB-20	PGSB-21
			Sample Date				07/07/2010	07/07/2010	07/08/2010	07/08/2010	07/12/2010	07/14/2010	07/12/2010	07/12/2010	07/08/2010	07/08/2010
			Sample Delivery Group				1202451	1202451	1202454	1202454	1203173	1203173	1203173	1203173	1202451	1202451
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
Table 375-6.8(b): Restricted Use Soil Cleanup Objectives																
Protection of Public Health																
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
Percent Moisture by SM2540G																
Moisture	SM20 2540 G	%	NS	NS	NS	NS	8.7	13.6	9.5	8.4	8	10.5	9.3	8.6	14.9	10.1
Metals by EPA Method 6010B																
Aluminum	SW-846 6010B	mg/kg	NS	NS	NS	NS	19500	31400	7870	10200	17300	18300	6630	10500	16500	16900
Antimony	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.4 J	1.24 J	1.08 U	1.07 U	1.05 U	1.08 U	1.08 U	1.09 U	1.18 U	1.52 J
Arsenic	SW-846 6010B	mg/Kg	16	16	16	16	7.35	6.02	4.06	3.38	4.28	4.99	3.28	6.21	7.14	9.41
Barium	SW-846 6010B	mg/kg	400	10000	400	350	109	89.4	39.1	35.2	49.5	58.8	31.3	44.7	47.4	54.6
Beryllium	SW-846 6010B	mg/Kg	590	2700	72	14	0.691	0.834	0.651	0.829	0.87	0.922	0.552	4.8	0.598	0.652
Cadmium	SW-846 6010B	mg/kg	9.3	60	4.3	2.5	0.291 J	0.16 U	0.275 J	0.15 U	0.146 U	0.152 U	0.151 U	0.216 J	0.181 J	0.156 U
Calcium	SW-846 6010B	mg/kg	NS	NS	NS	NS	1310	655	27700	2160	1260	2600	16100	96900	20800	998 J
Chromium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	22.4	26.4	7.56	8.76	18.2	19.8	6.98	16	17.5	17.1
Cobalt	SW-846 6010B	mg/kg	NS	NS	NS	NS	10.6	9.24	4.42	5.65	7.99	10.2	2.88	4.9	9.29	10
Copper	SW-846 6010B	mg/kg	270	10000	270	270	27.3	16.3	10.7 J	9.49 J	20.5 J	22.4 J	6.52 J	14.6 J	24.8	27.8
Iron	SW-846 6010B	mg/kg	NS	NS	NS	NS	29100	27900	15600	25600	30100	31600	10000	16900	26800	29300
Lead	SW-846 6010B	mg/Kg	1000000	3900	400	400	103	21.8	29.5	3.8	9.65	15.6	42.1	37.4	15.3	32.5
Magnesium	SW-846 6010B	mg/kg	NS	NS	NS	NS	4950	3260	19600	3880	5890	6500	8910	45900	17000	5050
Manganese	SW-846 6010B	mg/kg	10000000	10000	2000	2000	638	406	372	633	462	685	188	309	593	580
Nickel	SW-846 6010B	mg/Kg	310	10000	310	140	20.4	18.3	6.65	5.64	19.5	20.7	4.94	9.1	20.4	20.1
Potassium	SW-846 6010B	mg/kg	NS	NS	NS	NS	1920	1470	769	1550	2080	3000	796	1380	1770	1750 J
Selenium	SW-846 6010B	mg/Kg	1500	6800	180	36	1.41 J	1.12 U	1.06 U	1.05 U	1.02 U	1.06 U	1.06 U	1.07 U	1.15 U	1.17 J
Silver	SW-846 6010B	mg/Kg	1500	6800	180	36	0.22 J	0.206 U	0.244 J	0.274 J	0.188 U	0.195 U	0.195 U	0.197 U	0.212 U	0.202 J
Sodium	SW-846 6010B	mg/kg	NS	NS	NS	NS	63.3 J	68.3 J	156	136	215	137	97.7 J	168	139	62.4 J
Thallium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.59 U	1.66 U	1.57 U	1.55 U	1.52 U	1.57 U	1.57 U	1.59 U	1.7 U	1.61 U
Vanadium	SW-846 6010B	mg/kg	NS	NS	NS	NS	26.8	38.9	14.9	14.1	23.4	25.6	11.2	17.3	22	26.3
Zinc	SW-846 6010B	mg/Kg	10000	10000	1000000	2200	101	64.2	67.1	48.9	68.3	68.8	35.2	65.8	69.5	73.4
Mercury by Method 7471A																
Mercury	SW-846 7471A	mg/Kg	2.8	5.7	0.81	0.81	0.0767 J	0.0484 J	0.0632 J	0.0122 U	0.0117 U	0.012 U	0.0474 J	0.0898 J	0.0282 J	0.0536 J
VOCs by EPA Method 8260B																
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/kg	240000	480000	26000	19000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	30000	60000	3100	2300	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	4 U	5 U	4 U	4 U	5 U	5 U	4 U	4 U	5 U	5 U
2-Hexanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	4 U	3 U	3 U	3 U	3 U	3 U	3 U	3 UJ	4 U
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	4 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	4 U
Acetone	SW-846 8260B	ug/kg	500000	1000000	100000	100000	8 U	13 J	7 U	13 U	10 J	8 U	8 U	7 U	10 J	13 J
Benzene	SW-846 8260B	ug/kg	44000	89000	4800	2900	0.5 U	0.6 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.6 U	0.6 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon Disulfide	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/Kg	22000	44000	2400	14000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	1000000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ
Chloroform ⁽²⁾	SW-846 8260B	ug/Kg	350000	700000	49000	10000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	59000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diisopropyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl-t-butylether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U				

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(JUNE - JULY 2010)
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			Field Sample ID				PGSB-11(2-4)(7-7-10)	PGSB-11(6-10)(7-7-10)	PGSB-12(2-4)(7-8-10)	PGSB-13(12-16)(7-8-10)	PGSB-16(4-8)(7-12-10)	PGSB-17(4-6)(7-14-10)	PGSB-18(4-6)(7-12-10)	PGSB-19(2-4)(7-12-10)	PGSB-20(8-8.5)(7-8-10)	PGSB-21(2-4)(7-8-10)
			Location				PGSB-11	PGSB-11	PGSB-12	PGSB-13	PGSB-16	PGSB-17	PGSB-18	PGSB-19	PGSB-20	PGSB-21
			Sample Date				07/07/2010	07/07/2010	07/08/2010	07/08/2010	07/12/2010	07/14/2010	07/12/2010	07/12/2010	07/08/2010	07/08/2010
			Sample Delivery Group				1202451	1202451	1202454	1202454	1203173	1203173	1203173	1203173	1202451	1202451
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name		Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾									
SVOCs by EPA Method 8270C																
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/Kg	500000	1000000	100000	100000	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	280000	560000	49000	1700	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	130000	250000	13000	9800	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2,4-Dichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2,4-Dimethylphenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
2,4-Dinitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	730 UJ	770 UJ	740 UJ	730 U	720 U	740 U	740 U	730 U	3900 U	740 U
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2-Chloronaphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2-Methyl-naphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	85 J	36 U	36 U	37 U	50 J	46 J	200 U	37 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	100000	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/kg	NS	NS	NS	NS	110 U	120 U	110 UJ	110 U	110 U	110 U	110 U	110 U	590 U	110 U
3-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	190 U	180 UJ	180 U	180 U	190 U	180 U	180 U	980 U	190 U
4-Bromophenylphenylether	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
4-Chloroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 UJ
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
4-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
4-Nitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	190 U	180 UJ	180 U	180 U	190 U	180 U	180 U	980 U	190 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	40 J	200 U	37 U
Acenaphthylene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	65 J	200 U	37 U
Anthracene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	39 U	82 J	36 U	36 U	37 U	67 J	180 J	200 U	42 J
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	79 J	39 U	330 J	36 U	36 U	37 U	280	450	600 J	290 J
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/kg	1000	1100	1000	1000	88 J	39 U	310 J	36 U	36 U	37 U	270	380	490 J	310 J
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	140 J	39 U	550 J	36 U	36 U	37 U	410	530	830 J	440 J
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	79 J	39 U	290 J	36 U	36 U	37 U	230	290	380 J	250
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	55 J	39 U	280 J	36 U	36 U	37 U	180 J	230	310 J	200
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 UJ
bis(2-Chloroethyl) ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 UJ
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/Kg	NS	NS	NS	NS	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	36 U	200 U	37 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	1400	210 J	250 J	200 J	930	81 J	480	730	3800	860 J
Butylbenzylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 UJ
Carbazole	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	39 U	69 J	36 U	36 U	37 U	76 J	87 J	200 U	37 U
Chrysene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	110 J	39 U	480 J	36 U	36 U	37 U	380	520	630 J	330 J
Di-n-butylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
Di-n-octylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/kg	560	1100	330	330	37 U	39 U	72 J	36 U	36 U	37 U	50 J	69 J	200 U	57 J
Dibenzofuran	SW-846 8270C	ug/kg	350000	1000000	59000	14000	37 U	39 U	37 UJ	36 U	36 U	37 U	37 U	45 J	200 U	37 U
Diethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
Dimethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	77 U	74 UJ	73 U	72 U	74 U	74 U	73 U	390 U	74 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	160 J	39 U	830 J	36 U	36 U	37 U	670	1000	1300	610 J
Fluorene	SW-846 8270C	ug/kg	500000	100												

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-21(8-12)(7-8-10)	PGSB-22(2-4)(7-8-10)	PGSB-122(2-4)(7-8-10) *	PGSB-22(8-12)(7-8-10)	PGSB-23(0.5-2)(7-7-10)	PGSB-24(8-10)(7-7-10)	PGSB-25(12-14)(7-14-10)	PGSB-26(0-1.5)(7-13-10)	PGSB-27(0-4)(7-13-10)	PGSB-28(2-4.5)(7-13-10)
			Location				PGSB-21	PGSB-22	PGSB-122	PGSB-22	PGSB-23	PGSB-24	PGSB-25	PGSB-26	PGSB-27	PGSB-28
			Sample Date				07/08/2010	07/08/2010	07/08/2010	07/08/2010	07/07/2010	07/07/2010	07/14/2010	07/13/2010	07/13/2010	07/13/2010
			Sample Delivery Group				1202451	1202451	1202451	1202451	1202451	1202451	1203173	1203173	1203173	1203173
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Field Duplicate	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
Percent Moisture by SM2540G																
Moisture	SM20 2540 G	%	NS	NS	NS	NS	19.3	16.2	20.8	13.1	9	10.9	10.9	13.1	6.5	8.6
Metals by EPA Method 6010B																
Aluminum	SW-846 6010B	mg/kg	NS	NS	NS	NS	13400	19600	20500	15700	16700	17100	18600	23000	16500	15800
Antimony	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.21 U	1.51 J	1.37 J	1.15 J	1.44 J	1.23 J	1.09 U	1.13 U	1.05 U	1.09 U
Arsenic	SW-846 6010B	mg/Kg	16	16	16	16	7.5	9.06	9.17	4.65	5.73	5.3	5.11	11.6	6.97	6.48
Barium	SW-846 6010B	mg/kg	400	10000	400	350	38	76	79.3	59.2	63	58.1	59.9	100	53.6	46.9
Beryllium	SW-846 6010B	mg/Kg	590	2700	72	14	0.863	0.611	0.654	0.555 J	0.6	0.652	0.854	0.819	0.992	0.853
Cadmium	SW-846 6010B	mg/kg	9.3	60	4.3	2.5	0.26 J	0.193 J	0.236 J	0.156 U	0.151 U	0.156 U	0.224 J	0.575	0.147 U	0.153 U
Calcium	SW-846 6010B	mg/kg	NS	NS	NS	NS	17100	2150	2380	3550	5750	1810	1020	10800	2700	2080
Chromium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	16.8	18.1	19	18.3	18.8	24.4	22	38.8	19.4	26.3
Cobalt	SW-846 6010B	mg/kg	NS	NS	NS	NS	8.45	10.4	11.3	10.6	11.3	13.1	10.5	9.16	8.42	7.62
Copper	SW-846 6010B	mg/kg	270	10000	270	270	19.6	27	27.1	26.1	25.3	28.1	27.5 J	24.3 J	20.2 J	18.9 J
Iron	SW-846 6010B	mg/kg	NS	NS	NS	NS	23400	28200	29800	29300	29800	32900	35900	31600	29500	28100
Lead	SW-846 6010B	mg/Kg	1000000	3900	400	400	15.2	55.8	59.9	11.6	15.8	14.7	10.3	82	19	39.5
Magnesium	SW-846 6010B	mg/kg	NS	NS	NS	NS	15400	5630	6010	6850	8380	6490	6950	11400	6650	5510
Manganese	SW-846 6010B	mg/kg	10000000	10000	2000	2000	506	660	742	526	625	710	818	881	551	411
Nickel	SW-846 6010B	mg/Kg	310	10000	310	140	19.1	20.7	21.6	24.5	24.8	26.6	27	25.7	16.9	16.9
Potassium	SW-846 6010B	mg/kg	NS	NS	NS	NS	2790	1690	1600	2280	2170	3060	2300	2090	1950	2070
Selenium	SW-846 6010B	mg/Kg	1500	6800	180	36	1.19 U	1.16 U	1.23 U	1.36 J	1.28 J	1.31 J	1.07 U	1.11 U	1.03 U	1.07 U
Silver	SW-846 6010B	mg/Kg	1500	6800	180	36	0.219 U	0.213 U	0.254 J	0.201 U	0.194 U	0.2 U	0.196 U	0.203 U	0.189 U	0.197 U
Sodium	SW-846 6010B	mg/kg	NS	NS	NS	NS	56.6 J	103 J	113 J	89.7 J	322	114	285	70.8 J	79 J	101 J
Thallium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.76 U	1.71 U	1.81 U	1.62 U	1.56 U	1.61 U	1.58 U	1.64 U	1.52 U	1.59 U
Vanadium	SW-846 6010B	mg/kg	NS	NS	NS	NS	27	28.5	29.6	20.8	28.8	24.6	25	49.9	26.4	25
Zinc	SW-846 6010B	mg/Kg	10000	10000	1000000	2200	94.9	98.7	106	67.8	71.5	76.8	82.1	137	69.3	68.5
Mercury by Method 7471A																
Mercury	SW-846 7471A	mg/Kg	2.8	5.7	0.81	0.81	0.0148 J	0.0614 J	0.0716 J	0.0157 J	0.0252 J	0.0121 U	0.0158 J	0.314	0.045 J	0.189
VOCs by EPA Method 8260B																
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/kg	240000	480000	26000	19000	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	30000	60000	3100	2300	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	5 U	5 U	5 UJ	5 U	4 UJ	4 U	4 U	4 U	4 U	5 U
2-Hexanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	4 U	4 U	4 U	3 U	3 U	7 J	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	4 U	4 U	4 UJ	3 U	3 UJ	3 U	3 U	3 U	3 U	3 U
Acetone	SW-846 8260B	ug/kg	500000	1000000	100000	100000	10 J	8 U	9 UJ	8 U	8 UJ	24	9 J	8 U	8 U	8 U
Benzene	SW-846 8260B	ug/kg	44000	89000	4800	2900	0.6 U	0.6 U	0.6 UJ	0.6 U	0.5 UJ	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Bromoform	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	3 UJ	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U
Carbon Disulfide	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/Kg	22000	44000	2400	14000	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	1000000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	3 UJ	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U
Chloroform ⁽²⁾	SW-846 8260B	ug/Kg	350000	700000	49000	10000	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	3 UJ	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	59000	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diisopropyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 UJ	1 U	1 UJ					

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(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-21(8-12)(7-8-10)	PGSB-22(2-4)(7-8-10)	PGSB-122(2-4)(7-8-10) *	PGSB-22(8-12)(7-8-10)	PGSB-23(0.5-2)(7-7-10)	PGSB-24(8-10)(7-7-10)	PGSB-25(12-14)(7-14-10)	PGSB-26(0-1.5)(7-13-10)	PGSB-27(0-4)(7-13-10)	PGSB-28(2-4.5)(7-13-10)
			Location				PGSB-21	PGSB-22	PGSB-122	PGSB-22	PGSB-23	PGSB-24	PGSB-25	PGSB-26	PGSB-27	PGSB-28
			Sample Date				07/08/2010	07/08/2010	07/08/2010	07/08/2010	07/07/2010	07/07/2010	07/14/2010	07/13/2010	07/13/2010	07/13/2010
			Sample Delivery Group				1202451	1202451	1202451	1202451	1202451	1202451	1203173	1203173	1203173	1203173
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Field Duplicate	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
SVOCs by EPA Method 8270C																
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/Kg	500000	1000000	100000	100000	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	280000	560000	49000	1700	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	130000	250000	13000	9800	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2,4-Dichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2,4-Dimethylphenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
2,4-Dinitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	830 U	800 U	840 U	770 U	730 UJ	750 UJ	750 U	770 U	710 U	730 U
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2-Chloronaphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2-Methyl-naphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 J	59 J	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	100000	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/kg	NS	NS	NS	NS	120 U	120 U	130 U	120 U	110 U	110 U	110 U	120 U	110 U	110 U
3-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	210 U	200 U	210 U	190 U	180 U	190 U	190 U	190 U	180 U	180 U
4-Bromophenylphenylether	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
4-Chloroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
4-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
4-Nitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	210 U	200 U	210 U	190 U	180 U	190 U	190 U	190 U	180 U	180 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	41 U	130 J	170 J	38 U	37 U	37 U	37 U	38 U	36 U	36 U
Acenaphthylene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	41 U	130 J	130 J	38 U	37 U	37 U	37 U	38 U	36 U	36 U
Anthracene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	41 U	500	570	38 U	37 U	37 U	37 U	38 U	36 U	50 J
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	58 J	1900	1900	38 U	230	37 U	37 U	40 J	36 U	150 J
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/kg	1000	1100	1000	1000	41 U	1800	1700	38 U	310	37 U	37 U	38 U	36 U	130 J
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	67 J	2500	2400	38 U	550	45 J	37 U	51 J	41 J	190
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	41 U	1300	1200	38 U	270	37 U	37 U	38 U	36 U	97 J
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	41 U	1100	1100	38 U	210	37 U	37 U	38 U	36 U	65 J
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
bis(2-Chloroethyl) ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/Kg	NS	NS	NS	NS	41 U	40 U	42 U	38 U	37 U	37 U	37 U	38 U	36 U	36 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	370 J	680	720	140 J	730	320 J	460	860	830	140 J
Butylbenzylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
Carbazole	SW-846 8270C	ug/kg	NS	NS	NS	NS	41 U	210	230	38 U	63 J	37 U	37 U	38 U	36 U	36 U
Chrysene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	50 J	1800	1700	38 U	410	43 J	37 U	44 J	42 J	160 J
Di-n-butylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
Di-n-octylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/kg	560	1100	330	330	41 U	330	310	38 U	70 J	37 U	37 U	38 U	36 U	36 U
Dibenzofuran	SW-846 8270C	ug/kg	350000	1000000	59000	14000	41 U	69 J	110 J	38 U	37 U	37 U	37 U	38 U	36 U	36 U
Diethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
Dimethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	83 U	80 U	84 U	77 U	73 U	75 U	75 U	77 U	71 U	73 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	90 J	3800	3800	38 U	810	70 J	37 U	76 J	67 J	250
Fluorene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	41 U	140 J	190 J							

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-29(14-16)(7-15-10)	PGSB-30(14-15.5)(7-16-10)	PGSB-130(14-15.5)(7-16-10)*	PGSB-31(12-16)(7-13-10)	PGSB-32(8-12)(7-14-10)	PGSB-33(4-8)(7-14-10)	PGSB-133(4-8)(7-14-10)*	PGSB-34(6-8)(7-15-10)	PGSB-35(2-4)(7-13-10)	PGSB-36(4-8)(7-14-10)
			Location				PGSB-29	PGSB-30	PGSB-130	PGSB-31	PGSB-32	PGSB-33	PGSB-133	PGSB-34	PGSB-35	PGSB-35
			Sample Date				07/15/2010	07/16/2010	07/16/2010	07/13/2010	07/14/2010	07/14/2010	07/14/2010	07/15/2010	07/13/2010	07/14/2010
			Sample Delivery Group				1203557	1203557	1203557	1203173	1203556	1203556	1203556	1203556	1203173	1203556
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Field Duplicate	Regular sample	Regular sample	Regular sample	Field Duplicate	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
Percent Moisture by SM2540G																
Moisture	SM20 2540 G	%	NS	NS	NS	NS	9.9	9.2	9.5	9.5	12.4	10.3	13.9	12.3	7	7.3
Metals by EPA Method 6010B																
Aluminum	SW-846 6010B	mg/kg	NS	NS	NS	NS	17400	15000	15000	20200	12100	13800	14500	17400	15600	8570
Antimony	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.1 U	1.05 U	1.09 U	1.06 U	1.14 U	1.11 U	1.16 U	1.12 U	1.06 U	1.06 U
Arsenic	SW-846 6010B	mg/Kg	16	16	16	16	4.55	4.08	4.94	4.47	6.5	5.35	6.11	4.78	20.3	4.17
Barium	SW-846 6010B	mg/kg	400	10000	400	350	52.8	54.8	63.9	76.8	33.7	39.9	40.9	60.6	55.9	23.9
Beryllium	SW-846 6010B	mg/Kg	590	2700	72	14	0.793	0.685	0.723	0.853	0.672	0.738	0.865	0.86	0.673	0.535
Cadmium	SW-846 6010B	mg/kg	9.3	60	4.3	2.5	1.03	0.905	0.956	0.149 U	0.266 J	0.156 U	0.163 U	0.331 J	0.149 U	0.366 J
Calcium	SW-846 6010B	mg/kg	NS	NS	NS	NS	7980	13000	15100	10200	45100	2270	2310	12000	8340	111000
Chromium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	21.6	18.2	17.6	25.4	14.1	15.1	15.3	19.1	21	11.2
Cobalt	SW-846 6010B	mg/kg	NS	NS	NS	NS	11.2	9.45	10.7	10.9	7.28	7.98	9.44	11.2	9.04	4.96
Copper	SW-846 6010B	mg/kg	270	10000	270	270	29.5	24.1	26.7	26 J	15.4 J	18.3 J	19.5 J	24.8 J	24.7 J	11.2 J
Iron	SW-846 6010B	mg/kg	NS	NS	NS	NS	33700	28800	28400	33500	22800	23700	27500	31100	28500	16300
Lead	SW-846 6010B	mg/Kg	1000000	3900	400	400	11.3	8.73	10.5	11.3	10.4 J	16.3	17.3	9.8	24.9	12.8
Magnesium	SW-846 6010B	mg/kg	NS	NS	NS	NS	7440	8100	8340	7960	29800	5220	5490	11200	7120	56700
Manganese	SW-846 6010B	mg/kg	10000000	10000	2000	2000	436 J	433 J	543 J	633	545	503	613	765	536	393
Nickel	SW-846 6010B	mg/Kg	310	10000	310	140	25.5	21.9	22.5	25.1	13.8	15.3	17.1	23.8	18.8	11.2
Potassium	SW-846 6010B	mg/kg	NS	NS	NS	NS	2090	2010	2120	3310	1780 J	1810	1560	2150	2040	1370
Selenium	SW-846 6010B	mg/Kg	1500	6800	180	36	1.08 U	1.03 U	1.07 U	1.04 U	1.12 U	1.09 U	1.14 U	1.1 U	1.04 U	1.04 U
Silver	SW-846 6010B	mg/Kg	1500	6800	180	36	0.198 U	0.189 U	0.197 U	0.191 U	0.205 U	0.201 U	0.209 U	0.201 U	0.192 U	0.19 U
Sodium	SW-846 6010B	mg/kg	NS	NS	NS	NS	120	51.6 J	54.9 J	309	1150	721	769	57.8 J	73.3 J	212
Thallium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.59 U	1.52 U	1.59 U	1.54 U	1.66 U	1.62 U	1.68 U	1.62 U	1.54 U	1.53 U
Vanadium	SW-846 6010B	mg/kg	NS	NS	NS	NS	22.3	19.6	19.7	26.4	18.2	20.5	22.6	22	21.5	14.6
Zinc	SW-846 6010B	mg/Kg	10000	10000	10000000	2200	80.1	68.9	72.7	73.6	55.1	54.1	60	72.5	75.8	42.9
Mercury by Method 7471A																
Mercury	SW-846 7471A	mg/Kg	2.8	5.7	0.81	0.81	0.0476 J	0.0418 J	0.0396 J	0.0171 J	0.0127 U	0.0435 J	0.0417 J	0.0482 J	1.07	0.0457 J
VOCs by EPA Method 8260B																
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/kg	240000	480000	26000	19000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	30000	60000	3100	2300	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	4 U	5 U	4 U	5 U	4 U	4 U	4 U	5 U	4 U	4 U
2-Hexanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Acetone	SW-846 8260B	ug/kg	500000	1000000	100000	100000	8 UJ	8 UJ	8 UJ	8 U	16 J	8 J	8 J	8 U	7 U	7 UJ
Benzene	SW-846 8260B	ug/kg	44000	89000	4800	2900	0.6 U	0.6 U	0.6 U	0.6 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon Disulfide	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/Kg	22000	44000	2400	14000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	1000000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform ⁽²⁾	SW-846 8260B	ug/Kg	350000	700000	49000	10000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	59000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diisopropyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl-t-butylether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U				

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SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-29(14-16)(7-15-10)	PGSB-30(14-15.5)(7-16-10)	PGSB-130(14-15.5)(7-16-10)*	PGSB-31(12-16)(7-13-10)	PGSB-32(8-12)(7-14-10)	PGSB-33(4-8)(7-14-10)	PGSB-133(4-8)(7-14-10)*	PGSB-34(6-8)(7-15-10)	PGSB-35(2-4)(7-13-10)	PGSB-36(4-8)(7-14-10)
			Location				PGSB-29	PGSB-30	PGSB-130	PGSB-31	PGSB-32	PGSB-33	PGSB-133	PGSB-34	PGSB-35	PGSB-35
			Sample Date				07/15/2010	07/16/2010	07/16/2010	07/13/2010	07/14/2010	07/14/2010	07/14/2010	07/15/2010	07/13/2010	07/14/2010
			Sample Delivery Group				1203557	1203557	1203557	1203173	1203556	1203556	1203556	1203556	1203173	1203556
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Field Duplicate	Regular sample	Regular sample	Regular sample	Field Duplicate	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives													
			Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
SVOCs by EPA Method 8270C																
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/Kg	500000	1000000	100000	100000	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	110 J	36 U
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	280000	560000	49000	1700	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	130000	250000	13000	9800	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 UJ	74 U	74 UJ	76 U	74 U	77 U	76 U	72 U	72 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 UJ	37 U	37 UJ	38 U	37 U	39 U	38 U	36 U	36 U
2,4-Dichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 UJ	37 U	37 UJ	38 U	37 U	39 U	38 U	36 U	36 U
2,4-Dimethylphenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 UJ	74 U	74 UJ	76 U	74 U	77 U	76 U	72 U	72 U
2,4-Dinitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	740 U	730 UJ	740 U	740 UJ	760 U	740 U	770 U	760 U	720 U	720 U
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
2-Chloronaphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 UJ	37 U	37 UJ	38 U	37 U	39 U	38 U	36 U	36 U
2-Methyl-naphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	100000	74 U	73 UJ	74 U	74 UJ	76 U	74 U	77 U	76 U	72 U	72 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 UJ	37 U	37 UJ	38 U	37 U	39 U	38 U	36 U	36 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/kg	NS	NS	NS	NS	110 U	110 U	110 U	110 U	110 U	110 U	120 U	110 U	110 U	110 U
3-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	220	76 U	74 U	77 U	76 U	72 U	72 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 UJ	180 U	180 UJ	190 U	190 U	190 U	190 U	180 U	180 U
4-Bromophenylphenylether	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
4-Chloroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
4-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
4-Nitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 UJ	180 U	180 UJ	190 U	190 U	190 U	190 U	180 U	180 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
Acenaphthylene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
Anthracene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	42 J
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	37 U	37 U	37 U	210	38 U	110 J	72 J	38 U	36 U	170 J
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/kg	1000	1100	1000	1000	37 U	37 U	37 U	190	38 U	110 J	72 J	38 U	36 U	130 J
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	37 U	37 U	37 U	270	38 U	150 J	87 J	38 U	36 U	160 J
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	37 U	37 U	140 J	38 U	76 J	50 J	38 U	36 U	73 J
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	37 U	37 U	37 U	130 J	38 U	53 J	39 J	38 U	36 U	65 J
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
bis(2-Chloroethyl) ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/Kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	470	320 J	140 J	74 U	190 J	2000	520	76 U	74 J	340 J
Butylbenzylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
Carbazole	SW-846 8270C	ug/kg	NS	NS	NS	NS	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
Chrysene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	37 U	37 U	37 U	230	38 U	120 J	69 J	38 U	36 U	180 J
Di-n-butylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
Di-n-octylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/kg	560	1100	330	330	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
Dibenzofuran	SW-846 8270C	ug/kg	350000	1000000	59000	14000	37 U	37 U	37 U	37 U	38 U	37 U	39 U	38 U	36 U	36 U
Diethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
Dimethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	74 U	73 U	74 U	74 U	76 U	74 U	77 U	76 U	72 U	72 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	37 U	37 U								

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-37(8-12)(7-15-10)	PGSB-37(18-20)(7-15-10)	PGSB-38(2-4)(7-15-10)	PGSB-38(8-10)(7-15-10)	PGSB-39(8-11)(7-15-10)	PGSB-40(10-12)(7-20-10)	PGSB-41(12-16)(7-16-10)	PGSB-42(2-3.5)(7-20-10)	PGSB-43(0-2)(7-20-10)	PGSB-44(2-4)(7-20-10)
			Location	Sample Date	Sample Delivery Group	Matrix	Sample Purpose									
			Sample Type													
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
Percent Moisture by SM2540G																
Moisture	SM20 2540 G	%	NS	NS	NS	NS	8.1	8.9	8.6	8.1	11.6	8.6	18.7	8.4	9.1	15.1
Metals by EPA Method 6010B																
Aluminum	SW-846 6010B	mg/kg	NS	NS	NS	NS	15500	10700	13800	15300	19300	10200	15800	11000	14500	19800
Antimony	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.06 U	1.08 U	1.09 U	1.08 U	1.11 U	1.09 U	1.22 U	1.09 U	1.07 U	1.17 U
Arsenic	SW-846 6010B	mg/Kg	16	16	16	16	6.74	3.5	7.67	3.91	4.12	2.45	6.53	4.71	6.37	10.9
Barium	SW-846 6010B	mg/kg	400	10000	400	350	44.2	40.6	47.8	52	68.9	27.5	79	30.3	36.4	80.5
Beryllium	SW-846 6010B	mg/Kg	590	2700	72	14	0.807	0.622	0.593	0.879	1.05	1.54	0.647	0.647	0.817	0.917
Cadmium	SW-846 6010B	mg/kg	9.3	60	4.3	2.5	0.38 J	0.456 J	0.869	0.906	0.313 J	0.835	0.947	0.781	0.764	1.09
Calcium	SW-846 6010B	mg/kg	NS	NS	NS	NS	1490	55400	3580	4730	5480	1990	18400	3540	1080	1510
Chromium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	18.9	13.5	16.7	15.1	20.1	9.38	22.6	13.5	13.2	28.7
Cobalt	SW-846 6010B	mg/kg	NS	NS	NS	NS	12	6.72	7.97	9.48	13.2	6.01	8.22	5.6	7.3	10.8
Copper	SW-846 6010B	mg/kg	270	10000	270	270	32.3 J	15.2 J	24.3	25.3	30.1 J	13	24.3	14.5	17.8	51.1
Iron	SW-846 6010B	mg/kg	NS	NS	NS	NS	34100	28200	25300	27100	35100	23900	26500	21700	22100	35300
Lead	SW-846 6010B	mg/Kg	1000000	3900	400	400	25.7	8.57	25.3	9.23	11.5	3.98	87	10.6	16.1	47.9
Magnesium	SW-846 6010B	mg/kg	NS	NS	NS	NS	6870	33500	5650	6920	8000	4110	9970	4510	3830	4510
Manganese	SW-846 6010B	mg/kg	10000000	10000	2000	2000	861	1710	431 J	476 J	794	204 J	647 J	274 J	329 J	505 J
Nickel	SW-846 6010B	mg/Kg	310	10000	310	140	23.9	13	15.2	19	26.9	6.27	18.1	8.17	11.6	27.6
Potassium	SW-846 6010B	mg/kg	NS	NS	NS	NS	1910	1210	1320	2110	1430	1120	1430	753	889	1320
Selenium	SW-846 6010B	mg/Kg	1500	6800	180	36	1.04 U	1.05 U	1.07 U	1.06 U	1.09 U	1.07 U	1.19 U	1.07 U	1.05 U	1.14 U
Silver	SW-846 6010B	mg/Kg	1500	6800	180	36	0.19 U	0.194 U	0.197 U	0.194 U	0.2 U	0.197 U	0.219 U	0.197 U	0.192 U	0.21 U
Sodium	SW-846 6010B	mg/kg	NS	NS	NS	NS	371	338	50.2 J	54.6 J	904	152	432	111	904	346
Thallium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.53 U	1.56 U	1.59 U	1.56 U	1.61 U	1.59 U	1.77 U	1.58 U	1.55 U	1.69 U
Vanadium	SW-846 6010B	mg/kg	NS	NS	NS	NS	23.2	21.8	20.5	19.2	24.2	18	24.1	21.8	22	32.5
Zinc	SW-846 6010B	mg/Kg	10000	10000	10000000	2200	72.7	59.6	58.3	67.2	86	51.2	62.8	44.3	48.7	144
Mercury by Method 7471A																
Mercury	SW-846 7471A	mg/Kg	2.8	5.7	0.81	0.81	0.0517 J	0.0314 J	0.229	0.0318 J	0.0309 J	0.0119 U	0.295	0.232	0.0845 J	0.1 J
VOCs by EPA Method 8260B																
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	50 U	1 U	1 U	1 U	220 J	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/kg	240000	480000	26000	19000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	30000	60000	3100	2300	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	4 U	4 U	200 U	4 U	4 U	4 U	230 U	4 U	4 U	4 U
2-Hexanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	150 U	3 U	3 U	3 U	170 U	3 U	3 U	3 U
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	150 U	3 U	3 U	3 U	170 U	3 U	3 U	3 U
Acetone	SW-846 8260B	ug/kg	500000	1000000	100000	100000	14 J	32 J	350 U	7 UJ	8 UJ	23 J	400 U	8 J	7 UJ	8 UJ
Benzene	SW-846 8260B	ug/kg	44000	89000	4800	2900	0.5 U	0.5 U	25 U	0.5 U	0.5 U	0.5 U	28 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Bromoform	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	100 U	2 U	2 U	2 U	110 U	2 U	2 U	2 U
Carbon Disulfide	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	2 J	57 U	1 U	1 U	1 U
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/Kg	22000	44000	2400	14000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	1000000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	100 U	2 U	2 U	2 U	110 U	2 U	2 U	2 UJ
Chloroform ⁽²⁾	SW-846 8260B	ug/Kg	350000	700000	49000	10000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	100 U	2 U	2 U	2 U	110 U	2 U	2 U	2 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	59000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Diisopropyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Ethyl-t-butylether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Ethylbenzene	SW-846 8260B	ug/kg	390000	780000	41000	30000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Methyl-t-butyl ether	SW-846 8260B	ug/Kg	500000	1000000	100000	62000	0.5 U	0.5 U	25 U	0.5 U	0.5 U	0.5 U	28 U	0.5 U	0.5 U	0.5 U
Methylene chloride (Dichloromethane) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	51000	5	5	100 U	2 U	10	8	110 U	10	4 J	6
Styrene	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Tert-amyl methyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Tertiary Butyl Alcohol	SW-846 8260B	ug/kg	NS	NS	NS	NS	21 U	21 U	1000 U	21 U	22 U	21 U	1100 U	20 U	21 U	22 U
Tetrachloroethene ⁽²⁾	SW-846 8260B	ug/Kg	150000	300000	19000	5500	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Toluene	SW-846 8260B	ug/kg	1000000	1000000	100000	100000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
trans-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
trans-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Trichloroethene (Trichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	400000	400000	21000	10000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Vinyl chloride (Chloroethene) ⁽²⁾	SW-846 8260B	ug/Kg	900	27000	900	210	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Xylenes, Total	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	50 U	1 U	1 U	1 U	57 U	1 U	1 U	1 U
Total CVOCs	SW-846 8260B	ug/kg	NS	NS	NS	NS	5	5	150	3 U	10	8	220 J	10	4 J	6
Total VOCs (including CVOCs)	SW-846 8260B	ug/kg	NS	NS	NS	NS	37 J	19 J	1875 U	38.5 U	10	33 J	220 J	18 J	4 J	6

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-37(8-12)(7-15-10)	PGSB-37(18-20)(7-15-10)	PGSB-38(2-4)(7-15-10)	PGSB-38(8-10)(7-15-10)	PGSB-39(8-11)(7-15-10)	PGSB-40(10-12)(7-20-10)	PGSB-41(12-16)(7-16-10)	PGSB-42(2-3.5)(7-20-10)	PGSB-43(0-2)(7-20-10)	PGSB-44(2-4)(7-20-10)
			Location				PGSB-37	PGSB-37	PGSB-38	PGSB-38	PGSB-39	PGSB-40	PGSB-41	PGSB-42	PGSB-43	PGSB-44
			Sample Date				07/15/2010	07/15/2010	07/15/2010	07/15/2010	07/15/2010	07/20/2010	07/16/2010	07/20/2010	07/20/2010	07/20/2010
			Sample Delivery Group				1203556	1203556	1203557	1203557	1203556	1204018	1203557	1204018	1204018	1204018
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health													
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾										
SVOCs by EPA Method 8270C																
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/Kg	500000	1000000	100000	100000	270	37 U	36 U	36 U	38 U	180 U	410 U	53 J	37 U	39 U
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	280000	560000	49000	1700	36 U	37 U	36 U	36 U	38 U	180 U	410 U	37 U	37 U	39 U
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	130000	250000	13000	9800	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
2,4-Dichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
2,4-Dimethylphenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	860 J	73 U	73 U	79 U
2,4-Dinitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	730 U	730 U	730 U	730 U	750 U	3600 U	8200 U	730 U	730 U	790 U
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
2-Chloronaphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
2-Methyl-naphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	9000	47 J	37 U	39 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	100000	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	53 J	180 U	410 U	36 U	37 U	39 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/kg	NS	NS	NS	NS	110 U	110 U	110 U	110 U	110 U	550 U	1200 U	110 U	110 U	120 U
3-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 U	180 U	180 U	190 U	910 U	2100 U	180 U	180 U	200 U
4-Bromophenylphenylether	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
4-Chloroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
4-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
4-Nitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 U	180 U	180 U	190 U	910 U	2100 U	180 U	180 U	200 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	36 U	36 U	38 U	180 U	13000	36 U	37 U	39 U
Acenaphthylene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	36 U	36 U	38 U	1100	11000	36 U	37 U	39 U
Anthracene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	36 U	36 U	38 U	390 J	35000	36 U	37 U	45 J
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	36 U	37 U	110 J	36 U	38 U	3700	55000 J	38 J	37 U	140 J
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/kg	1000	1100	1000	1000	36 U	37 U	100 J	36 U	38 U	2200	41000	36 U	37 U	130 J
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	36 U	39 J	140 J	36 U	38 U	2400	51000 J	48 J	37 U	200
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	61 J	36 U	38 U	1000	21000	36 U	37 U	99 J
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	36 U	37 U	58 J	36 U	38 U	1100	21000	36 U	37 U	68 J
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
bis(2-Chloroethyl) ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/Kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	310 J	650	940	860	370 J	360 U	1900 J	510	280 J	500
Butylbenzylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
Carbazole	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	12000	36 U	37 U	39 U
Chrysene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	36 U	43 J	100 J	36 U	38 U	3800	52000 J	51 J	37 U	160 J
Di-n-butylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
Di-n-octylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/kg	560	1100	330	330	36 U	37 U	36 U	36 U	38 U	400 J	6500	36 U	37 U	39 U
Dibenzofuran	SW-846 8270C	ug/kg	350000	1000000	59000	14000	36 U	37 U	36 U	36 U	38 U	180 U	15000	36 U	37 U	39 U
Diethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
Dimethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	89 J	190	36 U	38 U	4000	130000 J	53 J	56 J	340
Fluorene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	36 U	36 U	38 U	180 U	19000	36 U	37 U	39 U
Hexachlorobenzene	SW-846 8270C	ug/kg	6000	12000	1200	330	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
Hexachlorobutadiene	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
Hexachlorocyclopentadiene	SW-846 8270C	ug/kg	NS	NS	NS	NS	180 U	180 U	180 U	180 U	190 U	910 U	2100 U	180 U	180 U	200 U
Hexachloroethane	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
Indeno(1,2,3-cd)pyrene	SW-846 8270C	ug/kg	5600	11000	500	500	36 U	37 U	60 J	36 U	38 U	910 J	20000	36 U	37 U	92 J
Isophorone	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
N-Nitrosodi-n-propylamine	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
N-Nitrosodiphenylamine (Diphenylamine)	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
Naphthalene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	36 U	36 U	38 U	180 U	17000	36 U	37 U	39 U
Nitrobenzene	SW-846 8270C	ug/kg	NS	NS	NS	NS	36 U	37 U	36 U	36 U	38 U	180 U	410 U	36 U	37 U	39 U
4-Chloro-m-cresol (p-Chloro-m-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	73 U	73 U	73 U	73 U	75 U	360 U	820 U	73 U	73 U	79 U
4-Methylphenol (p-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	34000	73 U	73 U	73 U	73 U	75 U	360 U	2100	73 U	73 U	79 U
Pentachlorophenol	SW-846 8270C	ug/kg	6700	55000	6700	2400	180 U	180 U	180 U	180 U	190 U	910 U	2100 U	180 U	180 U	200 U
Phenanthrene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	42 J	100 J	36 U	38 U	180 U	140000 J	53 J	37 U	230
Phenol	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	37 U	36 U	36 U	38 U	180 U	1400 J	36 U	37 U	39 U
Pyrene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	36 U	75 J	36 U	36 U	38 U	6900	130000 J	58 J	49 J	290
Total PAHs	SW-846 8270C	ug/kg	NS	NS	NS	NS	245.04 J	36.04 U	1029 J	36 U	38.04 U	25890 J	712500 J	301 J	105 J	1702 J
Total SVOCs (including PAHs)	SW-846 8270C	ug/kg	NS	NS	NS	NS	895.04 J	580 J	2029 J	860	423 J	27900 J	804760 J	911 J	385 J	2294 J

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID				PGSB-45(4-7)(7-20-10)	PGSB-46(4-6.2)(7-20-10)	PGSB-47(0.5-2)(7-19-10)	PGSB-48(2-4)(7-19-10)	PGSB-49(2-4.5)(7-19-10)	PGSB-50(0-1)(7-19-10)
			Location				PGSB-45	PGSB-46	PGSB-47	PGSB-48	PGSB-49	PGSB-50
			Sample Date				07/20/2010	07/20/2010	07/19/2010	07/19/2010	07/19/2010	07/19/2010
			Sample Delivery Group				1204018	1204018	1204018	1204018	1204018	1204018
			Matrix				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Purpose				Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
			Sample Type				Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives									
			Protection of Public Health									
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾						
Percent Moisture by SM2540G												
Moisture	SM20 2540 G	%	NS	NS	NS	NS	16.8	11.3	1.9	8.1	4.7	4.8
Metals by EPA Method 6010B												
Aluminum	SW-846 6010B	mg/kg	NS	NS	NS	NS	17200	15000	5720	20900	17400	9910
Antimony	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.19 U	1.09 U	0.99 U	1.08 U	1.03 UJ	1.04 U
Arsenic	SW-846 6010B	mg/Kg	16	16	16	16	6.21	5.46	3.1	6.54	5.25	19.2
Barium	SW-846 6010B	mg/kg	400	10000	400	350	35.8	30.6	13.2	71.3	57.6	32.1
Beryllium	SW-846 6010B	mg/Kg	590	2700	72	14	0.833	0.69	0.718	0.714	0.675	0.633
Cadmium	SW-846 6010B	mg/kg	9.3	60	4.3	2.5	0.898	0.894	0.46 J	0.662	0.989	0.841
Calcium	SW-846 6010B	mg/kg	NS	NS	NS	NS	439	384	3050	820	808	3340
Chromium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	17.2	17.5	7.87	22.3	27.2	8.33
Cobalt	SW-846 6010B	mg/kg	NS	NS	NS	NS	9.79	8.64	3.31	7.82	11.3	5.49
Copper	SW-846 6010B	mg/kg	270	10000	270	270	26	27.8	4.11	18	29.7	16.6
Iron	SW-846 6010B	mg/kg	NS	NS	NS	NS	29400	28600	14100	24100	30800	21400
Lead	SW-846 6010B	mg/Kg	1000000	3900	400	400	24.4	13.3	4.07	16.3	16.9	27.1
Magnesium	SW-846 6010B	mg/kg	NS	NS	NS	NS	5340	5240	3350	3890	5640	3020
Manganese	SW-846 6010B	mg/kg	10000000	10000	2000	2000	543 J	561 J	234 J	794 J	788 J	430 J
Nickel	SW-846 6010B	mg/Kg	310	10000	310	140	18.5	18	1.97	13.5	21.6	9.81
Potassium	SW-846 6010B	mg/kg	NS	NS	NS	NS	1240	1080	492	1100	1780 J	836
Selenium	SW-846 6010B	mg/Kg	1500	6800	180	36	1.17 U	1.07 U	0.97 U	1.06 U	1.01 U	1.02 U
Silver	SW-846 6010B	mg/Kg	1500	6800	180	36	0.214 U	0.197 U	0.178 U	0.194 U	0.185 U	0.187 U
Sodium	SW-846 6010B	mg/kg	NS	NS	NS	NS	335	140	130	58.6 J	65.3 J	200
Thallium	SW-846 6010B	mg/Kg	NS	NS	NS	NS	1.73 U	1.59 U	1.44 U	1.56 U	1.49 U	1.51 U
Vanadium	SW-846 6010B	mg/kg	NS	NS	NS	NS	21.4	19.3	8.49	26.7	24.3	30.2
Zinc	SW-846 6010B	mg/Kg	10000	10000	10000000	2200	61.4	62.6	24.3	57.5	83.2	64.1
Mercury by Method 7471A												
Mercury	SW-846 7471A	mg/Kg	2.8	5.7	0.81	0.81	0.0856 J	0.0229 J	0.0144 J	0.0775 J	0.0523 J	0.0225 J
VOCs by EPA Method 8260B												
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	0.9 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/kg	240000	480000	26000	19000	1 U	1 U	0.9 U	1 U	1 U	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	0.9 U	1 U	1 U	1 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/Kg	30000	60000	3100	2300	1 U	1 U	0.9 U	1 U	1 U	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	5 U	4 U	4 U	4 U	4 U	4 U
2-Hexanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	SW-846 8260B	ug/Kg	NS	NS	NS	NS	3 U	3 U	3 U	3 U	3 U	3 U
Acetone	SW-846 8260B	ug/kg	500000	1000000	100000	100000	8 UJ	8 UJ	7 UJ	11 J	9 J	7 UJ
Benzene	SW-846 8260B	ug/kg	44000	89000	4800	2900	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Bromoform	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U
Carbon Disulfide	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/Kg	22000	44000	2400	14000	1 U	1 U	0.9 U	1 U	1 U	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/kg	500000	1000000	100000	1000000	1 U	1 U	0.9 U	1 U	1 U	1 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 UJ
Chloroform ⁽²⁾	SW-846 8260B	ug/Kg	350000	700000	49000	10000	1 U	1 U	0.9 U	1 U	1 U	1 U
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	59000	1 U	1 U	0.9 U	1 U	1 U	1 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Diisopropyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Ethyl-t-butylether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Ethylbenzene	SW-846 8260B	ug/kg	390000	780000	41000	30000	1 U	1 U	0.9 U	1 U	1 U	1 U
Methyl-t-butyl ether	SW-846 8260B	ug/Kg	500000	1000000	100000	62000	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride (Dichloromethane) ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	51000	3 J	6	3 J	6 J	7	13
Styrene	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Tert-amyl methyl ether	SW-846 8260B	ug/kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Tertiary Butyl Alcohol	SW-846 8260B	ug/kg	NS	NS	NS	NS	23 U	22 U	19 U	21 U	20 U	20 U
Tetrachloroethene ⁽²⁾	SW-846 8260B	ug/Kg	150000	300000	19000	5500	1 U	1 U	0.9 U	1 U	1 U	1 U
Toluene	SW-846 8260B	ug/kg	1000000	1000000	100000	100000	1 U	1 U	0.9 U	1 U	1 U	1 U
trans-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/Kg	500000	1000000	100000	100000	1 U	1 U	0.9 U	1 U	1 U	1 U
trans-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/Kg	NS	NS	NS	NS	1 U	1 U	0.9 U	1 U	1 U	1 U
Trichloroethene (Trichloroethylene) ⁽²⁾	SW-846 8260B	ug/Kg	400000	400000	21000	10000	1 U	1 U	0.9 U	1 U	1 U	1 U
Vinyl chloride (Chloroethene) ⁽²⁾	SW-846 8260B	ug/Kg	900	27000	900	210	1 U	1 U	0.9 U	1 U	1 U	1 U
Xylenes, Total	SW-846 8260B	ug/kg	500000	1000000	100000	100000	1 U	1 U	0.9 U	1 U	1 U	1 U
Total CVOCs	SW-846 8260B	ug/kg	NS	NS	NS	NS	3 J	6	3 J	6 J	7	13
Total VOCs (including CVOCs)	SW-846 8260B	ug/kg	NS	NS	NS	NS	3 J	6	3 J	17 J	16 J	13

TABLE 2
SOIL SAMPLE ANALYTICAL DATA SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

			Field Sample ID Location Sample Date Sample Delivery Group Matrix Sample Purpose Sample Type				PGSB-45(4-7)(7-20-10) PGSB-45 07/20/2010 1204018 SOIL Regular sample Soil Boring	PGSB-46(4-6.2)(7-20-10) PGSB-46 07/20/2010 1204018 SOIL Regular sample Soil Boring	PGSB-47(0.5-2)(7-19-10) PGSB-47 07/19/2010 1204018 SOIL Regular sample Soil Boring	PGSB-48(2-4)(7-19-10) PGSB-48 07/19/2010 1204018 SOIL Regular sample Soil Boring	PGSB-49(2-4.5)(7-19-10) PGSB-49 07/19/2010 1204018 SOIL Regular sample Soil Boring	PGSB-50(0-1)(7-19-10) PGSB-50 07/19/2010 1204018 SOIL Regular sample Soil Boring
			Table 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health									
Parameter Name	Analytical Method	Units	Commercial	Industrial	Restricted Residential	Residential ⁽¹⁾						
SVOCs by EPA Method 8270C												
1,2,4-Trichlorobenzene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/Kg	500000	1000000	100000	100000	40 U	38 U	340 U	36 U	35 U	350 U
1,3-Dichlorobenzene	SW-846 8270C	ug/Kg	280000	560000	49000	1700	40 U	38 U	340 U	36 U	35 U	350 U
1,4-Dichlorobenzene	SW-846 8270C	ug/Kg	130000	250000	13000	9800	40 U	38 U	340 U	36 U	35 U	350 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2,4-Dichlorophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2,4-Dimethylphenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
2,4-Dinitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	800 U	750 U	6800 U	730 U	700 U	7000 U
2,4-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
2,6-Dinitrotoluene	SW-846 8270C	ug/Kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2-Chloronaphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2-Methyl-naphthalene	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	100000	80 U	75 U	680 U	73 U	70 U	700 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/kg	NS	NS	NS	NS	120 U	110 U	1000 U	110 U	100 U	1100 U
3-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	200 U	190 U	1700 U	180 U	170 U	1800 U
4-Bromophenylphenylether	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
4-Chloroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
4-Nitroaniline	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
4-Nitrophenol	SW-846 8270C	ug/kg	NS	NS	NS	NS	200 U	190 U	1700 U	180 U	170 U	1800 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	40 U	38 U	340 U	36 U	37 J	350 U
Acenaphthylene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	40 U	38 U	340 U	36 U	35 U	350 U
Anthracene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	40 U	38 U	340 U	99 J	85 J	380 J
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	81 J	50 J	340 U	210	140 J	2300
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/kg	1000	1100	1000	1000	59 J	49 J	340 U	150 J	100 J	2400
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	5600	11000	1000	1000	70 J	69 J	340 U	170 J	120 J	3600
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	41 J	38 U	340 U	84 J	66 J	1600 J
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	40 U	38 U	340 U	83 J	56 J	1500 J
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
bis(2-Chloroethyl) ether	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/Kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	140 J	340 J	1600 J	300 J	870	700 U
Butylbenzylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
Carbazole	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	46 J	41 J	420 J
Chrysene ⁽³⁾	SW-846 8270C	ug/kg	56000	110000	3900	1000	75 J	53 J	340 U	190	130 J	3000
Di-n-butylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
Di-n-octylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/kg	560	1100	330	330	40 U	38 U	340 U	36 U	35 U	390 J
Dibenzofuran	SW-846 8270C	ug/kg	350000	1000000	59000	14000	40 U	38 U	340 U	37 J	38 J	350 U
Diethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
Dimethylphthalate	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	160 J	100 J	410 J	490	350	6700
Fluorene	SW-846 8270C	ug/kg	500000	1000000	100000	100000	40 U	38 U	340 U	52 J	40 J	350 U
Hexachlorobenzene	SW-846 8270C	ug/kg	6000	12000	1200	330	40 U	38 U	340 U	36 U	35 U	350 U
Hexachlorobutadiene	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
Hexachlorocyclopentadiene	SW-846 8270C	ug/kg	NS	NS	NS	NS	200 U	190 U	1700 U	180 U	170 U	1800 U
Hexachloroethane	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
Indeno(1,2,3-cd)pyrene	SW-846 8270C	ug/kg	5600	11000	500	500	40 U	38 U	340 U	77 J	59 J	1600 J
Isophorone	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
N-Nitrosodi-n-propylamine	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
N-Nitrosodiphenylamine (Diphenylamine)	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
Naphthalene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	40 U	38 U	340 U	36 U	52 J	350 U
Nitrobenzene	SW-846 8270C	ug/kg	NS	NS	NS	NS	40 U	38 U	340 U	36 U	35 U	350 U
4-Chloro-m-cresol (p-Chloro-m-cresol)	SW-846 8270C	ug/kg	NS	NS	NS	NS	80 U	75 U	680 U	73 U	70 U	700 U
4-Methylphenol (p-Cresol)	SW-846 8270C	ug/kg	500000	1000000	100000	34000	80 U	75 U	680 U	73 U	70 U	700 U
Pentachlorophenol	SW-846 8270C	ug/kg	6700	55000	6700	2400	200 U	190 U	1700 U	180 U	170 U	1800 U
Phenanthrene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	140 J	56 J	340 U	480	380	3100
Phenol	SW-846 8270C	ug/kg	500000	1000000	100000	100000	40 U	38 U	340 U	36 U	35 U	350 U
Pyrene ⁽³⁾	SW-846 8270C	ug/kg	500000	1000000	100000	100000	150 J	92 J	340 U	440	300	4900
Total PAHs	SW-846 8270C	ug/kg	NS	NS	NS	NS	776 J	469 J	410 J	2396 J	1816 J	29870 J
Total SVOCs (including PAHs)	SW-846 8270C	ug/kg	NS	NS	NS	NS	916 J	809 J	2010 J	2908 J	2864 J	31890 J

Notes for Table 2

	Concentration of parameter(s) exceeds regulatory groundwater screening criterion
J	The analyte was positively identified, But the quantitation is an estimation.
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
NS	Not specified.
ug/Kg	Micrograms per kilograms
mg/kg	Milligrams per kilograms
*	Duplicate sample
(1)	Soil criteria obtained from the NYSDEC document entitled, "Division of Environmental Remediation, 6NYCRR Part 375, Environmental Remediation Programs, Subparts 375-1 to 375-4 and 375-6, Effective December 14, 2006." Compared soil data to Residential Soil Criteria.
(2)	Chlorinated Volatile Organic Compounds (CVOCs)
(3)	Polycyclic Aromatic Hydrocarbons (PAHs)

TABLE 3

GROUNDWATER SAMPLE ANALYTICAL DATA
SUMMARY TABLE
SITEWIDE SOIL SAMPLING EVENT
(JUNE - JULY 2010)
FORMER TEXACO RESEARCH FACILITY
BEACON, NEW YORK

			Field Sample ID	PGSB-40(7-20-10)
			Location	PGSB-40
			Sample Date	07/20/2010
			Sample Delivery Group	1204018
			Matrix	Water
			Sample Purpose	Regular sample
			Sample Type	Groundwater Sample
Parameter Name	Analytical Method	Units	NYSDEC TOGS	
Inorganic Anions by EPA Method 300.0				
Chloride	EPA 300.0	mg/l	250	1710
Sulfate	EPA 300.0	mg/l	250	6
Metals by EPA Method 6010B				
Aluminum	SW-846 6010B	mg/l	0.1	302
Antimony	SW-846 6010B	mg/l	0.003	0.05 U
Arsenic	SW-846 6010B	mg/l	0.025	0.161
Barium	SW-846 6010B	mg/l	1	1.59
Beryllium	SW-846 6010B	mg/l	0.003	0.0556
Cadmium	SW-846 6010B	mg/l	0.005	0.0187 J
Calcium	SW-846 6010B	mg/l	NS	203000
Chromium	SW-846 6010B	mg/l	0.05	0.319
Cobalt	SW-846 6010B	mg/l	NS	276
Copper	SW-846 6010B	mg/l	0.2	0.528
Iron	SW-846 6010B	mg/l	0.3	599
Lead	SW-846 6010B	mg/l	0.025	1.14
Magnesium	SW-846 6010B	mg/l	35	135
Manganese	SW-846 6010B	mg/l	0.3	9.66 J
Nickel	SW-846 6010B	mg/l	0.1	0.219
Potassium	SW-846 6010B	mg/l	NS	23.3
Selenium	SW-846 6010B	mg/l	0.01	0.0445 U
Silver	SW-846 6010B	mg/l	0.05	0.023 U
Sodium	SW-846 6010B	mg/l	20	172
Thallium	SW-846 6010B	mg/l	0.0005	0.07 U
Vanadium	SW-846 6010B	mg/l	NS	0.479
Zinc	SW-846 6010B	mg/l	2	1.78
Mercury by EPA Method 7471A				
Mercury	SW-846 7470A	mg/l	0.0007	0.000056 U
VOCs by EPA Method 8260B				
1,1,1-Trichloroethane ⁽²⁾	SW-846 8260B	ug/l	5	0.8 U
1,1,2,2-Tetrachloroethane ⁽²⁾	SW-846 8260B	ug/l	5	1 U
1,1,2-Trichloroethane ⁽²⁾	SW-846 8260B	ug/l	1	0.8 U
1,1-Dichloroethane ⁽²⁾	SW-846 8260B	ug/l	5	1 U
1,1-Dichloroethene (Dichloroethylene) ⁽²⁾	SW-846 8260B	ug/l	5	0.8 U
1,2-Dichloroethane ⁽²⁾	SW-846 8260B	ug/l	0.6	1 U
1,2-Dichloropropane ⁽²⁾	SW-846 8260B	ug/l	1	1 U
2-Butanone (Methyl ethyl ketone)	SW-846 8260B	ug/l	5	3 U
2-Hexanone	SW-846 8260B	ug/l	50	3 U
4-Methyl-2-pentanone	SW-846 8260B	ug/l	NS	3 U
Acetone	SW-846 8260B	ug/l	50	20 J
Benzene	SW-846 8260B	ug/l	1	0.5 U
Bromodichloromethane ⁽²⁾	SW-846 8260B	ug/l	50	1 U
Bromoform	SW-846 8260B	ug/l	50	1 U
Bromomethane (Methyl bromide)	SW-846 8260B	ug/l	5	1 U
Carbon Disulfide	SW-846 8260B	ug/l	60	1 U
Carbon Tetrachloride ⁽²⁾	SW-846 8260B	ug/l	5	1 U
Chlorobenzene ⁽²⁾	SW-846 8260B	ug/l	5	0.8 U
Chloroethane ⁽²⁾	SW-846 8260B	ug/l	5	1 U
Chloroform ⁽²⁾	SW-846 8260B	ug/l	7	0.9 J
Chloromethane (Methyl chloride) ⁽²⁾	SW-846 8260B	ug/l	5	1 U
cis-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/l	5	0.8 U
cis-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/l	NS	1 U
Dibromochloromethane ⁽²⁾	SW-846 8260B	ug/l	50	1 U
Diisopropyl ether	SW-846 8260B	ug/l	NS	0.8 U
Ethyl-t-butylether	SW-846 8260B	ug/l	NS	0.8 U
Ethylbenzene	SW-846 8260B	ug/l	5	0.8 U
Methyl-t-butyl ether	SW-846 8260B	ug/l	10	0.5 U
Methylene chloride (Dichloromethane) ⁽²⁾	SW-846 8260B	ug/l	5	2 U
Styrene	SW-846 8260B	ug/l	5	1 U
Tert-amyl methyl ether	SW-846 8260B	ug/l	NS	0.8 U
Tertiary Butyl Alcohol	SW-846 8260B	ug/l	NS	10 U
Tetrachloroethene ⁽²⁾	SW-846 8260B	ug/l	5	0.8 U
Toluene	SW-846 8260B	ug/l	5	0.7 U
trans-1,2-Dichloroethene ⁽²⁾	SW-846 8260B	ug/l	5	0.8 U
trans-1,3-Dichloropropene ⁽²⁾	SW-846 8260B	ug/l	0.4	1 U
Trichloroethene (Trichloroethylene) ⁽²⁾	SW-846 8260B	ug/l	5	1 U
Vinyl chloride (Chloroethene) ⁽²⁾	SW-846 8260B	ug/l	2	1 U
Xylenes, Total	SW-846 8260B	ug/l	5	0.8 U
Total CVOCs	SW-846 8260B	ug/l	NS	0.9 J
Total VOCs (including CVOCs)	SW-846 8260B	ug/l	NS	20.9 J
SVOCs by EPA Method 8270C				
1,2,4-Trichlorobenzene	SW-846 8270C	ug/l	5	10 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	SW-846 8270C	ug/l	3	10 U
1,3-Dichlorobenzene	SW-846 8270C	ug/l	3	10 U
1,4-Dichlorobenzene	SW-846 8270C	ug/l	3	10 U
2,4,5-Trichlorophenol	SW-846 8270C	ug/l	NS	10 U
2,4,6-Trichlorophenol	SW-846 8270C	ug/l	NS	10 U
2,4-Dichlorophenol	SW-846 8270C	ug/l	5	10 U
2,4-Dimethylphenol	SW-846 8270C	ug/l	50	30 U
2,4-Dinitrophenol	SW-846 8270C	ug/l	10	100 U
2,4-Dinitrotoluene	SW-846 8270C	ug/l	5	10 U
2,6-Dinitrotoluene	SW-846 8270C	ug/l	5	10 U
2-Chloronaphthalene	SW-846 8270C	ug/l	10	20 U
2-Chlorophenol (o-Chlorophenol)	SW-846 8270C	ug/l	NS	10 U
2-Methyl-naphthalene	SW-846 8270C	ug/l	50	10 U
2-Methylphenol (o-Cresol)	SW-846 8270C	ug/l	NS	10 U
2-Nitroaniline (o-Nitroaniline)	SW-846 8270C	ug/l	5	10 U
2-Nitrophenol (o-Nitrophenol)	SW-846 8270C	ug/l	NS	10 U
3,3'-Dichlorobenzidine	SW-846 8270C	ug/l	5	20 U
3-Nitroaniline	SW-846 8270C	ug/l	5	10 U
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	SW-846 8270C	ug/l	NS	50 U
4-Bromophenylphenylether	SW-846 8270C	ug/l	NS	10 U
4-Chloroaniline	SW-846 8270C	ug/l	5	10 U
4-Chlorophenyl phenyl ether	SW-846 8270C	ug/l	NS	20 U

TABLE 3

GROUNDWATER SAMPLE ANALYTICAL DATA

SUMMARY TABLE

SITEWIDE SOIL SAMPLING EVENT

(JUNE - JULY 2010)

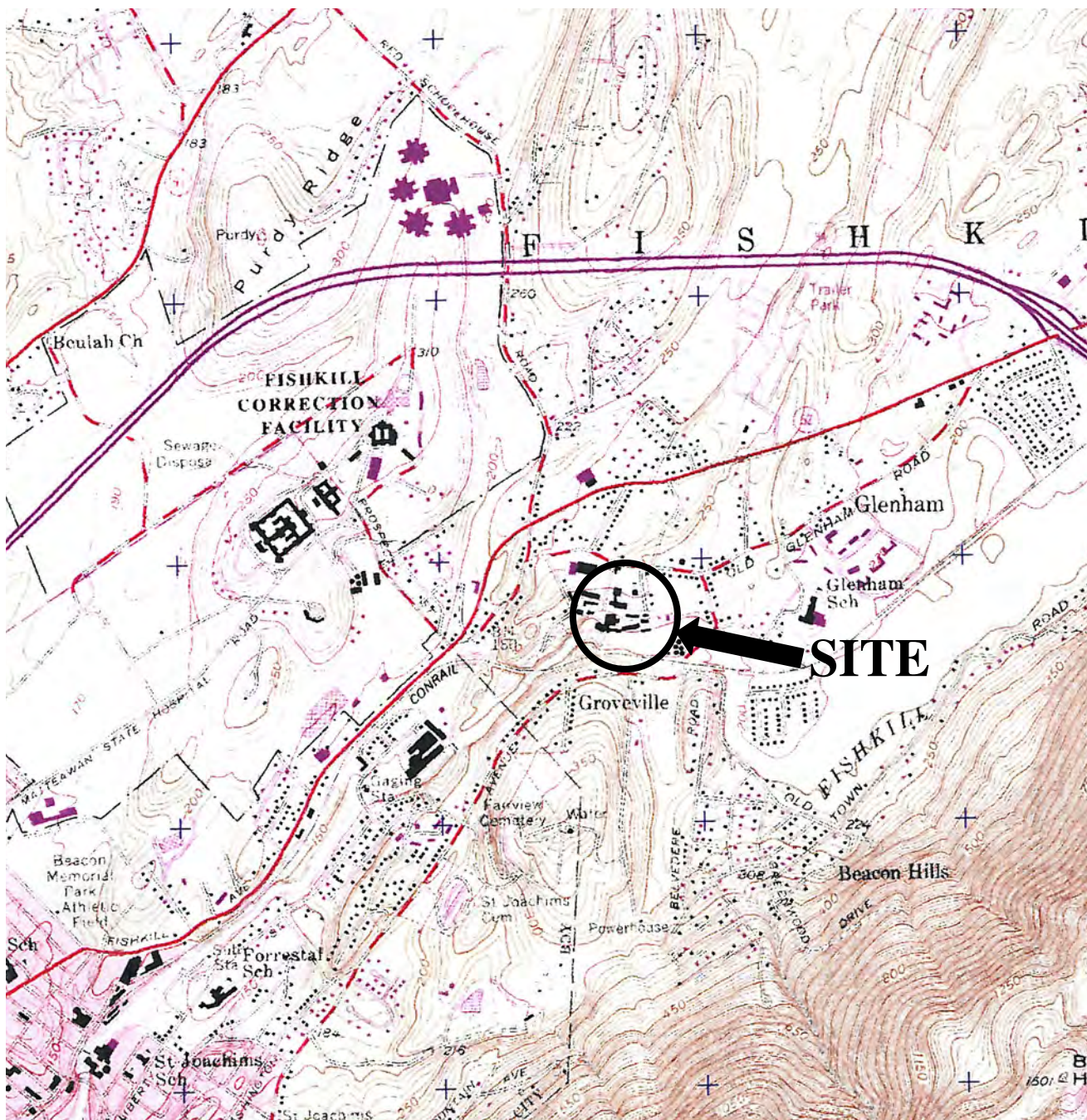
FORMER TEXACO RESEARCH FACILITY

BEACON, NEW YORK

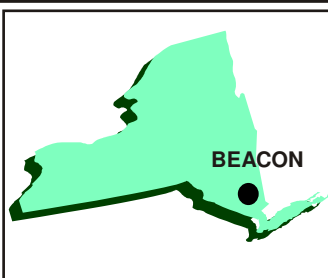
			Field Sample ID	PGSB-40(7-20-10)
			Location	PGSB-40
			Sample Date	07/20/2010
			Sample Delivery Group	1204018
			Matrix	Water
			Sample Purpose	Regular sample
			Sample Type	Groundwater Sample
Parameter Name	Analytical Method	Units	NYSDEC TOGS	
SVOCs by EPA Method 8270C (continued)				
4-Nitroaniline	SW-846 8270C	ug/l	5	10 U
4-Nitrophenol	SW-846 8270C	ug/l	NS	100 U
Acenaphthene ⁽³⁾	SW-846 8270C	ug/l	20	10 U
Acenaphthylene	SW-846 8270C	ug/l	NS	41 J
Anthracene ⁽³⁾	SW-846 8270C	ug/l	50	17 J
Benzo(a)anthracene ⁽³⁾	SW-846 8270C	ug/l	0.002	130 J
Benzo(a)Pyrene ⁽³⁾	SW-846 8270C	ug/l	NS	57
Benzo(b)Fluoranthene ⁽³⁾	SW-846 8270C	ug/l	0.002	72
Benzo(g,h,i)perylene ⁽³⁾	SW-846 8270C	ug/l	NS	28 J
Benzo(k)Fluoranthene ⁽³⁾	SW-846 8270C	ug/l	0.002	29 J
bis(2-Chloroethoxy)methane	SW-846 8270C	ug/l	5	10 U
bis(2-Chloroethyl) ether	SW-846 8270C	ug/l	1	10 U
Bis(2-chloroisopropyl) ether	SW-846 8270C	ug/l	5	10 U
bis(2-Ethylhexyl)phthalate	SW-846 8270C	ug/l	5	20 U
Butylbenzylphthalate	SW-846 8270C	ug/l	50	20 U
Carbazole	SW-846 8270C	ug/l	NS	10 U
Chrysene ⁽³⁾	SW-846 8270C	ug/l	0.002	130
Di-n-butylphthalate	SW-846 8270C	ug/l	50	20 U
Di-n-octylphthalate	SW-846 8270C	ug/l	50	20 U
Dibenz(a,h)anthracene ⁽³⁾	SW-846 8270C	ug/l	NS	10 J
Dibenzofuran	SW-846 8270C	ug/l	NS	10 U
Diethylphthalate	SW-846 8270C	ug/l	50	20 U
Dimethylphthalate	SW-846 8270C	ug/l	50	20 U
Fluoranthene ⁽³⁾	SW-846 8270C	ug/l	50	180
Fluorene	SW-846 8270C	ug/l	50	10 U
Hexachlorobenzene	SW-846 8270C	ug/l	0.04	10 U
Hexachlorobutadiene	SW-846 8270C	ug/l	0.5	10 U
Hexachlorocyclopentadiene	SW-846 8270C	ug/l	5	50 U
Hexachloroethane	SW-846 8270C	ug/l	5	10 U
Indeno(1,2,3-cd)pyrene	SW-846 8270C	ug/l	0.002	24 J
Isophorone	SW-846 8270C	ug/l	50	10 U
N-Nitrosodi-n-propylamine	SW-846 8270C	ug/l	NS	10 U
N-Nitrosodiphenylamine (Diphenylamine)	SW-846 8270C	ug/l	50	20 U
Naphthalene ⁽³⁾	SW-846 8270C	ug/l	10	10 U
Nitrobenzene	SW-846 8270C	ug/l	0.4	10 U
p-Chloro-m-cresol	SW-846 8270C	ug/l	NS	10 U
p-Cresol	SW-846 8270C	ug/l	NS	20 U
Pentachlorophenol	SW-846 8270C	ug/l	1	30 U
Phenanthrene ⁽³⁾	SW-846 8270C	ug/l	50	17 J
Phenol	SW-846 8270C	ug/l	1	10 U
Pyrene ⁽³⁾	SW-846 8270C	ug/l	50	350
Total PAHs	SW-846 8270C	ug/l	NS	1020 J
Total SVOCs (including PAHs)	SW-846 8270C	ug/l	NS	1085 J

Notes for Table 3

	Concentration of parameter(s) exceeds regulatory groundwater screening criterion
J	The analyte was positively identified, But the quantitation is an estimation.
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit
ug/L	Micrograms per liter
mg/L	Milligrams per liter
NS	Not specified.
(1)	Groundwater criteria obtained from the NYSDEC document entitled, "Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998; Errata Sheet for June 1998 Edition.
(2)	Chlorinated Volatile Organic Compounds (CVOCs)
(3)	Polycyclic Aromatic Hydrocarbons (PAHs)



NOT TO SCALE



New York
Vicinity Map



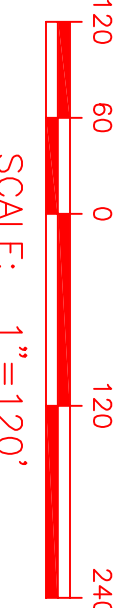
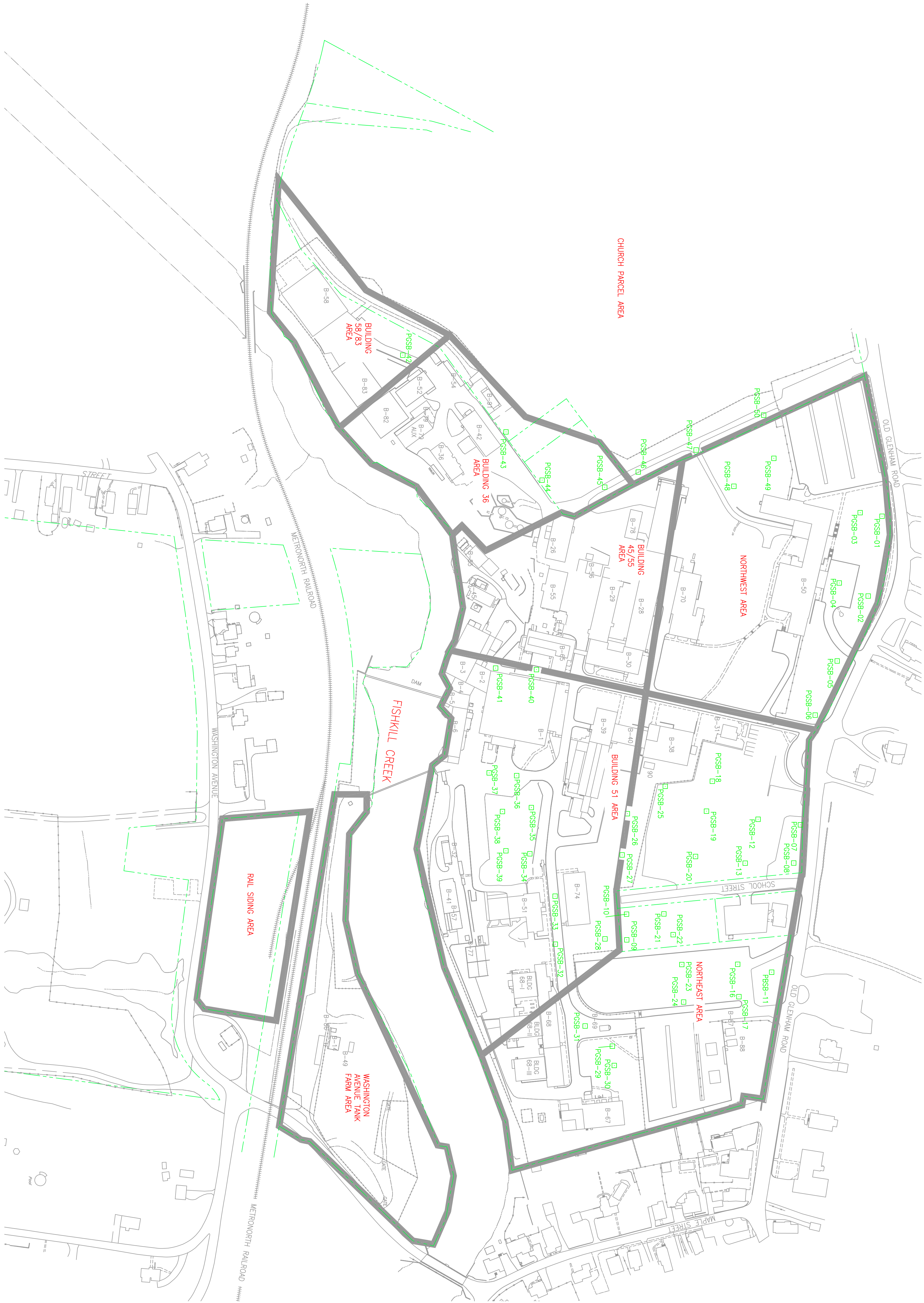
FIGURE 1

CHEVRON ENVIRONMENTAL MANAGEMENT
COMPANY (EMC)
FORMER TEXACO RESEARCH FACILITY
BEACON, NEW YORK

SITE LOCATION MAP

PARSONS

301 Plainfield Road , Suite 350, Syracuse, NY 13212, Phone: (315) 451-9560



LEGEND:

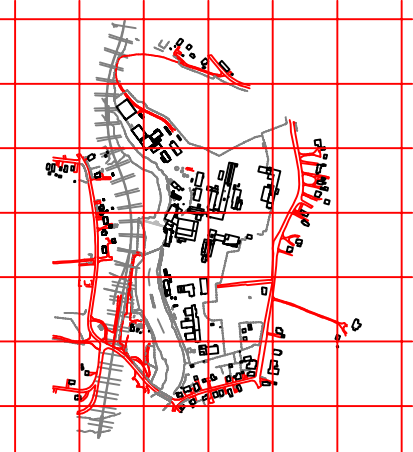
- Pcsb-*** GEOPROBE SOIL BORING (JUNE-JULY 2010)
- TAX PARCEL BOUNDARY LINE
- AREA BOUNDARY LINE

ACRONYM DEFINITIONS:

Pcsb PARSONS GEOPROBE SOIL BORING

NOTES:

1. SCALE SHOWN IS FOR FULL SIZE DRAWING 22"x34".
STAND FOR ANY PARTICULAR VARIANCE.



KEY PLAN

NO.	DESCRIPTION	DATE	DATE	DATE	DATE
1	DESIGN BY	11/8/10	11/11/10	11/11/10	11/11/10
2	CHECKED BY	11/8/10	11/11/10	11/11/10	11/11/10
3	APPROVED BY	11/8/10	11/11/10	11/11/10	11/11/10
4	PROJECT MGR.	11/8/10	11/11/10	11/11/10	11/11/10

PARSONS
COMMERCIAL TECHNOLOGY GROUP

OFFICE
301 PLAINFIELD ROAD
SYRACUSE, NY 13212
(315) 451-9560

**SITE WIDE SOIL
SAMPLING EVENT**
FORMER TEXACO
RESEARCH FACILITY
BEACON, NEW YORK

**SOIL BORING
LOCATION MAP
(JUNE-JULY 2010)**

SCALE
1" = 120'-0"

DRAWING NO. **FIGURE 2**



PGSB-50	7/19/2010
0-1	19.2
2-4	32.1
5-8	8.33
9-12	27.1
13-16	1.02U
17-20	0.187U
21-24	0.0225U
25-28	13
29-32	13
33-36	29.870U
37-40	31.890U

PGSB-49	7/19/2010
0-1	2-4.5
2-4	5.25
5-8	57.6
9-12	0.989
13-16	27.2
17-20	16.9
21-24	1.01U
25-28	0.185U
29-32	0.0523U
33-36	7
37-40	16U
41-44	1.816U
45-48	2.964U

PGSB-03	7/02/2010
0-1	0-1
2-4	8.12
5-8	78.5
9-12	0.434U
13-16	31.8
17-20	51.6
21-24	1.05U
25-28	0.193U
29-32	0.203
33-36	21U
37-40	21U
41-44	1.449.18U
45-48	1.587.18U

PGSB-01	7/02/2010
0-1	0-1.5
2-4	9.48
5-8	98.5
9-12	0.335U
13-16	48.3
17-20	98.8
21-24	1.07U
25-28	0.196U
29-32	0.314
33-36	33U
37-40	41U
41-44	28.383.9U
45-48	30.976.9U

PGSB-02	7/02/2010
0-1	0-2
2-4	9.58
5-8	73.7
9-12	0.377U
13-16	33.7
17-20	40.7
21-24	1U
25-28	0.184U
29-32	0.130
33-36	10
37-40	10
41-44	690.08U
45-48	871.08U

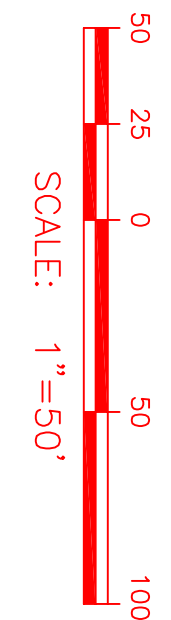
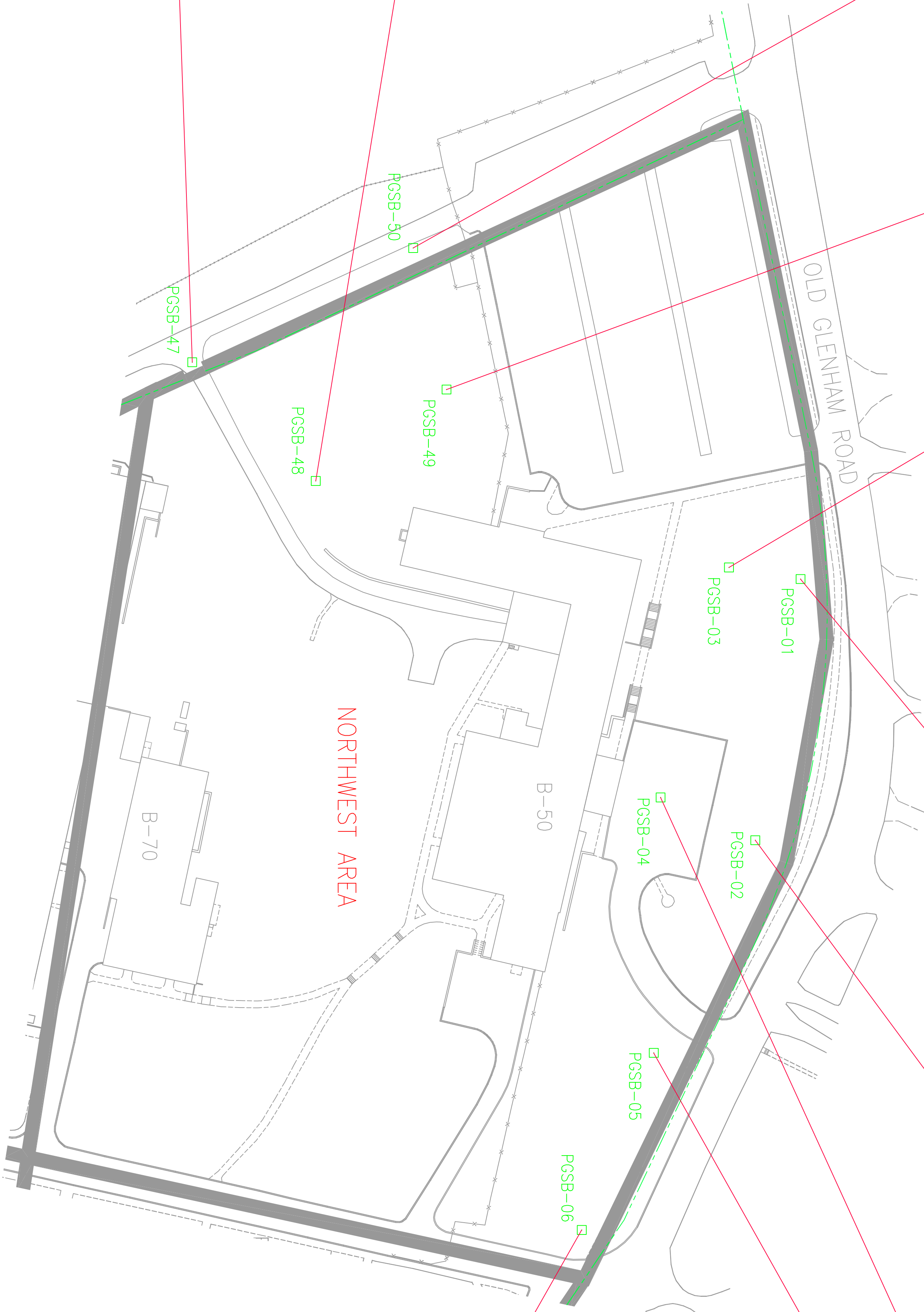
PGSB-04	7/02/2010
0-1	0-4
2-4	7.2
5-8	55.4
9-12	0.3U
13-16	21.4
17-20	26.1
21-24	1.07U
25-28	0.196U
29-32	0.0567U
33-36	18
37-40	29U
41-44	489.05U
45-48	983.05U

PGSB-05	7/02/2010
0-1	2-6
2-4	7.8
5-8	81
9-12	0.374U
13-16	41.6
17-20	66.1
21-24	1.04U
25-28	1.92U
29-32	0.278
33-36	40U
37-40	40U
41-44	1,459.16U
45-48	2,645.16U

PGSB-48	7/19/2010
0-1	2-4
2-4	6.54
5-8	71.3
9-12	0.662
13-16	22.3
17-20	16.3
21-24	1.06U
25-28	0.194U
29-32	0.0775U
33-36	6U
37-40	17U
41-44	2,396U
45-48	2,908U

PGSB-06	7/02/2010
0-1	2-4
2-4	6.02
5-8	46
9-12	0.365U
13-16	18.7
17-20	32.7
21-24	1.02U
25-28	0.187U
29-32	0.131
33-36	15
37-40	15
41-44	455.06U
45-48	492.06U

PGSB-47	7/19/2010
0-1	0.5-2
2-4	3.1
5-8	13.2
9-12	0.46U
13-16	7.8U
17-20	4.07
21-24	0.97U
25-28	0.178U
29-32	0.144U
33-36	3U
37-40	3U
41-44	410U
45-48	2,010U



LEGEND:

PGSB-*** (JUNE-JULY 2010)
TAX PARCEL BOUNDARY LINE
AREA BOUNDARY LINE

PGSB-***	PARSONS GEOPROBE SOIL BORING
7/02/2010	SAMPLE DATE
0-1.5	SAMPLE DEPTH (IN FEET)
ASBESTOS (mg/kg)	9.48
BARITUM (mg/kg)	98.5
CADMIUM (mg/kg)	0.335U
CHROMIUM (mg/kg)	48.3
LEAD (mg/kg)	98.8
SELENIUM (mg/kg)	1.07U
SILVER (mg/kg)	0.196U
MERCURY (mg/kg)	0.314
TOTAL VOCs (ug/kg)	33U
TOTAL VOCs (ug/kg)	41U
TOTAL PAHs (ug/kg)	28,383.9U
TOTAL SVOCs (ug/kg)	30,976.9U

U THE ANALYTE WAS ANALYZED, BUT NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS AT OR BELOW THE METHOD DETECTION LIMIT.
J THE ANALYTE WAS POSITIVELY IDENTIFIED, BUT THE QUANTIFICATION IS AN ESTIMATE.
19.2 PARAMETER THAT EXCEEDS INSDEC 6MVCRR PART 375 RESIDENTIAL SOIL CRITERIA

ACRONYM DEFINITIONS:
PGSB PARSONS GEOPROBE SOIL BORING

NOTES:
1. SCALE SHOWN IS FOR FULL SIZE DRAWING 22"x34". STAND FOR ANY PARTICULAR VERBAGE.



KEY PLAN

NO.	DESCRIPTION	DATE	DATE	DATE	DATE
1	DESIGN BY	11/8/10	11/8/10	11/8/10	11/8/10
2	CHECKED BY	11/11/10	11/11/10	11/11/10	11/11/10
3	APPROVED BY	11/11/10	11/11/10	11/11/10	11/11/10
4	PROJECT MGR.	11/11/10	11/11/10	11/11/10	11/11/10



OFFICE 301 PLAINFIELD ROAD
SYRACUSE, NY 13212
(315) 451-9560
WBS 050000

PROJECT TITLE
SITE WIDE SOIL SAMPLING EVENT
FORMER TEXACO RESEARCH FACILITY
BEACON, NEW YORK

DRAWING TITLE
SOIL BORING ANALYTICAL DATA SUMMARY MAP:
NORTHWEST AREA
(METALS, VOCs, AND SVOCs)

SCALE 1" = 120'-0"
DRAWING NO. FIGURE 3 REV. A



PGSB-12	7/08/2010
2-4	4.06
39.1	0.275J
7.56	29.5
3U	0.0632J
38.5U	4.395J
5.039J	

PGSB-07	7/02/2010
2-6	3.91
49.2	0.352J
17.7	26.1
1.14U	0.21U
0.0693J	17
40U	648.07J
1.11107J	

PGSB-08	7/02/2010
2-4	5.2
64	0.366J
16	54.5
1.15U	0.212U
0.0732J	44
57U	3.532.36U
4.232.36U	

PGSB-22*	7/08/2010	PGSB-22	7/08/2010
2-4	8-12	2-4	8-12
9.17	4.65	79.3	59.2
0.236J	0.156U	19	18.3
59.9	11.6	1.23U	1.36J
0.254J	0.201U	0.076J	0.0157J
20U	3U	20U	40.6U
18.134.70U	38.04U	140U	
20.673.70U			

PGSB-16	7/1/2010
4-8	4.28
7.35	49.5
0.146U	0.156U
19	18.2
59.9	11.6
1.23U	1.36J
0.254J	0.201U
0.076J	0.0157J
20U	3U
18.134.70U	38.04U
20.673.70U	

PGSB-11	7/07/2010	PGSB-11	7/07/2010
2-4	6-10	2-4	6-10
7.35	6.02	4.28	49.5
0.146U	0.156U	19	18.2
59.9	11.6	1.23U	1.36J
0.254J	0.201U	0.076J	0.0157J
20U	3U	18U	18U
831.11U	39.04U	210U	
2.301.11U			

PGSB-17	7/14/2010
4-6	4.99
5.3	58.8
0.152U	0.156U
19.8	24.4
15.6	14.7
1.06	1.31J
0.195U	0.2U
0.0121U	10
3U	4U
40.6U	41U
37U	170.04U
81U	490.04U

PGSB-24	7/07/2010
8-10	5.3
5.81	5.81
0.156U	0.156U
24.4	24.4
14.7	14.7
1.31J	1.04U
0.2U	0.191U
0.0121U	0.0171J
10	4U
41U	4U
170.04U	2.080U
490.04U	2.430U

PGSB-31	7/13/2010
12-16	4.47
76.8	0.149U
25.4	11.3
1.08U	0.191U
0.191U	0.191U
0.0171J	4U
4U	4U
2.080U	2.080U
2.430U	

PGSB-29	7/15/2010
14-16	4.55
52.8	5.81
1.03	0.149U
21.6	11.3
1.08U	0.191U
0.191U	0.191U
0.0476J	4U
4U	4U
2.080U	2.080U
2.430U	

PGSB-30*	7/16/2010
14-15.5	4.94
63.9	0.956
18.2	10.5
1.07U	1.07U
0.197U	0.197U
0.0418J	7
40.64	37U
320	

PGSB-13	7/08/2010
12-16	3.38
35.2	0.15U
8.76	3.8
1.05U	0.274U
0.0122U	3U
43.5U	36U
200J	

PGSB-18	7/12/2010
4-6	3.28
31.3	0.151U
6.98	42.1
1.06U	0.195U
0.0898J	3U
38.5U	3.377U
4.173U	

PGSB-19	7/12/2010
2-4	6.21
44.7	0.216J
16	37.4
1.07U	0.197U
0.0898J	5J
5J	5.264J
6.524U	

PGSB-20	7/08/2010
8-8.5	7.14
47.4	0.181U
17.5	38.8
15.3	82
1.07U	1.11U
0.196U	0.203U
0.0282J	0.314
3U	4U
10U	4U
5.690.63J	273J
9.820.63J	1.133J

PGSB-26	7/13/2010
0-1.5	11.6
100	53.6
0.575	0.147U
38.8	19.4
82	19
1.11U	1.03U
0.203U	0.198U
0.314	0.0536U
4U	3U
273J	40.6U
1.133J	208J

PGSB-21	7/08/2010	PGSB-21	7/08/2010
2-4	8-12	2-4	8-12
9.41	7.5	54.6	38
0.147U	0.26J	0.147U	0.26J
17.1	16.8	32.5	15.2
1.17U	1.19U	1.08U	1.08U
0.203U	0.219U	0.198U	0.198U
0.0536U	0.0148J	0.0536U	0.0536U
3U	3U	4U	4U
40.6U	10U	13U	13U
208J	301.05J	2.698.33J	301.05J
1.038J	671.05J	3.789.33J	

PGSB-10	7/07/2010
2-4	6.63
58.8	0.195U
18.3	18.3
46.4	54.5
1.08U	1.01U
0.198U	0.198U
0.0544J	0.0391U
4U	6
495.08J	15J
1.795.08J	1.360.15J
3.256.15J	

PGSB-09	7/02/2010
2-4	5.98
57	0.198U
18.7	18.7
54.5	15.8
1.01U	1.28J
0.198U	0.194U
0.0391U	0.0252J
6	9J
15J	9J
1.360.15J	3.410.41J
3.256.15J	4.443.41J

PGSB-23	7/07/2010
0.5-2	5.73
63	0.151U
18.8	18.8
15.8	15.8
1.28J	1.28J
0.194U	0.194U
0.0252J	0.0252J
9J	9J
9J	9J
3.410.41J	3.410.41J
4.443.41J	

PGSB-12	7/02/2010
2-6	3.91
49.2	0.352J
17.7	26.1
1.14U	0.21U
0.0693J	17
40U	648.07J
1.11107J	

PGSB-07	7/02/2010
2-6	3.91
49.2	0.352J
17.7	26.1
1.14U	0.21U
0.0693J	17
40U	648.07J
1.11107J	

PGSB-08	7/02/2010
2-4	5.2
64	0.366J
16	54.5
1.15U	0.212U
0.0732J	44
57U	3.532.36U
4.232.36U	

PGSB-22*	7/08/2010	PGSB-22	7/08/2010
2-4	8-12	2-4	8-12
9.17	4.65	79.3	59.2
0.236J	0.156U	19	18.3
59.9	11.6	1.23U	1.36J
0.254J	0.201U	0.076J	0.0157J
20U	3U	20U	40.6U
18.134.70U	38.04U	140U	
20.673.70U			

PGSB-16	7/1/2010
4-8	4.28
7.35	49.5
0.146U	0.156U
19	18.2
59.9	11.6
1.23U	1.36J
0.254J	0.201U
0.076J	0.0157J
20U	3U
18.134.70U	38.04U
20.673.70U	

PGSB-11	7/07/2010	PGSB-11	7/07/2010
2-4	6-10	2-4	6-10
7.35	6.02	4.28	49.5
0.146U	0.156U	19	18.2
59.9	11.6	1.23U	1.36J
0.254J	0.201U	0.076J	0.0157J
20U	3U	18U	18U
831.11U	39.04U	210U	
2.301.11U			

PGSB-17	7/14/2010
4-6	4.99
5.3	58.8
0.152U	0.156U
19.8	24.4
15.6	14.7
1.06	1.31J
0.195U	0.2U
0.0121U	10
3U	4U
40.6U	41U
37U	170.04U
81U	490.04U

PGSB-24	7/07/2010
8-10	5.3
5.81	5.81
0.156U	0.156U
24.4	24.4
14.7	14.7
1.31J	1.04U
0.2U	0.191U
0.0121U	0.0171J
10	4U
41U	4U
170.04U	2.080U
490.04U	2.430U

PGSB-31	7/13/2010
12-16	4.47
76.8	0.149U
25.4	11.3
1.08U	0.191U
0.191U	0.191U
0.0171J	4U
4U	4U
2.080U	2.080U
2.430U	

PGSB-29	7/15/2010
14-16	4.55
52.8	5.81
1.03	0.149U
21.6	11.3
1.08U	0.191U
0.191U	0.191U
0.0476J	4U
4U	4U
2.080U	2.080U
2.430U	

PGSB-30*	7/16/2010
14-15.5	4.94
63.9	0.956
18.2	10.5
1.07U	1.07U
0.197U	0.197U
0.0418J	7
40.64	37U
320	

PGSB-13	7/08/2010
12-16	3.38
35.2	0.15U
8.76	3.8
1.05U	0.274U
0.0122U	3U
43.5U	36U
200J	

PGSB-18	7/12/2010
4-6	3.28
31.3	0.151U
6.98	42.1
1.06U	0.195U
0.0898J	3U
38.5U	3.377U
4.173U	

PGSB-19	7/12/2010
2-4	6.21
44.7	0.216J
16	37.4
1.07U	0.197U
0.0898J	5J
5J	5.264J
6.524U	

PGSB-20	7/08/2010
8-8.5	7.14
47.4	0.181U
17.5	38.8
15.3	82
1.07U	1.11U
0.196U	0.203U
0.0282J	0.314
3U	4U
10U	4U
5.690.63J	273J
9.820.63J	1.133J

PGSB-26	7/13/2010
0-1.5	11.6
100	53.6
0.575	0.147U
38.8	19.4
82	19
1.11U	1.03U
0.203U	0.198U
0.314	0.0536U
4U	3U
273J	40.6U
1.133J	208J

PGSB-21	7/08/2010	PGSB-21	7/08/2010
2-4	8-12	2-4	8-12
9.41	7.5	54.6	38
0.147U	0.26J	0.147U	0.26J
17.1	16.8	32.5	15.2
1.17U	1.19U	1.08U	1.08U
0.203U	0.219U	0.198U	0.198U
0.0536U	0.0148J	0.0536U	0.0536U
3U	3U	4U	4U
40.6U	10U	13U	13U
208J	301.05J	2.698.33J	301.05J
1.038J	671.05J	3.789.33J	

PGSB-10	7/07/2010
2-4	6.63
58.8	0.195U
18.3	18.3
46.4	54.5
1.08U	1.01U
0.198U	0.198U
0.0544J	0.0391U
4U	6
495.08J	15J
1.795.08J	1.360.15J
3.256.15J	

PGSB-09	7/02/2010
2-4	5.98
57	0.198U
18.7	18.7
54.5	15.8
1.01U	1.28J
0.198U	0.194U
0.0391U	0.0252J
6	9J
15J	9J
1.360.15J	3.410.41J
3.256.15J	4.443.41J

PGSB-23	7/07/2010
0.5-2	5.73
63	0.151U
18.8	18.8
15.8	15.8
1.28J	1.28J
0.194U	0.194U
0.0252J	0.0252J
9J	9J
9J	9J
3.410.41J	3.410.41J
4.443.41J	

PGSB-12	7/02/2010
2-6	3.91
49.2	0.352J
17.7	26.1
1.14U	0.21U
0.0693J	17
40U	648.07J
1.11107J	



PGSB-35
7/13/2010
2-4
20.3
55.9
0.149U
21
24.9
1.04U
0.192U
1.07
8
36U
184U

PGSB-34
7/15/2010
6-8
4.78
60.8
0.331U
19.1
9.8
1.1U
0.201U
0.0482U
3U
42.6U
38.04U
1.174U

PGSB-33*
7/14/2010
4-8
6.11
40.9
0.163U
15.3
17.3
1.14U
0.209U
0.0435U
15
23U
799.12U
2.870.12U

PGSB-28
7/13/2010
2-4,5
6.48
46.9
0.153U
26.3
39.5
1.07U
0.197U
0.189
4U
4U
1.452U
1.675U

PGSB-40
7/20/2010
10-12
2.45
27.5
0.835
9.38
3.98
1.07U
0.197U
0.0119U
8
33U
25.890U
27.900U

PGSB-41
7/16/2010
12-16
6.53
79
0.947
22.6
87
1.19U
0.219U
0.295
220U
220U
712.500U
804.760U

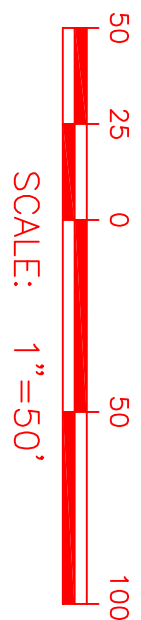
PGSB-32
7/14/2010
8-12
6.5
33.7
0.266U
14.1
10.4U
1.12U
0.205U
0.0127U
11
27U
38.04U
190U

PGSB-36
7/14/2010
4-8
4.17
23.9
0.366U
11.2
12.8
1.04U
0.19U
0.0457U
10
10
1.570.18U
1.978.18U

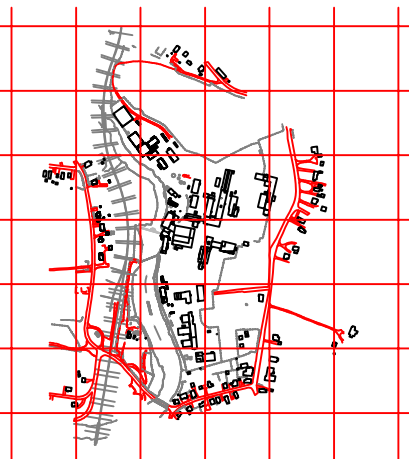
PGSB-37	PGSB-37
7/15/2010	7/15/2010
8-12	18-20
6.74	3.5
44.2	40.6
0.38U	0.456U
18.9	13.5
25.7	8.57
1.04U	1.05U
0.19U	0.194U
0.0517U	0.0314U
5	5
19U	37U
36.04U	245.04U
580U	895.04U

PGSB-38	PGSB-38
7/15/2010	7/15/2010
2-4	8-10
7.67	3.91
47.8	52
0.869	0.906
16.7	15.1
25.3	9.23
1.07U	1.06U
0.197U	0.194U
0.229	0.318U
150U	3U
1.875U	38.5U
1.029U	36U
2.079U	860

PGSB-39
7/15/2010
8-11
4.12
68.9
0.313U
20.1
11.5
1.08U
0.2U
0.0309U
10
10
38.04U
423U



KEY PLAN



LEGEND:

- PGSB-*** GEOPROBE SOIL BORING (JUNE-JULY 2010)
- TAX PARCEL BOUNDARY LINE
- AREA BOUNDARY LINE

PGSB-**

SAMPLE DATE	SAMPLE DEPTH (IN FEET)	ARSENIC (mg/kg)	BARIUM (mg/kg)	CADMIUM (mg/kg)	CHROMIUM (mg/kg)	LEAD (mg/kg)	SELENIUM (mg/kg)	SILVER (mg/kg)	MERCURY (mg/kg)	TOTAL VOCs (ug/kg)	TOTAL PAHs (ug/kg)	TOTAL SVOCs (ug/kg)
7/02/2010	0-1.5	9.48	98.5	0.335U	48.3	98.8	1.07U	0.196U	0.514	33U	41U	30.976.9U

NOTES:

1. SCALE SHOWN IS FOR FULL SIZE DRAWING 22"x34". STAND FOR ANY PARTICULAR VERSION.

2. THE ANALYTE WAS ANALYZED, BUT NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS AT OR BELOW THE METHOD DETECTION LIMIT.

3. THE ANALYTE WAS POSITIVELY IDENTIFIED, BUT THE QUANTIFICATION IS AN ESTIMATE.

4. PARAMETER THAT EXCEEDS NYSDC 6NYCRR PART 375 RESIDENTIAL SOIL CRITERIA.

5. DUPLICATE SAMPLE COLLECTED AT LOCATION, HIGHEST CONCENTRATION OF EACH PARAMETER SHOWN.

6. PARSONS GEOPROBE SOIL BORING

NO.	DESCRIPTION	DATE	DRAWN	CHK'D	APP'D
1	DESIGN BY	DATE	DATE	DATE	DATE
2	CHECKED BY	DATE	DATE	DATE	DATE
3	APPROVED BY	DATE	DATE	DATE	DATE
4	PROJECT MGR.	DATE	DATE	DATE	DATE

PARSONS

COMMERCIAL TECHNOLOGY GROUP

OFFICE
301 PLAINFIELD ROAD
SYRACUSE, NY 13212
(315) 451-9560

JOB
446074
WBS
050000

SITE WIDE SOIL SAMPLING EVENT

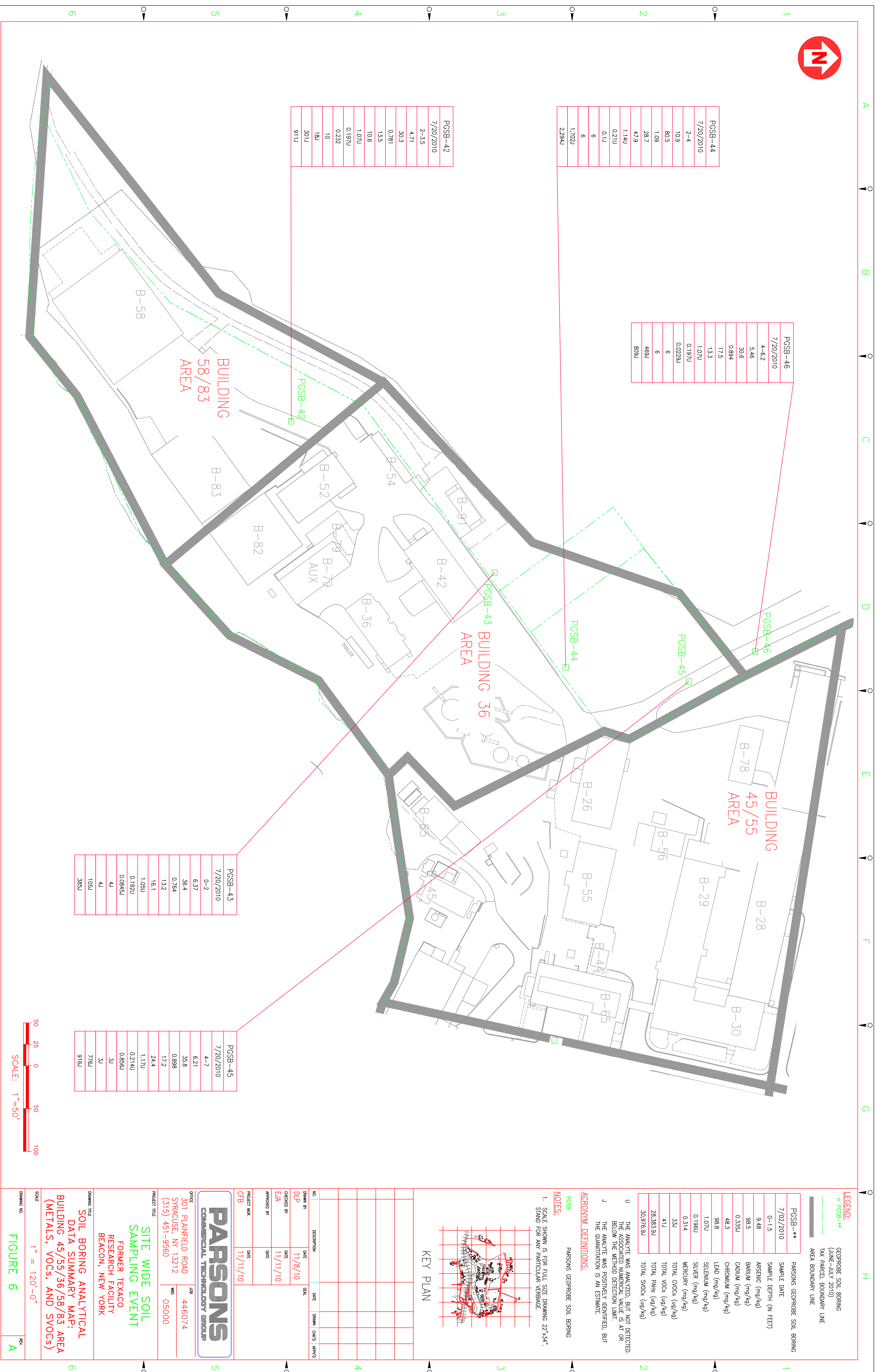
FORMER TEXACO RESEARCH FACILITY BEACON, NEW YORK

SOIL BORING ANALYTICAL DATA SUMMARY MAP: BUILDING 51 AREA (METALS, VOCs, AND SVOCs)

SCALE
1" = 120'-0"

FIGURE 5

REV. **A**



APPENDIX A

PARSONS APPROVED WORK PLAN FOR GEOPROBE™ SOIL BORING INSTALLATION PROJECT (FEBRUARY 2010)

**WORK PLAN FOR GEOPROBE SOIL BORING
INSTALLATIONS**

**Former Chevron Research Center
Beacon, New York**

SITE ID# 314004

RCRA PERMIT# 3-1330-00048/16-0

Submitted to:



Mr. Mark Hendrickson

Chevron Environmental Management Company

Chevron Bellaire Office Building
4800 Fourance Place, Room E5346
Bellaire, TX 77401

Submitted By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, NY 13212

FEBRUARY 2010

**WORK PLAN FOR GEOPROBE SOIL BORING
INSTALLATIONS
Former Chevron Research Center
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Prepared For:

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REVIEWED AND APPROVED BY:

Project Manager: _____ Date _____

Technical Manager: _____ Date _____

FEBRUARY 2010

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APPENDIX E EPA SOP #: 2046, DATE OCTOBER 2004, REVISION#: 0.0

**APPENDIX F GENERIC PROJECT SAFETY PLAN (JULY 2007)
(REVISED FEBRUARY 2008)**

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LIST OF ACRONYMS

°F	degrees Fahrenheit
ASP	Analytical Services Protocol
AST	Aboveground storage tank
bgs	below ground surface
CFR	Code of Federal Regulations
COC	chain of custody
DSNY	Dig Safely New York
EMC	Environmental Management Company
EPA	Environmental Protection Agency
ft ³ /sec	cubic feet per second
FEMA	Federal Emergency Management Agency
FSP	field sampling plan
HDPE	high density polyethylene
ICM	interim corrective measure
IDW	investigation derived waste
ISS	Industrial Sewer System
LPS	Loss Prevention System
MTBE	methyl tert-butyl ether
NYSDEC	New York State Department of Environmental Conservation
PID	Photoionization detector
psi	pounds per square inch
PSP	Project Safety Plan
PVC	polyvinyl chloride
QAO	Quality Assurance Officer
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act

LIST OF ACRONYMS (CONTINUED)

RFI	RCRA Facility Investigation
SHARP	Safety, Health, and Risk Program
SPDES	State Pollution Discharge Elimination System
SVOCs	Semivolatile organic compounds
TAL	target analytical list
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOC	Volatile organic compound

SECTION 1

INTRODUCTION

1.1 WORK PLAN OBJECTIVES

The scope of work discussed within this draft work plan was developed in order to estimate soil volume removal for remediation purposes. The scope of work discussed within this draft work plan was also developed to assist in the development of a site conceptual model(s) and assist in identifying potential remedial alternatives for the site. Field activities will include subsurface drilling and soil sampling at the former Chevron TRC in Beacon, New York.

This draft work plan provides a reference document that will be used as a guide to the completion of the work. The draft work plan includes task descriptions, along with the means and methods by which these tasks are to be completed.

1.2 SITE BACKGROUND

Chevron Corporation (Chevron, also historically known as Texaco and ChevronTexaco) operated a Research Center in Glenham, New York (Figure 1.1) from 1931 until its closure in 2003. The Site has also been called the Texaco Research Center and the Beacon Research Center (Site). The property is located on approximately 140 acres of land and includes four main areas. The Recreation Area is an undeveloped property located south of Washington Avenue. The Main Facility includes all of the developed areas located north of Fishkill Creek. The Washington Avenue Tank Farm (Tank Farm) is located south of Fishkill Creek and north of Washington Avenue. The Former Church Property is an undeveloped parcel located to the northwest of the Main Facility (Figure 1.2).

The Main Facility and has been used as an on-shore, non-production, non-transportation laboratory complex engaged in research, development, and technical services related to petroleum products and energy. Petroleum, coal products, and solvents have been used at the Property in connection with the research functions.

Previous investigations have included follow-on investigations to specific activities such as tank removals and spill investigations. A Phase III RCRA Facility Investigation was completed by Texaco in March 2001 (IT 2001a). In 2006, Chevron completed the closure of the Industrial Sewer System (ISS) and the completion of the Recreation Area interim corrective measure (ICM). In 2005, a Phase II Environmental Site Assessment (GSC 2005) was completed by Groundwater Sciences Corporation on behalf of a party interested in acquiring the Site. In the fall of 2006 and 2008, a Sitewide RCRA and supplemental RCRA Facility Investigation were conducted by Parsons (Parsons, 2007 and 2009) for Chevron.

From 1811 until 1930, the Site was the location of textile and woolen mills. The mills were powered by water wheels and steam engines. Operating in support of the mills were blacksmith and carpentry shops.

1.3 REPORT ORGANIZATION

This work plan has been organized into sections. Each section is briefly described below.

Section 1 – This section contains an introduction and includes a discussion on site background and the organization of the work plan.

Section 2 – This section contains a discussion of physical characteristics of the site. These include climate, surface water, hydrology, geology, and groundwater hydrology.

Section 3 – This section describes the proposed scope of work to be performed during field activities.

Sections 4 – This section briefly talks about project safety plan (PSP) and other health and safety issues.

Section 5 – This section contains discussions regarding the field sampling plan (FSP) and other general field guidelines.

Section 6 – This section lists all reference material used for developing this work plan.

Insert Figure 1.1 Site Location Map

Insert Figure 1.2 Site Plan

SECTION 2

PHYSICAL CHARACTERISTICS OF SITE

2.1 SURFACE FEATURES

The Site is located in the Hamlet of Glenham, Town of Fishkill (population 21,000), Dutchess County, New York. Glenham is a small residential community with churches, businesses and a fire hall in the vicinity of the Site.

The Site has two main areas that were part of the Sitewide RCRA Facility Investigation this investigation. The Main Facility area is that area located north of the Fishkill Creek and the former Tank Farm encompasses the majority of the area located south of the Creek.

The Main Facility is bounded to the south by the Fishkill Creek, to the north by Old Glenham Road, to the west by the Metro-North Railroad line and the Former Church Property, and to the east by private property including parking, residential housing and businesses. The Main Facility includes parking areas, offices and laboratory buildings, decommissioned aboveground storage tanks (ASTs), roads, wastewater treatment plant, and storage areas.

The majority of utilities located on Site are underground. These include potable and fire-suppression water, electrical, communication, sanitary sewer, storm sewer, industrial sewer (closed), natural gas, and fuel product lines. There is one set of aboveground electrical lines that is located in the central west part of the Site. Central Hudson maintains a high pressure gas metering station in the Building 50 parking lot.

Sanitary and industrial wastewater was treated in the on-site wastewater treatment plant, which discharged to the Fishkill Creek under a State Pollution Discharge Elimination System (SPDES) permit.

The Tank Farm is formerly the Site of 30 ASTs and associated facilities. The area currently is an open lot with the remains of piping structures, and a previously operated groundwater recovery system. The ground surface in the former containment basin consists of uneven terrain left after the removal of the AST systems and the concrete containment basins. There is one small building remaining in the area. The entirety of the Tank Farm is surrounded by a chain link fence and is bounded to the north by the Fishkill Creek, Washington Avenue to the east, the Metro-North Railroad line to the south and west.

There is one drainage culvert that has been identified passing through the western part of the Tank Farm. This culvert provides drainage from Washington Avenue and the marsh areas of the Recreation Area to Fishkill Creek. The marsh or wetland areas comprise approximately 1.4 acres of the Recreation Area, according the U.S Fish and Wildlife Service (USFWS). There are two fire hydrants within the Tank Farm. These hydrants are located along the south edge of the area. Overhead electrical utilities pass through the center of the area. A walkway bridge across Fishkill Creek connects the Tank Farm to the Main site.

Vegetation on the Tank Farm is sparse with mostly low grasses and woody stem weeds. There is a row of deciduous trees located along the Creek outside of the fence.

A dam spans the Fishkill Creek between the powerhouse (Building 6) on the north bank to a level control structure on the south side. This dam has been in place during the entire time that the Site has been in operation by Chevron. The dam underwent a refurbishment by Chevron in 2005.

2.2 CLIMATE AND METEOROLOGY

The Site is located in the eastern part of New York State in the lower Hudson Valley. The climate in the region consists of moderately cold, snowy winters and warm, humid summers. The highest average daily mean temperature of 75° Fahrenheit (°F) is found in July. During the winter, the temperature averages near 26°F (-3.3 C). Temperatures of 90°F or higher occur from 8 to 12 days per year between early June and late August (United States Geological Survey [USGS], 1980).

Normal annual precipitation is 43.14 inches based on the thirty-year period from 1951 through 1980 as recorded at the Glenham weather station, located on the Chevron property. The average annual potential evapotranspiration is 28.65 inches, according to USGS (USGS, 1980). Snowfall typically occurs between mid-December and mid-March. The lower Hudson Valley receives an average annual snowfall of 40 to 60 inches. Snow cover persists from mid-December through early March with maximum depths recorded in February of most years.

Winds are predominantly from the northwest and southwest at average speeds between 8 to 15 miles per hour. The winds are predominantly from the northwest from early fall to mid-winter and predominantly from the southwest from spring to mid-fall.

2.3 SURFACE WATER HYDROGEOLOGY

The Fishkill Creek is the dominant surface water body in the vicinity of the Site with a watershed of approximately 190 square miles. The Creek originates approximately fifteen miles east of Beacon and traverses the area from east to west with a fall of approximately 23 ft per mile. The USGS maintained a stream gauging station on Fishkill Creek at Beacon from 1944-68. The stream flow ranged from 0.4 cubic feet per second (ft³/sec), to 8,800 ft³/sec with an average of 279 ft³/sec. The flow duration curve of daily flow for Fishkill creek at Beacon indicates that the creek exceeded 170 ft³/sec fifty percent the time and equaled or exceeded 8.8 ft³/sec ninety-nine percent of the time (Dunn, 1989).

The surface water elevations of the Creek are controlled by dams. The upper dam (Texaco Dam) is located on the Site between Building 6 on the north side and the west end of the Tank Farm area. The elevation of the top of the dam is 196.0 feet according to the Texaco Site Datum (Texaco, 1998). The height of the dam is approximately 22 feet.

The second dam is located approximately 1,400 feet downstream from the Texaco Dam. A third dam is located just above East Main Street in Beacon.

The Creek above the Texaco Dam is wide and generally quiescent with an accumulated thickness of sediment. Below the Texaco Dam, the river narrows significantly and the Creek flows through a steep-sided channel. The rate of flow downstream of the Texaco Dam is much

greater than that upstream, although direct data are not available. Downstream of the Site, the Fishkill Creek passes through the City of Beacon and discharges to the Hudson River.

Based on the mapping provided by the Federal Emergency Management Agency (FEMA), the majority of the Main Facility is located within a Zone C area (minimal potential for flooding). The lower section of the Main Facility, near the wastewater treatment area, is within the 100-year floodplain (FEMA 1984). The Tank Farm is mainly located within the 100-year floodplain, classified as Zone A, with some extension into Zone B (500-year flood plain).

Historical records indicate that flooding of the Site has occurred. Most notable among these was a 1955 flood event when lower sections of the Site, near the wastewater treatment plant, were under water.

An overburden groundwater elevation contour map was developed from field data collected during RFI investigation activities (June 2007). Mapping indicates a general overburden groundwater flow direction to the south on the Main Facility and a northerly flow direction at the Tank Farm.

2.4 GEOLOGY

The Site is located in the Hudson Highlands physiographic province of New York State. Elevations in the area extend from the bottom of the Hudson River (240 meters below sea level) to the top of Mount Beacon (405 meters above sea level).

This is an area characterized by bedrock that was deposited by volcanic and sedimentary processes and were later metamorphosed into gneiss and marble. The bedrock was severely folded and faulted during the Grenville Orogeny approximately 1.3 billion years ago. The faults and folds have determined the positions of the areas ridges and valleys (Isachsen, et al).

Two distinct types of bedrock have been identified at the Site. In the northwest part of the Site, the bedrock is reported to be a hornblende granite and granitic gneiss (Fisher, 1970). The southern and eastern part of the Site is underlain by the dolomitic limestone of the Wappingers Group. These two units meet along an overthrust fault trending northeast-southwest from the northeast corner of the Site to the lower area near the wastewater treatment plant (Building 45). The presumed fault line is also evident along the Fishkill Creek towards the western part of the Site. Downstream of the Site the Creek becomes more channelized with the banks becoming steep cliffs. The alignment of the channel matches that of the presumed fault.

Bedrock mapping performed during the summer of 2006 indicates an overthrust fault with the dolostone overriding the granite. The granitic rock is highly folded and bedrock mapping indicated that two predominant fracture orientations existed within the bedrock formation: 10 to 20 degrees northeast (north-northeast) and 60 to 80 degrees northeast (east-northeast). A stereonet plot of the data collected from the bedrock mapping event also shows that most of the fractures have a dip greater than 45 degrees and more than half have a dip greater than 60 degrees to the west.

When drilling a number of well locations, a condition was found where dolostone bedrock was encountered. Upon proceeding to drill through the bedrock using air-hammer techniques, a

zone of unconsolidated material was encountered. This material consisted of a mixture of silt, clay and fine-medium well rounded gravel. In some of the borings drilled this zone was saturated. Below the unconsolidated zone, dolostone was again encountered to depth. It is believed that this zone indicates the margin of the overthrust zone which was infilled by sediments from a buried stream valley. The position of the affected borings matches with the general position and orientation of the fault line.

To the south of the fault line, the Main Facility area, as well as the Tank Farm area, generally has a thickness of unconsolidated silt, sand, clay and gravel ranging in thickness from 4 to 12 feet. North of the fault line, the thickness of the unconsolidated material is thinner, while in many locations in the western part of the Site, bedrock is exposed.

The unconsolidated (overburden) deposits are almost entirely glacial in origin. In some areas of the Site, varied glaciolacustrine silts and clays were identified overlying the till. Post depositional erosion of this unit has resulted in its varying thicknesses. Overlying the glaciolacustrine silts and clays and directly over the glacial till, where the lacustrine soils are absent, is a complex sequence of fluvial and alluvial sediments deposited along the south side of Fishkill Creek. This unit is generally thickest and coarsest immediately adjacent to the creek and thins to the south. Discontinuous lenses of silt and organic silt representing overbank and quieter water deposits are present contemporaneously across the site.

2.5 GROUNDWATER HYDROLOGY

The significant aquifers within the Hudson River basin consist of unconsolidated glacial deposits or bedrock. There are four aquifers within the Hudson River valley that have been identified by the New York State Department of Environmental Conservation (NYSDEC) as primary water supply aquifers (USGS, 1996). One of these is the Fishkill-Sprout Creek Aquifer.

The Fishkill-Sprout Creek Aquifer was mapped by the USGS in 1996. An examination of the available mapping indicates that the Site may be located at the southwesterly end of the aquifer. This is consistent with the mapping of wells completed by the USGS in 1980 which shows the majority of the wells in the area located to the northeast of the Site in alluvial aquifers.

A review of the interaction between the surficial geology at the Site and the Fishkill Sprout Creek aquifer was included in the Tank Farm Groundwater Quality Assessment completed by Dunn Geoscience in 1984. In this report, Dunn concluded that the on-site groundwater monitoring data indicated that the flow direction was horizontal toward the Fishkill Creek and that there was little likelihood of any interaction between the Site groundwater and the Fishkill-Sprout Creek Aquifer. In addition, a slight upward component of groundwater flow was noted.

Based on examination of hydraulic conductivity results from slug testing, groundwater analytical results, and geologic cross-sections, overburden groundwater and bedrock groundwater appear to be connected. This understanding is based on the observation of similar contaminant concentrations both in the overburden and bedrock groundwater at well pairs. Also, there appears to be a dominating downward hydraulic gradient at the site. With this downward gradient and the presence of fractured bedrock within the upper portion of the bedrock formation, there is the potential for migration of soluble constituents from the overburden

groundwater to deeper zones. The presence of a potential groundwater confining lithologic unit was only observed in the Tank Farm.

The Tank Farm exhibited a silt/clay layer at approximately 12 to 13 feet below ground surface (bgs). No impacts to bedrock groundwater have been observed, based on drilling programs conducted within the Tank Farm. The impacts to groundwater are restricted to overburden water.

Based on slug test results, hydraulic conductivity values were found to range from a high of 2×10^{-1} cm/second to a low of 2×10^{-6} cm/second. In addition, there appears to be little correlation between hydraulic conductivity values and different lithological units that exist at the site. The conductivity values were compared to their respective lithological units and variation of conductivity values were observed for each unit. Furthermore, no correlation to special distribution (i.e. well defined zones of similar hydraulic conductivity) was found.

SECTION 3

FIELD PROCEDURES

3.1 INTRODUCTION

The purpose of this section is to describe methods to be used during soil boring drilling activities.

3.2 PRE-DRILLING ACTIVITIES

Before subsurface field work begins, the facility superintendent will be contacted to identify potential buried utility locations. Based on those discussions, and a review of the available Site utility maps, a Parsons geologist will locate proposed soil boring locations to avoid any underground or aboveground utilities. A private utility locator will also be utilized (if needed) to confirm the location of underground utilities in working areas. In areas where there is a concern that underground services may exist, hand clearing to 5 feet bgs will be completed prior to beginning drilling work. Hand clearing will be performed using an air-knife and hand auger. All excavated material will be containerized in accordance with the procedures discussed below for investigation derived waste. Dig Safely New York (telephone number: * 811) will be contacted to provide clearance of outside underground utilities that are potentially located near the work areas.

The project manager, Mr. Craig Butler, will ensure that the Parsons Pre-Drilling / Subsurface Checklist for Intrusive Field Work (Appendix A) will be completed and all appropriate approvals obtained. A complete description of Parsons pre-drilling protocol is provided in Appendix A – Parsons Commercial Technology Group Mandatory Pre-Drilling Protocol Industrial Division and should be reviewed prior to field activities.

3.3 SOIL BORING INSTALLATIONS AT MAIN SITE

A maximum of forty-four soil borings are proposed at the locations shown on Figure 3.1. These soil borings will be used to estimate soil volume removal for remediation purposes, assist in the development of site conceptual model(s), and assist in identifying potential remedial alternatives for the site. Actual drilling locations will be based on information collected during drilling activities and utility constraints/access, and the NYSDEC will review proposed locations as shown in work plan for approval. Justification for the placement of each proposed soil boring is provided in Table 3.1. All drilling activities will be performed according to the Environmental Remediation Drilling Safety Guide provided in Appendix B.

Prior to initiation of field activities, all pre-drilling procedures as described in Section 3.2 will be followed. All drilling equipment that comes into contact with the subsurface will be thoroughly decontaminated by utilizing an Alconox and distilled water wash and rinse. Each boring will be advanced using Geoprobe™ drilling techniques to an approximate depth of 16 feet bgs. All soil samples will be logged in the field by a Parsons geologist. All soil samples retrieved from the borings will be visually inspected for signs of staining and for the presence of

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hydrocarbon odors and the evolution of organic vapors with a photoionization detector (PID). The soil sample with the highest PID reading from each boring or just above the water table will be selected for chemical analyses. If no elevated PID measurements or groundwater is encountered, then a soil sample will be collected from the bottom of the borehole. Each soil sample will be analyzed for volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260, semivolatile organic compounds (SVOCs) by EPA Method 8270, target analytical list (TAL) Metals, and California Oxygenates by EPA Method 8260 in accordance with the Quality Assurance Project Plan (QAPP) dated August 2007, revised February 2010 (see Appendix C).

Following the completion of drilling and sampling activities at each soil boring location, any excess soil cuttings from the drilling of the soil boring will be placed backed into the borehole and bentonite pellets will then be placed into the borehole to within three-inches of the top of the surface. The remaining void space will then be backfilled with either asphalt, concrete, or topsoil to match surrounding surface.

3.4 SURVEYING OF SOIL BORING LOACTIONS

Each newly drilled soil boring will be surveyed and tied to a common, permanent reference datum. Coordinates will be measured in the New York State Plane Coordinate System, East Zone (NAD-1983) system for the horizontal datum, while the vertical datum will use the site vertical datum established by Texaco in 1957. This datum is 1.07 feet below NAVD 1988 coordinate system. All survey work will be completed by a New York State licensed surveyor.

3.5 INVESTIGATION DERIVED WASTE

All liquid investigation derived waste (IDW), involving decontamination water will be staged in a polyurethane tank and transported to the onsite industrial wastewater treatment system for disposal.

Any soil cuttings that exist from field activities will be staged in Department of Transportation (DOT) approved 55-gallon, 17-H drums and staged onsite for future disposal by Chevron EMC.

3.6 REPORT GENERATION

At the completion of all field activities, a comprehensive report will be generated and forwarded to Chevron Environmental Management Company (EMC) for review and comments. Following the incorporation of Chevron EMC's comments into the report, it will then be forwarded to the NYSDEC for review and comments. The comprehensive report will document the findings of field activities, contain descriptions of database management and data validation (Locus System), provide in-depth soil boring logs, provide a photographic log documenting field activities, and make recommendations for any additional work.

TABLE 3.1
RATIONALE TABLE FOR PROPOSED SOIL BORING LOCATIONS
FORMER CHEVRONTEXACO RESEARCH FACILITY
GLENHAM, NEW YORK

Well I.D. #	Location	Rationale
PGSB-1	North of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-2	North of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-3	North of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-4	North of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-5	North of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-6	North of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-7	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-8	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-9	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-10	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-11	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-12	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-13	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.

RATIONALE TABLE FOR PROPOSED GROUNDWATER
 MONITORING WELL/SOIL BORING LOCATIONS
 FORMER CHEVRONTXACO RESEARCH FACILITY
 GLENHAM, NEW YORK
 (CONTINUED)

Well I.D. #	Location	Rationale
PGSB-14	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-15	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-16	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-17	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-18	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-19	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-20	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-21	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-22	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-23	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-24	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-25	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-26	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.

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RATIONALE TABLE FOR PROPOSED GROUNDWATER
 MONITORING WELL /SOIL BORING LOCATIONS
 FORMER CHEVRONTXACO RESEARCH FACILITY
 GLENHAM, NEW YORK
 (CONTINUED)

Well I.D. #	Location	Rationale
PGSB-27	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-28	North of Building 74 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-29	West of Building 67 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-30	West of Building 67 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-31	Main Service Road Adjacent to Buildings 74 and 68	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-32	Main Service Road Adjacent to Buildings 74 and 68	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-33	Main Service Road Adjacent to Buildings 74 and 68	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-34	East of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-35	East of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-36	East of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-37	East of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-38	East of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-39	West of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.

RATIONALE TABLE FOR PROPOSED GROUNDWATER
 MONITORING WELL/SOIL BORING LOCATIONS
 FORMER CHEVRONTExACO RESEARCH FACILITY
 GLENHAM, NEW YORK
 (CONTINUED)

Well I.D. #	Location	Rationale
PGSB-40	West of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-41	West of Building 1 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-42	Building 58/83 Area (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-43	Building 58/83 Area (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-44	Building 58/83 Area (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-45	Building 58/83 Area (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-46	Building 58/83 Area (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-47	West of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-48	West of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-49	West of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
PGSB-50	West of Building 50 (Main Site)	No soil samples collected in area. Boring would provide soil data and assist in estimating volume of soil to be removed for remediation purposes.
SWMW-130	Southwest Property of Building 58/83 Area (offsite location)	Well to be installed to verify if LNAPL and/or groundwater contamination exists on adjacent property. LNAPL and groundwater contamination present in Building 58 vicinity.
SWMW-131	Southwest Property of Building 58/83 Area (offsite location)	Well to be installed to verify if LNAPL and/or groundwater contamination exists on adjacent property. LNAPL and groundwater contamination present in Building 58 vicinity.

PARSONS

Figure 3.1 Groundwater Monitoring Well Location Map with New Proposed Well Locations

See Figure 3.2 Proposed Geophysical Survey and Packer Testing Boring Locations

SECTION 4

HEALTH & SAFETY

4.1 PROJECT SAFETY PLAN

A PSP has been developed in accordance with 29 Code of Federal Regulations (CFR) 1910.120, Parsons Safety, Health, and Risk Program (SHARP) requirements (Parsons, 2004), and all Chevron safety requirements, including the Chevron Loss Prevention System (LPS) program (Chevron, 2003). The PSP will be reviewed and signed by all Parsons' personnel prior to on-site activities. A copy of the PSP is included with this draft Work Plan as Appendix F. The PSP was also revised in January 2010 and February 2010 to incorporate Chevron's new health and safety requirements and to accommodate this draft work plan.

Contractors working on the site under direct contract to Chevron or Parsons will develop their own site-specific PSP to address all known or anticipated site hazards associated with their work at the site. Each PSP shall comply with the requirements of the LPS program, including all applicable training requirements.

Should site conditions change or unexpected hazards be identified, all applicable safety documents will be amended to reflect needed changes in safety procedures to ensure the safety of site workers and the public.

4.2 WORK HOURS AND SITE SECURITY

Work hours are anticipated to begin at 7:30 A.M. and to cease no later than 7:00 P.M. during Mondays through Fridays and 8:00 A.M. to 5:00 P.M. on Saturdays, if work is required to be performed.

Site security is to remain a priority for the duration of the project. Special attention will be paid to securing of work areas whenever open boreholes are left overnight. Chevron security personnel will periodically check the work area during non-working hours. Orange barricade safety fencing will be erected around the perimeter of any open borehole during non-working hours whenever open boreholes are left unattended. This barricade fencing will be set back a minimum of eight feet from the open edge of the borehole and will be a minimum of four feet in height. All heavy equipment will be left with hydraulic systems fully relaxed, and cabs are to be locked at the end of each shift.

Traffic cones will be placed around any area where drilling activities are taking place and left in place until the work being performed is completed.

SECTION 5

FIELD SAMPLING PLAN

5.1 OVERVIEW OF FIELD SAMPLING PLAN

The FSP is included as Appendix D and describes the general methodology to be employed during investigation activities at the Site. A description of the sampling method to be employed during field activities is described below. The project-specific data quality objectives, analytical protocol, and field and laboratory quality assurance/ quality control procedures are outlined in the QAPP, Appendix C. All laboratory data generated will include a NYSDEC Analytical Services Protocol (ASP) category B Deliverable Package.

5.2 GENERAL FIELD GUIDELINES

5.2.1 General Site Hazards

Potential on-site surface hazards, such as sharp objects, overhead power lines, energized areas, and building hazards, as well as other hazards (i.e. climate, biohazards, etc.) will be identified prior to initiation of fieldwork. Ideally, these hazards will be identified during a site visit prior to the first day of fieldwork.

5.2.2 Underground Utilities

All underground utilities, including but not limited to electrical lines, gas lines, and communication lines will be identified prior to initiation of drilling and other subsurface work. This will be accomplished as follows:

- A private utility locator will be contracted, if required, to identify and clearly mark and label private utilities. The utilities will be located in conjunction with Chevron personnel or their agents.
- Public underground utilities within the work area will be located and marked by a representative of Dig Safely New York (DSNY): (*811). New York State law requires that DSNY be notified at least two working days, and not more than ten working days, before subsurface work is conducted.

5.2.3 Field Log Books

All field activities will be carefully documented in field log books. Entries will be of sufficient detail that a complete daily record of significant events, observations, and measurements is obtained. The field log book will provide a legal record of the activities conducted at the site. Accordingly:

- Field books will be assigned a unique identification number.
- Field books will be bound with consecutively numbered pages.
- Field books will be controlled by the Field Team Leader while field work is in progress.
- Entries will be written with waterproof ink.

- Entries will be signed and dated at the conclusion of each day of fieldwork.
- Erroneous entries made while fieldwork is in progress will be corrected by the person that made the entries. Corrections will be made by drawing a line through the error, entering the correct information, and initialing the correction.
- Corrections made after departing the field will be made by the person who made the original entries. Corrections will be made by drawing a line through the error, entering the correct information, and initialing and dating the time of the correction.

At a minimum, daily field book entries will include the following information:

- Location of field activity;
- Date and time of entry;
- Names and titles of field team members;
- Names and titles of any site visitors and site contacts;
- Weather information, for example: temperature, cloud coverage, wind speed and direction;
- Purpose of field activity;
- A detailed description of the field work conducted;
- Sample media (soil, sediment, groundwater, etc.);
- Sample collection method;
- Number and volume of sample(s) taken;
- Description of sampling point(s);
- Volume of groundwater removed before sampling;
- Preservatives used;
- Analytical parameters;
- Date and time of collection;
- Sample identification number(s);
- Sample distribution (e.g., laboratory);
- Field observations;
- Any field measurements made, such as pH, temperature, conductivity, water level, etc.;
- References for all maps and photographs of the sampling site(s);
- Information pertaining to sample documentation such as:
 - Bottle lot numbers;
 - Dates and method of sample shipments;
 - Chain-of-Custody Record numbers; and

- Federal Express Air Bill Number.

5.3 FIELD EQUIPMENT DECONTAMINATION

The following procedures will be used to decontaminate equipment used during the field activities.

Suggested Materials:

- Potable water
- Phosphate-free detergent (e.g., Alconox)
- Reagent-grade methanol or isopropanol
- Distilled water
- Aluminum foil
- Plastic/polyethylene sheeting
- Plastic buckets and brushes
- Personal protective equipment in accordance with the PSP

Procedures:

- Prior to sampling, all non-dedicated sampling equipment (bowls, spoons, etc.) will be washed with potable water and a phosphate-free detergent (such as Alconox). Decontamination may take place at the sampling location as long as all liquids are contained in pails, buckets, etc.
- Sampling equipment will be rinsed with potable water followed by a deionized water rinse.
- Between rinses, equipment will be placed on polyethylene sheets or aluminum foil if necessary. At no time will washed equipment be placed directly on the ground.
- Equipment will be wrapped in polyethylene plastic or aluminum foil for storage or transportation from the designated decontamination area to the sampling location.

The following procedures apply for drilling equipment and associated tools and well material (i.e. PVC/Stainless Steel well screen and casing):

- All drilling equipment including the drilling rig, augers, bits, rods, tools, split-spoon samplers, tremie pipe, and if required well materials will be cleaned with a high-pressure steam cleaning unit before beginning work.
- Tools, drill rods, and augers will be placed on sawhorses or polyethylene plastic sheets following cleaning. Direct contact with the ground will be avoided.
- All augers, rods, and tools will be decontaminated between each drilling location according to the above procedures.
- The back of the drill rig and all tools, augers, rods, and tires of drill rig will be decontaminated at the completion of the work and prior to leaving the site.

5.4 FIELD INSTRUMENTS AND CALIBRATION

All field analytical equipment will be calibrated immediately prior to each day's use and more frequently if required. The calibration procedures will conform to manufacturer's standard instructions. This calibration will ensure that the equipment is functioning within the allowable tolerances established by the manufacturer and required by the project. All instrument calibrations will be documented in the project field book and in an instrument calibration log. Records of all instrument calibration will be maintained by the Field Team Leader and will be subject to audit by the Quality Assurance Officer (QAO). Copies of all of the instrument manuals will be maintained on-site by the Field Team Leader.

- A portable photoionization analyzer will be used during the field activities. The photoionization analyzer will be a Photovac (or equivalent), equipped with an 11.7 eV lamp. The Photovac is capable of ionizing and detecting compounds with an ionization potential of less than 11.7 eV, which accounts for up to 73% of the volatile organic compounds on the Target Compound List. Calibration must be performed at the beginning and end of each day of use with a standard calibration gas having an approximate concentration of 100 parts per million of isobutylene. If the unit experiences abnormal or erratic readings, additional calibration will be required. All calibration data must be recorded in field notebooks and on calibration log sheets to be maintained on-site. A battery check must be completed at the beginning and end of each working day.
- The turbidity meter must be checked and calibrated at the start of each day of use and at the end of the day according to manufacturer's instructions.

5.5 FIELD SAMPLE IDENTIFICATION AND CUSTODY

5.5.1 Sample Identification

Each sample will be given a unique alphanumeric identifier in accordance with the following classification system:

SAMPLE IDENTIFICATION			
LL*	NN*	N-N	LL
Sample Type	Sample Number	Depth Code (if applicable)	QC Identifier
	<u>Solid</u>		<u>Water</u>
Sample Type:	SS – Surface Soil Sample SD – Sediment Sample SB – Subsurface Soil Sample From Soil Boring	RW – Rinse water Sample GW – Groundwater Sample SW – Surface Water Sample DW – Drill water/Decon water Sample	
Sample Number:	Number referenced to a sample location map.		
Depth Code:	Depth in feet of sample interval (0-0.5, 2-4, 10-12, etc.)		
QC Identifier:	FB - Field Blank TB - Trip Blank WB - Wash or Rinse Blank	MS - Matrix Spike MD - Matrix Spike Duplicate MB - Matrix Blank	

* L = Letter

* N = Number

Field duplicates and corresponding original samples will be distinguished by field duplicate samples having the number “100” added to the original samples numeric identification number (i.e., MW-1 (original sample) equals MW-101 (field duplicate sample) or SS-1 (2 to 4 feet) (original sample) equals SS-101 (2 to 4 feet) (field sample)). Additionally, each sample container will be labeled prior to packing for shipment. The sample identifier, site name, date and time of sampling, and analytical parameters will be written on the label in waterproof ink and recorded in the field book.

5.5.2 Chain of Custody

- A chain of custody (COC) record will accompany the sample containers during selection and preparation at the laboratory, during shipment to the field, and during return shipment to the laboratory.
- The COC will identify each sample container and the analytical parameters for each, and will list the field personnel that collected the samples, the project name and number, the name of the analytical laboratory that will receive the samples, and the method of sample shipment.
- If samples are split and sent to different laboratories, a copy of the COC record will be sent with each sample shipment.
- The COC will be completed by field personnel as samples are collected and packed for shipment.
- Erroneous markings will be crossed out with a single line and initialed by the author.
- The REMARKS space will be used to indicate if the sample is a matrix spike, matrix spike duplicate, or matrix duplicate.
- Trip and field blanks will be listed on separate rows.
- After the samples have been collected and sample information has been listed on the COC form, the method of shipment, the shipping cooler identification number(s), and the shipper airbill number will be entered on the COC.
- Finally, a member of the sampling team will write his/her signature, the date, and time on the first RELINQUISHED BY space. Duplicate copies of each COC must be completed.
- One copy of the COC will be retained by sampling personnel. The other copy and the original will be sealed in a plastic bag and taped inside the lid of the shipping cooler.
- Sample shipments will be refrigerated at 4°C, typically by packing with ice, to preserve the samples during shipment.
- After the shipping cooler is closed, custody seals provided by the laboratory will be affixed to the latch and across the front and back of the cooler lid, and signed by the person relinquishing the samples to the shipper.
- The seal will be covered with clear tape, and the cooler lid will be secured by wrapping with packing tape.
- The cooler will be relinquished to the shipper, typically an overnight carrier.

- The COC seal must be broken to open the container. Breakage of the seals before receipt at the laboratory may indicate tampering. If tampering is apparent, the laboratory will contact the Project Manager, and the samples will not be analyzed.

The samples must be delivered to the laboratory within 48 hours of collection.

SECTION 6

REFERENCES

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APPENDIX B

SOIL BORING LOGS

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-1	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F Date/Time Start: 2 JULY 2010 Date/Time Finish: 2 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0	PGSB-1							
	(0'-1.5')			NA	0'-2': Dry, brown, soft SILT, trace organics, trace gravel (fine, subrounded) first 4" grass/topsoil (ML) Refusal at 1.5'			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-1 (0'-1.5') was collected at 1120 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-2	
					PROJECT NAME: Sitewide Soil Sampling Event PROJECT NUMBER: 446074		Location Description: 45 Old Glenham Road Beacon, NY 12508	
							Location Plan See Site Plan	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F		Location Plan See Site Plan	
Water Level: NA					Date/Time Start: 2 JULY 2010			
Date:					Date/Time Finish: 2 JULY 2010			
Time: Meas. From:								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0	PGSB-2				0'-2': Dry, brown, soft SILT, some gravel (coarse, subrounded) first 4" grass/topsoil (ML) Auger refusal at ~2', bedrock			
	(0'-2')							
1								
2				0.8				
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-2 (0'-2') was collected at 1045 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-3	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F Date/Time Start: 2 JULY 2010 Date/Time Finish: 2 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0	PGSB-3				0'-2': Dry, brown, SILT, trace organics (ML), trace gravel first 4" grass/topsoil Refusal at 1'			
	(0'-1')							
1								
2				1.5				
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-3 (0'-1') was collected at 1110 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-4	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Clear, high mid-70 degrees F</u> Date/Time Start: <u>2 JULY 2010</u> Date/Time Finish: <u>2 JULY 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0	PGSB-4				0'-2': Dry, brown, soft SILT (ML) first 4" asphalt 2'-4': Encountered rock while augering Refusal at 3'4" Moist, brown, soft SILT (ML) Some fine sand, trace fine gravel			
	(0'-4')							
1								
2				3.3				
3								
4				2.3				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Composite soil sample PGSB-4 (0'-4') was collected at 1018 on 2 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-5	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F Date/Time Start: 2 JULY 2010 Date/Time Finish: 2 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0					0'-2': Dry, brown, soft SILT (ML) first 4" grass/topsoil 2'-4': same as 0'-2' (ML) 4'-6': Dry, brown, medium stiff, SILT and broken rock pieces (weathered rock) (ML) 6'-8': same as 4'-6' (ML) 8'-10': same as 6'-8' (ML) Auger refusal at 9'			
1								
2	PGSB-5			1.2				
	(2'-6')							
3								
4				1.1				
5								
6				1.1				
7								
8				0.7				
9								
10				0.9				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Composite soil sample PGSB-5 (2'-6') was collected at 0928 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-6	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F Date/Time Start: 2 JULY 2010 Date/Time Finish: 2 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': Dry, brown, soft SILT (ML) first 4" grass/topsoil 2'-4': same as 0'-2' (ML) Bedrock at 4'			
1								
2	PGSB-6			0.7				
	(2'-4')							
3								
4				2				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-6 (2'-4') was collected at 0900 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-7	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F Date/Time Start: 2 JULY 2010 Date/Time Finish: 2 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': Dry, brown, soft SILT (ML), trace organics (roots) first 4" grass/topsoil 2'-4': same as 0'-2' (ML) 4'-6': Dry, brown, medium stiff, SILT and GRAVEL (fine, subrounded) (GM) 4'-4.7' recovery Auger refusal at 5'			
1								
2	PGSB-7			2.1				
	(2'-6')							
3								
4				3.5				
5								
6				2.5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-7 (2'-6') was collected at 0830 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-8	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, high mid-70 degrees F Date/Time Start: 2 JULY 2010 Date/Time Finish: 2 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': Dry, brown, soft SILT (ML) first 4" grass/topsoil 2'-4': Moist, brown, soft SILT (ML) 4'-6': Bedrock at 4', no sample			
1								
2	PGSB-8			0.4				
	(2'-4')							
3								
4				1.6				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-8 (2'-4') was collected at 0800 on 2 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-9	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 82 degrees F, forecast 100 degrees F Date/Time Start: 7 JULY 2010 Date/Time Finish: 7 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': Dry, brown, soft, SILT (ML) trace coarse gravel (subangular) first 3" grass/topsoil			
2	PGSB-9			3.7	2'-4': same as 0'-2' (ML)			
	(2'-4')							
3								
4				12.9	4'-6': Moist, brown, stiff, non-plastic, SILT, trace gravel (fine, subrounded) (ML), trace organics (roots)			
5								
6				2.2	6'-8': same as 4'-6' (ML)			
7					Refusal at 6.5'			
8				3.2				
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-9 (2'-4') was collected at 1535 on 7 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-10	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 82 degrees F, forecast 100 degrees F Date/Time Start: 7 JULY 2010 Date/Time Finish: 7 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': Dry, brown, soft SILT (ML) first 3" grass/topsoil			
2	PGSB-10			0	2'-4': same as 0'-2' (ML)			
3	(2'-4')							
4				3.4	4'-6': Moist, brown, stiff SILT, trace gravel (fine subrounded) (ML)			
5								
6				1.5	6'-8': same as 4'-6' (ML)			
7								
8				2.6	8'-10': same as 6'-8' (ML)			
9								
10				1.1	10'-12': same as 8'-10' (ML)			
11								
12				1.8				
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-10 (2'-4') was collected at 1625 on 7 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-11	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 82 degrees F, forecast 100 degrees F Date/Time Start: 7 JULY 2010 Date/Time Finish: 7 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	
0								
1					0'-2': Dry, brown, soft SILT (ML), little gravel (fine, rounded) first 3" grass/topsoil			
2	PGSB-11			0.9				
	(2'-4')				2'-4': Moist, brown, soft, SILT, little gravel (fine, rounded) (ML)			
3								
4				2.6				
5					4'-6': Moist, brown, moderately stiff, non-plastic, SILT, little gravel (fine to coarse, subrounded) (ML)			
6	PGSB-11			1.5				
	(6'-10')				6'-8': Moist, brown, stiff, non-plastic, SILT, trace sand (fine) (ML) (till)			
7								
8				2.3				
9					8'-10': same as 6'-8' (ML)			
10				2.3				
11					10'-12': same as 8'-10' (ML)			
12				1.2				
13					12'-14': same as 10'-12' (ML)			
14				1.2				
15					14'-16': same as 12'-14' (ML)			
16				1.3				
17					16'-18': same as 14'-16' (ML)			
18				1.6				
19					18'-20': same as 16'-18' (ML)			
20				1.4				
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil samples PGSB-11 (2'-4') and PGSB-11 (6'-10') were collected at 1237 and 1255, respectively, on 7 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-12	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Mostly clear, 77 degrees F, forecast 90 degrees F</u> Date/Time Start: <u>8 JULY 2010</u> Date/Time Finish: <u>8 JULY 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 4" asphalt Dry, brown, soft SILT, some sand, little gravel (Fill)			
2	PGSB-12			0.0	2'-4': Moist, brown, soft SILT, some sand, little gravel (Fill)			
	(2'-4')							
3								
4				0.9	4'-6': same as 2'-4' (Fill)			
5								
6				0.4	6'-8': same as 4'-6' (Fill) with rock piece in sample opening			
7					Refusal at 7'			
8				0.1				
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-12 (2'-4') was collected at 1545 on 8 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					 DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-16	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Clear, 80 deg F, forecast high 90s</u> Date/Time Start: <u>12 July 2010</u> Date/Time Finish: <u>12 July 2010</u>		Location Plan See SitePlan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	
0								
1					0'-2': 4" asphalt Moist, brown, soft, slightly plastic, SILT, some clay, little sand (fine), trace gravel (coarse, angular-subangular) (Fill)			
2				0.3				
3					2'-4': same as 0'-2' (Fill)			
4	PGSB-16			0.5				
5	(4'-8')				4'-6': same as 2'-4' (Fill)			
6				1.7				
7					6'-8': Moist, brown, moderately stiff SILT, little gravel (fine to coarse, rounded to angular)(ML)			
8				1.5				
9					8'-10': same as 6'-8' (ML)			
10				0.8				
11					10'-12': same as 8'-10' (ML)			
12				0.0				
13					12'-14': Moist, brown-reddish brown, hard, non-plastic SILT, some sand (fine), some gravel (fine, subrounded) (ML/Till)			
14				1.2				
15					14'-16': same as 12'-14' (ML) with traces of weathered granite			
16				1.1				
17					16'-18': same as 14'-16' (ML) with weathered granite in sample shoe Refusal at 16'			
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-16 (4'-8') was collected at 1620 on 12 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-17	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Rain, 75 deg F Date/Time Start: 14 July 2010 Date/Time Finish: 14 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': 4" asphalt Dry, brown, soft, moderately stiff, SILT and cobbles (Fill)			
2				0.8	2'-4': same as 0'-2' (Fill)			
3								
4	PGSB-17			1.5	4'-6': Moist, brown, stiff, non-plastic SILT, some gravel (fine, angular) (ML)			
5	(4'-6')							
6				1.7	6'-8': same as 4'-6' (ML)			
7								
8				1.5	8'-10': Moist, brown, moderately stiff, non-plastic, SILT, little gravel (fine to coarse), little sand (fine to coarse) (ML/Till)			
9								
10				1.2	Refusal at 9.7'			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-17 (4'-6') was collected at 0915 on 14 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-18	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 80 deg F, forecast high 90s Date/Time Start: 12 July 2010 Date/Time Finish: 12 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': 4" asphalt No sample - fresh sand backfill			
2				NA	2'-4': mixture of fresh sand backfill and moist, brown, soft SILT (Fill)			
3								
4	PGSB-18			1.4	4'-6': same as 2'-4' with trace coarse gravel (Fill)			
5	(4'-6')				Refusal at 5.5'			
6				1.7				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-18 (4'-6') was collected at 1515 on 12 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-19	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Clear, 80 deg F, forecast high 90s</u> Date/Time Start: <u>12 July 2010</u> Date/Time Finish: <u>12 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 4" asphalt			
					Moist, brown, soft, non-plastic SILT, some sand, trace gravel (Fill)			
2	PGSB-19			1.1	2'-4': same as 0'-2' (Fill)			
	(2'-4')							
3								
4				1.4	4'-6': Moist, brown, soft non-plastic SILT, trace gravel (coarse, angular) (ML)			
5								
6				0.0	6'-8': same as 4'-6' (ML)			
7								
8				0.0	8'-10': Moist, brown, medium stiff, non-plastic SILT, some sand (fine), trace gravel (coarse, angular - granite pieces) (ML) and weathered granite			
9								
10				0.8	10'-12': weathered granite bedrock			
11					Refusal at 11'			
12				0.7				
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-19 (2'-4') was collected at 1340 on 12 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-20	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Mostly clear, 77 degrees F, forecast 90 degrees F Date/Time Start: 8 JULY 2010 Date/Time Finish: 8 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': Dry, brown, soft SILT (ML) 4" asphalt			
2				1.2	2'-4': Moist, brown, soft SILT (ML)			
3								
4				0.7	4'-6' Moist, brown, moderately stiff SILT, trace gravel (coarse) (ML)			
5								
6				1.3	6'-8': Moist, brown, moderately stiff SILT, some gravel (coarse) (ML)			
7					Rock pieces in shoe			
8	PGSB-20			0.9	8'-10': same as 6'-8' (ML)			
9	(8'-8.25')				Refusal at 8.5'.			
10				1.8				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-20 (8'-8.25') was collected at 1100 on 8 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-21	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Mostly clear, 77 degrees F, forecast 90 degrees F</u> Date/Time Start: <u>8 JULY 2010</u> Date/Time Finish: <u>8 JULY 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': Dry, brown, soft SILT (ML) first 3" grass/topsoil			
2	PGSB-21			7.2	2'-4': same as 0'-2' (ML)			
3	(2'-4')							
4				14.4	4'-6': Moist, brown, soft, non-plastic SILT, trace gravel (fine) (ML)			
5								
6				4.3	6'-8': same as 4'-6' (ML)			
7								
8				4.6	8'-10': same as 6'-8' (ML)			
9								
10				6.4	10'-12': same as 8'-10' (ML) increase in gravel			
11					Refusal at 10.5'			
12				5.2				
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-21 (2'-4') was collected at 0923 on 8 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u> <u>MS/MSD collected on PBSB-21 (2'-4')</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-22	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Mostly clear, 77 degrees F, forecast 90 degrees F Date/Time Start: 8 JULY 2010 Date/Time Finish: 8 JULY 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': Dry, brown, soft SILT first 3" grass/topsoil (ML)			
2	PGSB-22			14.8	2'-4': same as 0'-2' (ML)			
3	(2'-4')							
4				25.7	4'-6': Moist, brown, stiff, non-plastic SILT (ML)			
5								
6				4.9	6'-8': Dry to moist, brown, hard SILT, trace gravel (fine to coarse) (ML/Till)			
7								
8				3.9	8'-10': same as 6'-8' (ML)			
9								
10				7.1	10'-12': same as 8'-10' (ML) with trace charcoal at 11'			
11								
12				6	12'-14': Moist, brown, very stiff, non-plastic, SILT, trace gravel (fine) (ML)			
13								
14				5.4	14'-16': same as 12'-14' (ML)			
15								
16				5	16'-18': same as 14'-16' (ML)			
17								
18				3.5	18'-20': same as 16'-18' with sandy zones 18.5'-18.75' and 19'-19.25' (ML)			
19								
20				3.2	VOCs monitored in breathing zone were all non-detected V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-22 (2'-4') was collected at 0735 on 8 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300						PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO. PGSB-23	
						PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
						PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS						Weather: Clear, 82 degrees F, forecast 100 degrees F Date/Time Start: 7 JULY 2010 Date/Time Finish: 7 JULY 2010		Location Plan See Site Plan	
Water Level	NA								
Date									
Time									
Meas. From									
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS	
0									
	PGSB-23				0'-2': Dry, brown, soft SILT, trace gravel (ML)				
1	(0.5'-2')				first 4" asphalt				
2				NA	Refusal at 2' - bedrock				
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-23 (0.5'-2') was collected at 1500 on 7 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.				

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-24				
					PROJECT NAME: Sitewide Soil Sampling Event					Location Description:	
					PROJECT NUMBER: 446074					45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 82 degrees F, forecast 100 degrees F		Location Plan See Site Plan				
Water Level	NA				Date/Time Start: 7 JULY 2010						
Date					Date/Time Finish: 7 JULY 2010						
Time											
Meas. From											
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS			
0											
1					0'-2': Dry, soft, brown SILT, some gravel (coarse, subrounded) (ML) first 4" asphalt						
2				0	2'-4': Moist, brown, soft, SILT, some gravel (coarse, subrounded) (ML)						
3											
4				0.4	4'-6': Moist, brown, moderately stiff, SILT, some gravel (fine, rounded) (ML)						
5											
6				0.1	6'-8': Moist, brown, stiff, SILT, little gravel (fine, rounded to subrounded) (ML)						
7											
8	PGSB-24			0	8'-10': same as 6'-8' (ML)						
9	(8'-10')										
10				1.2	10'-12': same as 8'-10' with trace coarse gravel (ML)						
11											
12				0.4	12'-14': no recovery Auger refusal at 12.5'						
13											
14											
15											
16											
17											
18											
19											
20											
21											
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-24 (8'-10') was collected at 1025 on 7 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.						

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-25	
					PROJECT NAME: Sitewide Soil Sampling Event PROJECT NUMBER: 446074		Location Description: 45 Old Glenham Road Beacon, NY 12508	
							Location Plan See Site Plan	
GROUNDWATER OBSERVATIONS					Weather: Rain, 75 deg F Date/Time Start: 14 July 2010 Date/Time Finish: 14 July 2010			
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 4" asphalt Dry, brown, soft to moderately stiff SILT, some clay, some cobbles (Fill)			
2				0.3	2'-4': same as 0'-2' (Fill)			
3								
4				1.3	4'-6': same as 2'-4' to 5', then moist, soft, brown, SILT, non-plastic, some gravel (fine to coarse, angular) (ML)			
5								
6				0.5	6'-8': same as 5'-6' (ML)			
7								
8				1.1	8'-10': Moist, brown, medium stiff, non-plastic SILT, some gravel (fine, angular) (ML/Till)			
9								
10				1.5	10'-12': same as 8'-10' (ML)			
11								
12	PGSB-25			1.1	12'-14': same as 10'12' (ML)			
	(12'-14')							
13								
14				2.4	14'-16': Moist, medium stiff, brown, non-plastic SILT and weathered granite (ML)			
15								
16				1.3	16'-18': No recovery Refusal at 16'			
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-25 (12'-14') was collected at 1045 on 14 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet 1 of 1 WELL NO PGSB-26	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 70 deg F Date/Time Start: 13 July 2010 Date/Time Finish: 13 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0	PGSB-26				0'-2': 3" grass/topsoil Dry, soft, brown SILT and cobbles (angular) to 1.5' (ML) Refusal at 1.5'			
	(0'-1.5')							
1								
2				0.8				
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-26 (0'-1.5') was collected at 1445 on 13 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-27	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u> <u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Moderate rain, 82 deg F</u> Date/Time Start: <u>13 July 2010</u> Date/Time Finish: <u>13 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0	PGSB-27				0'-2': 3" grass/topsoil Moist, brown, soft SILT, some gravel (fine, subangular) trace cobble (ML) 2'-4': same as 0'-2' (ML) 4'-6': No recovery Refusal at 5'			
	(0'-4')							
1								
2				1.5				
3								
4				1.1				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-27 (0'-4') was collected at 1535 on 13 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-28	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Moderate rain, 82 deg F Date/Time Start: 13 July 2010 Date/Time Finish: 13 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': 3" grass/topsoil Dry, brown, soft SILT and gravel (fine, rounded) (ML) 2'-4': same as 0'-2' (ML) 4'-6': same as 2'-4' (ML)) Refusal at 4.5'			
1								
2	PGSB-28			0.6				
	(2'-4.5')							
3								
4				1.3				
5								
6				1.1				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-28 (2'-4.5') was collected at 16080 on 13 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-29	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 70 deg F, forecast high 80s Date/Time Start: 15 July 2010 Date/Time Finish: 15 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 3" grass/topsoil Damp, brown, soft SILT, trace gravel (ML)			
2				0.0	2'-4': same as 0'-2' (ML) with trace cobble or boulder			
3								
4				0.0	4'-6': Damp, brown, medium stiff non-plastic SILT, trace gravel (fine, angular) (ML)			
5								
6				0.0	6'-8': same as 4'-6' (ML) except stiff			
7								
8				0.0	8'-10': same as 6'-8' (ML) except very stiff			
9								
10				0.0	10'-12': same as 8'-10' (ML/Till)			
11								
12				0.0	12'-14': same as 8'-10' (ML) except hard			
13								
14	PGSB-29 (14'-16')			0.1	14'-16': same as 12'-14' (ML)			
15								
16				0.3	16'-18': Damp, grey, hard SILT, little gravel (fine) (ML/Till)			
17								
18				0.1	18'-20': same as 16'-18' (ML)			
19								
20				0.2	VOCs monitored in breathing zone were all non-detected V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-29 (14'-16') was collected at 1515 on 15 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-30	
					PROJECT NAME: Sitewide soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 75 deg F, forecast high of 90 deg F Date/Time Start: 16 July 2010 Date/Time Finish: 16 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 3" grass/topsoil Dry, brown, soft SILT, trace cobble (Fill)			
2				0.0	2'-4': same as 0'-2' (Fill)			
3								
4				0.1	4'-6': Dry, brown with some grey , SILT, non-plastic, trace gravel (fine, angular) (ML/Till)			
5								
6				0.1	6'-8': same as 4'-6' (ML/Till)			
7								
8				0.1	8'-10': Damp, brown, very stiff, SILT, little gravel (fine, subangular) (ML)			
9								
10				0.1	10'-12':Damp, brown, very stiff, SILT, non-plastic (crumbles easily), little gravel (fine, angular-shale pieces) (ML/Till)			
11								
12				0.4	12'-14': Damp, brown, very stiff, SILT, non-plastic (easily crumbles), little gravel (angular to subangular), (ML/Till)			
13								
14	PGSB-30 (14'-15.5')			0.3	14'-16': same as 12'-14' (ML)			
15					Auger refusal at 15.5'			
16				0.3				
17								
18								
19					VOCs monitored in breathing zone were all non-detected V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-30 (14'-15.5') was collected at 0855 on 16 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer. A duplicate sample, PGSB-130, 14'-15.5', was collected at 0925.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-31	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 70 deg F Date/Time Start: 13 July 2010 Date/Time Finish: 13 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0					0'-2': Asphalt 4"			
1					Dry, brown, soft SILT, little gravel (fine) (Fill)			
2				0.0	2'-4': Moist, brown, soft SILT, little gravel (fine, rounded) (Fill)			
3								
4				0.2	4'-6': Moist, brown, moderately stiff, non-plastic SILT, little fine gravel, trace coarse gravel (granite pieces) (ML/Till)			
5								
6				0.1	6'-8': Moist, brown, moderately stiff, non-plastic SILT, trace gravel (subangular to rounded) (ML/Till)			
7								
8				0.2	8'-10': same as 6'-8' (ML)			
9								
10				0.4	10'-12': Moist, brown, very stiff, non-plastic, SILT, trace gravel (fine, angular) (ML/Till)			
11								
12	PGSB-31			0.7	12'-14': same as 10'-12' (ML)			
	(12'-14')							
13								
14				1.8	14'-16': same as 12'-14' (ML)			
15					Refusal at 15.7'			
16				1.6				
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-31 (12'-14') was collected at 1325 on 13 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					 DRILLING RECORD		BORING/ WELL NO PGSB-32 Sheet 1 of 1 Location Description: 45 Old Glenham Road Beacon, NY 12508	
PROJECT NAME: Sitewide Soil Sampling Event PROJECT NUMBER: 446074								
GROUNDWATER OBSERVATIONS					Weather: Rain, 75 deg F Date/Time Start: 14 July 2010 Date/Time Finish: 14 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0					0'-2': 4" asphalt			
1					Moist, brown, soft SILT and sand (coarse), little gravel (fine to coarse) (Fill)			
2				1.1	2'-4': same as 0'-2' (Fill)			
3								
4				1.5	4'-6': same as 2'-4' to 5', then moist, brown, soft SILT, non-plastic, some sand (coarse), trace gravel (fine, angular) (ML/Till)			
5								
6				1.6	6'-8': broken rock pieces			
7								
8	PGSB-32 (8'-12')			1.2	8'-10': Moist, brown, soft, slightly plastic SILT and gravel (coarse, angular, broken rocks) (ML)			
9								
10				1.7	10'-12': same as 8'-10' (ML)			
11								
12				2	12'-14': same as 10'-12' (ML)			
13								
14				0.8	14'-16': Moist, brown, stiff, non-plastic, SILT and gravel (coarse, angular-broken rocks) (ML)			
15								
16				1.0	16'-18: same as 14'-16' (ML)			
17					Refusal at 16.5'			
18				1.1				
19					VOCs monitored in breathing zone were all non-detected			
20					V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-32 (8'-12') was collected at 1100 on 14 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer. MS/MSD taken at 1320.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-33	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u> <u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Rain, 75 deg F</u> Date/Time Start: <u>14 July 2010</u> Date/Time Finish: <u>14 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': 4" asphalt			
1					Dry, brown, soft SILT, trace gravel, trace cobble (Fill)			
2				1.2	2'-4': Moist, brown, soft SILT, trace gravel, trace cobble, (Fill)			
3								
4	PGSB-33			1.9	4'-6': Moist, brown, soft, non-plastic, SILT, some gravel (fine to coarse) (Till/ML)			
	(4'-8')							
5								
6				2.5	6'-8': same as 4'-6' (ML)			
7								
8				2.2	8'-10': Predominantly rock chips and SILT			
9								
10				2.1	10'-12': No recovery			
11					Auger refusal at 11'			
12								
13								
14								
15								
16								
17								
18					VOCs monitored in breathing zone were all non-detected			
19					V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-33 (4'-8') was collected at 1508 on 14 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer. A duplicate sample was taken, PGSB-133, 4'-8' at 1545.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-34	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Clear, 70 deg F, forecast high 80s Date/Time Start: 15 July 2010 Date/Time Finish: 15 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': 3" grass/topsoil Moist, brown, soft SILT, little sand (coarse) (ML)			
2				2.7	2'-4': same as 0'-2' (ML)			
3								
4				2.9	4'-6': Moist, brown, medium stiff SILT, little sand (coarse), trace gravel (fine to coarse), trace cobble pieces (GM)			
5								
6	PGSB-34			2.8	6'-8': same as 4'-6' (GM)			
7	(6'-8')							
8				3.1	8'-10': Moist, brown, hard, non-plastic SILT, little gravel (fine, subangular), trace sand (coarse), (Till/ML)			
9								
10				1.9	Auger refusal at 9'2"			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-34 (6'-8') was collected at 0955 on 15 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-35	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Moderate rain, 82 deg F Date/Time Start: 13 July 2010 Date/Time Finish: 13 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
					0'-2': 3" grass/topsoil			
1					Moist, brown, soft, SILT, little gravel (fine, rounded) (ML)			
2	PGSB-35			1	2'-4': same as 0'-2' (ML))			
	(2'-4')							
3								
4				1.5	4'-6': Moist, brown, moderately stiff, non-plastic SILT, some sand (fine to medium), little gravel (fine, subangular), trace cobble (ML)			
5								
6				1.2	6'-8': same as 4'-6' (ML))			
7								
8				1.4	8'-10': same as 6'-8' (ML))			
9								
10				1.1	10'-12': same as 8'-10' (ML))			
11					Sample had predominantly broken bedrock (cobble/boulder)			
					Refusal at 10.5'			
12				0.3				
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-35 (2'-4') was collected at 1635 on 13 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-36	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Rain, 75 deg F</u> Date/Time Start: <u>14 July 2010</u> Date/Time Finish: <u>14 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 4" asphalt Moist, brown, soft, SILT, little gravel (ML)			
2				2.4	2'-4': same as 0'-2' (ML)			
3								
4	PGSB-36			2.1	4'-6': Moist, brown, medium stiff SILT, some gravel (coarse, angular), broken rock in end of sampler (ML)			
5	(4'-8')							
6				2.7	6'-8': Mostly broken rock			
7								
8				2.6	8'-10': Mostly rock pieces			
9					Auger refusal at 9'			
10				2.4				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-36 (4'-8') was collected at 1512 on 14 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					 DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-37	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description: 45 Old Glenham Road Beacon, NY 12508	
					PROJECT NUMBER: <u>446074</u>			
GROUNDWATER OBSERVATIONS					Weather: <u>Clear, 70 deg F, forecast high 80s</u>		Location Plan See Site Plan	
Water Level	NA				Date/Time Start: <u>15 July 2010</u>			
Date					Date/Time Finish: <u>15 July 2010</u>			
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	
0								
1					0'-2': 4" asphalt			
					Moist, brown, soft SILT, some gravel (fine), trace cobble (Fill)			
2				1.1	2'-4': same as 0'-2' (Fill)			
3								
4				1.5	4'-6': Moist, brown, soft, non-plastic SILT, some gravel (fine), trace coarse gravel (GM)			
5								
6				1.6	6'-8': Rock chip			
7								
8				2.5	8'-10': Moist, brown, medium stiff SILT and gravel (fine to coarse), little sand (fine to coarse) (GM)			
9								
10				1.7	10'-12': same as 8'-10' (GM)			
11								
12				1.8	12'-14': Moist, brown, soft, non-plastic SILT, trace sand (coarse) (ML)			
13								
14				0.9	14'-16': Moist, brown, SILT and rock pieces (ML)			
15								
16				2.2	16'-18': same as 14'-16' (ML)			
17								
18	PGSB-37			2.3	18'-20': Moist, medium stiff SILT and rock pieces (GM)			
	(18'-20')							
19					VOCs monitored in breathing zone were all non-detected		Note: 18'-20' augured through boulder	
20				2.7	V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-37 (18'-20') was collected at 0900 on 15 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-38				
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>					Location Description:	
					PROJECT NUMBER: <u>446074</u>					<u>45 Old Glenham Road</u> <u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Clear, 70 deg F, forecast high 80s</u>		Location Plan				
Water Level	NA				Date/Time Start: <u>15 July 2010</u>		See Site Plan				
Date					Date/Time Finish: <u>15 July 2010</u>						
Time											
Meas. From											
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS			
0											
					0'-2': 3" grass/topsoil						
1					Moist, brown, soft SILT, trace organics (roots) (ML)						
2	PGSB-38			2.6	2'-4': same as 0'-2' (ML)						
	(2'-4')										
3											
4				18.6	4'-6': Damp, brown, medium stiff SILT, some sand (medium), trace gravel (fine to coarse) (ML)						
6				3.5	6'-8': same as 4'-6' (ML)) with rock in shoe						
8	PGSB-38			2.3	8'-10': same as 6'-8' (ML)) with rock in shoe (opening of sampler)						
	(8'-10')										
9											
10				5.1	10'-12': Damp, brown, hard, SILT, little gravel (fine to coarse) (ML/Till)						
					Refusal at 10.5'						
11											
12				1.7							
13											
14											
15											
16											
17											
18											
19											
20											
21											
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil samples PGSB-38 (2'-4') and PGSB-38 (8'-10') were collected at 1307 and 1325, respectively, on 15 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u>						

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-39	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Clear, 70 deg F, forecast high 80s</u> Date/Time Start: <u>15 July 2010</u> Date/Time Finish: <u>15 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
					0'-2': (3" grass, topsoil), moist, brown, SILT, some cobbles (Fill)			
1								
2				0.6	2'-4': same as 0'-2' (Fill)			
3								
4				1.3	4'-6': damp, brown, SILT, little sand (course), trace gravel (course) (ML)			
5								
6				1.2	6'-8': damp, brown, very stiff, non-plastic SILT, some gravel (fine, subrounded) (ML)			
7								
8	PGSB-39			0.8	8'-10': damp, brown, very stiff, non-plastic SILT, trace gravel (ML)			
	(8'-11')							
9								
10				1.4	10'-12': same as 8'-10' (ML)			
					Refusal at 11'			
11				3.3				
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-39 (8'-11') was collected at 1100 on 15 July 2010 and tested for VOC 8260, SVOC 8270,</u> <u>TAL Metals, and California Oxygenates 8260.</u> <u>Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-40	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Cloudy, 70 deg F, scattered rain</u> Date/Time Start: <u>20 July 2010</u> Date/Time Finish: <u>20 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 4" asphalt			
					Moist, dark grey SILT, sand, gravel, construction debris (brick) (Fill)			
2				0.1	2'-4': same as 0'-2' (Fill)			
3								
4				0.1	4'-6': Moist, dark grey and brown, medium stiff SILT and GRAVEL (fine to coarse, angular), (Fill)/(GM) transition			
5								
6				0.1	6'-8': Moist, brown, medium stiff SILT and gravel (fine to coarse, angular- pieces of granite) (GM)			
7								
8				0.5	8'-10': Moist, brown, medium dense sand, gravel, silt (weathered granite bedrock)			
9								
10	PGSB-40			0.5	10'-12': same as 8'-10' except grey at 11.5'			
	(10'-12')							
11								
12				42.8	12'-14': Wet, grey, SILT, SAND, GRAVEL (weathered granite) Hydrocarbon odors			
13					Collected water sample, resumed augering to 15'			
14				71.8				
15								
16								
17								
18					VOCs monitored in breathing zone were all non-detected			
					V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-40 (10'-12') was collected at 1005 on 20 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u> <u>Groundwater sample also collected for same parameters.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-41	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Cloudy, 75 deg F, forecast high of 90 deg F</u> Date/Time Start: <u>16 July 2010</u> Date/Time Finish: <u>16 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
					0'-2': Dry, brown, loose, SILT, sand, gravel, construction debris (Fill)			Note: the boring was left open after air knitting to 5', therefore the 0'-2' and 2'-4' samples were composited and came from the spoils pile. Attempted to collect a sample from the sidewall of the boring, but due to the rock and brick could not pull a sample.
1								
2				0.1	2'-4': same as 0'-2' (Fill)			
3								
4				0.1	4'-6': same as 2'-4' (Fill)			
5								
6				0.1	6'-8': no recovery			
7								
8				NR	8'-10': Moist, brown, very soft, SILT and CLAY, little gravel (fine to coarse), little sand (medium to coarse) (Fill)			
9								
10				0.2	10'-12': same as 8'-10' (Fill)			
11								
12	PBSB-41			0.4	12'-14': same as 10'-12' with trace red brick (Fill)			
	(12'-16')							
13								
14				0.5	14'-16': same as 12'-14' with red brick (Fill), sampler penetrated to 15'			
15					Auger refusal at 15'			
16				0.6				
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-41 (12'-16') was collected at 1020 on 16 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-42	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 70 deg F, scattered rain Date/Time Start: 20 July 2010 Date/Time Finish: 20 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': 4" asphalt Moist, brown, medium stiff SILT and gravel (Fill) 2'-4': same as 0'-2' (Fill) Auger refusal at 3.5'			
1								
2	PGSB-42			0.1				
	(2'-3.5')							
3								
				0.5				
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-42 (2'-3.5') was collected at 1230 on 20 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-43	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 70 deg F, scattered rain Date/Time Start: 20 July 2010 Date/Time Finish: 20 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
	PGSB-43				0'-2': 3" grass/topsoil Damp, brown, soft SILT, little gravel (fine, rounded) (ML) Auger refusal at 2'			
1	(0'-2')							
2				0.1				
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-43 (0'-2') was collected at 1240 on 20 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-44	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 70 deg F, scattered rain Date/Time Start: 20 July 2010 Date/Time Finish: 20 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0					0'-2': 3" grass/topsoil Damp, brown, soft SILT, trace gravel (fine, rounded) (ML) 2'-4': same as 0'-2' (ML) 4'-6': same as 2'-4' (ML) to 5', then weathered granite Auger refusal at 5.5'			
1								
2	PGSB-44			0.0				
	(2'-4')							
3								
4				0.1				
5								
6				0.0				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD					COMMENTS: Soil sample PGSB-44 (2'-4') was collected at 1305 on 20 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			
GP = GEOPROBE - DIRECT PUSH								

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-45	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 70 deg F, scattered rain Date/Time Start: 20 July 2010 Date/Time Finish: 20 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
1					0'-2': 4" asphalt Wet (from precipitation), brown, soft SILT and GRAVEL (fine to coarse, angular) (GM)			
2				0.0	2'-4': same as 0'-2' (GM)			
3								
4	PGSB-45			0.1	4'-6': Moist, brown, stiff, SILT and gravel (fine to medium, angular pieces of granite)			
	(4'-7')							
5								
6				0.3	6'-8': same as 4'-6' (GM)			
7					Auger refusal at 7'			
8				0.3				
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-45 (4'-7') was collected at 0845 on 20 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-46	
					PROJECT NAME: <u>Sitewide Soil Sampling Event</u>		Location Description:	
					PROJECT NUMBER: <u>446074</u>		<u>45 Old Glenham Road</u>	
							<u>Beacon, NY 12508</u>	
GROUNDWATER OBSERVATIONS					Weather: <u>Cloudy, 70 deg F, scattered rain</u> Date/Time Start: <u>20 July 2010</u> Date/Time Finish: <u>20 July 2010</u>		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0					0'-2': 4" asphalt			
1					Wet (from precipitation into open hole), brown, loose GRAVEL (fine to coarse) and SILT (GM)			
2				0.1	2'-4': saturated (from precipitation) same as 0'-2' (GM)			
3								
4	PGSB-46			0.1	4'-6': Moist, brown, medium stiff SILT and GRAVEL (fine to coarse, angular) (GM)			
5	(4'-6.2')							
6				0.2	6'-8': same as 4'-6' (GM)			
7					Split spoon refusal at 6.2'			
8					8'-10': Driller was able to auger to 8.2'			
9					Moist, brown, sand and gravel (pulverized bedrock, granite)			
10					Auger refusal at 8.5'			
11								
12								
13								
14								
15								
16								
17								
18					VOCs monitored in breathing zone were all non-detected			
19					V-RAE LEL monitor deployed in breathing zone of work area did not detect any LEL during drilling activity.			
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: <u>Soil sample PGSB-46 (4'-6.2') was collected at 0750 on 20 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.</u>			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO PGSB-47	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 80 deg F, forecast high of 90 Date/Time Start: 19 July 2010 Date/Time Finish: 19 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
0								
	PGSB-47				0'-2': 4" asphalt			
1	(0.5'-2')				Dry, brown, soft SILT and cobble (GM)			
2								
					Auger refusal at 2.5			
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-47 (0.5'-2') was collected at 1415 on 19 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet <u>1</u> of <u>1</u> WELL NO. PGSB-48	
					PROJECT NAME: Sitewide Soil Sampling Event		Location Description:	
					PROJECT NUMBER: 446074		45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 80 deg F, forecast high of 90 Date/Time Start: 19 July 2010 Date/Time Finish: 19 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0								
1					0'-2': 3" grass/topsoil Dry, brown, soft, non-plastic SILT and cobbles (GM)			
2	PGSB-48			0.0	2'-4' same as 0'-2' (GM)			
	(2'-4')							
3								
4				0.2	4'-6': same as 2'-4' (GM) with piece of granite in sampler			
5					Auger refusal at 5.5'			
6				0.0				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD GP = GEOPROBE - DIRECT PUSH					COMMENTS: Soil sample PGSB-48 (2'-4') was collected at 1250 on 19 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			

Contractor: Parratt Wolff Driller: Ian Grassie/ Matt Carnie Inspector: D.C. Burkert Rig Type: Ingersoll Rand A300					PARSONS DRILLING RECORD		BORING/ Sheet 1 of 1 WELL NO. PGSB-50	
					PROJECT NAME: Sitewide Soil Sampling Event PROJECT NUMBER: 446074		Location Description: 45 Old Glenham Road Beacon, NY 12508	
GROUNDWATER OBSERVATIONS					Weather: Cloudy, 80 deg F, forecast high of 90 Date/Time Start: 19 July 2010 Date/Time Finish: 19 July 2010		Location Plan See Site Plan	
Water Level	NA							
Date								
Time								
Meas. From								
Sample Depth	Sample I.D.	SPT (NA)	% Rec.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
0					0'-2': 3" grass/topsoil Dry, brown, soft SILT and cobbles (GM) Auger refusal at 2'			
1	PGSB-50 (1'-2')							
2				0.5				
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
SAMPLING METHOD					COMMENTS: Soil sample PGSB-50 (1'-2') was collected at 1445 on 19 July 2010 and tested for VOC 8260, SVOC 8270, TAL Metals, and California Oxygenates 8260. Bore hole was cleared first 5' by use of air hammer.			
GP = GEOPROBE - DIRECT PUSH								

APPENDIX C

LABORATORY ANALYTICAL REPORT WITH CHAIN-OF-CUSTODY FORMS (DATA PROVIDED ON DISK)

APPENDIX D

DATA REVIEW USABILITY SUMMARY REPORT (DUSR) SITEWIDE SOIL BORING SAMPLING PROGRAM

**DATA REVIEW SUMMARY REPORT
FOR SOIL SAMPLES COLLECTED
AS PART OF THE
SITE-WIDE SOIL BORING SAMPLING PROGRAM INVESTIGATION
FORMER TEXACO RESEARCH CENTER
BEACON, NY**

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1.0 INTRODUCTION

The following data review summary report covers soil samples, groundwater samples, and the associated field quality control (QC) samples collected during the period of July 08-August 03, 2010 as part of the Site-wide Soil Boring Sampling Program at the Former Texaco Research Center in Beacon, NY (Site ID#314004). Field program quality control samples included field duplicate samples for soils. All samples were collected by Parsons and analyzed by Lancaster Laboratories, Lancaster, PA (Lancaster) following the procedures outlined in the General Quality Assurance Project Plan, Former Chevron Research Center, Beacon, New York, Site ID#314004, RCRA Permit#3-1330-00048/16-0, dated August 2007 (revised February 2008) (i.e. project QAPP).

The data submitted by the laboratory has been reviewed and validated, as described below, following the guidelines outlined in the project QAPP to assess the precision, accuracy, representativeness, completeness, and comparability (PARCC) of the analytical data.

Analytical results were reported in the Lancaster Sample Delivery Groups (SDG)/Sample Groups identified on Table 1, with sample groups associated with an SDG# being reported in a New York State Department of Environmental Quality (NYSDEC) ASP Category B deliverables package. Samples were analyzed, as identified on the chain-of-custody record (COC), for one or more of the following types of analyses: Target Compound List Volatile Organic Compounds (TCL VOCs) plus California Oxygenates., TCL Semivolatile Organic Compounds (SVOCs), and Target Analyte List (TAL) Metals, as well as anions (chloride and sulfate) for groundwater samples. California Oxygenates include methyl tert-butyl-ether, tertiary-amyl methyl ether, ethanol, ethyl-tert-butyl ether, di-isopropyl ether, and tert-butyl alcohol.

Table 1 is a summary of the sample data that has been reviewed. Table 2 is a summary of the data validation qualifiers and qualification reasons. Table 3 is a summary of the data use selection decisions for samples having multiple analysis results reported. Field duplicate results are summarized on Table 4.

1.1 Sampling, Chain-of-Custody, and Sample Identification

The soil and groundwater samples were collected, shipped under COC records, and received at Lancaster within one or two days of sampling. All samples were received intact and in good condition at Lancaster. No sample documentation discrepancies were noted on the laboratory sample receipt log.

2.0 DATA REVIEW CRITERIA

Information reviewed and evaluated as part of the validation process included sample results and quantitation; analytical holding times, calibration results; instrument tuning results, laboratory control sample results (LCS); matrix spike/matrix spike duplicate (MS/MSD) results; method blanks; “laboratory comments”; and chain-of-custody (COC) forms.

In addition, the summarized sample analysis results for one soil sample “PGSB-32-8"-12")(7-14-10)" (CBN81, sample group 1203556), as well as the associated QC sample results and QA/QC data were verified from the "raw" analytical data as part of the raw data verification “spot check”.

The data packages were evaluated for deliverables completeness with reference to the project QAPP requirements.

The analyses and findings presented in this report are based on the reviewed information, and whether requirements in the project QAPP were met.

2.1 Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from laboratory control sample (LCS) and laboratory control sample duplicate (LCSD), matrix spike (MS), and matrix spike duplicate (MSD), results for analysis of internal standards %R results, and surrogate compound %R results in each project sample.

2.2 Precision

Analytical Precision was evaluated based on the relative percent difference (%RPD) of MS/MSD sample analysis results, LCS/LCSD analysis results, and of internal laboratory duplicate results.

Total Precision (of the sampling and analysis process) was evaluated based on the relative percent difference (%RPD) of sample/field duplicate results.

2.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the project QAPP;
- Comparing actual analytical procedures to those described in the Addendum QAPP;
- Evaluating calibration and calibration verification information;
- Evaluating instrument tuning information;
- Evaluating analytical holding times;
- Examining trip blanks for contamination of, or cross-contamination of, samples during sample handling and shipment;
- Examining laboratory blanks for cross contamination of samples during sample preparation and analysis;

- Evaluating field duplicate sample results;
- Evaluating sample result verification results (calibration range exceedance,).

2.4 Completeness (laboratory completeness)

Laboratory completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data, calculating a “percent completeness” value, and comparing the “percent completeness” with the project QAPP criterion of 90% for each type of analysis.

2.5 Comparability

Comparability has been evaluated by:

- Evaluating the sample analysis methods used; and,
- Confirming the use, by the laboratory, of standard reporting units and reporting formats, including for reporting of QC data.

3.0 DELIVERABLES (DATA PACKAGE) COMPLETENESS AND COMPLIANCE

Deliverables Completeness is considered acceptable. The data for the soil samples were reported in NYSDEC ASP Category B (type) deliverables packages identified as SDGs CBN79 (sample groups 1201611, 1202451), CBN80 (sample group 1201612), CBN81 (sample groups 1202454, 1203173, 1203556), and CBN82 (sample groups 1203557, 1204018). The data for groundwater samples were reported in NYSDEC ASP Category B (type) deliverables packages identified as SDG CBN82. These packages contained all sample COC forms, case narratives including sample/analysis summary forms, QA/QC summaries with supporting documentation, relevant calibration data, instrument and method performance data, documentation of the laboratories ability to attain the method detection limits for target analytes in required matrices, data report forms with examples of calculations, and raw data.

Deliverables Compliance is considered acceptable. The data was produced and reported consistent with the project QAPP and the requested data package deliverables, protocol-required QA/QC criteria were met, and problems encountered during the analytical process and actions taken to correct the problems were reported in the data packages. NYSDEC ASP Category B data deliverables packages were requested and provided for all Soil samples.

4.0 PARCC ASSESSMENT SUMMARY

4.1 Accuracy

Accuracy for soil sample and water sample analyses is considered acceptable for all analyses, with the exception of those sample results qualified for the following reasons:

non-compliant surrogate recoveries, non-compliant matrix spike recoveries, or result exceeded the calibration range. Evaluation results are as follows:

- Surrogate compound recoveries (%R) for samples were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil and water samples), with exceptions discussed in Section 5.0.
- LCS recoveries (%R) were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil and water samples).
- MS/MSD recoveries (%R) were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil samples), with exceptions discussed in Section 5.0.
- Internal standard results were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil and water samples, with exceptions discussed in Section 5.0.

4.2 Precision

Analytical Precision is considered acceptable for all soil sample analyses. Evaluation results are as follows:

- MS/MSD RPD values were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil and water samples), with exceptions discussed in Section 5.0.
- LCS/LCSD RPD values were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil and water samples).
- Laboratory duplicate RPD values were within applicable (laboratory) control limits (and also within Addendum QAPP control limits for soil and water samples) for Mercury and metals analyses.

Total Precision is considered acceptable for soil sample analyses. Analysis results for the field duplicate pairs are summarized on Table 4. Evaluation results are as follows:

- Sample results are not qualified based on field duplicate RPD results; they are advisory only. The project QAPP does not include a criterion for field duplicate RPD.

4.3 Representativeness

Representativeness is considered acceptable for soil sample analyses with the exception of those sample results qualified based on associated analytical holding time exceedance, method blank contamination, equipment blank contamination, non-compliant continuing calibration verification (CCV) percent difference (%D) results, and sample results exceeding calibration range. Based on associated blank contamination, the associated sample results were qualified as undetected (“U”) and are considered as possible false-positive results with the low analyte concentration being attributed to sample contamination. Evaluation results are as follows:

- Analytical holding times, as specified in the Addendum QAPP were met for all initial sample analyses.
- Analytical holding times, as specified in the Addendum QAPP was not met for sample re-analyses, with exceptions discussed in Section 5.0.
- The method blanks associated with each sample analysis were generally free of target analytes at a reportable level, with exceptions discussed in Section 5.0.
- The samples were analyzed using the methods specified in the Addendum QAPP.
- Instrument tuning met acceptance criteria for all sample analyses.
- Instrument calibration, initial calibration verification, and continuing calibration verification met acceptance criteria for sample analyses, with the exceptions discussed in Section 5.0.
- Sample results were within the calibration range, with the exception of certain metals results as discussed in Section 5.0.

4.4 Completeness

Completeness is considered acceptable for all soil sample analyses. Sample results are considered as usable for project purposes.

4.5 Comparability

Comparability is considered acceptable for all soil and groundwater sample analyses. The samples were analyzed using the methods specified in the Addendum QAPP and data, including QC results, were reported using industry-standard reporting units and reporting formats.

5.0 DATA REVIEW RESULTS

5.1 Method SW8260B VOCs Analysis Data

The following items were reviewed for compliancy in the analysis by Lancaster using Method SW8260B and following NYSDEC Method 95-1 (10/95):

- Custody documentation;
- Sample preservation;
- Holding times;
- Initial calibration;
- GC/MS instrument performance (BFB ion abundance criteria);
- Initial calibration verification (ICV);
- Continuing calibration verification (CCV);

- Internal standard area counts and retention times;
- Surrogate recoveries;
- Matrix spike (MS) accuracy;
- Laboratory control sample (LCS) accuracy;
- Laboratory control sample duplicate (LCSD) precision;
- Laboratory method blank contamination;
- Sample result verification and identification;
- Analysis sequence;
- Quantitation limits;
- Sample quantitation;
- Field duplicate results;
- Equipment blank results;
- Trip blank results; and,
- Data completeness.

For SDG CBN79, sample groups 1201611 and 1202451, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of LCS/LCSD results, MS/MSD results, method blank results, CCV %D results, and internal standard results. Sample PGSB-21(2'-4')(7-8-10) (lab ID 628813), was used for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-122(2'-4')(7-8-10) was collected as a field duplicate of PGSB-22(2'-4')(7-8-10).

For SDG CBN80, sample group 1201612, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of LCS/LCSD results, MS/MSD results, CCV %D results, method blank results, and internal standard results. Sample PBSB-2(6'-1)(6-2910) (lab ID 6024119) was used for MS/MSD analyses. Sample PBSB-102(2'-6')(6-29-10) was collected as a field duplicate of PBSB-2(2'-6')(6-29-10). One trip blank and one equipment blank, Equip.Blank #1, were collected and analyzed for VOCs.

For SDG CBN81, sample groups 1202454, 1203173, and 1203556, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of LCS/LCSD results, CCV %D results, and method blank results. Sample PGSB-32(8'-12')(7-14-10) (lab ID 6035036) was used for MS/MSD analyses. Sample PGSB-133(4'-8')(7-14-10) was collected as a field duplicate of PGSB-33(4'-8')(7-14-10). Two trip blanks and two equipment blanks, EB-1 and EB-2, were collected and analyzed for VOCs.

For SDG CBN82, sample groups 1203557 and 1203418, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of surrogate recovery and CCV %D. Sample PGSB-49(2'-4,5')((7-19-10) (lab ID 6037478), was used for MS/MSD analyses. Sample PGSB-130(14'15.5')(7-16-10) was

collected as a field duplicate of PGSB-30(14'-15.5')(7-16-10). One trip blank and one equipment blank, EB-3, were collected and analyzed for VOCs.

Surrogate Compound Recovery

Surrogate compound recoveries were compliant, with the exceptions shown below. For a sample having one or more non-compliant surrogate compound recoveries, all VOC results are qualified. Non-detect sample results associated with a surrogate exhibiting high bias (high %R are not qualified. Evaluation results are shown below.

In CBN82 sample groups 1203577 and 1204018 surrogate recoveries met QC acceptance criteria for all samples except 6037477, which was re-extracted to confirm sample matrix effect; both sets of data were reported and data use selection decisions are summarized on Table 4. Non-detect sample results associated with a surrogate compound exhibiting high bias (high %R) are not qualified.

SDG/ Sample Group	Lab Sample ID	Surrogate (%R)	QC limit	Analytes Affected	Data Qualifier
CBN82/1204018	6037477	1,2-Dichloroethane-d4 (110)	70-109	All VOCs	None, marginal exceedance
CBN82/1204018	6037477RE	1,2-Dichloroethane-d4 (116)	70-109	Acetone Methylene chloride	J

LCS/LCSD Precision and Accuracy

LCS/LCSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Sample result qualification was not required if non-compliant LCS/LCSD recoveries indicate potential high bias of results and associated sample result was reported as undetected ("U"). Evaluation results are shown below.

SDG	LCS ID/ LCS file ID/ QC batch	Analyte	LCS/LCSD %R	QC Limit	Associated Samples	Data Qualifier
CBN79	LCSA98/ al15103.d/ A101961AA	1,1-Dichloroethene	127/114	73-123	60288804 60288805 60288806 60288807 60288808 60288809 60288810 60288811 60288812	None, ND

CBN79	LCSA98/ al15103.d/ A101961AA	Carbon disulfide	134/121	67-122	60288804 60288805 60288806 60288807 60288808 60288809 60288810 60288811 60288812	None, ND
CBN79	LCSA01/ al17101.d/ A101962AB	Carbon disulfide	65/na	67-122	6028813	UJ
CBN79	LCSA00/ al16101.d/ A101971AA	Chloromethane	144/133	54-132	6028818	None, ND
CBN79	LCSA00/ al16101.d/ A101971AA	Vinyl chloride	147/134	53-120	6028818	None, ND
CBN80	LCSB40/ bl09105.d/	2-Butanone	131/162	53-160	6024117RE 6024118 6024125 6024126 6024127 6024128 6024129 6024130 6024132 6024133 6024134 6024135	None, ND
CBN81	LCSA05/ a122101.d/ A102031AA	1,1,2,2-Tetrachloroethane	127/na	71-123	6035036 6035041 6035045	None

MS/MSD Precision and Accuracy

MS/MSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Sample result qualification was not required if non-compliant MS/MSD recoveries indicate potential high bias of results and associated sample result was reported as undetected (“U”). For this project, there were four samples utilized for MS/MSD; Because of potential matrix dissimilarities, if the results of the all MS/MSD samples were not similarly non-compliant, then only the sample used for MS/MSD was qualified based on a non-compliant MS/MSD result for that sample.

SDG	Lab Sample ID	Analyte	MS/MSD %R	QC Limit	MS/MSD %RPD	QC Limit	Associated Samples	Data Qualifier
CBN79	6028813	Chloroethane			41	30	6028813	UJ
CBN79	6028813	t-Butyl alcohol	175/134	47-153			6028813	None, ND
CBN80	6024119	Acetone	222/228	15-210			6024119	None, ND
CBN80	6024119	Methylene chloride	113/174	47-145			6024119	None, ND

Continuing Calibration Verification

Continuing calibration verification compounds (all target analytes) were compliant with a maximum percent difference (%D) of $\pm 20\%$, with the exceptions shown below. Non-detect sample results associated with an non-compliant CCV exhibiting high bias (high %D) are not qualified.

SDG	CCV File ID/ QC batch	Target Analyte	%D	Samples Affected	Data Qualifier
CBN79	al08c02.d/ A101892AA	Acetone	+27	6024107 6024108 6024109 6024110 6024111 6024112 6024113 6024114	None, all ND
CBN79	al15c51.d/ A101961AA	Acetone	+56	6028813 6028814 6028815	
CBN79	al17c02.d/ A101981AA	Chloromethane	+28	6028813	None, ND
CBN79	al17c02.d/ A101981AA	Bromomethane	+24	6028813	None, ND
CBN79	al17c02.d/ A101981AA	Chloroethane	+24	6028813	None, ND
CBN79	al17c02.d/ A101981AA	2-Butanone	+27	6028813	None, ND
CBN79	al17c02.d/ A101981AA	4-Methyl-2-pentanone	+37	6028813	None, ND
CBN79	al17c02.d/ A101981AA	2-Hexanone	+22	6028813	None, ND
CBN79	al17c02.d/ A101981AA	Dibromochloromethane	+22	6028813	None, ND
CBN79	al17c02.d/ A101981AA	Bromoform	+21	6028813	None, ND
CBN79	al17c02.d/ A101981AA	1,1,2,2-Tetrachloroethane	+22	6028813	None, ND
CBN79	al15c01.d/ A101961AA	Chloromethane	+28	6028804 6028805 6028806 6028807 6028808 6028809 6028810 6028811 6028812	None, all ND
CBN79	al16c01.d/ A101971AA	2-Hexanone	-27	6028818	UJ
CBN79	bl09c03.d/ B101902AA	2-Butanone	+41	6024113	None, ND
CBN79	bl09c03.d/ B101902AA	di-Isopropyl ether	+23	6024113	None, ND
CBN79	bl09c03.d/ B101902AA	n-Butanol	+32	6024113	None, ND
CBN79	bl09c03.d/ B101902AA	4-Methyl-2-pentanone	+54	6024113	None, ND

CBN79	bl09c03.d/ B101902AA	2-Hexanone	+51	6024113	None, ND
CBN80	t107c02.d/ T101881AA	Acetone	+28	6024115 6-24116	None, all ND
CBN80	t107c02.d/ T101881AA	cis-1,2-Dichloroethene	+22	6024115 6-24116	None, all ND
CBN80	t107c02.d/ T101881AA	2-Nitropropane	+40	6024115 6-24116	None, all ND
CBN80	t107c02.d/ T101881AA	4-Methyl-2-pentanone	+24	6024115 6-24116	None, all ND
CBN80	t107c02.d/ T101881AA	2-Hexanone	+23	6024115 6-24116	None, all ND
CBN80	a108c02.d/ A101892AA	Acetone	+27	6024117 6024119 6024120 6024121 6024123 6024124	J None, ND None, ND None, ND None, ND J
CBN80	bl09c03.d/ B101902AA	di-Isopropyl ether	+23	6024117RE 6024118 6024125 6024126 6024127 6024128 6024129 6024130 6024132 6024133 6024134 6024135	None, all ND
CBN80	bl09c03.d/ B101902AA	2-Butanone	+41	Same as above	None, all ND
CBN80	bl09c03.d/ B101902AA	4-Methyl-2-pentano	+54	Same as above	None, all ND
CBN80	bl09c03.d/ B101902AA	2-Hexanone	+51	Same as above	None, all ND
CBN81	al22c01.d/ A102031AA	2-Butanone	+48	6035040 6035041 5035042 5035043 603-044 6035045 6035046	None, all ND
CBN81	al22c01.d/ A102031AA	2-Hexanone	+59	6035040 6035041 5035042 5035043 603-044 6035045 6035046	None, all ND

CBN81	al22c01.d/ A102031AA	di-Isopropyl ether	+25	6035040 6035041 5035042 5035043 603-044 6035045 6035046	None, all ND
CBN81	al22c01.d/ A102031AA	Bromoform	+21	6035040 6035041 5035042 5035043 603-044 6035045 6035046	None, all ND
CBN81	al22c01.d/ A102031AA	4-Methyl-2-pentanone	+64	6035040 6035041 5035042 5035043 603-044 6035045 6035046	None, all ND
CBN81	al22c01.d/ A102031AA	1,1,2,2-Tetrachloroethane	+31	6035040 6035041 5035042 5035043 603-044 6035045 6035046	None, all ND
CBN81	bl23c01.d/ B102041AA	Acetone	-23	6035040 6035042 6035043 6035044 6035046	J None, ND J J ND
CBN81	bl23c01.d/ B102041AA	2-Hexanone	+21	6035040 6035042 6035043 6035044 6035046	None, all ND
CBN82	bl23c01.d/ B102041AA	Acetone	-23	6035042 6035043 6035044 6035046 6035048 6035049 6035050 6035051 6037477 6037477RE 6037478 6037483 6037484 6037485 6037486 6037487 6037492	J or UJ

CBN82	bl23c01.d/ B102041AA	2-Hexanone	+21	Same as above	None, all ND
CBN82	bl24c01.d/ B102051AA	Chloroethane	-22	6037482 6037488	UJ
CBN82	bl24c01.d/ B102051AA	Acetone	-22	6037482 6037488	UJ
CBN82	tl23c51.d/ TL102043AA	Carbon disulfide	+25	6037489 6037490 6037491	None, all ND

Method Blank Contamination

Not all method blanks were free of target analytes at detectable concentrations. Sample results less than 5x the method blank concentration (or 10x for common lab contaminants such as Methylene chloride) (adjusted for %solids) were qualified as undetected ("U") and are considered to be potential false-positive results. Evaluation results are shown below.

SDG	Method Blank ID	Analyte	Blank Conc. (mg/kg)	Affected Samples	Sample Conc.* (mg/kg)	Lab Flag	Data Qualifier
CBN80	VBLKB40	Methylene chloride	0.003	6024118	0.011		U
				6024125	0.026		U
				6024126	0.012		U
				6024127	0.008		U
				6024128	0.026		U
				6024129	0.012		U
				6024130	0.02		U
				6024132	0.009		U
				6024133	0.047		None, >10x
				6024134	0.026		U
				6024135	0.021		U
CBN81	VBLKA99	Acetone	0.015	None, all ND			None, all ND
CBN81	VBLKA99	Acetone	0.15	6028881	0.013	JB	U
CBN81	VBLKA02	2-Hexanone	0.004	None, all ND			None, all ND

Internal Standard Area Counts (Recovery)

The internal standard (IS) area counts for each sample were within QC acceptance criteria (-50% to +100%) and considered acceptable, with the exceptions shown below. Certain samples were re-analyzed due to non-compliant IS recovery to confirm sample matrix effect, with both sets of data reported; data selection decisions are summarized on Table 4. Note: laboratory incorrectly identified t-Butyl alcohol-d10 as "IS1" and 1,4-Dichlorobenzene-d4 as "IS4"; they are actually reversed. Evaluation results are shown below.

SDG	Lab Sample ID	IS (recovery)	Analytes Affected	Data Qualifier
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CBN79	6028807	1,4-Dichlorobenzene-d4 (-47)	Chloromethane Vinyl chloride Bromomethane Chloroethane 1,1-Dichloroethene Acetone Carbon Disulfide Methylene chloride trans-1,2-Dichloroethene MTBE 1,1-Dichloroethane di-Isopropyl ether Ethyl t-butyl ether 2-Butanone cis-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon tetrachloride Benzene 1,2-Dichloroethane t-Amyl methyl ether Trichloroethene 1,2-Dichloropropane Bromodichloromethane 4-Methyl-2-pentanone	J or UJ
CBN79	6028811	1,4-Dichlorobenzene-d4 (-48)	Same as above	J or UJ
CBN79	6028811RE	1,4-Dichlorobenzene-d4 (-48)	Same as above	J or UJ
CBN80	6024117	t-Butyl alcohol-d10 (-44)	t-Butyl alcohol	UJ
CBN80	6024117RE	t-Butyl alcohol-d10 (-26) Fluorobenzene (-27) Chlorobenzene-d5 (-25) 1,4-Dichlorobenzene-d4(-20)	All VOCs	J or UJ
CBN80	6024119	t-Butyl alcohol-d10 (-45)	t-Butyl alcohol	UJ

5.2 Method SW8270C SVOCs Analysis Data

The following items were reviewed for compliancy in the analysis by Lancaster using Method Sw8270C:

- Custody documentation;
- Sample preservation;
- Holding times;
- Initial calibration;
- GC/MS instrument performance (DFTPP ion abundance criteria);
- Initial calibration verification (ICV);
- Continuing calibration verifications (CCV);
- Internal standard area counts and retention times;
- Surrogate recoveries;

- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy;
- Laboratory control sample (LCS) recoveries;
- Laboratory control sample duplicate (LCSD);
- Laboratory method blank contamination;
- Sample result verification and identification;
- Analysis sequence;
- Quantitation limits;
- Sample quantitation;
- Field duplicate results;
- Equipment blank results; and,
- Data completeness.

For SDG CBN79, sample groups 1201611 and 1202451, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of surrogate results, LCS/LCSD results, MS/MSD results, method blank results, and CCV %D results. Samples PGSB-10(2'-4')(7-7-10) (lab ID 6028809) and PGSB-21(2'-4')(7-8-10) (lab ID 6028813) were used for MS/MSD analyses. Sample PGSB-122(2'-4')(7-8-10) was collected as a field duplicate of PGSB-22(2'-4')(7-8-10).

For SDG CBN80, sample group 1201612, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of surrogate results, analytical holding time, LCS/LCSD results, MS/MSD results, CCV %D results, equipment blank results, and internal standard results. Sample PBSB-2(6'-1)(6-29-10) (lab ID 6024119) was used for MS/MSD analyses. Sample PBSB-102(2'-6')(6-29-10) was collected as a field duplicate of PBSB-2(2'-6')(6-29-10). One equipment blank, Equip.Blank #1, was collected and analyzed for SVOCs.

For SDG CBN81, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of surrogate compound %R results, analytical holding time, LCS/LCSD results, CCV %D results, equipment blank results, and sample result verification and identification. Sample PGSB-32(8'-12')(7-14-10) (lab ID 6035036), was used for MS/MSD analyses. Sample PGSB-133(4'-8')(7-14-10) was collected as a field duplicate of PGSB-33(4'-8')(7-14-10). Two equipment blanks, EB-1 and EB-2, were collected and analyzed for SVOCs.

For SDG CBN82, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of analytical holding times, surrogate compound recoveries, LCS/LCSD results, MS/MSD results, method blank results, equipment blank results, CCV %D, internal standard results, sample quantitation (calibration range exceedance), and sample result verification and identification. Sample PGSB-49(2'-4.5')(7-19-10) (lab ID 6037478), was used for MS/MSD analyses. Sample PGSB-130(14'-15.5')(7-16-10) was collected as a field duplicate of PGSB-30(14'-15.5')(7-16-10). Equipment blank EB-3 was collected and analyzed for SVOCs.

Surrogate Compound Recovery

Surrogate compound recoveries were compliant, with the exceptions shown below. Data was not qualified unless two or more of the three surrogate compounds for a given analysis fraction (base-neutral or acid) exhibited non-compliant recovery. Evaluation results are shown below.

In CBN79 the surrogate recoveries did not meet QC acceptance criteria in each sample. Sample 6024111 was re-extracted and re-analyzed to confirm surrogate recovery matrix effect. Sample 6028118 was analyzed at dilution, so surrogate recoveries were not meaningful; sample 6028118 was re-extracted and re-analyzed. Both sets of data were reported for each of these two samples and data use selection decisions are summarized on Table 4.

In CBN80 the surrogate recoveries did not meet QC acceptance criteria in each sample. Due to surrogate recovery non-compliance, samples 6024127, 6024130, and 6024132 were re-extracted outside of holding time to confirm surrogate recovery matrix effect; both sets of data were reported and data use selection decisions are summarized on Table 4.

In CBN81 the surrogate recoveries did not meet QC acceptance criteria in each sample. Due to surrogate recovery non-compliance, samples 6028882 and 6032537 were re-extracted outside of holding time to confirm surrogate recovery matrix effect; both sets of data were reported and data use selection decisions are summarized on Table 4.

In CBN82, the surrogate recoveries did not meet QC acceptance criteria in each sample. Due to surrogate recovery non-compliance, samples 6035047, 6035048, 6035049, 6035050, 6035051, and 6037491, were re-extracted outside of holding time to confirm surrogate recovery matrix effect; both sets of data were reported and data use selection decisions are summarized on Table 4.

SDG/ Sample Group	Lab Sample ID	Surrogate (%R)	QC limit	Fraction Affected	Analytes Affected	Data Qualifier
CBN79/1201611	6024111	2-Fluorobiphenyl (71)	74-110	Base-neutral	All non-Phenols	None
CBN79/1202451	6028818	recoveries were "diluted out" and not meaningful				None
CBN80/1201612	6024127	2-Fluorobiphenol (128) Phenol-d6 (128)	68-121 70-113	Acid	All Phenols	None
CBN80/1201612	6024127RE	2,4,6-Tribromophenol (118) Phenol-d6 (118)	57-115 70-113	Acid	All Phenols	None, all ND
CBN80/1201612	6024130	2,4,6-Tribromophenol (130)	57-115	Acid	All Phenols	None
CBN80/1201612	6024132	2,4,6-Tribromophenol (51)	57-115	Acid	All Phenols	None
CBN80/1201612	6024132RE	Terphenyl-d14 (169)	57-112	Base-neutral	All non-Phenols	None
CBN81/1202454	6028882	2-Fluorophenol (0) Phenol-d6 (0) 2,4,6-Tribromophenol (0)	68-121 70-113 57-115	Acid Acid Acid	All Phenols	R

CBN81/1202454	6028882	Nitrobenzene-d5 (0) 2-Fluorobiphenyl (0) Terphenyl-d14 (0)	55-121 74-110 57-112	Base-neutral Base-neutral Base-neutral	All non-Phenols	R
CBN81/1203173	6032537	2-Fluorophenol (64) Phenol-d6 (64)	68-121 70-113	Acid Acid	All Phenols	J or UJ
CBN81/1203173	6032537	2-Fluorobiphenyl (69)	74-110	Base-neutral	None	None
CBN82/1203557	6035047	Phenol-d6 (66) 2-Fluorobiphenyl (68)	70-113 74-110	Acid Base-neutral	None	None
CBN82/1203557	6035048	Terphenyl-d14 (122)	74-110	Base-neutral	None	None
CBN82/1203557	6035049	2-Fluorobiphenyl (72)	74-110	Base-neutral	None	None
CBN82/1203557	6035050	2-Fluorophennol (60) Phenol-d6 (57)	68-121 70-113	Acid Acid	All Phenols	J or UJ
CBN82/1203557	6035050	2-Fluorobiphenyl (59)	74-110	Base-neutral	None	None
CBN82/1203557	6035051	2-Fluorobiphenyl (67)	74-110	Base-neutral	None	None
CBN82/1204018	6037491	Terphenyl-d14 (158) 2-Fluorobiphenyl (139)	38-120 74-110	Base-neutral Base-neutral	All non-phenols not ND	J
CBN82/1204018	6037491RE	2-Fluorobiphenyl (127)	74-110	Base-neutral	None	None

Analytical Holding Time

For SDGs CBN80, CBN81 and CBN82, all samples were initially analyzed within holding time (7-days from sampling to extraction). However, due to non-compliant QC results, certain samples were re-analyzed outside of extraction holding time and all SVOC results for each sample were qualified as estimated (J).

CBN/ Sample Group	Lab ID/ file ID	Collection Date	Extraction Date	Days HT exceeded	Analytes Affected	Data Qualifier
CBN80/1201612	6024127RE	6-30-10	7-19-10	12	All SVOCs	J or UJ
CBN80/1201612	6024130RE	6-30-10	7-19-10	12	All SVOCs	J or UJ
CBN80/1201612	6024131RE	6-28-10	7-13-10	8	All SVOCs	J or UJ
CBN80/1201612	6024132RE	7-1-10	7-19-10	11	All SVOCs	J or UJ
CBN81/1202454	6028882RE/ eg1191.d	7-8-10	7-22-10	7	All SVOCs	J or UJ
CBN81/1203173	6032537RE/ oh0188.d	7-13-10	8-03-10	12	All SVOCs	J or UJ
CBN81/1203173	6032542RE/ 3h0207.d	7-15-10	8-02-10	11	All SVOCs	J or UJ
CBN82/1203557	6035047RE	7-15-10	7-28-10	6	All SVOCs	J or UJ
CBN82/1203557	6035048RE	7-15-10	7-28-10	6	All SVOCs	J or UJ
CBN82/1203557	6035049RE	7-16-10	7-28-10	5	All SVOCs	J or UJ
CBN82/1203557	6035050RE	7-16-10	7-28-10	5	All SVOCs	J or UJ
CBN82/1203557	6035051RE	7-16-10	7-28-10	5	All SVOCs	J or UJ
CBN82/1203557	6037490RE	7-20-10	08-05-10	9	All SVOCs	J or UJ
CBN82/1203557	6037491RE	7-20-10	08-05-10	9	All SVOCs	J or UJ

LCS/LCSD Precision and Accuracy

LCS/LCSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Sample result qualification was not required if non-compliant LCS/LCSD recoveries indicate potential high bias of results and associated sample result was reported as undetected ("U"). Due to extensive non-

compliant LCS/LCSD results, samples 6024131, 6032542, 6037490, and 6037491 were re-analyzed outside of holding time; both sets of data are reported for each sample and data use selection decisions are summarized on Table 3. Evaluation results are shown below.

SDG	LCS ID/ LCS file ID/ QC batch	Analyte	LCS/LCSD %R	QC Limit	%RPD	QC Limit	Associated Samples	Data Qualifier
CBN79	203LCLCS/ eg1177.d/ 10203SLC026	4-Chloroaniline	74/na	10-69			6028818RE	None, ND
CBN79	203LCLCS/ eg1177.d/ 10203SLC026	2-Chloroaniline	80/na	83-118			6028818RE	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	4-Methylphenol	121/120	75-116			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	2-Methylnaphthalene	102/103	86-102			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Fluorene	104/102	84-100			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	4-Chlorophenyl-phenyl ether	104/105	75-102			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	4-Bromophenyl-phenyl ether	103/103	75-101			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Hexachlorobenzene	104/103	73-100			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Benzo(a)anthracene	99/98	82-96			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Di-n-octylphthalate	122/122	60-112			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Benzo(b)fluoranthene	124/124	64-111			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Benzo(k)fluoranthene	124/123	70-111			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Benzo(a)pyrene	123/121	69-111			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Indeno(1,2,3-cd)pyrene	127/125	64-115			6024116	None, ND
CBN80	187WCLSC/ og0951.d/ 10187WAC026	Dibenz(a,h)anthracene	130/128	67-117			6024116	None, ND

CBN80	187WCLSC/ og0951.d/ 10187WAC026	Benzo(g,h,i)perylene	127/125	68-117			6024116	None, ND
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	bis(2-Chloroethyl)ether	69/na	77-115			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2-Chlorophenol	74/na	83-119			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	1,3-Dichlorobenzene	72/na	79-113			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	1,4-Dichlorobenzene	70/na	79-112			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	1,2-Dichlorobenzene	70/na	79-112			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2-Methylphenol	75/na	80-119			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	4-Methylpheno1	68/na	74-116			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Hexachloroethane	75/na	76-109			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Nitrobenzene	75/na	78-122			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2-Nitrophenol	77/na	81-114			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2,4-Dimethylphenol	79/na	83-120			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	bis(2- Chloroethoxy)methane	75/na	82-113			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2,4-Dichlorophenol	79/na	87-117			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	1,2,4-Trichlorobenzene	73/na	81-119			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Naphthalene	77/na	83-112			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2-Methylnaphthalene	77/na	89-114			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2,4,6-Trichlorophenol	79/na	88-114			6024131	UJ

CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2,4,5-Trichlorophenol	76/na	84-109			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	2-Nitronaniline	79/na	83-118			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Dimethylphthalate	77/na	85-111			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Acenaphthene	75/na	90-106			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Dibenzofuran	78	88-110			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Diethylphthalate	79/na	82-113			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Fluorene	77/na	84-113			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	4-Chlorophenyl-phenyl ether	75/na	79-100			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	n-Nitrosodiphenylamine	73/na	91-134			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	4-Bromophenyl-phenyl ether	70/na	79-117			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Hexachlorobenzene	73/na	79-115			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Phenanthrene	74/na	86-109			6024131	J
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Anthracene	75/na	89-109			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Carbazole	76/na	87-108			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Di--n-butylphthalate	74/na	79-112			6024131	UJ
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Fluoranthene	78/na	84-113			6024131	J
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Pyrene	78/na	86-122			6024131	J
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Butylbenzylphthalate	76/na	83-122			6024131	UJ

CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Benzo(a)anthracene	73/na	86-113			6024131	J
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	Chrysene	74/na	84-117			6024131	J
CBN80	188LCLCS/ eg0353.d/ 10188SLC026	bis(2- Ethylhexyl)phthalate	74/na	80-119			6024131	UJ
CBN81	194WBLCS5/ eg1026/d	Nitrobenzene	100/102	74-100			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Fluorene	102/101	84-100			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	4-Chlorophenyl-phneyl ether	104/104	76-102			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	4-Bromophenyl-phenyl ether	107/106	75-101			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Hexachlorobenzene	107/105	73-100			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Pentachlorophenol	116/119	63-114			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Phenanthrene	104/105	85-103			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Anthracene	104/106	80-102			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Di-n-butylphthalate	103/104	71-103			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Fluoranthene	102/103	74-101			6028883	None, ND
CBN81	194WBLCS5/ eg1026/d	Pyrene	106/108	75-107			6028883	None, ND
CBN81	200WBLCS5/ eg1340.d	2-Methylnaphthalene	103/103	86-102			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	2-Nitronailine	83/105	84-115			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Dimethylphthalate	110/106	73-104			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	3-Nitroaniline	48/106	70-116	75	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	2,4-Dinitrotoluene	116/109	72-112			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Diethylphthalate	108/104	69-105			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Fluorene	109/107	84-10			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	4-Chlorophenyl-phenyl ether	108/105	76-102			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	4-Nitroaniline	45/86	61-98	62	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	n-Nitroosodiphylamine	29-101	10-129	111	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	4-Bromophenyl-phenyl ether	106/100	75-101			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Hexachlorobenzene	104/100	73-100			6032542	None, ND

CBN81	200WBLCS5/ eg1340.d	Pentachlorophenol	115/111	63-114			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Phenanthrene	104/99	85-103			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Carbazole			118	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Di-n-butylphthalate	105/101	71-103			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Fluoranthene	102/100	74-101			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Pyrene	109/107	75-107			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Butylbenzylphthalate	104/100	71-100			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Benzo(a)anthracene	105/102	82-96			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	3,3-Dichlorobenzidine	0/51	46-129	200	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Chrysene	105/99	75-104			6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Di-n-Octylphthalate	303/109	60-112	94	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Benzo(b)fluoranthene	330/105	64-111	96	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Benzo(k)fluoranthene	267/108	70-111	85	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Benzo(a)pyrene	210/107	69-111	65	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Indeno(1,2,3-cd)pyrene	212/104	64-115	68	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Dibenz(a,h)anthracene	264/102	67-117	89	30	6032542	None, ND
CBN81	200WBLCS5/ eg1340.d	Benzo(g,h,i)perylene	204/104	68-117	65	30	6032542	None, ND
CBN81	216WZLCS5/ eh0205.d	2-Methylnaphthalene	104/104	86-102			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Dimethylphthalate	108/108	73-104			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	2,6-Dinitrotoluene	109/112	73-110			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	2,4-Dinitrophenol	119/122	65-119			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	2,4-Dinitrotoluene	119/117	72-112			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Diethylphthalate	107/108	69-105			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Fluorene	108/108	84-100			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	4-Chlorophenyl-phenyl ether	105/108	76-102			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	4-Bromophenyl-phenyl ether	106/105	75-101			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Hexachlorobenzene	106/105	73-100			6032542RE	None, ND

CBN81	216WZLCS5/ eh0205.d	Pentachlorophenol	103/105	63-114			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Anthracene	114/117	80-102			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Di-n-butylphthalate	104/104	71-103			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Fluoranthene	104/101	74-101			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Pyrene	113/115	75-107			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Butylbenzylphthalate	104/105	71-100			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Benzo(a)anthracene	107/106	82-96			6032542RE	None, ND
CBN81	216WZLCS5/ eh0205.d	Chrysene	103/105	79-104			6032542RE	None, ND
CBN81	200FLCS/ eg1573.d	4-Chloroaniline	70/na	10-69			6032534 6032535 6032536 6032537 6032538 6032539 6032540 6032541 6032543 6032544 6035036 6035040 6035041 6035042 6035043 6035044 6035045 6035046	None, all ND
CBN81	200FLCS/ eg1573.d	Hexachlorocyclopentadiene	10/ma	41-104			Same as above	None, all ND
CBN81	203LCLCS/ eg1177.d	4-Chloroaniline	74/na	10-69			6028882RE	None, ND
CBN81	203LCLCS/ eg1177.d	2-Nitroaniline	80/na	83-118			6028882RE	None, ND
CBN81	203LCLCS/ eg1177.d	4,6-Dinitro-2-methylphenol	59/na	60-113			6028882RE	None, ND
CBN82	205WCLCS/ oh0063.d	bis(2-Chloroethyl)ether)	101/104	69-103			6037490 6037491 6037491RE	None, all ND
CBN82	205WCLCS/ oh0063.d	Nitrobenzene	112/114	74-100			6037490 6037491	None, all ND
CBN82	205WCLCS/ oh0063.d	Fluorene	10/103	84-100			6037490 6037491	None, all ND
CBN82	205WCLCS/ oh0063.d	4-Chlorophenyl-phenyl ether	100/103	76-102			6037490 6037491	None, all ND
CBN82	205WCLCS/ oh0063.d	4-Bromophenyl-phenyl ether	107/107	75-101			6037490 6037491	None, all ND
CBN82	205WCLCS/ oh0063.d	Hexachlorobenzene	108/106	73-100			6037490 6037491	None, all ND

CBN82	205WCLCS/ oh0063.d	Butylbenzylphthalate	103/102	71-100			6037490 6037491	None, all ND
CBN82	205WCLCS/ oh0063.d	Benzo(a)anthracene	99/97	82-96			6037490 6037491	J None, ND
CBN82	203LDLCS/ eh0156.d	4-Chloroaniline	89/na	10-69			6037477 6037478 6037479 6037480 6037482 6037483 6037484 6037485 6037486 6037488 6037492	None, all ND
CBN82	216WFLCS/ eh0470.d	Phenol	123/na	68-118			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	bis(2-Chloroethyl)ether	105/na	69-103			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Nitrobenzene	101/na	74-100			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	2-Methylnaphthalene	103/na	86-102			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Dimethylphthalate	106/na	73-104			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	2,4-Dinitrotoluene	115/na	72-112			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	4-Chlorophenyl-phenyl ether	107/na	75-101			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	4-Nitroaniline	107/na	73-100			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	4-Bromophenyl-phenyl ether	106/na	85-103			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Hexachlorobenzene	105/na	80-102			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Phenanthrene	105/na	85-103			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Anthracene	106/na	80-102			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Fluoranthene	104/na	74-101			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Pyrene	111/na	75-107			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Butylbenzylphthalate	101/na	71-100			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Benzo(a)anthracene	106/na	82-96			6037490RE 6037491RE	None, all ND
CBN82	216WFLCS/ eh0470.d	Chrysene	107/na	79-104			6037490RE 6037491RE	None, all ND

MS/MSD Precision and Accuracy

MS/MSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Sample result qualification was not

required if non-compliant MS/MSD recoveries indicate potential high bias of results and associated sample result was reported as undetected (“U”). Due to potential matrix dissimilarities, only the result(s) for the sample used for MS/MSD analyses was qualified based on a non-compliant MS/MSD result for that sample.

SDG/ Sample Group	Lab Sample ID	Analyte	MS/MSD %R	QC Limit	MS/MSD RPD	QC Limit	Associated Samples	Data Qualifier
CBN79/1202451	6028813	bis(2-Chloroethyl)ether	77/76	82-111			6028813	UJ
CBN79/1202451	6028813	n-Nitroso-di-n-propylmaine	78/75	76-110			6028813	None, marginal exceedance
CBN79/1202451	6028813	bis(2-Chloroethoxy)methane	74/76	81-104			6028813	UJ
CBN79/1202451	6028813	4-Chloroaniline			46	30	6028813	UJ
CBN79/1202451	6028813	Phenanthrene	85/155	69-115	58	30	6028813	UJ
CBN79/1202451	6028813	Fluoranthene	80/198	48-122	85	30	6028813	J
CBN79/1202451	6028813	Pyrene	81/176	76-124	74	30	6028813	J
CBN79/1202451	6028813	Butylbenzylphthalate	86/82	85-119			6028813	UJ
CBN79/1202451	6028813	Benzo(a)anthracene	80/131	78-111	48	30	6028813	J
CBN79/1202451	6028813	Chrysene	78/126	76-114	47	30	6028813	J
CBN79/1202451	6028813	bis(2-Ethylhexyl)phthalate	83/80	84-119			6028813	J
CBN79/1202451	6028813	Benzo(b)fluoranthene	72/139	53-131	64	30	6028813	J
CBN79/1202451	6028813	Benzo(a)pyrene			38	30	6028813	J
CBN79/1202451	6028813	Indeno(1,2,3-cd)pyrene			50	30	6028813	J
CBN80/1201612	6024119	4-Chloroaniline			44	30	6024119	UJ
CBN82/1204018	6037478	bis(2-Chloroethyl)ether	82/77	82-111			6037478	None, ND
CBN82/1204018	6037478	4-Chloroaniline			46	30	6037478	None, ND
CBN82/1204018	6037478	Hexachlorobutadiene	81/76	79-116			6037478	None, ND
CBN82/1204018	6037478	Phenanthrene	69/64	69-115			6037478	None, ND
CBN82/1204018	6037478	Pyrene	79/75	76-124			6037478	None, marginal exceedance

Continuing Calibration Verification

Continuing calibration verification compounds (all target analytes) were compliant with a maximum percent difference (%D) of $\pm 20\%$, with the exceptions shown below. Non-detect sample results associated with an non-compliant CCV exhibiting high bias (high %D) are not qualified.

SDG	CCV Lab File	Target Analyte	%D	Samples Affected	Data Qualifier
CBN79	eg0881a.d	4,6-Dinitro-2-methylphenol	+22	6024107 6024108 6028813 6028814 6028815	None, all ND

CBN79	eg0951.d	bis(2-Chloroethoxy)methane	+22	6024109 6024110 6024111 6024112 6024113 6024114 6028804 6028805 6028806 6028807	None, all ND
CBN79	eg0951.d	1-Chloronaphthalene	+27	Same as above	None, all ND
CBN79	eg0951.d	2,4-Dinitrophenol	-28	6024109 6024110 6024111 6024112 6024113 6024114 6028804 6028805 6028806 6028807	UJ
CBN79	eg0951.d	4-Nitrophenol	+27	Same as above	None, all ND
CBN79	eg1171.d	2-Chloronaphthalene	+22	6028818RE	None, all ND
CBN80	eg0351.d	bis(2-Chloroethoxy)methane	+21	6024117 6024118 6024119 6024120 6024121 6024123 6024124 6024125 6024126 6024127 6024128 6024129 6024130 6024131	None, all ND
CBN80	eg0351.d	2-Chloronaphthalene	+21	Same as above	None,all ND
CBN80	og0961.d	Hexachlorocyclopentadiene	-34	6024127RE 6024130RE 6024132RE	UJ
CBN81	eg1171.d	2-Chloronaphthalene	+22	6028882RE	None, ND
CBN81	eg1571.d	2,4-Dinitrophenol	+26	Same as above	None, all ND
CBN81	eh0001.d	2-Chloronaphthalene	+22	6032539 6035043 6035044 6035045 6035046	None, all ND
CBN81	eh0001.d	2,4-Dinitrophenol	+21	6032539 6035043 6035044 6035045 6035046	None, all ND
CBN81	eh0201.d	2,4-Dinitrophenol	+30	6032542RE	None, ND

CBN82	eh0151.d	2-Chloronaphthalene	+22	6037477 6037478 6037479 6037480 6037482 6037483 6037484 6047385 6037486 6037487 6037488 6037492	None, ND
CBN82	eh0151.d	2,4-Dinitrophenol	+31		None, ND

Method Blank Contamination

Not all method blanks were free of target analytes at detectable concentrations. Sample results less than 5x the method blank concentration (or 10x for phthlates) (adjusted for %solids) are qualified as undetected ("U") and are considered to be potential false-positive results. Equipment blank results are not qualified based on method blank results.

SDG	Method Blank ID	Analyte	Blank Conc. (mg/kg)	Affected Samples	Sample Conc.* (mg/kg)	Lab Flag	Data Qualifier
CBN79	SBLKWC208O	Diethylphthalate	0.11	6024111RE	ND		None, ND
CBN82	SBLKWC205O	Diethylphthalate	2	637490 637491 637491RE	All ND		None, all ND
CBN82	SBLKWC205O	bis(2-Ethylhexyl)phthalate	3	637490 637491 637491RE	ND 3 µg/L 3 µg/L		None, ND None, EB None, EB
CBN82	SBLKLB208O	Diethylphthalate	0.11	6035047RE 6037048RE 6037049RE 6037050RE 6037051RE	All ND		None, all ND
CBN82	SLBKWF2165	Phenol	12	6037490RE 6037491RE	All ND		None, all ND

Equipment Blank Contamination

Not all equipment blanks were free of target analytes at detectable concentrations. Sample results less than 5x the equipment blank concentration (or 10x for phthlates) (adjusted for %solids) were qualified as undetected ("U") and are considered to be potential false-positive results.

SDG	Equipment Blank ID	Analyte	Blank Conc. (ug/L)	Affected Samples	Sample Conc.* (mg/kg)	Lab Flag	Data Qualifier
CBN80	Equip.Blank #1	bis(2-Ethylhexyl)phthalate	5	None, all >10x			None

CBN81	EB-1	bis(2-Ethylhexyl)phthalate	2	None, all >10x			None
CBN81	EB-2	bis(2-Ethylhexyl)phthalate	3	None, all >10x			None
CBN82	EB-3	bis(2-Ethylhexyl)phthalate	3	None, all >10x			None

Internal Standard Area Counts (Recovery)

The internal standard (IS) area counts for each sample were within QC acceptance criteria (-50% to +100%) and considered acceptable, with the exceptions shown below. Certain samples were re-analyzed due to non-compliant IS recovery to confirm sample matrix effect, with both sets of data reported; data selection decisions are summarized on Table 4. Evaluation results are shown below.

Lab Sample ID	IS (recovery)	Analytes Affected	Data Qualifier
6024127RE	Perylene-d12 (-43)	Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene	J or UJ
6024130RE	Perylene-d12 (-42)	Same as above	J or UJ
6024132RE	Perylene-d12 (-45)	Same as above	J or UJ
6037491	Acenaphthene-d10 (-41%) Perylene-d12 (-25%)	Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethylphthalate 2,5-Dinitrotoluene Acenaphthylene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate Fluorene 4-Chlorophenyl-phenyl ether 4-Nitroaniline Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene	UJ

6037491RE	Acenaphthene-d10 (-46%) Perylene-d12 (-23%)	Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethylphthalate 2,5-Dinitrotoluene Acenaphthylene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate Fluorene 4-Chlorophenyl-phenyl ether 4-Nitroaniline Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene	UJ
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Sample Quantitation (Calibration range exceedance)

Sample results were within the calibration range with the exceptions shown below. Results exceeding the calibration curve were flagged “E” by the laboratory and have been qualified as estimated (“J”); these samples were then analyzed at dilution. Data selection decisions for samples for which multiple results were reported by the laboratory are summarized on Table 3.

SDG	Lab Sample ID	Sample File ID/ Dilution factor	Analyte	Sample Conc. (mg/kg)	Lab Flag	Data Qualifier
CBN82	6035052	og1070/d/ 10.0	Phenanthrene	140	E	J
CBN82	6035052	og1070/d/ 10.0	Fluoranthene	120	E	J
CBN82	6035052	og1070/d/ 10.0	Pyrene	130	E	J
CBN82	6035052	og1070/d/ 10.0	Benzo(a)anthracene	58	E	J
CBN82	6035052	og1070/d/ 10.0	Chrysene	56	E	J
CBN82	6035052	og1070/d/ 10.0	Benzo(b)fluoranthene	55	E	J

Sample Result Verification and Identification

Laboratory reported in case narratives and on sample result report forms that 3-Methylphenol and 4-Methylphenol cannot be resolved under the chromatographic conditions used for sample analysis; therefore, the reported 4-Methylphenol value is a

combination of results from both compounds. Also laboratory reported that N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine; therefore, the reported result for N-nitrosodiphenylamine represents the combined total of both compounds

5.3 Method SW7471A Mercury Analysis Data

The following items were reviewed for compliancy in the Mercury analysis by Lancaster using Method SW7471A:

- Custody documentation;
- Sample preservation;
- Holding times;
- Initial calibration;
- Continuing calibration verifications;
- Initial and continuing calibration blanks;
- Method blanks;
- Matrix spike/matrix spike duplicate recoveries;
- Duplicate sample analyses;
- Laboratory control sample (LCS);
- Sample result verification and identification;
- Analysis sequence;
- Quantitation limits;
- Field duplicate results;
- Equipment blank results; and,
- Data completeness.

For SDG CBN79, these items were considered compliant and acceptable in accordance with the validation protocols. Sample PGSB-21(2'-4')(7-8-10) (lab ID 628813), was used for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-122(2'-4')(7-8-10) was collected as a field duplicate of PGSB-22(2'-4')(7-8-10).

For SDG CBN80, sample group 1201612, these items were considered compliant and acceptable in accordance with the validation protocols. Sample PBSB-2(6'-1)(6-2910) (lab ID 6024119) was used for MS/MSD analyses. Sample PBSB-133(4'-8')(7-14-10) was collected as a field duplicate of PBSB-33(4'-8')(7-14-10). One equipment blank, Equip.Blank #1, was collected and analyzed for mercury.

For SDG CBN81, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of MS/MSD results, equipment blank results. Sample PGSB-32(8'-12')(7-14-10) (lab ID 6035036), was used

for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-133(4'-8')(7-14-10) was collected as a field duplicate of PGSB-33(4'-8')(7-14-10). Two equipment blanks, EB-1 and EB-2, were collected and analyzed for mercury.

For SDG CBN82, these items were considered compliant and acceptable in accordance with the validation protocols. Sample PGSB-49(2'-4.5')(7-19-10) (lab ID 6037478), was used for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-130(14'-15.5')(7-16-10) was collected as a field duplicate of PGSB-30(14'-15.5')(7-16-10). Equipment blank EB-3 was collected and analyzed for mercury.

MS/MSD Precision and Accuracy

MS/MSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Non-detect sample results were not qualified based on a MS or MSD result exhibiting high bias (high %R). Sample results of the parent sample only were qualified as estimated (J) based on non-compliant MS/MSD results.

SDG	Lab Sample ID	Analyte	MS/MSD %R	QC Limit	Affected Samples	Data Qualifier
CBN81	6035036	Mercury	124/120	80-120	6035036	None, U

5.4 Method SW6010B Metals Analysis

The following items were reviewed for compliancy in the metals analysis by Lancaster using Method SW6010A:

- Custody documentation;
- Sample preservation;
- Holding times;
- Initial calibration;
- Continuing calibration verifications;
- Initial and continuing calibration blanks;
- Method blanks;
- Matrix spike/matrix spike duplicate recoveries;
- Laboratory duplicate sample analyses;
- Laboratory control sample (LCS);
- Interference check sample (ICS);
- Serial dilution results;
- Post-digestion spike results;
- Sample result verification and identification;

- Analysis sequence;
- Quantitation limits;
- Field duplicate results;
- Equipment blank results; and,
- Data completeness.

For SDG CBN79, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of method blank results and MS/MSD results. Sample PGSB-21(2'-4')(7-8-10) (lab ID 628813), was used for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-122(2'-4')(7-8-10) was collected as a field duplicate of PGSB-22(2'-4')(7-8-10).

For SDG CBN80, sample group 1201612, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of MS/MSD results and equipment blank results. Sample PBSB-2(6'-1)(6-2910) (lab ID 6024119) was used for MS/MSD analyses. Sample PBSB-102(2'-6')(6-29-10) was collected as a field duplicate of PBSB-2(2'-6')(6-29-10). One equipment blank, Equip.Blank #1, was collected and analyzed for metals.

For SDG CBN81, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of LCS/LCSD results, equipment blank, and serial dilution results. Sample PGSB-32(8'-12')(7-14-10) (lab ID 6035036), was used for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-133(4'-8')(7-14-10) was collected as a field duplicate of PGSB-33(4'-8')(7-14-10). Two equipment blanks, EB-1 and EB-2, were collected and analyzed for metals.

For SDG CBN82, these items were considered compliant and acceptable in accordance with the validation protocols, with the exception of MS/MSD results, laboratory duplicate results, and method blank results. Sample PGSB-49(2'-4.5')(7-19-10) (lab ID 6037478), was used for MS/MSD analyses and for laboratory duplicate analysis. Sample PGSB-130(14'-15.5')(7-16-10) was collected as a field duplicate of PGSB-30(14'-15.5')(7-16-10). Equipment blank EB-3 was collected and analyzed for metals.

LCS/LCSD Precision and Accuracy

LCS/LCSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Sample result qualification was not required if non-compliant LCS/LCSD recoveries indicate potential high bias of results and associated sample result was reported as undetected ("U"). Evaluation results are shown below.

SDG LCS	ID	Analyte	LCS/LCSD %R	QC Limit	%RPD	QC Limit	Associated Samples	Data Qualifier
CBN81	P20105DQ	Antimony	113/na	90-110			EB-1, EB-2	None, ND

MS/MSD Precision and Accuracy

MS/MSD precision (relative percent differences; RPDs) and accuracy (percent recoveries; %Rs) measurements were within QC acceptance limits and considered acceptable, with the exceptions noted below. Sample results were not qualified if MS/MSD %R or RPD was non-compliant but sample concentration was >4x spike amount. Non-detect sample results were not qualified based on a MS or MSD result exhibiting high bias (high %R). Sample results of the parent sample only were qualified as estimated (J) based on non-compliant MS/MSD results.

SDG	Lab Sample ID	Analyte	MS/MSD %R	QC Limit	MS/MSD %RPD	QC Limit	Affected Sample	Data Qualifier
CBN79	6028813	Aluminum	1982/1733	75-125			6028813	None, >4x
CBN79	6028813	Iron	-659/-1387	75-125			6028813	None, >4x
CBN79	6028813	Magnesium	366/423	75-125			6028813	None, >4x
CBN79	6028813	Manganese	127/82	75-125			6028813	None, >4x
CBN79	6028813	Calcium	108/182	75-125			6028813	J
CBN79	6028813	Potassium	278/281	75-125			6028813	J
CBN80	6024119	Aluminum	4534/3316	75-125			6024119	None, >4x
CBN80	6024119	Calcium	564/740	75-125			6024119	None, >4x
CBN80	6024119	Iron	2394/-526	75-125			6024119	None, >4x
CBN80	6024119	Magnesium	832/554	75-125			6024119	None, >4x
CBN80	6024119	Manganese	71/-123	75-125			6024119	None, >4x
CBN80	6024119	Antimony	53/52	75-125			6024119	J
CBN80	6024119	Barium	127/123	75-125			6024119	J
CBN80	6024119	Chromium	138/119	75-125			6024119	J
CBN80	6024119	Copper	133/112	75-125			6024119	J
CBN80	6024119	Potassium	411/382	75-125			6024119	J
CBN80	6024119	Silver	127/124	75-125			6024119	None, ND
CBN80	6024119	Vanadium	127/120	75-125			6024119	J
CBN80	6024119	Zinc	128/112	75-125			6024119	J
CBN81	6035036	Aluminum	2226/2358	75-125			6035036	None, >4x
CBN81	6035036	Calcium	420/1455	75-125			6035036	None, >4x
CBN81	6035036	Iron	630/-6	75-125			6035036	None, >4x
CBN81	6035036	Magnesium	355/1574	75-125			6035036	None, >4x
CBN81	6035036	Manganese	185/151	75-125			6035036	None, >4x
CBN81	6035036	Lead	75/66	75-125			6035036	J
CBN81	6035036	Potassium	271/313	75-125			6035036	J
CBN82	6037478	Aluminum	2218/2458	75-125			6037478	None, >4x
CBN82	6037478	Iron	767/6492	75-125			6037478	None, >4x
CBN82	6037478	Magnesium	181/311	75-125			6037478	None, >4x
CBN82	6037478	Manganese	-148/207	75-125			6037478	None, >4x
CBN82	6037478	Antimony	61/62	75-125			6037478	UJ
CBN82	6037478	Potassium	263/279	75-125			6037478	J

Duplicate Sample

Duplicate sample analysis precision (relative percent differences; RPDs) measurements were within QC acceptance limits (20% RPD_ and considered acceptable, with the exceptions noted below. Results for all samples in same analytical batch as non-compliant laboratory duplicate were qualified as estimated (J); sample results were not qualified if lab duplicate pair results <reporting limit.

SDG	Sample ID	Analyte	Dup RPD	Result >RL?	Affected Samples	Data Qualifier
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CBN82	6037478	Manganese	24	Yes	All groundwaters in CBN82	J
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Method Blank Contamination

Not all method blanks were free of target analytes. Sample results less than 5x the method blank concentration (adjusted for %solids) were qualified as undetected (“U”) and are considered to be potential false-positive results. Evaluation results are shown below.

SDG	Method Blank ID	Analyte	Blank Conc. (mg/kg)	Affected Samples	Sample Conc.* (mg/kg)	Lab Flag	Data Qualifier
CBN79	1019001T70	Calcium	9.643	All groundwater in group 1201611	All >5x		None, all >5x
CBN79	1019001T70	Copper	0.286	All groundwater in group 1201611	All >5x		None, all >5x
CBN82	1020802T72	Aluminum	10.893	All groundwaters in CBN82	All >5x		None, all >5x
CBN82	1020802T72	Calcium	7.708	All groundwaters in CBN82	All >5x		None, all >5x
CBN82	1021001T71	Beryllium	0.00148 mg/L	6037490 6037491	0.0556 mg/L U		None, >5x None

Equipment Blank Contamination

Not all method blanks were free of target analytes at detectable concentrations. Sample results less than 5x the equipment blank concentration (adjusted for %solids) were qualified as undetected (“U”) and are considered to be potential false-positive results. Evaluation results are shown below.

SDG	Equipment Blank ID	Analyte	Blank Conc. (mg/L)	Affected Samples	Sample Conc.* (mg/kg)	Lab Flag	Data Qualifier
CBN80	Equip.Blank #1	Calcium	0.109J	None, all >5x			None
CBN81	EB-1	Barium	0.00065J	None, all >5x			None
CBN81	EB-1	Calcium	0.304	None, all >5x			None
CBN81	EB-1	Iron	0.147J	None, all >5x			None
CBN81	EB-1	Magnesium	0.130	None, all >5x			None
CBN81	EB-1	Manganese	0.00099J	None, all >5x			None
CBN81	EB-1	Sodium	0.805J	None, all >5x			None
CBN81	EB-2	Beryllium	0.0015J	None, all >5x			None
CBN81	EB-2	Calcium	0.106J	None, all >5x			None

Serial Dilution Results

Laboratory reported that for certain samples, the reported values are estimated due to the presence of interference as evidenced by serial dilution results; these sample results are qualified as estimated (J). Evaluation results are shown below.

SDG	Lab Sample ID	Analyte	Serial Dilution %D	QC Limit	Lab Flag	Affected Samples	Data Qualifier
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CBN81	6035036	Copper	11	10	E	All Groundwaters in CBN81	J
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TABLE 1 – VALIDATED SAMPLES AND ANALYSES PERFORMED

Lancaster SDG/ Sample Group	Lancaster Sample No.	Parsons Field Sample ID	Sample Date	Matrix	Sample Type	VOCs (SW8260B)	SVOCs (SW8270C)	Metals (SW6010B/ SW7471A)	Anions (EPA 300.0)
CBN79/1201611	6024107	PG-SB-1(0'-1.5')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024108	PG-SB-2(0'-2')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024109	PG-SB-3(0'-1')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024110	PG-SB-4(0'-4')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024111	PG-SB-5(2'-6')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024112	PG-SB-6(2'-4')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024113	PG-SB-7(2'-6')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1201611	6024114	PG-SB-8(2'-4')(7-2-10)	7-2-10	SO	N	X	X	X	-
CBN79/1202451	6028804	PGSB-24(8'-10')(7-7-10)	7-7-10	SO	N	X	X	X	-
CBN79/1202451	6028805	PGSB-11(2'-4')(7-7-10)	7-7-10	SO	N	X	X	X	-
CBN79/1202451	6028806	PGSB-11(6'-10')(7-7-10)	7-7-10	SO	N	X	X	X	-
CBN79/1202451	6028807	PGSB-23(0.5'-2')(7-7-10)	7-7-10	SO	N	X	X	X	-
CBN79/1202451	6028808	PGSB-9(2'-4')(7-7-10)	7-7-10	SO	N	X	X	X	-
CBN79/1202451	6028809	PGSB-10(2'-4')(7-7-10)	7-7-10	SO	N	X	X	X	-
CBN79/1202451	6028810	PGSB-22(2'-4')(7-8-10)	7-8-10	SO	N	X	X	X	-
CBN79/1202451	6028811	PGSB-122(2'-4')(7-8-10)	7-8-10	SO	FD	X	X	X	-
CBN79/1202451	6028812	PGSB-22(8'-12')(7-8-10)	7-8-10	SO	N	X	X	X	-
CBN79/1202451	6028813	PGSB-21(2'-4')(7-8-10)	7-8-10	SO	N	X	X	X	-
CBN79/1202451	6028814	PGSB-21(2'-4')(7-8-10)MS	7-8-10	SO	MS	X	X	X	-

TABLE 1 – VALIDATED SAMPLES AND ANALYSES PERFORMED

Lancaster SDG/ Sample Group	Lancaster Sample No.	Parsons Field Sample ID	Sample Date	Matrix	Sample Type	VOCs (SW8260B)	SVOCs (SW8270C)	Metals (SW6010B/ SW7471A)	Anions (EPA 300.0)
CBN79/1202451	6028815	PGSB-21(2'-4')(7-8-10)MSD	7-8-10	SO	MSD	X	X	X	-
CBN79/1202451	6028817	PGSB-21(8'-12')(7-8-10)	7-8-10	SO	N	X	X	X	-
CBN79/1202451	6028818	PGSB-20(8'-8.5')(7-8-10)	7-8-10	SO	N	X	X	X	-
CBN80/1201612	6024115	Trip Blank		AQ	TB	X	X	X	-
CBN80/1201612	6024116	Equip.Blank #1 (6-29-10)	6-29-10	AQ	EB	X	X	X	-
CBN80/1201612	6024117	PBSB-2(2'-6')(6-29-10)	6-29-10	SO	N	X	X	X	-
CBN80/1201612	6024118	PBSB-102(2'-6')(6-29-10)	6-29-10	SO	FD	X	X	X	-
CBN80/1201612	6024119	PBSB-2(6'-11')(6-29-10)	6-29-10	SO	N	X	X	X	-
CBN80/1201612	6024120	PBSB-2(6'-11')(6-29-10)MS	6-29-10	SO	N	X	X	X	-
CBN80/1201612	6024121	PBSB-2(6'-11')(6-29-10)MSD	6-29-10	SO	N	X	X	X	-
CBN80/1201612	6024123	PBSB-3(2'-5.5')(6-29-10)	6-29-10	SO	N	X	X	X	-
CBN80/1201612	6024124	PBSB-3(9'-13.5')(6-29-10)	6-29-10	SO	N	X	X	X	-
CBN80/1201612	6024125	PBSB-4(2'-6')(6-30-10)	6-30-10	SO	N	X	X	X	-
CBN80/1201612	6024126	PBSB-4(8'-12')(6-30-10)	6-30-10	SO	N	X	X	X	-
CBN80/1201612	6024127	PBSB-5(12'-16')(630-10)	6-30-10	SO	N	X	X	X	-
CBN80/1201612	6024128	PBSB-6(12'-16')(6-30-10)	6-30-10	SO	N	X	X	X	-
CBN80/1201612	6024129	PBSB-7(4'-8')(6-30-10)	6-30-10	SO	N	X	X	X	-
CBN80/1201612	6024130	PBSB-7(10'-14')(6-30-10)	6-30-10	SO	N	X	X	X	-
CBN80/1201612	6024131	PBSB-1(2'-4')(6-28-10)	6-28-10	SO	N	X	X	X	-

TABLE 1 – VALIDATED SAMPLES AND ANALYSES PERFORMED

Lancaster SDG/ Sample Group	Lancaster Sample No.	Parsons Field Sample ID	Sample Date	Matrix	Sample Type	VOCs (SW8260B)	SVOCs (SW8270C)	Metals (SW6010B/ SW7471A)	Anions (EPA 300.0)
CBN80/1201612	6024132	PBSB-8(12'-16')(7-1-10)	7-1-10	SO	N	X	X	X	-
CBN80/1201612	6024133	PBSB-9(0'-2')(7-1-10)	7-1-10	SO	N	X	X	X	-
CBN80/1201612	6024134	PBSB-10(2'-4')(7-1-10)	7-1-10	SO	N	X	X	X	-
CBN80/1201612	60241035	PBSB-11(2'-6')(7-1-10)	7-1-10	SO	N	X	X	X	-
CBN81/1202454	6028881	PGSB-13(12'-16')(7-8-10)	07/08/10	SO	N	X	X	X	-
CBN81/1202454	6028882	PGSB-12(2'-4')(7-8-10)	07/08/10	SO	N	X	X	X	-
CBN81/1202454	6028883	EB-1	07/08/10	AQ	EB	X	X	X	-
CBN81/1202454	6028884	Trip Blank	07/08/10	AQ	TB	X	-	-	-
CBN81/1203173	6032534	PGSB-19(2'-4')(7-12-10)	07/12/10	SO	N	X	X	X	-
CBN81/1203173	6032535	PGSB-18(4'-6')(7-13-10)	07/12/10	SO	N	X	X	X	-
CBN81/1203173	6032536	PGSB-16(4'-8')(7-13-10)	07/12/10	SO	N	X	X	X	-
CBN81/1203173	6032537	PGSB-31(12'-16')(7-13-10)	07/13/10	SO	N	X	X	X	-
CBN81/1203173	6032538	PGSB-26(0'-1.5')(7-13-10)	07/13/10	SO	N	X	X	X	-
CBN81/1203173	6032539	PGSB-27(0'-4')(7-13-10)	07/13/10	SO	N	X	X	-	-
CBN81/1203173	6032540	PGSB-28(2'-4.5')(7-13-10)	07/13/10	SO	N	X	X	-	-
CBN81/1203173	6032541	PGSB-35(2'-4')(7-13-10)	07/13/10	SO	N	-	-	X	-
CBN81/1203173	6032542	EB-2(7-13-10)	07/13/10	AQ	EB	X	X	X	-
CBN81/1203173	6032543	PGSB-17(4'-6')(7-14-10)	07/14/10	SO	N	X	X	X	-
CBN81/1203173	6032544	PGSB-25(12'-14')(7-14-10)	07/14/10	SO	N	X	X	X	-

TABLE 1 – VALIDATED SAMPLES AND ANALYSES PERFORMED

Lancaster SDG/ Sample Group	Lancaster Sample No.	Parsons Field Sample ID	Sample Date	Matrix	Sample Type	VOCs (SW8260B)	SVOCs (SW8270C)	Metals (SW6010B/ SW7471A)	Anions (EPA 300.0)
CBN81/1203173	6032545	Trip Blank	07/13/10	AQ	TB	X	-	-	-
CBN81/1203556	6035036	PG6035036SB-32(8'-12')(7-14-10)	07/14/10	SO	N	X	X	X	-
CBN81/1203556	6035037	PGSB-32(8'-12')(7-14-10)MS	07/14/10	SO	MS	X	X	X	-
CBN81/1203556	6035038	PGSB-32(8'-12')(7-14-10)MSD	07/14/10	SO	MSD	X	X	X	-
CBN81/1203556	6035040	PGSB-33(4'-8')(7-14-10)	07/14/10	SO	N	X	X	X	-
CBN81/1203556	6035041	PGSB-133(4'-8')(7-14-10)	07/14/10	SO	FD	X	X	X	-
CBN81/1203556	6035042	PGSB-36(4'-8')(7-14-10)	07/14/10	SO	N	X	X	X	-
CBN81/1203556	6035043	PGSB-37(8'-12')(7-15-10)	07/15/10	SO	N	X	X	X	-
CBN81/1203556	6035044	PGSB-37(18'-20')(7-15-10)	07/15/10	SO	N	X	X	X	-
CBN81/1203556	6035045	PGSB-34(6'-8')(7-15-10)	07/15/10	SO	N	X	X	X	-
CBN81/1203556	6035046	PGSB-39(8'-11')(7-15-10)	07/15/10	SO	N	X	X	X	-
CBN82/1203557	6035047	PGSB-38(2'-4')(7-15-10)	07/15/10	SO	N	X	X	X	-
CBN82/1203557	6035048	PGSB-38(8'-10') (7-15-10)	07/15/10	SO	N	X	X	X	-
CBN82/1203557	6035049	PGSB-29(14'-16') (7-16-10)	07/16/10	SO	N	X	X	X	-
CBN82/1203557	6035050	PGSB-30(14'-15.5') (7-16-10)	07/16/10	SO	N	X	X	X	-
CBN82/1203557	6035051	PGSB-130(14'-15.5') (7-16-10)	07/16/10	SO	FD	X	X	X	-
CBN82/1203557	6035052	PGSB-41(12'-16') (7-19-10)	07/19/10	SO	N	X	X	X	-
CBN82/1204018	6037477	PGSB-48(2'-4') (7-19-10)	07/19/10	SO	N	X	X	X	-
CBN82/1204018	6037478	PGSB-48(2'-4.5') (7-19-10)	07/19/10	SO	N	X	X	X	-

TABLE 1 – VALIDATED SAMPLES AND ANALYSES PERFORMED

Lancaster SDG/ Sample Group	Lancaster Sample No.	Parsons Field Sample ID	Sample Date	Matrix	Sample Type	VOCs (SW8260B)	SVOCs (SW8270C)	Metals (SW6010B/ SW7471A)	Anions (EPA 300.0)
CBN82/1204018	6037479	PGSB-48(2'-4.5')MS(7-19-10)	07/19/10	SO	MS	X	X	X	-
CBN82/1204018	6037480	PGSB-48(2'-4.5')MSD (7-19-10)	07/19/10	SO	MSD	X	X	X	-
CBN82/1204018	6037482	PGSB-50(0'-1') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037483	PGSB-46(4'-6.2') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037484	PGSB-45(4'-7') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037485	PGSB-40(10'-12') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037486	PGSB-42(2'-3.5') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037487	PGSB-43(0'-2') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037488	PGSB-44(2'-4') (7-20-10)	07/20/10	SO	N	X	X	X	-
CBN82/1204018	6037489	Trip Blank	07/20/10	AQ	TB	X	-	-	-
CBN82/1204018	6037490	PGSB-40(7-20-10)	07/20/10	GW	N	X	X	X	X
CBN82/1204018	6037491	EB-3(7-20-10) (7-20-10)	07/20/10	AQ	EB	X	X	X	-
CBN82/1204018	6037492	PGSB-47(0.5'-2') (7-19-10)	07/19/10	SO	N	X	X	X	-

SO=soil; AQ=aqueous; GW=groundwater; N=normal; FD=field duplicate; MS=matrix spike; MSD=matrix spike duplicate; TB=trip blank; EB=equipment blank

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028813	al17s01.d/ A101981AA/ 1.0	PGSB-21(2'-4')(7-8-10)	Chloroethane	U	mg/kg		UJ	MS/MSD RPD
CBN79/1202451	6028813	al17s01.d/ A101981AA/ 1.0	PGSB-21(2'-4')(7-8-10)	Carbon disulfide	U	mg/kg		UJ	LCS %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Chloromethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Vinyl chloride	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Bromomethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Chloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	1,1-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Acetone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Carbon disulfide	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Methylene chloride	0.009	mg/kg		J	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	trans-1,2-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	MTBE	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	1,1-Dichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	di-Isopropyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Ethyl t-butyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	2-Butanone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	cis-1,2-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Chloroform	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	1,1,1-Trichloroethane	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Carbon tetrachloride	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Benzene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	t-Amyl methyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	1,2-Dichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Trichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	1,2-Dichloropropane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	Bromodichloromethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028807	al15s04.d. A101961AA/ 1.0	PGSB-23(0.5'-2')(7-7-10)	4-Methyl-2--pentanone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Chloromethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Vinyl chloride	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Bromomethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Chloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,1-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Acetone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Carbon disulfide	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Methylene chloride	0.021	mg/kg		J	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	trans-1,2-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	MTBE	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,1-Dichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	di-Isopropyl ether	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Ethyl t-butyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	2-Butanone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	cis-1,2-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Chloroform	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,1,1-Trichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Carbon tetrachloride	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Benzene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	t-Amyl methyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,2-Dichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Trichloroethene	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,2-Dichloropropane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Bromodichloromethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811	al15s08.d/ A101961AA/ 1.0	PGSB-122(2'-4')(7-8-10)	4-Methyl-2--pentanone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Chloromethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Vinyl chloride	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Bromomethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Chloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,1-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Acetone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Carbon disulfide	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Methylene chloride	0.021	mg/kg		J	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	trans-1,2-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	MTBE	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,1-Dichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	di-Isopropyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Ethyl t-butyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	2-Butanone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	cis-1,2-Dichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Chloroform	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,1,1-Trichloroethene	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

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CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Carbon tetrachloride	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Benzene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	t-Amyl methyl ether	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,2-Dichloroethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Trichloroethene	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	1,2-Dichloropropane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	Bromodichloromethane	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028811RE	all15s58.d/ 101962AA/ 1.0	PGSB-122(2'-4')(7-8-10)	4-Methyl-2--pentanone	U	mg/kg		UJ	Internal standard %R
CBN79/1202451	6028818	al16s02.d/ A101971AA/ 1.0	PGSB-20(8'-8.5')(7-8-10)	2-Hexanone	U	mg/kg		UJ	CCV %D
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	bis(2-Chloroethyl)ether	U	mg/kg		UJ	MS/MSD %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	bis(2- Chloroethoxy)methane	U	mg/kg		UJ	MS/MSD %R
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	4-Chloroaniline	U	mg/kg		UJ	MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Phenanthrene	0.19	mg/kg		UJ	MS %R, MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Fluoranthene	0.61	mg/kg		J	MSD %R, MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Pyrene	0.49	mg/kg		J	MSD %R, MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Butylbenzylphthalate	U	mg/kg		UJ	MSD %R
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Benzo(a)anthracene	0.29	mg/kg		J	MSD %R, MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Chrysene	0.33	mg/kg		J	MSD %R, MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	bis(2- Ethylhexyl)phthalate	0.86	mg/kg		J	MS/MSD %R
CBN79/1202451	6028813	eg0898.d/ 10193SLB 1.0	PGSB-21(2'-4')(7-8-10)	Benzo(b)fluoranthene	0.44	mg/kg		J	MSD %R, MS/MSD RPD

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SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028813	eg0898.d/ 10193SLB/ 1.0	PGSB-21(2'-4')(7-8-10)	Benzo(a)pyrene	0.31	mg/kg		J	MS/MSD RPD
CBN79/1202451	6028813	eg0898.d/ 10193SLB/ 1.0	PGSB-21(2'-4')(7-8-10)	Indeno(1,2,3-cd)pyrene	0.24	mg/kg		J	MS/MSD RPD
CBN79/1201611	6024109	eg0968.d 10193SLB/ 1.0	PG-SB-3(0'-1')(7-2-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1201611	6024110	eg0969.d 10193SLB/ 1.0	PG-SB-4(0'-4')(7-2-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1201611	6024111	eg0970.d 10193SLB/ 1.0	PG-SB-5(2'-6')(7-2-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1201611	6024112	eg0971.d 10193SLB/ 1.0	PG-SB-6(2'-4')(7-2-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1201611	6024113	eg0972.d 10193SLB/ 1.0	PG-SB-7(2'-6')(7-2-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1201611	6024114	eg0973.d 10193SLB/ 1.0	PG-SB-8(2'-4')(7-2-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1202451	6028804	eg0974.d 10193SLB/ 1.0	PGSB-24(8'-10')(7-7-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1202451	6028805	eg0975.d 10193SLB/ 1.0	PGSB-11(2'-4')(7-7-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D

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SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN79/1202451	6028806	eg0976.d 10193SLB/ 1.0	PGSB-11(6'-10')(7-7-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1202451	6028807	eg0977.d 10193SLB/ 1.0	PGSB-23(0.5'-2')(7-7-10)	2,4-Dinitrophenol	U	mg/kg		UJ	CCV %D
CBN79/1201611	6028813		PG-SB-7(2'-6')(7-2-10)	Calcium	998	mg/kg		J	MSD %R
CBN79/1201611	6028813		PG-SB-7(2'-6')(7-2-10)	Potassium	1750	mg/kg		J	MS/MSD %R
CBN80/1201612	6024117	al08s43.d/ A101892AA/ 1.0	PBSB-2(2'-6')(6-29-10)	t-Butyl alcohol	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024117RE	bl09s30.d/ B101092AA/ 1.0	PBSB-2(2'-6')(6-29-10)	All VOCs		mg/kg		J or UJ	Internal standard %R
CBN80/1201612	6024119	al08s39.d/ A101892AA/ 1.0	PBSB-2(6'-11')(6-29-10)	t-Butyl alcohol	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024117	al08s43.d/ A101892AA/ 1.0	PBSB-2(2'-6')(6-29-10)	Acetone	0.011	mg/kg		J	CCV %D
CBN80/1201612	6024124	al08s46.d/ A101892AA/ 1.0	PBSB-3(9'-13.5')(6-29-10)	Acetone	0.026	mg/kg		J	CCV %D
CBN80/1201612	6024118	bl09s31.d/ B101092AA/ 1.0	PBSB-102(2'-6')(6-29-10)	Methylene chloride	0.011	mg/kg		U	Method blank
CBN80/1201612	6024125	bl09s32.d/ B101092AA/ 1.0	PBSB-4(2'-6')(6-30-10)	Methylene chloride	0.026	mg/kg		U	Method blank

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SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN80/1201612	6024126	bl09s33.d/ B101092AA/ 1.0	PBSB-4(8'-12')(6-30-10)	Methylene chloride	0.012	mg/kg		U	Method blank
CBN80/1201612	6024127	bl09s34.d/ B101092AA/ 1.0	PBSB-5(12'-16')(630-10)	Methylene chloride	0.008	mg/kg		U	Method blank
CBN80/1201612	6024128	bl09s35.d/ B101092AA/ 1.0	PBSB-6(12'-16')(6-30-10)	Methylene chloride	0.026	mg/kg		U	Method blank
CBN80/1201612	6024129	bl09s36.d/ B101092AA/ 1.0	PBSB-7(4'-8')(6-30-10)	Methylene chloride	0.012	mg/kg		U	Method blank
CBN80/1201612	6024130	bl09s37.d/ B101092AA/ 1.0	PBSB-7(10'-14')(6-30-10)	Methylene chloride	0.020	mg/kg		U	Method blank
CBN80/1201612	6024132	bl09s38.d/ B101092AA 1.0	PBSB-1(2'-4')(6-28-10)	Methylene chloride	0.009	mg/kg		U	Method blank
CBN80/1201612	6024134	bl09s40.d/ B101092AA/ 1.0	PBSB-10(2'-4')(7-1-10)	Methylene chloride	0.026	mg/kg		U	Method blank
CBN80/1201612	6024135	bl09s41.d/ B101092AA/ 1.0	PBSB-11(2'-6')(7-1-10)	Methylene chloride	0.021	mg/kg		U	Method blank
CBN80/1201612	6024119	eg0594.d/ 10194SLB/ 1.0	PBSB-2(6'-11')(6-20-10)	4-Chloroaniline	U	mg/kg		UJ	MS/MSD RPD
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Di-n-octylphthalate	U	mg/kg		UJ	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Benzo(b)fluoranthene	0.059	mg/kg	J	UJ	Internal standard %R
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Benzo(k)fluoranthene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Benzo(a)pyrene	0.043	mg/kg	J	J	Internal standard %R
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Indeno(1,2,3-cd)pyrene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Dibenz(a,h)anthracene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Benzo(g,h,i)perylene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Di-n-octylphthalate	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Benzo(b)fluoranthene	0.74	mg/kg		J	Internal standard %R
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Benzo(k)fluoranthene	0.29	mg/kg		J	Internal standard %R
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Benzo(a)pyrene	0.47	mg/kg		J	Internal standard %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Indeno(1,2,3-cd)pyrene	0.34	mg/kg		J	Internal standard %R
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Dibenz(a,h)anthracene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Benzo(g,h,i)perylene	0.39	mg/kg		J	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Di-n-octylphthalate	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Benzo(b)fluoranthene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Benzo(k)fluoranthene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Benzo(a)pyrene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Indeno(1,2,3-cd)pyrene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Dibenz(a,h)anthracene	U	mg/kg		UJ	Internal standard %R
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Benzo(g,h,i)perylene	U	mg/kg		UJ	Internal standard %R

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SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN80/1201612	6024131RE	eg0624.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN80/1201612	6024127RE	og0975.d/ 10200SLC/ 1.0	PBSB-5(12'-16')(6-30-10)	Hexachlorocyclopentadi ene	U	mg/kg		UJ	CCV %D
CBN80/1201612	6024130RE	og0976.d/ 10200SLC/ 1.0	PBSB-7(10'-14')(6-30-10)	Hexachlorocyclopentadi ene	U	mg/kg		UJ	CCV %D
CBN80/1201612	6024132RE	og0977.d/ 10200SLC/ 1.0	PBSB-8(12'-16')(7-1-10)	Hexachlorocyclopentadi ene	U	mg/kg		UJ	CCV %D
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	bis(2-Chloroethyl)ether	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2-Chlorophenol	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	1,3-Dichlorobenzene	U	mg/kg		UJ	LCS %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	1,4-Dichlorobenzene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	1,2-Dichlorobenzene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2-Methylphenol	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	4-Methylpheno1	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Hexachloroethane	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Nitrobenzene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2-Nitrophenol	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2,4-Dimethylphenol	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	bis(2- Chloroethoxy)methane	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2,4-Dichlorophenol	U	mg/kg		UJ	LCS %R

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CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	1,2,4-Trichlorobenzene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Naphthalene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2-Methylnaphthalene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2,4,6-Trichlorophenol	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2,4,5-Trichlorophenol	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	2-Nitronaniline	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Dimethylphthalate	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Acenaphthene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Dibenzofuran	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Diethylphthalate	U	mg/kg		UJ	LCS %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

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CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Fluorene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	4-Chlorophenyl-phenyl ether	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	n-Nitrosodiphenylamine	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	4-Bromophenyl-phenyl ether	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Hexachlorobenzene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Phenanthrene	0.31	mg/kg		J	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Anthracene	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Carbazole	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Di-n-butylphthalate	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Fluoranthene	0.44	mg/kg		J	LCS %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

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CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Pyrene	0.33	mg/kg		J	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Butylbenzylphthalate	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Benzo(a)anthracene	0.14	mg/kg		J	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	Chrysene	0.19	mg/kg		J	LCS %R
CBN80/1201612	6024131	eg0624.d/ 10194SLB/ 1.0	PBSB-8(12'-16')(7-1-10)	bis(2- Ethylhexyl)phthalate	U	mg/kg		UJ	LCS %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Antimony	1.6	mg/kg		J	MS/MSD %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Barium	68.1	mg/kg		J	MS %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Chromium	21	mg/kg		J	MS %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Copper	22.5	mg/kg		J	MS %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Potassium	2510	mg/kg		J	MS/MSD %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Vanadium	24.7	mg/kg		J	MS %R
CBN80/1201612	6024119		PBSB-2(6'-11')6-29-10	Zinc	67.6	mg/kg		J	MS %R
CBN81/1202454	6028881	al15s68.d/ Al101962AA/ 1.0	PGSB-13(12'-16')(7-8-10)	Acetone	0.013	mg/kg	JB	U	Method blank
CBN81/1203556	6035040	bl23S18.d/ B102041AA/ 1.0	PGSB-33(4'-8')(7-14-10)	Acetone	0.008	mg/kg	J	J	CCV %D
CBN81/1203556	6035043	bl23S20.d/ B102041AA/ 1.0	PGSB-37(8'-12')(7-15-10)	Acetone	0.014	mg/kg	J	J	CCV %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN81/1203556	6035044	bl23S20.d/ B102041AA/ 1.0	PGSB-37(18'-20')(7-15-10)	Acetone	0.032	mg/kg		J	CCV %D
CBN81/1202454	6028882	og0877.d/ 10195SLC/ 1.0	PGSB-12(2'-4')(7-8-10)	All SVOCs		mg/kg		R	Surrogate %R
CBN81/1202454	6028882RE	eg1191.d/ 10203SLC/ 1.0	PGSB-12(2'-4')(7-8-10)	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	4-Chloro-3- methylphenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2-Chlorophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2,4-Dichlorophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2,4-Dimethylphenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	4,6-Dinitro-2- methylphenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2,4-Dinitrophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2-Methylphenol	U	mg/kg		UJ	Surrogate %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	4-Methylphenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2-Nitrophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	4-Nitrophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	Pentachlorophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	Phenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2,4,5-Trichlorophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537	eg1590.d/ 10200SLF/ 1.0	PGSB-31(12'-16')(7-13-10)	2,4,6-Trichlorophenol	U	mg/kg		UJ	Surrogate %R
CBN81/1203173	6032537RE	oh0188.d/ 10215SLB/ 1.0	PGSB-31(12'-16')(7-13-10)	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN81/1203173	6032542RE	eh0207.d 10216WAZ 1.0	EB-2	All SVOCs		mg/kg		J or UJ	Extraction holding time exceeded
CBN81/1203556	6035036		PG6035036SB-32(8'-12')(7-14-10)	Lead	10.4	mg/g		J	MSD %R
CBN81/1203556	6035036		PG6035036SB-32(8'-12')(7-14-10)	Potassium	1780	mg/kg		J	MS/MSD %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

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CBN81/1202454	6028881		PGSB-13(12'-16')(7-8-10)	Copper	9.49	mg/kg		J	Serial dilution %D
CBN81/1202454	6028882		PGSB-12(2'-4')(7-8-10)	Copper	10.7	mg/kg		J	Serial dilution %D
CBN81/1203173	6032534		PGSB-19(2'-4')(7-12-10)	Copper	14.6	mg/kg		J	Serial dilution %D
CBN81/1203173	6032535		PGSB-18(4'-6')(7-13-10)	Copper	6.52	mg/kg		J	Serial dilution %D
CBN81/1203173	6032536		PGSB-16(4'-8')(7-13-10)	Copper	20.5	mg/kg		J	Serial dilution %D
CBN81/1203173	6032537		PGSB-31(12'-16')(7-13-10)	Copper	26	mg/kg		J	Serial dilution %D
CBN81/1203173	6032538		PGSB-26(0'-1.5')(7-13-10)	Copper	24.3	mg/kg		J	Serial dilution %D
CBN81/1203173	6032539		PGSB-27(0'-4')(7-13-10)	Copper	20.2	mg/kg		J	Serial dilution %D
CBN81/1203173	6032540		PGSB-28(2'-4.5')(7-13-10)	Copper	18.9	mg/kg		J	Serial dilution %D
CBN81/1203173	6032541		PGSB-35(2'-4')(7-13-10)	Copper	24.7	mg/kg		J	Serial dilution %D
CBN81/1203173	6032543		PGSB-17(4'-6')7-14-10)	Copper	22.4	mg/kg		J	Serial dilution %D
CBN81/1203173	6032544		PGSB-25(12'-14')(7-14-10)	Copper	27.5	mg/kg		J	Serial dilution %D
CBN81/1203556	6035036		PG6035036SB-32(8'-12')(7-14-10)	Copper	15.4	mg/kg		J	Serial dilution %D
CBN81/1203556	6035040		PGSB-33(4'-8')(7-14-10)	Copper	18.3	mg/kg		J	Serial dilution %D
CBN81/1203556	6035041		PGSB-133(4'-8')(7-14-10)	Copper	19.5	mg/kg		J	Serial dilution %D
CBN81/1203556	6035042		PGSB-36(4'-8')(7-14-10)	Copper	11.2	mg/kg		J	Serial dilution %D
CBN81/1203556	6035043		PGSB-37(8'-12')(7-15-10)	Copper	32.3	mg/kg		J	Serial dilution %D
CBN81/1203556	6035044		PGSB-37(18'-20')(7-15-10)	Copper	15.2	mg/kg		J	Serial dilution %D
CBN81/1203556	6035045		PGSB-34(6'-8')(7-15-10)	Copper	24.8	mg/kg		J	Serial dilution %D
CBN81/1203556	6035046		PGSB-39(8'-11')(7-15-10)	Copper	30.1	mg/kg		J	Serial dilution %D
CBN82/1204018	6037477RE	bl23s24.d/ B202041AA/ 1.0	PGSB-48(2'-4') (7-19-10)	Acetone	0.005	mg/kg	J	J	Surrogate %R
CBN82/1204018	6037477RE	bl23s24.d/ B202041AA/ 1.0	PGSB-48(2'-4') (7-19-10)	Methylene chloride	0.005	mg/kg	J	J	Surrogate %R
CBN82/1203557	6035042	bl23s19.d/ B102041AA/ 1	PGSB-36(4'-8')(7-14-10)	Acetone	U	mg/kg	J	UJ	CCV %D

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CBN82/1203557	6035043	bl23s20.d/ B102041AA/ 1	PGSB-37(8'-12')(7-15-10)	Acetone	0.014	mg/kg	J	J	CCV %D
CBN82/1203557	6035044	bl23s21.d/ B102041AA/ 1	PGSB-37(18'-20')(7-15-10)	Acetone	0.032	mg/kg	J	J	CCV %D
CBN82/1203557	6035046	bl23s22.d/ B102041AA/ 1	PGSB-39(8'-11')(7-15-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1203557	6035048	bl23s01.d/ B102041AA/ 1	PGSB-38(8'-10') (7-15-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1203557	6035049	bl23s02.d/ B102041AA/ 1	PGSB-29(14'-16') (7-16-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1203557	6035050	bl23s03.d/ B102041AA/ 1	PGSB-30(14'-15.5') (7-16-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1203557	6035051	bl23s04.d/ B102041AA/ 1	PGSB-130(14'-15.5') (7-16-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037477	bl23s09.d/ B102041AA/ 1	PGSB-48(2'-4') (7-19-10)	Acetone	0.011	mg/kg	J	J	CCV %D
CBN82/1204018	6037477RE	bl23s24.d/ B102041AA/ 1	PGSB-48(2'-4') (7-19-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037478	bl23s05.d/ B102041AA/ 1	PGSB-48(2'-4.5') (7-19-10)	Acetone	0.009	mg/kg	J	J	CCV %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037482	bl23s10.d/ B102041AA/ 1	PGSB-50(0'-1') (7-20-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037482	bl23s10.d/ B102041AA/ 1	PGSB-50(0'-1') (7-20-10)	Chloroethane	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037483	bl23s11.d/ B102041AA/ 1	PGSB-46(4'-6.2') (7-20-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037484	bl23s12.d/ B102041AA/ 1	PGSB-45(4'-7') (7-20-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037485	bl23s04.d/ B102041AA/ 1	PGSB-40(10'-12') (7-20-10)	Acetone	0.023	mg/kg	J	J	CCV %D
CBN82/1204018	6037486	bl23s04.d/ B102041AA/ 1	PGSB-42(2'-3.5') (7-20-10)	Acetone	0.008	mg/kg	J	J	CCV %D
CBN82/1204018	6037487	bl23s13.d/ B102041AA/ 1	PGSB-43(0'-2') (7-20-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037488	bl23s14.d/ B102041AA/ 1	PGSB-44(2'-4') (7-20-10)	Acetone	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037488	bl23s14.d/ B102041AA/ 1	PGSB-44(2'-4') (7-20-10)	Chloroethane	U	mg/kg	J	UJ	CCV %D
CBN82/1204018	6037492	bl23s15.d/ B102041AA/ 1	PGSB-47(0.5'-2') (7-19-10)	Acetone	U	mg/kg	J	UJ	CCV %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037490	oh0065.d/ 10205WAC	PGSB-40(7-20-10)	Benzo(a)anthracene	130	mg/L	J	J	LCS/LCSD %R
CBN82/1203557.	6035047RE	og1237.d/ 10208SLB/ 1	PGSB-38(2'-4')(7-15-10)	All SVOCs		mg/kg	J	J or UJ	Extraction holding time exceeded
CBN82/1203557.	6035048RE	og1238.d/ 10208SLB/ 1	PGSB-38(8'-10') (7-15-10)	All SVOCs		mg/kg	J	J or UJ	Extraction holding time exceeded
CBN82/1203557.	6035049RE	og1239d/ 10208SLB/ 1	PGSB-29(14'-16') (7-16-10)	All SVOCs		mg/kg	J	J or UJ	Extraction holding time exceeded
CBN82/1203557.	6035050RE	og1240/ 10208SLB/ 1	PGSB-30(14'-15.5') (7-16-10)	All SVOCs		mg/kg	J	J or UJ	Extraction holding time exceeded
CBN82/1203557.	6035051RE	og1241/ 10208SLB/ 1	PGSB-130(14'-15.5') (7-16-10)	All SVOCs		mg/kg	J	J or UJ	Extraction holding time exceeded
CBN82/1204018	6037490RE	eh0474.d/ 10208SLB/ 1	PGSB-40(7-20-10)	All SVOCs		mg/L	J	J or UJ	Extraction holding time exceeded
CBN82/1204018	6037491RE	eh0475.d/ 10208SLB/ 1	EB-3(7-20-10)	All SVOCs		mg/kg	J	J or UJ	Extraction holding time exceeded
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	4-Chloro-3-methylphenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2-Chlorophenol	U	mg/kg		UJ	Surrogate %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2,4-Dichlorophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2,4-Dimethylphenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	4,6-Dinitro-2-methylphenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2,4-Dinitrophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2-Methylphenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	4-Methylphenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2-Nitrophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	4-Nitrophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	Pentachlorophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	Phenol	U	mg/kg		UJ	Surrogate %R

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1203557	6035050	og1030.d/ 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2,4,5-Trichlorophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1203557	6035050	og1030.d/ 10200SLC/ 1.0	PGSB-30(14'-15.5') (7-16-10)	2,4,6-Trichlorophenol	U	mg/kg		UJ	Surrogate %R
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	bis(2-Ethylhexyl)phthalate	3	µg/L		J	Surrogate %R
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Hexachlorocyclopentadiene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2,4,6-Trichlorophenol	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2,4,5-Trichlorophenol	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2-Chloronaphthalene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2-Nitroaniline	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Dimethylphthalate	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2,6-Dinitrotoluene	U	µg/L		UJ	Internal standard %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Acenaphthylene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	3-Nitroaniline	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Acenaphthene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2,4-Dinitrophenol	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	4-Nitrophenol	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Dibenzofuran	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	2,4-Dinitrotoluene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Diethylphthalate	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Fluorene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	4-Chlorophenyl-phenyl ether	U	µg/L		UJ	Internal standard %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	4-Nitroaniline	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Di-n-octylphthalate	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Benzo(b)fluoranthene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Benzo(k)fluoranthene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Benzo(a)pyrene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Indeno(1,2,3-cd)pyrene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Dibenz(a,h)anthracene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491	oh0066.d/ 10205WAC/ 1.0	EB-3(7-20-10)	Benzo(g,h,i)perylene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Hexachlorocyclopentadiene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2,4,6-Trichlorophenol	U	µg/L		UJ	Internal standard %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2,4,5-Trichlorophenol	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2-Chloronaphthalene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2-Nitroaniline	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Dmethylphthalate	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2,5-Dinitrotoluene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Acenaphthylene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	3-Nitroaniline	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Acenaphthene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2,4-Dinitrophenol	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	4-Nitrophenol	U	µg/L		UJ	Internal standard %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Dibenzofurna	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	2,4-Dinitrotoluene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Diethylphthalate	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Fluorene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	4-Chlorophenyl-phenyl ether	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	4-Nitroaniline	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Di-n-octylphthalate	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Benzo(b)fluoranthene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Benzo(k)fluoranthene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Benzo(a)pyrene	U	µg/L		UJ	Internal standard %D

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Indeno(1,2,3-cd)pyrene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Dibenz(a,h)anthracene	U	µg/L		UJ	Internal standard %D
CBN82/1204018	6037491RE	eh0475.d/ 10216WAF/ 1	EB-3(7-20-10)	Benzo(g,h,i)perylene	U	µg/L		UJ	Internal standard %D
CBN82/1203557	6035052	og1070.d. 10200SLC/ 10.0	PGSB-41(12'-16') (7-19-10)	Phenanthrene	140	mg/kg	E	J	Calibration range exceeded
CBN82/1203557	6035052	og1070.d. 10200SLC/ 10.0	PGSB-41(12'-16') (7-19-10)	Fluoranthene	120	mg/kg	E	J	Calibration range exceeded
CBN82/1203557	6035052	og1070.d. 10200SLC/ 10.0	PGSB-41(12'-16') (7-19-10)	Pyrene	130	mg/kg	E	J	Calibration range exceeded
CBN82/1203557	6035052	og1070.d. 10200SLC/ 10.0	PGSB-41(12'-16') (7-19-10)	Benzo(a)anthracene	58	mg/kg	E	J	Calibration range exceeded
CBN82/1203557	6035052	og1070.d. 10200SLC/ 10.0	PGSB-41(12'-16') (7-19-10)	Chrysene	56	mg/kg	E	J	Calibration range exceeded
CBN82/1203557	6035052	og1070.d. 10200SLC/ 10.0	PGSB-41(12'-16') (7-19-10)	Benzo(b)fluoranthene	55	mg/kg	E	J	Calibration range exceeded
CBN82/1204018	6037478		PGSB-48(2'-4.5') (7-19-10)	Antimony	U	mg/kg		UJ	MS/MSD %R
CBN82/1204018	6037478		PGSB-48(2'-4.5') (7-19-10)	Potassium	1780	mg/kg		J	MS/MSD %R
CBN82/1203557	6035047		PGSB-38(2'-4')(7-15-10)	Manganese	431	mg/kg		J	Lab duplicate RPD
CBN82/1203557	6035048		PGSB-38(8'-10') (7-15-10)	Manganese	476	mg/kg		J	Lab duplicate RPD

TABLE 2-DATA VALIDATION DATA QUALIFIERS AND DATA FLAG CHANGES

SDG/ Sample Group	Lab ID	File ID/ QC batch/ Analytical Dilution factor	Sample ID	Analyte	Reported Concentration⁽¹⁾	Units	Old Flag (lab flag)	Final Q (summary)	Reason
CBN82/1203557	6035049		PGSB-29(14'-16') (7-16-10)	Manganese	436	mg/kg		J	Lab duplicate RPD
CBN82/1203557	6035050		PGSB-30(14'-15.5') (7-16-10)	Manganese	433	mg/kg		J	Lab duplicate RPD
CBN82/1203557	6035051		PGSB-130(14'-15.5') (7-16-10)	Manganese	543	mg/kg		J	Lab duplicate RPD
CBN82/1203557	6035052		PGSB-41(12'-16') (7-19-10)	Manganese	647	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037477		PGSB-48(2'-4') (7-19-10)	Manganese	794	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037478		PGSB-48(2'-4.5') (7-19-10)	Manganese	788	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037482		PGSB-50(0'-1') (7-20-10)	Manganese	430	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037483		PGSB-46(4'-6.2') (7-20-10)	Manganese	561	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037484		PGSB-45(4'-7') (7-20-10)	Manganese	543	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037485		PGSB-40(10'-12') (7-20-10)	Manganese	204	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037486		PGSB-42(2'-3.5') (7-20-10)	Manganese	274	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037487		PGSB-43(0'-2') (7-20-10)	Manganese	329	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037488		PGSB-44(2'-4') (7-20-10)	Manganese	505	mg/kg		J	Lab duplicate RPD
CBN82/1204018	6037490		PGSB-40(7-20-10)	Manganese	9.66	mg/L		J	Lab duplicate RPD
CBN82/1204018	6037492		PGSB-47(0.5'-2') (7-19-10)	Manganese	4.95	mg/kg		J	Lab duplicate RPD

⁽¹⁾ Dry weight sample concentration unless stated otherwise.

TABLE 3-DATA USE SELECTION DECISIONS

Field Sample ID	Lab Sample ID	Lab file/ QC batch/ Dilution	Analyte Result	t ⁽¹⁾	Units	Lab Flag	VAL Flag (Data Usability Flag)	Data Selection Decision	Reason
PGSB-23(0.5'-2')(7-7-10)	6028807RE	al15S57.d/ A101962AA/ 1.0	All VOCs		mg/kg			Don't Use	Internal standard non-compliance confirmation only
PGSB-23(0.5'-2')(7-7-10)	6028807	al15s04.d. A101961AA/ 1.0	All VOCs		mg/kg			Use	
PGSB-122(2'-4')(7-8-10)	6028811RE	all15s58.d/ 101962AA/ 1.0	All VOCs		mg/kg			Use	
PGSB-122(2'-4')(7-8-10)	6028811	al15s08.d/ A101961AA/ 1.0	All VOCs		mg/kg			Don't Use	Internal standard non-compliance confirmation only
PG-SB-5(2'-6')(7-2-10)	6024111	eg1044.d/ 10193SLB/ 1.0	All SVOCs		mg/kg			Don't Use	Surrogate non-compliance confirmation only
PG-SB-5(2'-6')(7-2-10)	6024111RE	og1233.d/ 10208SLB/ 1.0	All SVOCs		mg/kg			Use	
PGSB-20*8'-8.5')(7-8-10)	6028818	og0875.d/ 10195SLC/ 1.0	All SVOCs		mg/kg			Don't Use	Surrogate non-compliance confirmation only
PGSB-20*8'-8.5')(7-8-10)	6028818RE	eg1190.d/ 10203SLC/ 1.0	All SVOCs		mg/kg			Use	
PBSB-5(12'-16')(6-30-10)	6024127RE	og0975.d/ 10200SLC	All SVOCs		mg/kg			Don't Use	Analytical holding time exceeded
PBSB-5(12'-16')(6-30-10)	6024127	eg0620.d/ 10194SLB	All SVOCs		mg/kg			Use	

TABLE 3-DATA USE SELECTION DECISIONS

Field Sample ID	Lab Sample ID	Lab file/ QC batch/ Dilution	Analyte Result	t ⁽¹⁾	Units	Lab Flag	VAL Flag (Data Usability Flag)	Data Selection Decision	Reason
PBSB-7(10'-14')(6-30-10)	6024130RE	og0976.d/ 10200SLC	All SVOCs		mg/kg			Don't Use	Analytical holding time exceeded
PBSB-7(10'-14')(6-30-10)	6024130	eg0623.d/ 10194SLB	All SVOCs		mg/kg			Use	
PBSB-8(12'-16')(7-1-10)	6024131RE	eg0624.d/ 10194SLB	All SVOCs		mg/kg			Don't Use	Analytical holding time exceeded
PBSB-8(12'-16')(7-1-10)	6024131	eg1032.d/ 10188SLC	All SVOCs		mg/kg			Use	
PBSB-8(12'-16')(7-1-10)	6024132RE	og0977.d/ 10200SLC	All SVOCs		mg/kg			Don't Use	Analytical holding time exceeded
PBSB-8(12'-16')(7-1-10)	6024132	eg0625.d/ 10194SLB	All SVOCs		mg/kg			Use	
PGSB-12(2'-4')(7-8-10)	6028882	og0877.d/ 10195SLC/ 1.0	All SVOCs		mg/kg		R	R	Surrogate %R
PGSB-12(2'-4')(7-8-10)	6028882	eg1191.d/ 10203SLC/ 1.0	All SVOCs		mg/kg		J	J or UJ	Holding time exceeded, but initial analysis results not usable
PGSB-31(12'-16')(7-13-10)	6032537	eg1590.d/ 10200SLF/ 1.0	All SVOCs		mg/kg		J or UJ (Phenols)	Use	Re-analysis holding time exceeded
PGSB-31(12'-16')(7-13-10)	6032537	oh0188.d/ 10215SLB/ 1.0	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-48(2'-4') (7-19-10)	6037477RE	bl23s24.d/ B202041AA/ 1.0	All VOCs		mg/kg		J	Don't Use	Surrogate non-compliance confirmation only
PGSB-48(2'-4') (7-19-10)	6037477	bl23s09.d/ B202041AA/ 1.0	All VOCs		mg/kg			Use	

TABLE 3-DATA USE SELECTION DECISIONS

Field Sample ID	Lab Sample ID	Lab file/ QC batch/ Dilution	Analyte Result	t ⁽¹⁾	Units	Lab Flag	VAL Flag (Data Usability Flag)	Data Selection Decision	Reason
PGSB-38(2'-4')(7-15-10)	6035047RE	og1237.d/ 10208SLB/ 1	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-38(2'-4')(7-15-10)	6035047	og1027.d/ 10200SLC/ 1	All SVOCs		mg/kg			Use	
PGSB-38(8'-10') (7-15-10)	6035048RE	og1238.d/ 10208SLB/ 1	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-38(8'-10') (7-15-10)	6035048	og1028.d/ 10200SLC/ 1	All SVOCs		mg/kg			Use	
PGSB-29(14'-16') (7-16-10)	6035049RE	og1239.d/ 10208SLB/ 1	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-29(14'-16') (7-16-10)	6035049	og1029.d/ 10200SLC/ 1	All SVOCs		mg/kg			Use	
PGSB-30(14'-15.5') (7-16-10)	6035050RE	og1240/ 10208SLB/ 1	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-30(14'-15.5') (7-16-10)	6035050	og1030/ 10200SLC/ 1	All SVOCs		mg/kg			Use	
PGSB-130(14'-15.5') (7-16-10)	6035051RE	og1241 10208SLB/ 1	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-130(14'-15.5') (7-16-10)	6035051	og1031 10200SLC/ 1	All SVOCs		mg/kg			Use	

TABLE 3-DATA USE SELECTION DECISIONS

Field Sample ID	Lab Sample ID	Lab file/ QC batch/ Dilution	Analyte Result	t ⁽¹⁾	Units	Lab Flag	VAL Flag (Data Usability Flag)	Data Selection Decision	Reason
PGSB-40(7-20-10)	6037490RE	eh0474.d/ 10216WAF/ 1	All SVOCs		mg/kg		J or UJ	Don't Use	Holding time exceeded
PGSB-40(7-20-10)	6037490	oh0065.d/ 10205WAC/ 1	All SVOCs		mg/L			Use	
EB-3	6037491RE	eh0475.d/ 10216WAF/ 1	All SVOCs		mg/L		J or UJ	Don't Use	Holding time exceeded
EB-3	6037491	oh0065.d/ 10205WAC/ 1	All SVOCs		mg/L			Use	
PGSB-41(12'-16') (7-19-10)	6035052	og1070.d/ 10200SLC/ 10.0	Phenanthrene	140	mg/kg	E	J	Don't Use	Calibration range exceeded
PGSB-41(12'-16') (7-19-10)	6035052	og1070.d/ 10200SLC/ 10.0	Fluoranthene	120	mg/kg	E	J	Don't Use	Calibration range exceeded
PGSB-41(12'-16') (7-19-10)	6035052	og1070.d/ 10200SLC/ 10.0	Pyrene	130	mg/kg	E	J	Don't Use	Calibration range exceeded
PGSB-41(12'-16') (7-19-10)	6035052	og1070.d/ 10200SLC/ 10.0	Benzo(a)anthracene	58	mg/kg	E	J	Don't Use	Calibration range exceeded
PGSB-41(12'-16') (7-19-10)	6035052	og1070.d/ 10200SLC/ 10.0	Chrysene	56	mg/kg	E	J	Don't Use	Calibration range exceeded
PGSB-41(12'-16') (7-19-10)	6035052	og1070.d/ 10200SLC/ 10.0	Benzo(b)fluoranthene	55	mg/kg	E	J	Don't Use	Calibration range exceeded

TABLE 3-DATA USE SELECTION DECISIONS

Field Sample ID	Lab Sample ID	Lab file/ QC batch/ Dilution	Analyte Result	t ⁽¹⁾	Units	Lab Flag	VAL Flag (Data Usability Flag)	Data Selection Decision	Reason
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	Phenanthrene	140	mg/kg	E		Use	
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	Fluoranthene	130	mg/kg			Use	
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	Pyrene	130	mg/kg			Use	
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	Benzo(a)anthracene	55	mg/kg			Use	
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	Chrysene	53	mg/kg			Use	
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	Benzo(b)fluoranthene	52	mg/kg			Use	
PGSB-41(12'-16') (7-19-10)	6035052DL	og1071.d. 10200SLC/ 100.0	All Other SVOCs		mg/kg			Don't Use	Use 10x dilution

⁽¹⁾ Dry weight sample concentration unless stated otherwise.

TABLE 4 – FIELD DUPLICATE SAMPLE RESULTS

Analyte	Collection Date Field	Sample ID	Field Sample Value	Units	Replicate Sample ID	Replicate Sample Value RPD	*
Methylene chloride	6-29-10	PGSB-22(2'-4')	0.01	mg/kg	PGSB-122(2'-4')	0.011	9.5%
Benzo(a)anthracene	6-29-10	PGSB-22(2'-4')	0.33	mg/kg	PGSB-122(2'-4')	0.15J	75.0%
Benzo(a)pyrene	6-29-10	PGSB-22(2'-4')	0.33	mg/kg	PGSB-122(2'-4')	0.15J	75.0%
Benzo(b)fluoranthene	6-29-10	PGSB-22(2'-4')	0.59	mg/kg	PGSB-122(2'-4')	0.26	77.6%
Benzo(g,h,i)perylene	6-29-10	PGSB-22(2'-4')	0.32	mg/kg	PGSB-122(2'-4')	0.13J	84.4%
Chrysene	6-29-10	PGSB-22(2'-4')	0.41	mg/kg	PGSB-122(2'-4')	0.19J	73.3%
Fluoranthene	6-29-10	PGSB-22(2'-4')	0.65	mg/kg	PGSB-122(2'-4')	0.28	79.6%
Indeno(1,2,3-cd)pyrene	6-29-10	PGSB-22(2'-4')	0.27	mg/kg	PGSB-122(2'-4')	0.13J	70.0%
Phenanthrene	6-29-10	PGSB-22(2'-4')	0.31	mg/kg	PGSB-122(2'-4')	0.12J	88.4%
Pyrene	6-29-10	PGSB-22(2'-4')	0.72	mg/kg	PGSB-122(2'-4')	0.31	79.6%
Aluminum	6-29-10	PGSB-22(2'-4')	19300	mg/kg	PGSB-122(2'-4')	16700	14.4%
Arsenic	6-29-10	PGSB-22(2'-4')	5.07	mg/kg	PGSB-122(2'-4')	4.60	9.7%
Barium	6-29-10	PGSB-22(2'-4')	63.3	mg/kg	PGSB-122(2'-4')	52.8	18.1%
Beryllium	6-29-10	PGSB-22(2'-4')	1.43	mg/kg	PGSB-122(2'-4')	1.20	17.5%
Cadmium	6-29-10	PGSB-22(2'-4')	1.12	mg/kg	PGSB-122(2'-4')	0.359J	102.2%
Calcium	6-29-10	PGSB-22(2'-4')	7340	mg/kg	PGSB-122(2'-4')	11000	39.9%
Chromium	6-29-10	PGSB-22(2'-4')	23.8	mg/kg	PGSB-122(2'-4')	19.5	19.9%
Cobalt	6-29-10	PGSB-22(2'-4')	9.33	mg/kg	PGSB-122(2'-4')	7.76	18.4%
Copper	6-29-10	PGSB-22(2'-4')	25.6	mg/kg	PGSB-122(2'-4')	18.8	30.6%
Iron	6-29-10	PGSB-22(2'-4')	32300	mg/kg	PGSB-122(2'-4')	31700	1.9%
Lead	6-29-10	PGSB-22(2'-4')	26.9	mg/kg	PGSB-122(2'-4')	20.7	26.1%
Magnesium	6-29-10	PGSB-22(2'-4')	9110	mg/kg	PGSB-122(2'-4')	10800	17.0%
Manganese	6-29-10	PGSB-22(2'-4')	774	mg/kg	PGSB-122(2'-4')	589	27.1%
Nickel	6-29-10	PGSB-22(2'-4')	15.9	mg/kg	PGSB-122(2'-4')	12.4	24.7%
Potassium	6-29-10	PGSB-22(2'-4')	2110	mg/kg	PGSB-122(2'-4')	1890	11.0%
Sodium	6-29-10	PGSB-22(2'-4')	191	mg/kg	PGSB-122(2'-4')	157	19.5%
Vanadium	6-29-10	PGSB-22(2'-4')	28.7	mg/kg	PGSB-122(2'-4')	26.2	9.1%
Zinc	6-29-10	PGSB-22(2'-4')	94.0	mg/kg	PGSB-122(2'-4')	81.2	14.6%
Methylene chloride	07/08/10	PGSB-22(2'-4')	0.004J	mg/kg	PGSB-122(2'-4')	0.020	133.3%
Anthracene	07/08/10	PGSB-22(2'-4')	0.50	mg/kg	PGSB-122(2'-4')	0.57	13.1%

Benzo(a)anthracene	07/08/10	PGSB-22(2'-4')	1.9	mg/kg	PGSB-122(2'-4')	1.9	0.0%
Benzo(a)pyrene	07/08/10	PGSB-22(2'-4')	1.8	mg/kg	PGSB-122(2'-4')	1.7	5.7%
Benzo(b)fluoranthene	07/08/10	PGSB-22(2'-4')	2.5	mg/kg	PGSB-122(2'-4')	2.3	8.3%
Benzo(g,h,i)perylene	07/08/10	PGSB-22(2'-4')	1.3	mg/kg	PGSB-122(2'-4')	1.2	8.0%
Benzo(k)fluoranthene	07/08/10	PGSB-22(2'-4')	1.1	mg/kg	PGSB-122(2'-4')	1.1	0.0%
Carbazole	07/08/10	PGSB-22(2'-4')	0.21	mg/kg	PGSB-122(2'-4')	0.23	9.1%
Chrysene	07/08/10	PGSB-22(2'-4')	1.8	mg/kg	PGSB-122(2'-4')	1.7	5.7%
Dibenz(a,h)anthracene	07/08/10	PGSB-22(2'-4')	0.33	mg/kg	PGSB-122(2'-4')	0.31	6.3%
bis(2-Ethylhexyl)phthalate	07/08/10	PGSB-22(2'-4')	0.68	mg/kg	PGSB-122(2'-4')	0.72	5.7%
Fluoranthene	07/08/10	PGSB-22(2'-4')	3.8	mg/kg	PGSB-122(2'-4')	3.8	0.0%
Indeno(1,2,3-cd)pyrene	07/08/10	PGSB-22(2'-4')	1.2	mg/kg	PGSB-122(2'-4')	1.1	8.7%
Phenanthrene	07/08/10	PGSB-22(2'-4')	1.7	mg/kg	PGSB-122(2'-4')	2.0	16.2%
Pyrene	07/08/10	PGSB-22(2'-4')	2.8	mg/kg	PGSB-122(2'-4')	2.9	3.5%
Aluminum	07/08/10	PGSB-22(2'-4')	19600	mg/kg	PGSB-122(2'-4')	20500	4.5%
Arsenic	07/08/10	PGSB-22(2'-4')	9.06	mg/kg	PGSB-122(2'-4')	9.17	1.2%
Barium	07/08/10	PGSB-22(2'-4')	76.0	mg/kg	PGSB-122(2'-4')	79.3	4.2%
Beryllium	07/08/10	PGSB-22(2'-4')	0.611	mg/kg	PGSB-122(2'-4')	0.654	6.8%
Calcium	07/08/10	PGSB-22(2'-4')	2150	mg/kg	PGSB-122(2'-4')	2380	10.2%
Chromium	07/08/10	PGSB-22(2'-4')	18.1	mg/kg	PGSB-122(2'-4')	19.0	4.9%
Cobalt	07/08/10	PGSB-22(2'-4')	10.4	mg/kg	PGSB-122(2'-4')	11.3	8.3%
Copper	07/08/10	PGSB-22(2'-4')	27.0	mg/kg	PGSB-122(2'-4')	27.1	0.4%
Iron	07/08/10	PGSB-22(2'-4')	28200	mg/kg	PGSB-122(2'-4')	29800	5.5%
Lead	07/08/10	PGSB-22(2'-4')	55.8	mg/kg	PGSB-122(2'-4')	59.9	7.1%
Magnesium	07/08/10	PGSB-22(2'-4')	5630	mg/kg	PGSB-122(2'-4')	6010	6.5%
Manganese	07/08/10	PGSB-22(2'-4')	660	mg/kg	PGSB-122(2'-4')	742	11.7%
Nickel	07/08/10	PGSB-22(2'-4')	20.7	mg/kg	PGSB-122(2'-4')	21.6	4.3%
Potassium	07/08/10	PGSB-22(2'-4')	1690	mg/kg	PGSB-122(2'-4')	1600	5.5%
Vanadium	07/08/10	PGSB-22(2'-4')	28.5	mg/kg	PGSB-122(2'-4')	29.6	3.8%
Zinc	07/08/10	PGSB-22(2'-4')	98.7	mg/kg	PGSB-122(2'-4')	106	7.1%
Methylene chloride	07/14/10	PGSB-33(4'-8')	0.015	mg/kg	PGSB-133(4'-8')	0.008	61
bis(2-Ethylhexyl)phthalate	07/14/10	PGSB-33(4'-8')	2.0	mg/kg	PGSB-133(4'-8')	0.52	117
Aluminum	07/14/10	PGSB-33(4'-8')	13800	mg/kg	PGSB-133(4'-8')	14500	4.9%
Arsenic	07/14/10	PGSB-33(4'-8')	5.35	mg/kg	PGSB-133(4'-8')	6.11	13.3%
Barium	07/14/10	PGSB-33(4'-8')	39.9	mg/kg	PGSB-133(4'-8')	40.9	2.5%

Beryllium	07/14/10	PGSB-33(4'-8')	0.738	mg/kg	PGSB-133(4'-8')	0.865	15.8%
Calcium	07/14/10	PGSB-33(4'-8')	2270	mg/kg	PGSB-133(4'-8')	2310	1.7%
Chromium	07/14/10	PGSB-33(4'-8')	15.1	mg/kg	PGSB-133(4'-8')	15.3	1.3%
Cobalt	07/14/10	PGSB-33(4'-8')	7.98	mg/kg	PGSB-133(4'-8')	9.44	16.8%
Copper	07/14/10	PGSB-33(4'-8')	18.3	mg/kg	PGSB-133(4'-8')	19.5	6.3%
Iron	07/14/10	PGSB-33(4'-8')	23700	mg/kg	PGSB-133(4'-8')	27500	14.8%
Lead	07/14/10	PGSB-33(4'-8')	16.3	mg/kg	PGSB-133(4'-8')	17.3	6.0%
Magnesium	07/14/10	PGSB-33(4'-8')	5220	mg/kg	PGSB-133(4'-8')	5490	5.0%
Manganese	07/14/10	PGSB-33(4'-8')	503	mg/kg	PGSB-133(4'-8')	613	19.7%
Nickel	07/14/10	PGSB-33(4'-8')	15.3	mg/kg	PGSB-133(4'-8')	17.1	11.1%
Potassium	07/14/10	PGSB-33(4'-8')	1810	mg/kg	PGSB-133(4'-8')	1560	14.8%
Sodium	07/14/10	PGSB-33(4'-8')	721	mg/kg	PGSB-133(4'-8')	769	6.4%
Vanadium	07/14/10	PGSB-33(4'-8')	20.5	mg/kg	PGSB-133(4'-8')	22.6	9.7%
Zinc	07/14/10	PGSB-33(4'-8')	54.1	mg/kg	PGSB-133(4'-8')	60.0	10.3%
Aluminum	07/16/10	PGSB-30(14'-15.5')	15000	mg/kg	PGSB-130(14'-15.5')	15000	0.0%
Arsenic	07/16/10	PGSB-30(14'-15.5')	4.08	mg/kg	PGSB-130(14'-15.5')	4.94	19.1%
Barium	07/16/10	PGSB-30(14'-15.5')	54.8	mg/kg	PGSB-130(14'-15.5')	63.9	15.3%
Beryllium	07/16/10	PGSB-30(14'-15.5')	0.685	mg/kg	PGSB-130(14'-15.5')	0.723	5.4%
Cadmium	07/16/10	PGSB-30(14'-15.5')	0.905	mg/kg	PGSB-130(14'-15.5')	9.956	5.5%
Calcium	07/16/10	PGSB-30(14'-15.5')	13000	mg/kg	PGSB-130(14'-15.5')	15100	14.9%
Chromium	07/16/10	PGSB-30(14'-15.5')	18.2	mg/kg	PGSB-130(14'-15.5')	17.6	3.4%
Cobalt	07/16/10	PGSB-30(14'-15.5')	9.45	mg/kg	PGSB-130(14'-15.5')	10.7	12.4%
Copper	07/16/10	PGSB-30(14'-15.5')	24.1	mg/kg	PGSB-130(14'-15.5')	26.7	10.2%
Iron	07/16/10	PGSB-30(14'-15.5')	28800	mg/kg	PGSB-130(14'-15.5')	28400	1.4%
Lead	07/16/10	PGSB-30(14'-15.5')	8.73	mg/kg	PGSB-130(14'-15.5')	10.5	18.4%
Magnesium	07/16/10	PGSB-30(14'-15.5')	8100	mg/kg	PGSB-130(14'-15.5')	8340	2.9%
Manganese	07/16/10	PGSB-30(14'-15.5')	433	mg/kg	PGSB-130(14'-15.5')	543	22.5%
Nickel	07/16/10	PGSB-30(14'-15.5')	21.9	mg/kg	PGSB-130(14'-15.5')	22.5	2.7%
Potassium	07/16/10	PGSB-30(14'-15.5')	2010	mg/kg	PGSB-130(14'-15.5')	2120	5.3%
Vanadium	07/16/10	PGSB-30(14'-15.5')	19.6	mg/kg	PGSB-130(14'-15.5')	19.7	0.5%
Zinc	07/16/10	PGSB-30(14'-15.5')	68.9	mg/kg	PGSB-130(14'-15.5')	72.7	5.4%

*Results shown and RPD calculated only if both results are detected and one is >RL.

N/A = not applicable.

APPENDIX E

PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG
PARSONS

PROJECT: Sitewide Soil sampling Event
PROJECT #: 446074

LOCATION: Former Chevron Texaco Research Facility, Beacon, NY
CLIENT: Chevron EMC



.Status as of: June 2010

Description: View of subcontractor clearing drilling location with air-knife.

Photo by: E. Ashton



Status as of: June 2010

Description: View of driller guiding support truck into exclusion zone.

Photo by: E. Ashton

PHOTOGRAPHIC LOG
PARSONS

PROJECT: Sitewide Soil sampling Event
PROJECT #: 446074

LOCATION: Former Chevron Texaco Research Facility, Beacon, NY
CLIENT: Chevron EMC



Status as of: July 2010

Description: View of driller drilling soil boring location with Geoprobe™ drill rig.

Photo by: E. Ashton



Status as of: July 2010

Description: View of driller drilling soil boring location with Geoprobe™ drill rig.

Photo by: E. Ashton

PHOTOGRAPHIC LOG
PARSONS

PROJECT: Sitewide Soil sampling Event
PROJECT #: 446074

LOCATION: Former Chevron Texaco Research Facility, Beacon, NY
CLIENT: Chevron EMC



Status as of: July 2010

Description: View of driller drilling soil boring location with Geoprobe™ drill rig.

Photo by: E. Ashton



Status as of: July 2010

Description: View of soil boring PGSB-19 after drilling activities completed at location.

Photo by: E. Ashton
