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Mr. Matthew Panszczyk
Principal Project Manager
Commonwealth Edison Company
Three Lincoln Center, 6th Floor
Oakbrook Terrace, IL 60181

Subject:
Environmental Investigation Report
ComEd Crawford GS-13 Substation
Chicago, Illinois

Date:
June 1, 2012

Contact
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Our ref:
EG012722.0000

Dear Mr. Panszczyk:

This report presents the results of an environmental investigation conducted by ARCADIS US, Inc. (ARCADIS) for Commonwealth Edison Company's (ComEd's) construction activities related to new spread footings related to proposed capacitor banks, static poles, circuit breakers, other miscellaneous support structures and storm water management system at Crawford GS-13, located at 3501 S. Pulaski Road, Chicago, Illinois (Site). The Site Location Map and Soil Boring Location Map are shown on **Figures 1** and **2**, respectively.

This project was conducted according to the scope of work included in ARCADIS' proposal memo dated April 27, 2012 and approved by ComEd in project release number 00119 under Contract Number 01091076 between ComEd and ARCADIS.

The Site is currently being used as an active electrical substation within a power generating station. The Site is relatively level and the layout and soil boring locations are shown on **Figure 2**.

The objectives of this investigation were (1) to determine if soil contamination is present; (2) evaluate the soil analytical data relative to current Illinois EPA regulations; and (3) document the results of our investigation.

Subsurface Soil Assessment

The subsurface conditions located at the Site were investigated by drilling 14 soil borings to depths ranging from 25 to 50 feet below ground surface (bgs) between May 14, 2012 and May 17, 2012. A High Risk Evolution (HRE) work plan was developed and approved by ComEd. Before the soil borings were drilled, ARCADIS contacted City of Chicago (DIGGER), the utility one-call system, and subcontracted

Intren to clear underground utilities at the proposed soil boring locations. K&S Engineers (K&S) of Highland, Indiana drilled the soil borings during the environmental investigation under the supervision of an experienced ARCADIS field engineer. At the completion of each boring, the borings were backfilled with the soil cuttings and capped with bentonite chips. The soil boring locations are presented on **Figure 2**.

During the soil drilling activities, ARCADIS' field engineer examined and classified the soils encountered, noted the groundwater level, if applicable, and obtained soil samples for chemical and head space analysis. All soil samples were initially screened for volatile organic compounds (VOCs) by performing headspace analysis before sending to an analytical laboratory. To conduct the headspace analysis, soil samples were placed in quart size re-sealable plastic bags. A minimum of 20 minutes after sampling, a photoionization detector (PID) probe was inserted into the bag, and the highest reading was recorded on the boring logs. A headspace analysis reading is a total of all VOCs with ionization potentials less than the PID lamp intensity (10.6 eV), and provides an indication that contaminants may be present. This measurement does not provide a direct indication of the quantity of contaminants that may be present in a non-gaseous phase. ARCADIS calibrated the PID according to the manufacturer's instructions.

Based on field observations, nine (9) samples from the upper ten feet were selected for analytical analysis. Soil samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method SW5035/SW8260B, Polynuclear Aromatic Compounds (PNAs) by EPA Method SW8270C, Polychlorinated Biphenyls (PCBs), total Resource Conservation and Recovery Act (RCRA) Metals by EPA Methods SW7471A/SW6020, Toxicity Characteristic Leaching Procedure (TCLP) metals by EPA Methods SW1311/6020 and SW1311/7470A, water soluble sulfates analysis by EPA Method M4500SO4 E and pH by EPA Method SW9045C. In addition, one sample was analyzed for semi-mobile (elemental) mercury by EPA Method SW7470A\7471A.

Soil samples were collected using nitrile gloves and were retained in a cooler on ice at 4°C until delivered to the analytical laboratory, STAT Analysis, Inc (STAT) of Chicago, Illinois, with a 4-day turn around schedule, under strict chain-of-custody procedures.

The analytical soil sample results are summarized in **Table 1**. Complete laboratory analytical results are attached to this letter.

Site Geology and Hydrogeology

The proposed new structures are located to the east of ComEd's Crawford GS-13 substation property located within the Midwest Generation Crawford Facility area located at 3501 S. Pulaski Road, Chicago, Illinois. The project site surfaces are relatively level and covered with gravel and some areas of vegetation.

In borings **SB-1** through **SB-8**, and **SB-11** through **SB-14,** gravel fill/top soil was encountered to approximately 3 inches to 3.5 feet bgs, followed by typically medium stiff to very stiff silty clay layer often containing fill material to approximately 13.5 to 14.5 feet bgs. Medium stiff to very stiff clayey silt was encountered below this from approximately 13.5 to 23.5 feet bgs. Stiff to very stiff silty clay was encountered below this to the end of exploration at 25 to 30 feet bgs with some locations containing sand or clayey silt lenses.

In boring **SB-9,** gravel fill was encountered to approximately 3 inches bgs, followed by medium stiff to very stiff clay containing fill and organic materials at various depths to approximately 13.5 feet bgs. Medium stiff to very stiff clayey silt was encountered from approximately 13.5 to 23.5 feet bgs. Stiff to very stiff silty clay was encountered from approximately 23.5 to 43.5 feet bgs with a fine to medium-grained, poorly-graded sand layer at 35 feet bgs. Another very stiff clayey silt layer was encountered at approximately 43.5 to 44.5 feet bgs. Crushed stone materials were encountered from 44.5 to 48.5 feet bgs. Very stiff silty clay was encountered from 48.5 feet bgs to the end of exploration at 50 feet bgs.

In boring **SB-10,** gravel fill was encountered to approximately 3 inches bgs, followed by medium stiff to very stiff clay containing fill, sand and organic materials at various depths to approximately 13.5 feet bgs. Stiff to very stiff clayey silt was encountered from approximately 13.5 to 19.5 feet bgs. Very stiff silty clay was encountered from approximately 19.5 to 48.5 feet bgs with a clayey silt layer at 24 feet bgs and a poorly-graded sand layer at 34.5 feet bgs. Very stiff clayey silt was encountered from 48.5 feet bgs to the end of exploration at 50 feet bgs.

Groundwater was initially encountered during drilling at depths ranging from 8.5 feet bgs to 28.5 feet bgs in 11 of the 14 borings. Stabilized groundwater was measured at depths ranging from 11 feet bgs to 47 feet bgs in 8 of the 14 borings with the remaining borings being dry or caved in after completion of drilling. In borings **SB-12** and **SB-13** stabilized water levels were measured significantly above initially encountered water levels, indicating the presence of artesian water pressure at these locations.

The site is in an area designated "E" by the Illinois State Geological Survey (Berg et al., 1984). The "E" region consists of uniform, relatively impermeable silty or clayey material to a depth of at least 50 feet thick over relatively impermeable bedrock and has limited groundwater contamination potential (Berg et al, 1984).

ARCADIS' field engineer classified the soils according to the Unified Soil Classification System (USCS). All field observations and measurements are presented in the boring logs. The boring logs are attached to this letter.

Soil Sample Analytical Results

ARCADIS collected nine (9) discrete soil samples from the upper ten feet, based on visual observations and PID readings. The soil samples were analyzed for VOCs, PCBs, PNAs, total and TCLP RCRA Metals, soluble sulfate and pH. A summary of the soil analytical results is presented in **Table 1** and the complete laboratory report is attached to this letter.

Soil analytical results (see Table 1) were compared to the Tier 1 Soil Remediation Objectives (Tier 1 SROs) for residential, industrial/commercial properties and construction worker land use scenarios as listed in 35 Illinois Administrative Code Part 742, "Tiered Approach to Corrective Action Objectives" (TACO) dated February 23, 2007. Tier 1 analysis assumes three potential exposure routes (ingestion, inhalation and migration to groundwater) are possible. For a specific chemical, ARCADIS used the lowest SRO from the three routes for comparison. Soil that exceeds the Tier 1 residential SROs is considered contaminated and should be disposed in a secure, licensed landfill in accordance with applicable regulations.

Based on the analytical results of the soil samples, VOCs were not detected in the samples analyzed at levels exceeding Tier 1 cleanup objectives. There were three (3) PCB compounds (Aroclor-1242, 1254 and 1260) detected. The results combined exceeded the SRO of one (1) mg/kg in sample SB-12 (3.5-5') and were less than one (1) mg/kg in sample SB-14 (3.5-5'). The total RCRA metal mercury was detected at a level exceeding the Tier I construction worker inhalation objective in sample SB-14 (3.5-5'). Additional analysis results to determine the semi-mobile fraction of mercury (elemental mercury) as allowed by the Illinois EPA also exceeded the construction worker inhalation objective. The total RCRA metals arsenic and lead were detected in samples SB-10 (1-2.5') and SB-12 (3.5-5') exceeding the residential and commercial/industrial remediation objective, but below the construction worker objective. The PNAs benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene were detected at levels exceeding either or both

residential and industrial/commercial objectives but below construction worker objectives in sample SB-14 (3.5-5').

TCLP is used to determine the leachable concentrations of substances of concern from solid waste and the results are compared to hazardous waste toxicity criteria defined in the RCRA, 40 CFR, Chapter 1, Section 261.24. A solid waste is considered hazardous under the toxicity characteristic if it contains any of the metals at concentrations higher than the established regulatory levels (i.e., RCRA hazardous waste toxicity criteria). Based on the TCLP results, none of the sample results exceed the RCRA regulatory levels. Therefore, the soil is not hazardous.

TCLP lead was detected in five (5) of the nine (9) samples collected and TCLP cadmium in two (2) of the nine (9) samples collected above the Class I soil migration to groundwater ingestion exposure route SRO. The Tier I Class I soil migration to groundwater objective was exceeded for samples SB-1 (3.5-5'), SB-10 (1-1.5'), SB-12 (3.5-5') and both Class I and II groundwater objectives were exceeded in sample SB-14 (3.5-5). However, the total lead and cadmium results do not exceed pH specific soil remediation objectives for the Class II soil component of the groundwater ingestion exposure route. Groundwater within the City of Chicago is considered Class II. Therefore, the lead and cadmium results do not exceed the Tier 1 remediation objectives for these samples.

Conclusions

ARCADIS performed a site investigation, including sampling and analysis, to determine if subsurface soil contamination is present at the site. Based upon the analytical results of the soil samples and field observations, soil contamination does exist at levels exceeding Tier 1 SROs at several locations. The RCRA metals (except mercury) and PNA results are below the allowable construction worker levels. However, PCBs exceeded construction worker SROs in sample SB-12 (3.5-5') and and mercury exceeded construction worker SROs in sample SB-14 (3.5-5'). Therefore, ARCADIS recommends special construction worker precautions during construction activities. These precautions include, but are not limited to the use of a site specific safety and health program, nitrile gloves, Tyvek coveralls and boot covers near location SB-12. Near boring SB-14, ARCADIS recommends mercury air monitoring during construction activities that disturb soil.

Based upon the test results, it is ARCADIS' opinion that any soil that meets the Tier 1 objectives can be re-used as backfill on site during the construction. Any soil that exceeded the Tier 1 objectives or any soils that cannot be reused on site should be disposed of to a landfill approved by ComEd's Environmental Services Department. .

Based upon the sample results, the soil is characterized as a non-hazardous waste for disposal.

ARCADIS recommends water pumped from dewatering operations be disposed of at a treatment facility approved by ComEd. As an alternative, if water from the dewatering operation meets discharge limits based on additional testing, the water can be directly discharged into Metropolitan Water Reclamation District of Greater Chicago's (MWRDGC's) sewer system. A discharge authorization will be required from MWRDGC and the City of Chicago.

Limitations

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS and ComEd. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given.

To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of ComEd. Only ComEd has the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when ARCADIS' investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. ARCADIS' ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100% confidence in environmental investigation conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such

property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

If you have any questions or need additional information, please contact us at (847) 649-2022 or (847) 649-2048.

Sincerely,

Wei-Lin Feng, P.E., P.G.
Client Program Manager
ILLINOIS P.E. # 062-048678

Scott Nellis E.I.T
Staff Engineer

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Attachments:
Table
Figures

1 Soil Boring Logs
2 Laboratory Analytical Results

Table

Table 1.
Summary of Soil Analytical Results
ComEd Crawford GS-13
Chicago, Illinois

Analyte	Background Concentration Values of PNAs for Metropolitan Area	Tier 1 Residential Remediation Objective	Tier 1 Commercial / Industrial Remediation Objective	Tier 1 Construction Worker Objective	SB-1 (3.5-5')	SB-5 (3.5-5')	SB-8 (8.5-10')	SB-9 (6-7.5')	SB-10 (1-2.5')	SB-11 (1-2.5')	SB-12 (3.5-5')	SB-13 (3.5-5')	SB-14 (3.5-5')
PNAs (mg/Kg)					05/14/2012 12:27	05/14/2012 15:55	05/15/2012 15:38	05/16/2012 09:15	05/15/2012 09:55	05/17/2012 08:45	05/17/2012 09:50	05/17/2012 11:10	05/17/2012 13:15
Acenaphthene	0.13	570	570	120000	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.14	< 0.04	0.49
Acenaphthylene	0.07	85	85	61000	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.31	< 0.04	0.95
Anthracene	0.4	12000	12000	610000	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.49	< 0.04	1.3
Benz(a)anthracene	1.8	0.9	2	170	0.083	< 0.039	< 0.04	< 0.039	0.086	< 0.039	1.2	< 0.04	1.8
Benzo(a)pyrene	2.1	0.09	0.8	17	0.081	< 0.039	< 0.04	< 0.039	0.091	< 0.039	1.1	< 0.04	***2.7***
Benzo(b)fluoranthene	2.1	0.9	5	170	0.085	< 0.039	< 0.04	< 0.039	0.097	< 0.039	1	< 0.04	***2.3***
Benzo(g,h,i)perylene	1.7	2300	27000	61000	0.055	< 0.039	< 0.04	< 0.039	0.066	< 0.039	0.98	< 0.04	3
Benzo(k)fluoranthene	1.7	9	49	1700	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.9	< 0.04	1.4
Chrysene	2.7	88	160	17000	0.092	0.043	< 0.04	< 0.039	0.099	0.048	1.2	< 0.04	2.1
Dibenz(a,h)anthracene	0.42	0.09	0.8	17	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.35	< 0.04	***0.98***
Fluoranthene	4.1	3100	4300	82000	0.16	0.069	< 0.04	< 0.039	0.17	0.07	2.5	< 0.04	4.1
Fluorene	0.18	560	560	82000	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.099	< 0.04	0.43
Indeno(1,2,3-cd)pyrene	1.6	0.9	8	170	0.048	< 0.039	< 0.04	< 0.039	0.052	< 0.039	0.74	< 0.04	2.2
Naphthalene	0.2	12	12	1.8	< 0.041	< 0.039	< 0.04	< 0.039	< 0.041	< 0.039	0.13	< 0.04	0.27
Phenanthrene	2.5	200	200	61000	0.079	0.068	< 0.04	< 0.039	0.096	0.088	2	< 0.04	3.1
Pyrene	3	2300	4200	61000	0.15	0.056	< 0.04	< 0.039	0.14	0.064	2.1	< 0.04	3.2
PCBs (mg/Kg)													
Aroclor 1016					< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	< 0.094	< 0.095	< 0.095	< 0.093
Aroclor 1221					< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	< 0.094	< 0.095	< 0.095	< 0.093
Aroclor 1232					< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	< 0.094	< 0.095	< 0.095	< 0.093
Aroclor 1242					< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	< 0.094	***0.82***	< 0.095	0.24
Aroclor 1248					< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	< 0.094	< 0.095	< 0.095	< 0.093
Aroclor 1254					< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	< 0.094	***0.68***	< 0.095	0.23
Aroclor 1260		Sum <1	Sum <1	Sum <1	< 0.1	< 0.093	< 0.096	< 0.094	< 0.098	0.22	***0.11***	< 0.095	0.12
Analyte	Background for Metropolitan Area	Tier 1 Residential Remediation Objective	Commercial / Industrial Remediation Objective	Construction Worker Objective									
RCRA Metals (mg/Kg)													
Arsenic	13	13**	13**	61	11	13	9.1	6.6	***14***	12	***28***	2.9	13
Barium	110	5500	140000	14000	88	32	24	60	250	63	340	110	140
Cadmium	0.6	78	2000	200	< 0.64	< 0.59	< 0.65	< 0.59	1.3	< 0.57	5.1	< 0.6	7.1
Chromium	16.2	230	420	690	22	14	12	18	23	18	40	24	90
Lead	36	400	800	700	110	31	14	25	***510***	25	***520***	29	240
Mercury	0.06	10	16	0.1*	0.066	0.037	0.027	0.029	0.077	0.03	***0.28***	< 0.023	< 0.018
Semi-mobile (elemental) mercury				0.1*							***0.2***		
Selenium	0.48	390	10000	1000	< 1.3	< 1.2	< 1.3	< 1.2	1.4	< 1.1	3.4	< 1.2	1.5
Silver	0.55	390	10000	1000	< 1.3	< 1.2	< 1.3	< 1.2	< 1.3	< 1.1	< 1.2	< 1.2	2.2
Analyte	RCRA Regulatory Level	Soil Component of the Groundwater Ingestion Exposure Route Class I	Soil Component of the Groundwater Ingestion Exposure Route Class II										
TCLP Metals (mg/L)													
Arsenic	5	0.05	0.2		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.019
Barium	100	2	2		< 0.5	< 0.5	< 0.5	< 0.5	0.73	< 0.5	< 0.5	< 0.5	1
Cadmium	1	0.005	0.05		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	***0.021***	< 0.005	***0.079***
Chromium	5	0.1	1		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Lead	5	0.0075	0.1		***0.013***	***0.0085***	0.0064	0.0054	***0.016***	0.0067	***0.093***	< 0.005	***0.32***
Mercury	0.2	0.002	0.01		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Selenium	1	0.05	0.05		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Silver	5	0.05	—		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
pH		2.0 < pH < 12.5			7.6	7.5	7.5	7.8	7.8	7.1	7.3	7.9	8.3

Note:
NA - Not Available
* - Tier I inhalation exposure route-specific values for soils was considered for comparison.
**-Background Tier 1 remediation value for soil ingestion under 35 IAC 742, "For the ingestion route for arsenic, see 742.Appendix A, Table G."
Bold and Italicized analytical value. Exceeded residential remediation objective
Bold, Italicized and Highlighted analytical value: Exceeded construction worker remediation objective

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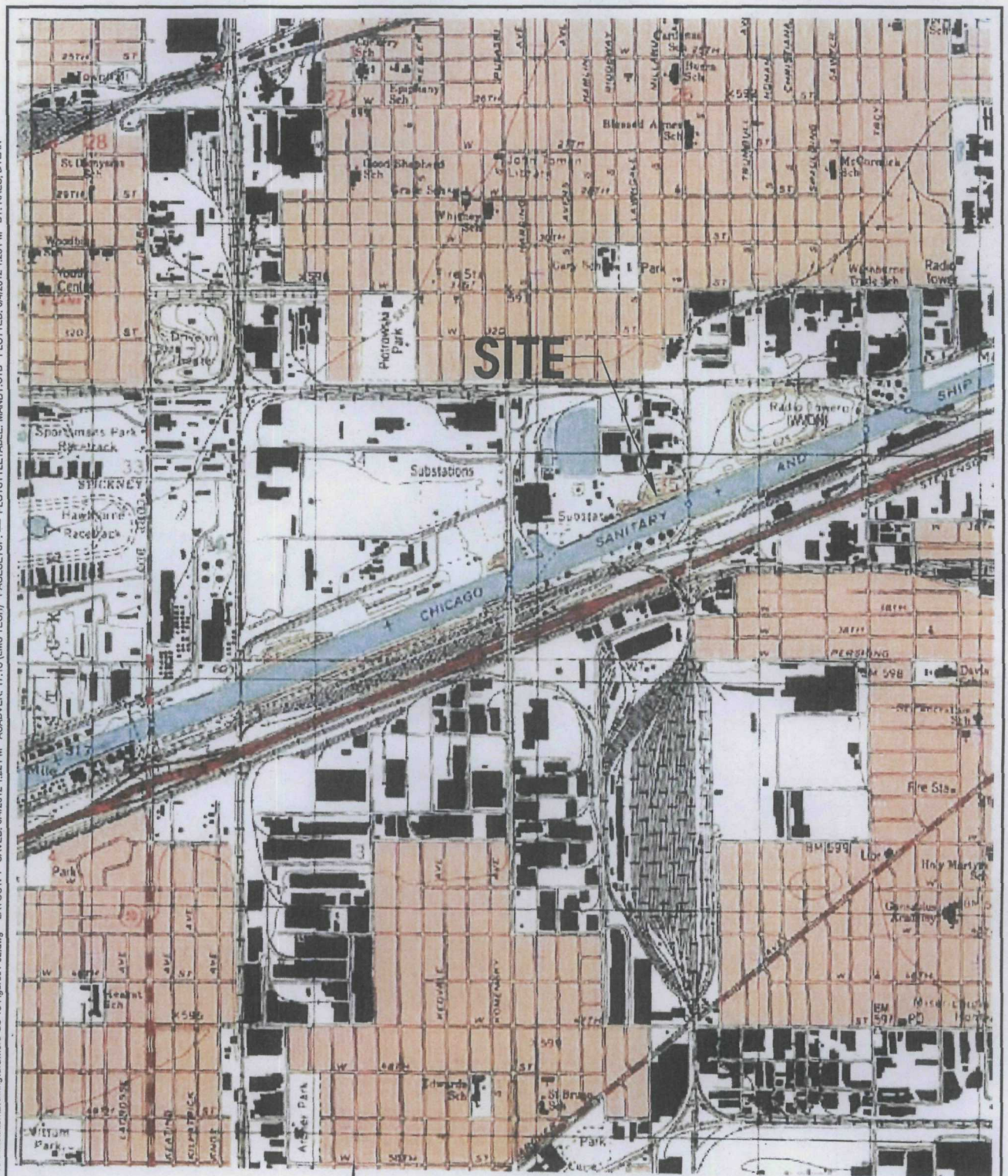
Table 1.
Summary of Soil Analytical Results
ComEd Crawford GS-13
Chicago, Illinois

Analyte		Tier 1 Residential Remediation Objective	Tier 1 Commercial / Industrial Remediation Objective	Tier 1 Construction Worker Objective	SB-1 (3.5-5')	SB-5 (3.5-5')	SB-8 (8.5-10')	SB-9 (6-7.5')	SB-10 (1-2.5')	SB-11 (1-2.5')	SB-12 (3.5-5')	SB-13 (3.5-5')	SB-14 (3.5-5')
VOCs (mg/Kg)					05/14/2012 12:27	05/14/2012 15:55	05/15/2012 15:38	05/16/2012 09:15	05/15/2012 09:55	05/17/2012 08:45	05/17/2012 09:50	05/17/2012 11:10	05/17/2012 13:15
Acetone		25	25	100000	< 0.11	< 0.12	< 0.078	< 0.092	< 0.098	< 0.1	< 0.15	< 0.099	0.083
Benzene		0.03	0.03	2.2	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Bromodichloromethane		0.6	0.6	2000	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Bromoform		0.8	0.8	140	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Bromomethane		0.2	0.2	3.9	< 0.015	< 0.016	< 0.01	< 0.012	< 0.013	< 0.014	< 0.02	< 0.013	< 0.011
2-Butanone		NA	NA	NA	< 0.11	< 0.12	< 0.078	< 0.092	< 0.098	< 0.1	< 0.15	< 0.099	< 0.079
Carbon disulfide		32	32	9	< 0.076	< 0.078	< 0.052	< 0.061	< 0.066	< 0.069	< 0.1	< 0.066	< 0.053
Carbon tetrachloride		0.07	0.07	0.9	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Chlorobenzene		1	1	1.3	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Chloroethane		NA	NA	97	< 0.015	< 0.016	< 0.01	< 0.012	< 0.013	< 0.014	< 0.02	< 0.013	< 0.011
Chloroform		0.3	0.3	0.76	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Chloromethane		NA	NA	11	< 0.015	< 0.016	< 0.01	< 0.012	< 0.013	< 0.014	< 0.02	< 0.013	< 0.011
Dibromochloromethane		0.4	0.4	1300	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,1-Dichloroethane		23	23	130	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,2-Dichloroethane		0.02	0.02	0.99	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,1-Dichloroethene		0.06	0.06	3	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
cis-1,2-Dichloroethene		0.4	0.4	1200	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
trans-1,2-Dichloroethene		0.7	0.7	3100	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,2-Dichloropropane		0.03	0.03	0.5	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
cis-1,3-Dichloropropene		0.004*	0.004*	0.39*	< 0.003	< 0.0031	< 0.0021	< 0.0024	< 0.0026	< 0.0028	< 0.004	< 0.0026	< 0.0021
trans-1,3-Dichloropropene		0.004*	0.004*	0.39*	< 0.003	< 0.0031	< 0.0021	< 0.0024	< 0.0026	< 0.0028	< 0.004	< 0.0026	< 0.0021
Ethylbenzene		13	13	58	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
2-Hexanone		NA	NA	NA	< 0.03	< 0.031	< 0.021	< 0.024	< 0.026	< 0.028	< 0.04	< 0.026	< 0.021
4-Methyl-2-pentanone		NA	NA	NA	< 0.03	< 0.031	< 0.021	< 0.024	< 0.026	< 0.028	< 0.04	< 0.026	< 0.021
Methylene chloride		0.02	0.02	34	< 0.015	< 0.016	< 0.01	< 0.012	< 0.013	< 0.014	< 0.02	< 0.013	< 0.011
Methyl tert-butyl ether		0.32	0.32	140	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Styrene		4	4	430	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,1,2,2-Tetrachloroethane		2000	2000	2000	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Tetrachloroethene		0.06	0.06	28	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Toluene		12	12	42	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,1,1-Trichloroethane		2	2	1200	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
1,1,2-Trichloroethane		0.02	0.02	1800	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Trichloroethene		0.06	0.06	12	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Vinyl chloride		0.01	0.01	1.1	< 0.0076	< 0.0078	< 0.0052	< 0.0061	< 0.0066	< 0.0069	< 0.01	< 0.0066	< 0.0053
Xylenes, Total		150	150	5.6	< 0.023	< 0.023	< 0.016	< 0.018	< 0.02	< 0.021	< 0.03	< 0.02	< 0.016
Soluble Sulfates (mg/Kg)		---	---	---	2690	7670	< 610	3290	< 620	8570	13500	< 1200	< 590

Note:
NA - Not Available
* - Tier I inhalation exposure route-specific values for soils was considered for comparison.
**-Background Tier 1 remediation value for soil ingestion under 35 IAC 742, "For the ingestion route for arsenic, see 742.Appendix A, Table G."
Bold and Italicized analytical value: Exceeded residential remediation objective
Bold, Italicized and Highlighted analytical value: Exceeded construction worker remediation objective

COMC000512

Figures



Source:
Englewood, Illinois (1999)
USGS 7.5 Minute Series
Quadrangle Map

0 2,000' 4,000'

GRAPHIC SCALE

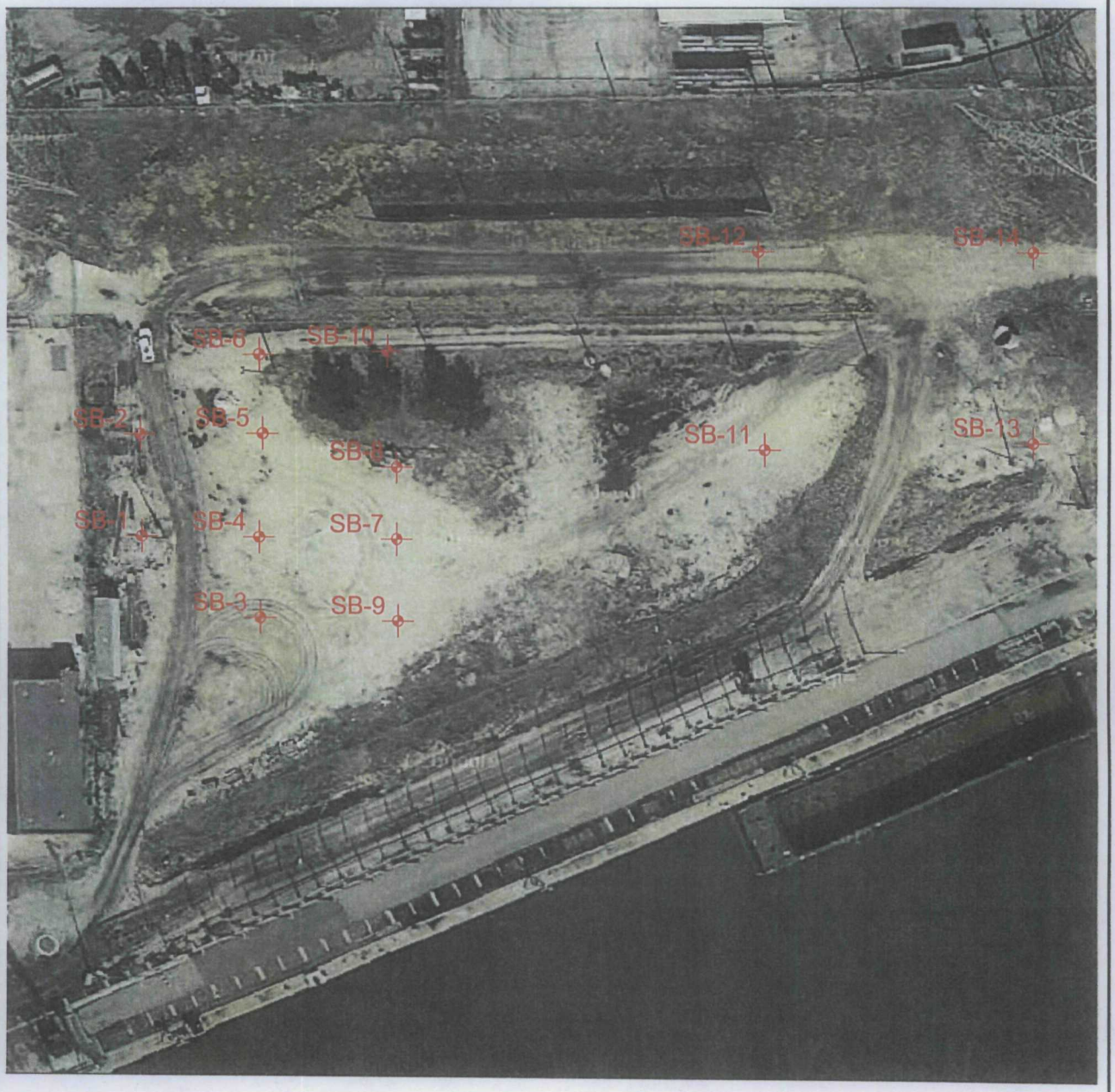
MIDWEST GENERATION CRAWFORD GENERATING STATION
3501 S. PULASKI ROAD
CHICAGO, ILLINOIS

SITE LOCATION MAP

ARCADIS

FIGURE
1

CITY:(Reqd) DIV/GROUP:(Reqd) DB:(Reqd) LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\Clients\ComEd\12722.0000 ComEd Crawford GS-13 Substation\Drawing\Crawford-GS-13-Figure01-02.dwg LAYOUT: 1 SAVED: 6/4/2012 1:22 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: MANDY.CTB PLOTTED: 6/4/2012 1:23 PM BY: RAES, DYLAN
XREFS: IMAGES: Aerial.jpg Aerial 2.jpg Aerial-140.jpg Topo.jpg PROJECTNAME: ---



0 75' 150'

GRAPHIC SCALE

MIDWEST GENERATION CRAWFORD GENERATING STATION
3501 S. PULASKI ROAD
CHICAGO, ILLINOIS

SOIL BORING LOCATION MAP

ARCADIS

FIGURE
2

CITY:(Reqd) DIV/GROUP:(Reqd) DB:(Reqd) LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)On=*;OFF=*REF*
G:\Clients\ComEd\12722.0000 ComEd Crawford GS-13 Substation\Drawing\Crawford-GS-13-Figure01-02.dwg LAYOUT: 2 SAVED: 5/18/2012 5:29 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: MANDY.CTB PLOTTED: 5/18/2012 5:29 PM BY: RAES, DYLAN

XREFS: IMAGES: Aerial.jpg Aerial 2.jpg Aerial-140.jpg Topo.jpg PROJECTNAME: ---

ARCADIS

Attachment 1

Soil Boring Logs

Date Start/Finish: 5/14/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** 8.5' bgs **Stabilized Water:** 16.8' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-1** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel (GP) Gray; moist; moderately-graded	
		SS	9"	19	3.0	3.5		17.4			Silty Clay (CL) Dark brown; moist; stiff to very stiff; little fine and coarse gravel; few organics	
		SS	14"	14	2.5 -4.5	2.6	111	17.7	SB-1 (3.5-5')		Transitions to brown with brownish-yellow and gray mottles; trace fine gravel	
5	-5											
		SS	14"	8	1.25 -2.75	2.0	104	19.9			Transitions to medium stiff to stiff; containing trace coarse gravel	
		SS	13"	8	0.25 -1.25	1.1	111	20.0			Transitions to moist to wet; soft to medium stiff; few fine sand	
10	-10											
											Transitions to gray; stiff to very stiff	
		SS	17"	26	3.25			16.9			Clayey Silt (ML) Gray; moist; stiff to very stiff	
15	-15											

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Infrastructure Water Environment Buildings

Remarks:

Client: Commonwealth Edison

Well/Boring ID: SB-1

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	18"	16	4.25		117	16.7			Silty Clay (CL) Gray; moist; very stiff; trace fine gravel	
20-20											
	SS	16"	21	4.25		116	11.9				
25-25											
30-30											
35-35											

ARCADIS
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Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx

Data File:SB-1.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/14/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** 8.5' bgs **Stabilized Water:** Dry **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-2** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	13"	24	2.75 -4.5+	0.6		15.2			Silty Clay (CL) Brown; moist; stiff to very stiff; trace fine and coarse gravel Transitions to black; trace organic	
		SS	12"	8	2.0-3.75	1.2		14.6			Sandy Clay Fill (CL) Gray with black; moist; medium stiff; trace brick and coarse gravel	
5	-5										Silty Clay (CL) Brown; moist; medium stiff to stiff Transitions to medium stiff; containing trace fine gravel	
		SS	14"	8	1.75 -3.0	1.4		21.3			Transitions to medium stiff to stiff Transitions to moist to wet; containing few coarse gravel	
		SS	15"	11	3.0	0.3	113	18.4				
10	-10											
		SS	17"	24	3.25 -4.5+		115	17.7			Clayey Silt (ML) Gray; moist; stiff to very stiff; trace fine gravel	
15	-15											

Remarks:

ARCADIS
Infrastructure Water Environment Buildings

Client: Commonwealth Edison

Well/Boring ID: **SB-2**

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	17"	16	4.5		117	16.2			Silty Clay (CL) Gray; moist; stiff to very stiff; trace fine gravel	
20-20											
	SS	18"	21	3.5		114	16 5				
25-25											
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-2.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/15/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** 18.5' bgs **Stabilized Water:** 20' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-3** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	11"	33	3.5	1.8		11.2			Silty Clay (CL) Brown, moist; stiff to very stiff; containing little fine sand and few coarse gravel	
		SS	14"	24	4.5+	1.4		13.2			Transitions to containing few fine sand and trace coarse gravel	
5	-5											
		SS	14"	11	2.25	1.2	105	21.8			Transitions to stiff Transitions to dark brown Transitions to brown with gray mottles	
		SS	16"	11	3.0	1.7	110	17.1			Clayey Silt (ML) Brown; moist; stiff	
10	-10										Silty Clay (CL) Gray; moist; stiff; trace fine gravel	
		SS	13"	42	4.5+			16.5			Clayey Silt (ML) Gray; moist; very stiff	
15	-15											

Remarks:

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Infrastructure Water Environment Buildings

Client: Commonwealth Edison

Well/Boring ID: SB-3

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	14"	33	3.0			15.6			Sandy Silt (ML) Gray; wet; stiff; trace coarse gravel	
20-20										Silty Sand (SM) Gray; wet; dense; fine grained; poorly graded	
	SS	15"	21	3.25 -4.5+		117	16.5			Silty Clay (CL) Gray; moist; stiff to very stiff; trace fine gravel Transitions to very stiff; containing trace coarse gravel	
25-25											
30-30											
35-35											

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Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-3.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/14/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** Not Encountered **Stabilized Water:** Dry **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-4** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	17"	22	4.5+	0 7		12 0			Silty Clay (CL) Brown; moist; very stiff; few coarse gravel	
											Transitions to dark brown	
		SS	14"	25	4.25	0.8		18 9			Transitions to containing little fine gravel	
5	-5											
		SS	13"	8	1.5	0.5	101	23.9			Transitions to dark gray; medium stiff; trace fine gravel	
		SS	10"	10	1.0-3.5	0.4	104	22.9			Transitions to gray with brownish-yellow mottles; soft Transitions to stiff	
10	-10											
		SS	16"	25	3.25			19.0			Clayey Silt (ML) Gray; moist; stiff to very stiff; containing few fine gravel and trace coarse gravel	
15	-15											

Remarks:

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Client: Commonwealth Edison

Well/Boring ID: SB-4

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
										Silty Clay (CL) Gray; moist; medium stiff; trace fine gravel	
	SS	18"	23	2.0-4.5+		114	16.8			Sand Lense (SP) Fine to medium grained; wet	
20-20										Silty Clay (CL) Gray; moist; very stiff; containing trace fine and coarse gravel	
										Transitions to containing little fine gravel and few coarse gravel	
	SS	18"	21	4.5+		122	13 8			Sand Lense (SP) Fine to medium grained; wet	
25-25										Silty Sand (SP) Gray; moist; medium dense; fine grained; poorly graded	
30-30											
35-35											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx

Data File:SB-4.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/14/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method:** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** 24' bgs **Stabilized Water:** 23' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-5** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	14"	24	4.5+	1.2		17.3			Silty Clay (CL) Brown; moist; very stiff; containing trace fine and coarse gravel; few organics Transitions to dark brown	
											Sand Fill (SP) Brown to black; moist; medium dense; fine to medium grained; poorly graded	
		SS	15"	19	2.75	1.9		23.5	SB-5 (3.5-5')		Silty Clay (CL) Dark brown; moist; stiff to very stiff; trace fine gravel; few fill material	
5	-5										Sand (SP) Brown; moist; medium dense; fine grained; poorly graded; trace clay	
		SS	9"	7	1.75	1.4	102	21.8			Silty Clay (CL) Gray; moist; medium stiff; containing few fine gravel and trace coarse gravel	
		SS	1"	10	---	---		13.5			Transitions to dark brown; containing little coarse gravel	
10	-10											
		SS	16"	11	4.5		112	17.1			Clayey Silt (ML) Gray; moist; stiff to very stiff; trace fine gravel	
15	-15											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-5.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Client: Commonwealth Edison

Well/Boring ID: **SB-5**

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	18"	26	3.5-4.5+		121	14.0			Silty Clay (CL) Gray; moist; very stiff; containing trace fine and coarse gravel	
20-20											
										Transitions to stiff to very stiff	
	SS	16"	18	3.0-4.5+		117	16.3			Sand (SP) Gray; wet, medium dense; fine to medium grained; poorly graded; trace coarse gravel	
25-25										Silty Clay (CL) Gray; moist; very stiff; containing trace fine and coarse gravel	
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-5.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/15/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** Not Encountered **Stabilized Water:** Dry **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-6** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	13"	30	4.5+	2.5		12.7			Organic Clay (OL) Dark brown; moist; very stiff; containing few fine gravel and trace coarse gravel; some sand	
											Silty Clay (CL) Brown; moist; very stiff; containing few fine gravel, trace coarse gravel and trace sand	
		SS	14"	12	3.25 -4.5+	2.4		16.3			Transitions to stiff to very stiff; containing few fine sand	
5	-5											
		SS	9"	7	1.75	2.3	108	18.8			Transitions to medium stiff; containing no sand	
		SS	12"	9	4.0	1.7	104	21.1			Clayey Silt (ML) Brown with gray mottles; moist; stiff; trace coarse gravel	
10	-10										Silty Clay (CL) Brown; moist; stiff; trace coarse gravel	
		SS	16"	41	4 5+			21.0			Clayey Silt (ML) Gray; moist; very stiff	
15	-15											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Client: Commonwealth Edison

Well/Boring ID: SB-6

Site Location:
ComEd Crawford GS-13

Borehole Depth: 25' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	18"	20	4.25		117	14.2			Silty Clay (CL) Gray, moist, very stiff; containing trace fine and coarse gravel	
20-20											
	SS	18"	22	4.0		111	16.9				
25-25											
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-6.dat
Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/15/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** 18.5' bgs **Stabilized Water:** 21' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** SB-7 **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	12"	27	4.5	0.5		11.4			Silty Clay (CL) Light brown; moist; very stiff; containing few fine gravel, few coarse gravel and some sand Transitions to brown	
		SS	14"	23	4.5+	0.6		13.9			Transitions to containing few fill material Transitions to containing no fill material	
5	-5											
		SS	16"	10	2.5-4.25	0.5		42.1			Organic Clay (OL) Black; moist; stiff	
		SS	18"	10	1.25-4.5	0.4	96	29.3			Silty Clay (CL) Brown; moist, stiff to very stiff; trace fine and coarse gravel Transitions to dark brown; medium stiff to stiff	
10	-10											
		SS	18"	24	4.5			17.1			Clayey Silt (ML) Gray; moist; very stiff	
15	-15											

Remarks:

ARCADIS
Infrastructure Water Environment Buildings

Client: Commonwealth Edison

Well/Boring ID: SB-7

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	15"	36	1.5			19.2			Transitions to wet; medium stiff to very stiff	
20-20										Sand (SP) Gray; wet; medium dense; fine to medium grained; poorly graded	
										Clayey Silt (ML) Gray; wet; very stiff	
	SS	18"	28	4.5+		115	16.9			Sand (SP) Gray; wet; medium dense; fine to medium grained; poorly graded	
25-25										Silty Clay (CL) Gray; moist; very stiff	
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-7.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/15/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** 19.6' bgs **Stabilized Water:** Dry **Casing Elevation:** Not Surveyed **Borehole Depth:** 25' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-8** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
		SS	12"	16	4.5+	0.8		11.3			Silty Clay (CL) Greenish-gray; moist; stiff to very stiff; containing few fine gravel and coarse gravel	
		SS	15"	15	3.5-4.5+	1.0		15.5			Transitions to brown; stiff; containing some fill material Transitions to stiff to very stiff	
5	-5											
		SS	15"	12	1.5-4.5+	1.5	118	14 6			Organic Clay (OL) Black; moist; medium stiff to stiff	
		SS	13"	9	2.5	1.8	105	19 6	SB-8 (8.5-10')		Silty Clay (CL) Brown with gray mottles; moist; stiff	
10	-10											
		SS	15"	35	4 5+			16.7			Clayey Silt (ML) Gray; moist; very stiff	
15	-15											

ARCADIS
Intelligent Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-8.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Client: Commonwealth Edison

Well/Boring ID: SB-8

Borehole Depth: 25' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	17"	21	4.5		111	18.6			Sand Lense (SP) Gray; wet; fine to moderately grained; poorly graded	
20-20										Silty Clay (CL) Gray; moist; very stiff	
	SS	18"	29	4.5+			14.1			Transitions to containing few fine gravel and trace coarse gravel	
25-25											
30-30											
35-35											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx

Data File:SB-8.dat

Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/16/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method:** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** 18.5' bgs **Stabilized Water:** 27' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 50' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** SB-9 **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
											Silty Clay (CL) Brown; dry, very stiff	
		SS	12"	32	2.0-4.5+	0.8		11.3			Gravel (GW) Gray; dry	
											Silty Clay (CL) Brown; moist; medium stiff to very stiff	
		SS	18"	24	2.0-4.5+	1.2		16.3			Transitions to dark brown; containing fill material and brick	
5	-5										Transitions to brown; stiff; containing no fill	
											Transitions to black and brown; medium stiff	
		SS	10"	13	1.75-4.5	1.3		14.1	SB-9 (6-7.5')		Transitions to stiff to very stiff; few sand	
											Organic Clay (OL) Dark brown; moist, medium stiff; trace fine gravel	
		SS	14"	18	1.75-4.5+	1.1		21.5			Silty Clay (CL) Brown with gray mottles; moist; very stiff, trace fine gravel	
10	-10											
		SS	18"	42	4.5+			16.4			Clayey Silt (ML) Gray, moist; very stiff	
15	-15											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-9.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Client: Commonwealth Edison

Well/Boring ID: **SB-9**

Borehole Depth: 50' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
										Transitions to wet; medium stiff to very stiff	
	SS	14"	27	1.25			21.7				
20-20											
										Silty Clay (CL) Gray; moist; trace fine gravel	
	SS	13"	20	2.75-4.25		113	17.5			Transitions to very stiff	
25-25											
										Transitions to stiff	
	SS	18"	22	3.75-4.5+		120	15.9			Transitions to very stiff, containing trace coarse gravel	
30-30											
										Transitions to stiff; containing trace coarse and fine gravel	
	SS	16"	33	3.25-4.5+		129	12.0			Transitions to very stiff; containing few fine gravel	
35-35											
										Sand (SP) Gray, moist; fine to medium grained; poorly graded	

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Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx

Data File:SB-9.dat

Date: 5/23/2012 Created/Edited by: Scott Nellis

Client: Commonwealth Edison

Well/Boring ID: **SB-9**

Borehole Depth: 50' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS		39	4.5+		123	13.2			Silty Clay (CL) Gray, moist, very stiff; containing few fine gravel and trace coarse gravel	
40-40											
	SS	13"	87	4.0			18.5			Clayey Silt (ML) Gray; wet; very stiff	
45-45										Crushed Stone	
	SS	12"	42	4.5+			14.7			Silty Clay (CL) Gray; moist; very stiff; containing trace fine gravel and few coarse gravel	
50-50											
55-55											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-9.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/15/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** 7' bgs **Stabilized Water:** 47' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 50' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Dylan Raes	**Well ID/Boring ID:** **SB-10** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel Fill (GW) Gray; moist; moderately-graded	
											Organic Clay (OL) Brown; moist; stiff; containing few fine and coarse gravel	
		SS	12"	13	2.5	1.7		22.6	SB-10 (1-2.5')		Silty Clay (CL) Dark brown; moist; stiff; containing little fine gravel, little coarse gravel and some fill material	
		SS	7"	12	2.25	1.6		18.7				
5	-5											
											Transitions to soft	
		SS	13"	18	1.0	1.3		21.7			Sand and Gravel (SP) Light brown; moist; medium dense; fine to medium grained; poorly graded	
											Silty Clay (CL) Dark brown; moist to wet; soft; some fill material	
		SS	13"	6	1.0-2.5	1.0	102	23.2			Transitions to brown; moist, medium stiff to stiff	
10	-10											
		SS	16"	23	4 5+			15.2			Clayey Silt (ML) Gray; moist; very stiff	
15	-15											

Remarks:

ARCADIS
Infrastructure Water Environment Buildings

Client: Commonwealth Edison

Well/Boring ID: **SB-10**

Borehole Depth: 50' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
										Transitions to stiff to very stiff	
	SS	17"	29	3.5-4.5			12.8			Silty Clay (CL) Gray; moist; very stiff	
20-20											
										Transitions to containing trace fine gravel	
	SS	18"	27	4.5+			16.4			Clayey Silt (ML) Gray; moist; very stiff; trace fine gravel	
25-25										Silty Clay (CL) Gray; moist; very stiff; containing trace fine and coarse gravel	
										Transitions to containing no coarse gravel	
	SS	18"	24	4.5		114	16.6				
30-30											
										Transitions to containing few fine and coarse gravel	
	SS	16"	23	4.5+			9.4			Sand Lense (SP) Gray; wet; fine grained; poorly graded	
35-35										Silty Clay (CL) Gray; moist; very stiff; containing few fine and coarse gravel	

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-10.dat

Date: 5/23/2012 Created/Edited by: Scott Nellis

Client: Commonwealth Edison

Well/Boring ID: SB-10

Borehole Depth: 50' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
										Transitions to containing trace fine and coarse gravel	
	SS	15"	27	4.5+		120	13.9				
40-40											
	SS	18"	31	4.5+		127	13 2				
45-45											
	SS	16"	74	4.5+			8.6			Clayey Silt (ML) Gray; slightly moist; very stiff; containing few fine and coarse gravel	
50-50											
55-55											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx

Data File:SB-10.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/17/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** Dry **Stabilized Water:** Dry **Casing Elevation:** Not Surveyed **Borehole Depth:** 30' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Scott Nellis	**Well ID/Boring ID:** **SB-11** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel (GW) White; dry; well-graded	
		SS	14"	15	3.75	0.8			SB-11 (1-2 5')		Silty Clay (CL) Brown; damp, stiff, some organic, trace gravel	
		SS	10"	29	4	0.6	121	13.3			Transitions to very stiff, containing no organic	
5	-5											
		SS	12"	10	1.75	0.8	105	20.5			Transitions to gray with orange mottles; stiff	
		SS	12"	31	4.5+	0.7	117	15 3			Transitions to brown; hard	
10	-10											
		SS	18"	50	---			15.8			Silt/Very Fine Sand (ML) Gray; damp; hard	
15	-15											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-11.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Client: Commonwealth Edison

Well/Boring ID: **SB-11**

Borehole Depth: 30' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
										Silty Clay (CL) Gray; damp; very stiff; trace gravel	
	SS	18"	37	4.5+		118	13.4				
20-20											
	SS	18"	28	4.5+		117	15.8				
25-25											
	SS	18"	25	4.5+		116	16.4				
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-11.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/17/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** 28.5' bgs **Stabilized Water:** 11' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 30' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Scott Nellis	**Well ID/Boring ID:** **SB-12** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Top Soil (OL) Black; moist; some gravel	
		SS	8"	6	0.75	449		23.7				
		SS	14"	21	3.5	648			SB-12 (3.5-5')		Silty Clay (CL) Brown with orange mottles; damp; very stiff; containing some slag/fill and gravel	
5	-5											
		SS	12"	23	3.5	7.2		16.2			Transitions to not containing slag/fill	
											Silt/Very Fine Sand (ML) Gray; moist; medium stiff	
		SS	8"	9	1.75	52.6		21.5			Silty Clay (CL) Brown with orange mottles; damp; medium stiff; containing trace gravel	
10	-10											
		SS	18"	47	—			17.4			Silt/Very Fine Sand (ML) Gray; damp; hard	
15	-15											

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Infrastructure Water Environment Buildings

Remarks:

Client: Commonwealth Edison

Well/Boring ID: **SB-12**

Borehole Depth: 30' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	18"	47	---			12.9			Silty - Gravel Mix (GP-ML) gray; moist to wet; dense; poorly graded	
20-20											
	SS	18"	27	4.5+		113	16.7			Silty Clay (CL) Gray; damp; very stiff; trace gravel	
25-25											
	SS	18"	31	4.5+			18.6			Transitions to wet	
30-30											
35-35											

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Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-12.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/17/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water:** 18.5' bgs **Stabilized Water:** 13' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 30' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Scott Nellis	**Well ID/Boring ID:** **SB-13** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Gravel (GW) White; dry; well-graded; loose	
		SS	4"	18	---	---						
		SS	12"	13	3 25	8.9			SB-13 (3.5-5')		Silty Clay (CL) Dark brown with gray and orange mottles; damp; stiff; some gravel	
5	-5											
		SS	12"	9	1.75	4 7		25.3			Transitions to medium stiff, containing trace gravel	
		SS	12"	52	---	3 2		13.4			Silt/Very Fine Sand (ML) Gray; damp; hard	
10	-10											
		SS	16"	31	4 5+			10 8			Silty Clay (CL) Gray; damp; very stiff; trace gravel and brick	
15	-15											

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Infrastructure Water Environment Buildings

Remarks:

Client: Commonwealth Edison

Well/Boring ID: **SB-13**

Borehole Depth: 30' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
										Transitions to wet; not containing brick	
	SS	18"	25	4.5+		114	15.8				
20-20											
	SS	18"	32	4.5+		116	17.3				
25-25											
										Transitions to containing some gravel	
	SS	12"	31	4.5+		110	18.3				
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks:

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx
Data File:SB-13.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

Date Start/Finish: 5/17/12 **Drilling Company:** K&S Engineers **Driller's Name:** Reuben Perez & Ed Deluca **Drilling Method** Hollow Stem Auger **Auger Size:** 4" **Rig Type:** Truck Mounted Rotary Drill Rig **Sampling Method:** Split Spoon	**First Encountered Water** 28.5' bgs **Stabilized Water:** Cave-in @ 5' bgs **Casing Elevation:** Not Surveyed **Borehole Depth:** 30' bgs **Surface Elevation:** Not Surveyed **Descriptions By:** Scott Nellis	**Well ID/Boring ID:** **SB-14** **Client:** Commonwealth Edison **Site Location:** ComEd Crawford GS-13

Depth (ft. bgs)	Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
0	0										Top Soil/Organic Fill (OL) Black; moist; some brick and slag	
		SS	10"	17	---	344		21 3				
		SS	10"	17	2.75	370			SB-14 (3.5-5')		Clay Fill (CL) Gray and black; moist; stiff; containing brick and slag	
5	-5											
		SS	4"	15	2.75	33.6		17.7				
		SS	0"	15	---	---					No recovery	
10	-10											
		SS	4"	79	1.5			16.3			Silty Clay (CL) Brown with gray and orange mottles; moist; very hard	
15	-15											

ARCADIS
Infrastructure Water Environment Buildings

Remarks: Recovery was very low on this boring and sometimes came in strips

Client: Commonwealth Edison

Well/Boring ID: **SB-14**

Borehole Depth: 30' bgs

Site Location:

ComEd Crawford GS-13

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Type	Sample Recovery	Blow Counts (N-Value)	Qp/Qu (tons/sq. ft.)	PID (ppm)	Dry Density (lb/ft3)	Moisture Content (%)	Lab Sample	Graphic Log	Stratigraphic Description	Well Construction
	SS	10"	125	—			23.1			Silt/Very Fine Sand (ML) Gray; moist; very hard	
20-20											
	SS	3"	29	—			15.5			Silty Clay (CL) Gray; damp; very stiff	
25-25											
	SS	12"	22	4.0		109	18 8			Transitions to wet; containing trace gravel	
30-30											
35-35											

ARCADIS
Infrastructure Water Environment Buildings

Remarks: Recovery was very low on this boring and sometimes came in strips

Project: EG012722.0000 Template: WLF geotech-USE THIS.ldfx

Data File:SB-14.dat Date: 5/23/2012 Created/Edited by: Scott Nellis

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Attachment 2

Laboratory Analytical Report

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001;AIHA 101160; NVLAP LabCode 101202-

May 22, 2012

ARCADIS U.S., Inc.
630 Tollgate Road
Suite D
Elgin, IL 60123
Telephone: (847) 695-8855
Fax: (847) 695-7799

RE: 127722.0000, ComEd-Crawford GS-13 Substation STAT Project No: 12050508

Dear Dale Ellingson:

STAT Analysis received 2 samples for the referenced project on 5/17/2012 2:45:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Katelin Lewis

Katelin Lewis
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone.This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

STAT Analysis Corporation

Date: May 22, 2012

Client: ARCADIS U.S., Inc.
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab Order: 12050508

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
12050508-001A	SB-12 (3.5-5')		5/17/2012 9:50:00 AM	5/17/2012
12050508-002A	SB-14 (3.5-5')		5/17/2012 1:15:00 PM	5/17/2012

CLIENT: ARCADIS U.S., Inc.
Project: 127722.0000, ComEd-Crawford GS-13 Substati
Lab Order: 12050508

CASE NARRATIVE

Samples SB-12 (3.5-5') (12050508-001) and SB-14 (3.5-5') (12050508-002) were formerly assigned STAT Sample IDs (12050486-007B) and (12050486-009B).

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 22, 2012
Print Date: May 22, 2012

Client:	ARCADIS U.S., Inc.	**Client Sample ID:**	SB-12 (3.5-5')
Lab Order:	12050508	**Tag Number:**	
Project:	127722.0000, ComEd-Crawford GS-13 Substation	**Collection Date:**	5/17/2012 9:50:00 AM
Lab ID:	12050508-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	0.14	0.039		mg/Kg-dry	1	5/19/2012
Acenaphthylene	0.31	0.039		mg/Kg-dry	1	5/19/2012
Aniline	ND	0.39		mg/Kg-dry	1	5/19/2012
Anthracene	0.49	0.039		mg/Kg-dry	1	5/19/2012
Benz(a)anthracene	1.2	0.039		mg/Kg-dry	1	5/19/2012
Benzidine	ND	0.39		mg/Kg-dry	1	5/19/2012
Benzo(a)pyrene	1.1	0.039		mg/Kg-dry	1	5/19/2012
Benzo(b)fluoranthene	1	0.039		mg/Kg-dry	1	5/19/2012
Benzo(g,h,i)perylene	0.98	0.039		mg/Kg-dry	1	5/19/2012
Benzo(k)fluoranthene	0.9	0.039		mg/Kg-dry	1	5/19/2012
Benzoic acid	ND	0.98		mg/Kg-dry	1	5/19/2012
Benzyl alcohol	ND	0.2		mg/Kg-dry	1	5/19/2012
Bis(2-chloroethoxy)methane	ND	0.2		mg/Kg-dry	1	5/19/2012
Bis(2-chloroethyl)ether	ND	0.2		mg/Kg-dry	1	5/19/2012
Bis(2-ethylhexyl)phthalate	ND	0.98		mg/Kg-dry	1	5/19/2012
4-Bromophenyl phenyl ether	ND	0.2		mg/Kg-dry	1	5/19/2012
Butyl benzyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
Carbazole	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Chloroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Chloro-3-methylphenol	ND	0.39		mg/Kg-dry	1	5/19/2012
2-Chloronaphthalene	ND	0.2		mg/Kg-dry	1	5/19/2012
2-Chlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Chlorophenyl phenyl ether	ND	0.2		mg/Kg-dry	1	5/19/2012
Chrysene	1.2	0.039		mg/Kg-dry	1	5/19/2012
Dibenz(a,h)anthracene	0.35	0.039		mg/Kg-dry	1	5/19/2012
Dibenzofuran	0.22	0.2		mg/Kg-dry	1	5/19/2012
1,2-Dichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
1,3-Dichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
1,4-Dichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
3,3'-Dichlorobenzidine	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4-Dichlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Diethyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4-Dimethylphenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Dimethyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
4,6-Dinitro-2-methylphenol	ND	0.39		mg/Kg-dry	1	5/19/2012
2,4-Dinitrophenol	ND	0.98		mg/Kg-dry	1	5/19/2012
2,4-Dinitrotoluene	ND	0.039		mg/Kg-dry	1	5/19/2012
2,6-Dinitrotoluene	ND	0.039		mg/Kg-dry	1	5/19/2012

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 22, 2012
Print Date: May 22, 2012

Client:	ARCADIS U.S., Inc.	**Client Sample ID:**	SB-12 (3.5-5')
Lab Order:	12050508	**Tag Number:**	
Project:	127722.0000, ComEd-Crawford GS-13 Substation	**Collection Date:**	5/17/2012 9:50:00 AM
Lab ID:	12050508-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Di-n-butyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
Di-n-octyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
Fluoranthene	2.5	0.039		mg/Kg-dry	1	5/19/2012
Fluorene	0.099	0.039		mg/Kg-dry	1	5/19/2012
Hexachlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
Hexachlorobutadiene	ND	0.2		mg/Kg-dry	1	5/19/2012
Hexachlorocyclopentadiene	ND	0.2		mg/Kg-dry	1	5/19/2012
Hexachloroethane	ND	0.2		mg/Kg-dry	1	5/19/2012
Indeno(1,2,3-cd)pyrene	0.74	0.039		mg/Kg-dry	1	5/19/2012
Isophorone	ND	0.2		mg/Kg-dry	1	5/19/2012
2-Methylnaphthalene	0.28	0.2		mg/Kg-dry	1	5/19/2012
2-Methylphenol	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Methylphenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Naphthalene	0.13	0.039		mg/Kg-dry	1	5/19/2012
2-Nitroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
3-Nitroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Nitroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
2-Nitrophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Nitrophenol	ND	0.39		mg/Kg-dry	1	5/19/2012
Nitrobenzene	ND	0.039		mg/Kg-dry	1	5/19/2012
N-Nitrosodi-n-propylamine	ND	0.039		mg/Kg-dry	1	5/19/2012
N-Nitrosodimethylamine	ND	0.2		mg/Kg-dry	1	5/19/2012
N-Nitrosodiphenylamine	ND	0.039		mg/Kg-dry	1	5/19/2012
2, 2'-oxybis(1-Chloropropane)	ND	0.2		mg/Kg-dry	1	5/19/2012
Pentachlorophenol	ND	0.039		mg/Kg-dry	1	5/19/2012
Phenanthrene	2	0.039		mg/Kg-dry	1	5/19/2012
Phenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Pyrene	2.1	0.039		mg/Kg-dry	1	5/19/2012
Pyridine	ND	0.79		mg/Kg-dry	1	5/19/2012
1,2,4-Trichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4,5-Trichlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4,6-Trichlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	16.3	0.2	*	wt%	1	5/18/2012

Qualifiers:

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J - Analyte detected below quantitation limits
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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Report Date: May 22, 2012
Print Date: May 22, 2012

Client:	ARCADIS U.S., Inc.	**Client Sample ID:**	SB-14 (3.5-5')
Lab Order:	12050508	**Tag Number:**	
Project:	127722.0000, ComEd-Crawford GS-13 Substation	**Collection Date:**	5/17/2012 1:15:00 PM
Lab ID:	12050508-002A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	0.49	0.038		mg/Kg-dry	1	5/19/2012
Acenaphthylene	0.95	0.038		mg/Kg-dry	1	5/19/2012
Aniline	ND	0.39		mg/Kg-dry	1	5/19/2012
Anthracene	1.3	0.038		mg/Kg-dry	1	5/19/2012
Benz(a)anthracene	1.8	0.038		mg/Kg-dry	1	5/19/2012
Benzidine	ND	0.38		mg/Kg-dry	1	5/19/2012
Benzo(a)pyrene	2.7	0.038		mg/Kg-dry	1	5/19/2012
Benzo(b)fluoranthene	2.3	0.038		mg/Kg-dry	1	5/19/2012
Benzo(g,h,i)perylene	3	0.038		mg/Kg-dry	1	5/19/2012
Benzo(k)fluoranthene	1.4	0.038		mg/Kg-dry	1	5/19/2012
Benzoic acid	ND	0.96		mg/Kg-dry	1	5/19/2012
Benzyl alcohol	ND	0.2		mg/Kg-dry	1	5/19/2012
Bis(2-chloroethoxy)methane	ND	0.2		mg/Kg-dry	1	5/19/2012
Bis(2-chloroethyl)ether	ND	0.2		mg/Kg-dry	1	5/19/2012
Bis(2-ethylhexyl)phthalate	1.6	0.96		mg/Kg-dry	1	5/19/2012
4-Bromophenyl phenyl ether	ND	0.2		mg/Kg-dry	1	5/19/2012
Butyl benzyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
Carbazole	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Chloroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Chloro-3-methylphenol	ND	0.38		mg/Kg-dry	1	5/19/2012
2-Chloronaphthalene	ND	0.2		mg/Kg-dry	1	5/19/2012
2-Chlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Chlorophenyl phenyl ether	ND	0.2		mg/Kg-dry	1	5/19/2012
Chrysene	2.1	0.038		mg/Kg-dry	1	5/19/2012
Dibenz(a,h)anthracene	0.98	0.038		mg/Kg-dry	1	5/19/2012
Dibenzofuran	0.57	0.2		mg/Kg-dry	1	5/19/2012
1,2-Dichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
1,3-Dichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
1,4-Dichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
3,3'-Dichlorobenzidine	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4-Dichlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Diethyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4-Dimethylphenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Dimethyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
4,6-Dinitro-2-methylphenol	ND	0.38		mg/Kg-dry	1	5/19/2012
2,4-Dinitrophenol	ND	0.96		mg/Kg-dry	1	5/19/2012
2,4-Dinitrotoluene	ND	0.038		mg/Kg-dry	1	5/19/2012
2,6-Dinitrotoluene	ND	0.038		mg/Kg-dry	1	5/19/2012

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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Report Date: May 22, 2012
Print Date: May 22, 2012

Client:	ARCADIS U.S., Inc.	**Client Sample ID:**	SB-14 (3.5-5')
Lab Order:	12050508	**Tag Number:**	
Project:	127722.0000, ComEd-Crawford GS-13 Substation	**Collection Date:**	5/17/2012 1:15:00 PM
Lab ID:	12050508-002A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Di-n-butyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
Di-n-octyl phthalate	ND	0.2		mg/Kg-dry	1	5/19/2012
Fluoranthene	4.1	0.038		mg/Kg-dry	1	5/19/2012
Fluorene	0.43	0.038		mg/Kg-dry	1	5/19/2012
Hexachlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
Hexachlorobutadiene	ND	0.2		mg/Kg-dry	1	5/19/2012
Hexachlorocyclopentadiene	ND	0.2		mg/Kg-dry	1	5/19/2012
Hexachloroethane	ND	0.2		mg/Kg-dry	1	5/19/2012
Indeno(1,2,3-cd)pyrene	2.2	0.038		mg/Kg-dry	1	5/19/2012
Isophorone	ND	0.2		mg/Kg-dry	1	5/19/2012
2-Methylnaphthalene	0.5	0.2		mg/Kg-dry	1	5/19/2012
2-Methylphenol	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Methylphenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Naphthalene	0.27	0.038		mg/Kg-dry	1	5/19/2012
2-Nitroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
3-Nitroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Nitroaniline	ND	0.2		mg/Kg-dry	1	5/19/2012
2-Nitrophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
4-Nitrophenol	ND	0.38		mg/Kg-dry	1	5/19/2012
Nitrobenzene	ND	0.038		mg/Kg-dry	1	5/19/2012
N-Nitrosodi-n-propylamine	ND	0.038		mg/Kg-dry	1	5/19/2012
N-Nitrosodimethylamine	ND	0.2		mg/Kg-dry	1	5/19/2012
N-Nitrosodiphenylamine	ND	0.038		mg/Kg-dry	1	5/19/2012
2, 2'-oxybis(1-Chloropropane)	ND	0.2		mg/Kg-dry	1	5/19/2012
Pentachlorophenol	ND	0.038		mg/Kg-dry	1	5/19/2012
Phenanthrene	3.1	0.038		mg/Kg-dry	1	5/19/2012
Phenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Pyrene	3.2	0.038		mg/Kg-dry	1	5/19/2012
Pyridine	ND	0.78		mg/Kg-dry	1	5/19/2012
1,2,4-Trichlorobenzene	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4,5-Trichlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
2,4,6-Trichlorophenol	ND	0.2		mg/Kg-dry	1	5/19/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	14.8	0.2	*	wt%	1	5/18/2012

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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e-mail address: STATinfo@STATAnalysis.com AIHA, NVLAP and NELAP accredited

CHAIN OF CUSTODY RECORD

№: 843031 Page: 1 of 1

Company: ARCADIS
Project Number: 12722.0000 Client Tracking No.:
Project Name: ComEd-Crawford GS-13 Substation
Project Location: 3501 South Pulaski Road, Chicago, IL
Sampler(s): Dylan Raes
Report To: Dale Ellingson Phone: dale.ellingson@arcadis-us.com
Amy Schwarz Fax: amy.schwarz@arcadis-us.com
QC Level: 1 ___ 2 ___ 3 ___ 4 ___ e-mail:

P.O. No.:
Quote No.:

Turn Around: 4 DAY
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	VOCs	PAHs	PCBs	Total and TCLP RCRA Metals	pH	Water Soluble Sulfates	Remarks	Lab No.:
SB-1 (3.5-5')	5/14/12	1227	S		X		4	X	X	X	X	X	X		001
SB-5 (3.5-5')	5/14/12	1555	S		X		4	X	X	X	X	X	X		002
SB-10 (1-2.5')	5/15/12	0955	S		X		4	X	X	X	X	X	X		003
SB-8 (8.5-10')	5/15/12	1538	S		X		4	X	X	X	X	X	X		004
SB-9 (6-7.5')	5/16/12	0915	S		X		4	X	X	X	X	X	X		005
SB-11 (1-2.5')	5/17/12	0845	↓		↓		↓	↓	↓	↓	↓	↓	↓		006
SB-12 (3.5-5')	↓	0950	↓		↓		↓	↓	↓	↓	↓	↓	↓		007 001
SB-13 (3.5-5')	↓	1110	↓		↓		↓	↓	↓	↓	↓	↓	↓		008
SB-14 (3.5-5')	↓	1315	↓		↓		↓	↓	↓	↓	↓	↓	↓		009 002

Relinquished by: (Signature) Dylan Raes	Date/Time: 5/16/12 1555	
Received by: (Signature)	Date/Time: 5/16/12 1555	
Relinquished by: (Signature)	Date/Time: 5/17/12 1445	
Received by: (Signature)	Date/Time: 5-17-12 1445	
Relinquished by: (Signature)	Date/Time:	
Received by: (Signature)	Date/Time:	

Comments: 12050508

Preservation Code: A = None B = HNO_3 C = NaOH D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: ~~12050486~~ C

Received on Ice: Yes ☑ No ☐

Temperature: 3.3 °C

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **LFR** | Date and Time Received: **5/17/2012 2:45:00 PM**

Work Order Number **12050508** | Received by: MAM

Checklist completed by: [signature] 5/18/12 (Signature / Date) | Reviewed by: CG 5/18/12 (Initials / Date)

Matrix: | Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3.3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☒	No ☒
Water - Samples pH checked?	Yes ☒	No ☒	Checked by:
Water - Samples properly preserved?	Yes ☒	No ☒	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments:

Client / Person contacted: Scott Date contacted: 5/18/12 Contacted by: CG

Response: Analyze samples SB-12 (3.5-5') and SB-14 (3.5-5') for SVOC. Samples submitted under STAT WO 12050486.

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May 30, 2012

ARCADIS U.S., Inc.
630 Tollgate Road
Suite D
Elgin, IL 60123
Telephone: (847) 695-8855
Fax: (847) 695-7799

RE: 127722.0000, ComEd-Crawford GS-13 Substation STAT Project No: 12050486

Dear Dale Ellingson:

STAT Analysis received 9 samples for the referenced project on 5/17/2012 2:45:00 PM. The analytical results are presented in the following report.

This report is revised to reflect additional analysis requested after the initial report was issued.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Katelin Lewis
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

STAT Analysis Corporation Date: May 30, 2012

Client: ARCADIS U.S., Inc.
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab Order: 12050486

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
12050486-001A	SB-1 (3.5-5')		5/14/2012 12:27:00 PM	5/17/2012
12050486-001B	SB-1 (3.5-5')		5/14/2012 12:27:00 PM	5/17/2012
12050486-002A	SB-5 (3.5-5')		5/14/2012 3:55:00 PM	5/17/2012
12050486-002B	SB-5 (3.5-5')		5/14/2012 3:55:00 PM	5/17/2012
12050486-003A	SB-10 (1-2.5')		5/15/2012 9:55:00 AM	5/17/2012
12050486-003B	SB-10 (1-2.5')		5/15/2012 9:55:00 AM	5/17/2012
12050486-004A	SB-8 (8.5-10')		5/15/2012 3:38:00 PM	5/17/2012
12050486-004B	SB-8 (8.5-10')		5/15/2012 3:38:00 PM	5/17/2012
12050486-005A	SB-9 (6-7.5')		5/16/2012 9:15:00 AM	5/17/2012
12050486-005B	SB-9 (6-7.5')		5/16/2012 9:15:00 AM	5/17/2012
12050486-006A	SB-11 (1-2.5')		5/17/2012 8:45:00 AM	5/17/2012
12050486-006B	SB-11 (1-2.5')		5/17/2012 8:45:00 AM	5/17/2012
12050486-007A	SB-12 (3.5-5')		5/17/2012 9:50:00 AM	5/17/2012
12050486-007B	SB-12 (3.5-5')		5/17/2012 9:50:00 AM	5/17/2012
12050486-008A	SB-13 (3.5-5')		5/17/2012 11:10:00 AM	5/17/2012
12050486-008B	SB-13 (3.5-5')		5/17/2012 11:10:00 AM	5/17/2012
12050486-009A	SB-14 (3.5-5')		5/17/2012 1:15:00 PM	5/17/2012
12050486-009B	SB-14 (3.5-5')		5/17/2012 1:15:00 PM	5/17/2012

CLIENT: ARCADIS U.S., Inc.
Project: 127722.0000, ComEd-Crawford GS-13 Substati
Lab Order: 12050486

CASE NARRATIVE

The fractional mercury Matrix Spike/Matrix Spike Duplicate (MS/MSD) prepared from sample SB-12 (3.5-5') (12050486-007) had recovery outside control limits (10%/12% (MS/MSD) recovery, QC limits 75-125%).

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-001

Client Sample ID: SB-1 (3.5-5')
Collection Date: 5/14/2012 12:27:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.1		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.1		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.1		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.1		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.1		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.1		mg/Kg-dry	1	5/18/2012
Aroclor 1260	ND	0.1		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.066	0.02		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	11	1.3		mg/Kg-dry	10	5/21/2012
Barium	88	1.3		mg/Kg-dry	10	5/21/2012
Cadmium	ND	0.64		mg/Kg-dry	10	5/21/2012
Chromium	22	1.3		mg/Kg-dry	10	5/21/2012
Lead	110	0.64		mg/Kg-dry	10	5/21/2012
Selenium	ND	1.3		mg/Kg-dry	10	5/21/2012
Silver	ND	1.3		mg/Kg-dry	10	5/21/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.013	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.041		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.041		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.041		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	0.083	0.041		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	0.081	0.041		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	0.085	0.041		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	0.055	0.041		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.041		mg/Kg-dry	1	5/18/2012

Qualifiers:
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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-001

Client Sample ID: SB-1 (3.5-5')
Collection Date: 5/14/2012 12:27:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	0.092	0.041		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.041		mg/Kg-dry	1	5/18/2012
Fluoranthene	0.16	0.041		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.041		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	0.048	0.041		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.041		mg/Kg-dry	1	5/18/2012
Phenanthrene	0.079	0.041		mg/Kg-dry	1	5/18/2012
Pyrene	0.15	0.041		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.11		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0076		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0076		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.015		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.11		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.076		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0076		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0076		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.015		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0076		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.015		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0076		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0076		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0076		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.003		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.003		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0076		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.03		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.03		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.015		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0076		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0076		mg/Kg-dry	1	5/21/2012

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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-001

Client Sample ID: SB-1 (3.5-5')
Collection Date: 5/14/2012 12:27:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0076		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0076		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0076		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.023		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.6			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	20.8	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	2690	630	*	mg/Kg-dry	10	5/22/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-002

Client Sample ID: SB-5 (3.5-5')
Collection Date: 5/14/2012 3:55:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.093		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.093		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.093		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.093		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.093		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.093		mg/Kg-dry	1	5/18/2012
Aroclor 1260	ND	0.093		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.037	0.023		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	13	1.2		mg/Kg-dry	10	5/21/2012
Barium	32	1.2		mg/Kg-dry	10	5/21/2012
Cadmium	ND	0.59		mg/Kg-dry	10	5/21/2012
Chromium	14	1.2		mg/Kg-dry	10	5/21/2012
Lead	31	0.59		mg/Kg-dry	10	5/21/2012
Selenium	ND	1.2		mg/Kg-dry	10	5/21/2012
Silver	ND	1.2		mg/Kg-dry	10	5/21/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.0085	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.039		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-002

Client Sample ID: SB-5 (3.5-5')
Collection Date: 5/14/2012 3:55:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	0.043	0.039		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Fluoranthene	0.069	0.039		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.039		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.039		mg/Kg-dry	1	5/18/2012
Phenanthrene	0.068	0.039		mg/Kg-dry	1	5/18/2012
Pyrene	0.056	0.039		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.12		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0078		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0078		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.016		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.12		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.078		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0078		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0078		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.016		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0078		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.016		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0078		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0078		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0078		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0031		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0031		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0078		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.031		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.031		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.016		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0078		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0078		mg/Kg-dry	1	5/21/2012

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Lab ID: 12050486-002

Client Sample ID: SB-5 (3.5-5')
Collection Date: 5/14/2012 3:55:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0078		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0078		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0078		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.023		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.5			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	16.0	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	7670	3000	*	mg/Kg-dry	50	5/22/2012

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-003

Client Sample ID: SB-10 (1-2.5')
Collection Date: 5/15/2012 9:55:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.098		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.098		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.098		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.098		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.098		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.098		mg/Kg-dry	1	5/18/2012
Aroclor 1260	ND	0.098		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.077	0.022		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	14	1.3		mg/Kg-dry	10	5/21/2012
Barium	250	1.3		mg/Kg-dry	10	5/21/2012
Cadmium	1.3	0.65		mg/Kg-dry	10	5/21/2012
Chromium	23	1.3		mg/Kg-dry	10	5/21/2012
Lead	510	0.65		mg/Kg-dry	10	5/21/2012
Selenium	1.4	1.3		mg/Kg-dry	10	5/21/2012
Silver	ND	1.3		mg/Kg-dry	10	5/21/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	0.73	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.016	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.041		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.041		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.041		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	0.086	0.041		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	0.091	0.041		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	0.097	0.041		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	0.066	0.041		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.041		mg/Kg-dry	1	5/18/2012

Qualifiers:
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B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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RL - Reporting / Quantitation Limit for the analysis
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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-003

Client Sample ID: SB-10 (1-2.5')
Collection Date: 5/15/2012 9:55:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	0.099	0.041		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.041		mg/Kg-dry	1	5/18/2012
Fluoranthene	0.17	0.041		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.041		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	0.052	0.041		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.041		mg/Kg-dry	1	5/18/2012
Phenanthrene	0.096	0.041		mg/Kg-dry	1	5/18/2012
Pyrene	0.14	0.041		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.098		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0066		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0066		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.013		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.098		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.066		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0066		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0066		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.013		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0066		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.013		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0066		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0026		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0026		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0066		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.026		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.026		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.013		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0066		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012

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Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-003

Client Sample ID: SB-10 (1-2.5')
Collection Date: 5/15/2012 9:55:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0066		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.02		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.8			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	20.0	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	ND	620	*	mg/Kg-dry	10	5/22/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-004

Client Sample ID: SB-8 (8.5-10')
Collection Date: 5/15/2012 3:38:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.096		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.096		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.096		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.096		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.096		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.096		mg/Kg-dry	1	5/18/2012
Aroclor 1260	ND	0.096		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.027	0.022		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	9.1	1.3		mg/Kg-dry	10	5/21/2012
Barium	24	1.3		mg/Kg-dry	10	5/21/2012
Cadmium	ND	0.65		mg/Kg-dry	10	5/21/2012
Chromium	12	1.3		mg/Kg-dry	10	5/21/2012
Lead	14	0.65		mg/Kg-dry	10	5/21/2012
Selenium	ND	1.3		mg/Kg-dry	10	5/21/2012
Silver	ND	1.3		mg/Kg-dry	10	5/21/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.0064	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.04		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.04		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.04		mg/Kg-dry	1	5/18/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-004

Client Sample ID: SB-8 (8.5-10')
Collection Date: 5/15/2012 3:38:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	ND	0.04		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.04		mg/Kg-dry	1	5/18/2012
Fluoranthene	ND	0.04		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.04		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.04		mg/Kg-dry	1	5/18/2012
Phenanthrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Pyrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.078		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0052		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0052		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.01		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.078		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.052		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0052		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0052		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.01		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0052		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.01		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0052		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0052		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0052		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0021		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0021		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0052		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.021		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.021		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.01		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0052		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0052		mg/Kg-dry	1	5/21/2012

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Client Sample ID: SB-8 (8.5-10')
Collection Date: 5/15/2012 3:38:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0052		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0052		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0052		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.016		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.5			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	17.8	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	ND	610	*	mg/Kg-dry	10	5/22/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-005

Client Sample ID: SB-9 (6-7.5')
Collection Date: 5/16/2012 9:15:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1260	ND	0.094		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.029	0.019		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	6.6	1.2		mg/Kg-dry	10	5/21/2012
Barium	60	1.2		mg/Kg-dry	10	5/21/2012
Cadmium	ND	0.59		mg/Kg-dry	10	5/21/2012
Chromium	18	1.2		mg/Kg-dry	10	5/21/2012
Lead	25	0.59		mg/Kg-dry	10	5/21/2012
Selenium	ND	1.2		mg/Kg-dry	10	5/21/2012
Silver	ND	1.2		mg/Kg-dry	10	5/21/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.0054	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.039		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012

Qualifiers:
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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-005

Client Sample ID: SB-9 (6-7.5')
Collection Date: 5/16/2012 9:15:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	ND	0.039		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.039		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.039		mg/Kg-dry	1	5/18/2012
Phenanthrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.092		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0061		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0061		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.012		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.092		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.061		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0061		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0061		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.012		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0061		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.012		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0061		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0061		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0061		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0024		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0024		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0061		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.024		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.024		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.012		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0061		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0061		mg/Kg-dry	1	5/21/2012

Qualifiers:
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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-005

Client Sample ID: SB-9 (6-7.5')
Collection Date: 5/16/2012 9:15:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0061		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0061		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0061		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.018		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.8			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	16.0	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	3290	600	*	mg/Kg-dry	10	5/22/2012

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Date Reported: May 30, 2012
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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-006

Client Sample ID: SB-11 (1-2.5')
Collection Date: 5/17/2012 8:45:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.094		mg/Kg-dry	1	5/18/2012
Aroclor 1260	0.22	0.094		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.03	0.019		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	***SW6020 (SW3050B)***			Prep Date: ***5/21/2012***		Analyst: ***JG***
Arsenic	12	1.1		mg/Kg-dry	10	5/21/2012
Barium	63	1.1		mg/Kg-dry	10	5/21/2012
Cadmium	ND	0.57		mg/Kg-dry	10	5/21/2012
Chromium	18	1.1		mg/Kg-dry	10	5/21/2012
Lead	25	0.57		mg/Kg-dry	10	5/21/2012
Selenium	ND	1.1		mg/Kg-dry	10	5/21/2012
Silver	ND	1.1		mg/Kg-dry	10	5/21/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.0067	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.039		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	ND	0.039		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.039		mg/Kg-dry	1	5/18/2012

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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-006

Client Sample ID: SB-11 (1-2.5')
Collection Date: 5/17/2012 8:45:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	0.048	0.039		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.039		mg/Kg-dry	1	5/18/2012
Fluoranthene	0.07	0.039		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.039		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	ND	0.039		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.039		mg/Kg-dry	1	5/18/2012
Phenanthrene	0.088	0.039		mg/Kg-dry	1	5/18/2012
Pyrene	0.064	0.039		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.1		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0069		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0069		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.014		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.1		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.069		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0069		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0069		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.014		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0069		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.014		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0069		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0069		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0069		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0028		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0028		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0069		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.028		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.028		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.014		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0069		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0069		mg/Kg-dry	1	5/21/2012

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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-006

Client Sample ID: SB-11 (1-2.5')
Collection Date: 5/17/2012 8:45:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0069		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0069		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0069		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.021		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.1			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	15.7	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	8570	1200	*	mg/Kg-dry	20	5/22/2012

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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-007

Client Sample ID: SB-12 (3.5-5')
Collection Date: 5/17/2012 9:50:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.095		mg/Kg-dry	1	5/21/2012
Aroclor 1221	ND	0.095		mg/Kg-dry	1	5/21/2012
Aroclor 1232	ND	0.095		mg/Kg-dry	1	5/21/2012
Aroclor 1242	0.82	0.095		mg/Kg-dry	1	5/21/2012
Aroclor 1248	ND	0.095		mg/Kg-dry	1	5/21/2012
Aroclor 1254	0.58	0.095		mg/Kg-dry	1	5/21/2012
Aroclor 1260	0.11	0.095		mg/Kg-dry	1	5/21/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury Species Fractionation	**SW7470A/7471A (SW3200)**			Prep Date: **5/29/2012**		Analyst: **LB**
Extractable Mercury	0.36	0.022		mg/Kg-dry	3	5/29/2012
Mercury Species Fractionation	**SW7470A/7471A (SW3200)**			Prep Date: **5/29/2012**		Analyst: **LB**
Semi-mobile Mercury	0.2	0.0072		mg/Kg-dry	1	5/29/2012
Mercury Species Fractionation	**SW7470A/7471A (SW3200)**			Prep Date: **5/29/2012**		Analyst: **LB**
Non-mobile Mercury	ND	0.0072		mg/Kg-dry	1	5/29/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	0.28	0.022		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/22/2012**		Analyst: **JG**
Arsenic	28	1.2		mg/Kg-dry	10	5/22/2012
Barium	340	1.2		mg/Kg-dry	10	5/22/2012
Cadmium	5.1	0.6		mg/Kg-dry	10	5/22/2012
Chromium	40	1.2		mg/Kg-dry	10	5/22/2012
Lead	520	0.6		mg/Kg-dry	10	5/22/2012
Selenium	3.4	1.2		mg/Kg-dry	10	5/22/2012
Silver	ND	1.2		mg/Kg-dry	10	5/22/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	0.021	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.093	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-007

Client Sample ID: SB-12 (3.5-5')
Collection Date: 5/17/2012 9:50:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.15		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.01		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.01		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.01		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.02		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.15		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.1		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.01		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.01		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.02		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.01		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.02		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.01		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.01		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.01		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.01		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.01		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.01		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.01		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.004		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.004		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.01		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.04		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.04		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.02		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.01		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.01		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.01		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.01		mg/Kg-dry	1	5/21/2012
Toluene	ND	0.01		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.01		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.01		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.01		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.01		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.03		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.3			pH Units	1	5/17/2012

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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-007

Client Sample ID: SB-12 (3.5-5')
Collection Date: 5/17/2012 9:50:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	16.3	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	13500	3000	*	mg/Kg-dry	50	5/22/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-008

Client Sample ID: SB-13 (3.5-5')
Collection Date: 5/17/2012 11:10:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.095		mg/Kg-dry	1	5/18/2012
Aroclor 1221	ND	0.095		mg/Kg-dry	1	5/18/2012
Aroclor 1232	ND	0.095		mg/Kg-dry	1	5/18/2012
Aroclor 1242	ND	0.095		mg/Kg-dry	1	5/18/2012
Aroclor 1248	ND	0.095		mg/Kg-dry	1	5/18/2012
Aroclor 1254	ND	0.095		mg/Kg-dry	1	5/18/2012
Aroclor 1260	ND	0.095		mg/Kg-dry	1	5/18/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.023		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/22/2012**		Analyst: **JG**
Arsenic	2.9	1.2		mg/Kg-dry	10	5/22/2012
Barium	110	1.2		mg/Kg-dry	10	5/22/2012
Cadmium	ND	0.6		mg/Kg-dry	10	5/22/2012
Chromium	24	1.2		mg/Kg-dry	10	5/22/2012
Lead	29	0.6		mg/Kg-dry	10	5/22/2012
Selenium	ND	1.2		mg/Kg-dry	10	5/22/2012
Silver	ND	1.2		mg/Kg-dry	10	5/22/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	5/21/2012
Barium	ND	0.5		mg/L	5	5/21/2012
Cadmium	ND	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	ND	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Acenaphthene	ND	0.04		mg/Kg-dry	1	5/18/2012
Acenaphthylene	ND	0.04		mg/Kg-dry	1	5/18/2012
Anthracene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benz(a)anthracene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(a)pyrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(b)fluoranthene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(g,h,i)perylene	ND	0.04		mg/Kg-dry	1	5/18/2012
Benzo(k)fluoranthene	ND	0.04		mg/Kg-dry	1	5/18/2012

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Date Reported: May 30, 2012
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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-008

Client Sample ID: SB-13 (3.5-5')
Collection Date: 5/17/2012 11:10:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **DM**
Chrysene	ND	0.04		mg/Kg-dry	1	5/18/2012
Dibenz(a,h)anthracene	ND	0.04		mg/Kg-dry	1	5/18/2012
Fluoranthene	ND	0.04		mg/Kg-dry	1	5/18/2012
Fluorene	ND	0.04		mg/Kg-dry	1	5/18/2012
Indeno(1,2,3-cd)pyrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Naphthalene	ND	0.04		mg/Kg-dry	1	5/18/2012
Phenanthrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Pyrene	ND	0.04		mg/Kg-dry	1	5/18/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	ND	0.099		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0066		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0066		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.013		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.099		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.066		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0066		mg/Kg-dry	1	5/21/2012
Chlorobenzene	ND	0.0066		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.013		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0066		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.013		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0066		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0026		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0026		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0066		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.026		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.026		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.013		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0066		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012

Qualifiers:
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Date Reported: May 30, 2012
Date Printed: May 30, 2012

Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-008

Client Sample ID: SB-13 (3.5-5')
Collection Date: 5/17/2012 11:10:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Toluene	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0066		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0066		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0066		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.02		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	7.9			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	17.0	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	ND	1200	*	mg/Kg-dry	20	5/22/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-009

Client Sample ID: SB-14 (3.5-5')
Collection Date: 5/17/2012 1:15:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **5/17/2012**		Analyst: **GVC**
Aroclor 1016	ND	0.093		mg/Kg-dry	1	5/21/2012
Aroclor 1221	ND	0.093		mg/Kg-dry	1	5/21/2012
Aroclor 1232	ND	0.093		mg/Kg-dry	1	5/21/2012
Aroclor 1242	0.24	0.093		mg/Kg-dry	1	5/21/2012
Aroclor 1248	ND	0.093		mg/Kg-dry	1	5/21/2012
Aroclor 1254	0.23	0.093		mg/Kg-dry	1	5/21/2012
Aroclor 1260	0.12	0.093		mg/Kg-dry	1	5/21/2012
TCLP Mercury	**SW1311/7470A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.0002		mg/L	1	5/22/2012
Mercury	**SW7471A**			Prep Date: **5/21/2012**		Analyst: **LB**
Mercury	ND	0.018		mg/Kg-dry	1	5/21/2012
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **5/22/2012**		Analyst: **JG**
Arsenic	13	1.2		mg/Kg-dry	10	5/22/2012
Barium	140	1.2		mg/Kg-dry	10	5/22/2012
Cadmium	7.1	0.58		mg/Kg-dry	10	5/22/2012
Chromium	90	1.2		mg/Kg-dry	10	5/22/2012
Lead	240	0.58		mg/Kg-dry	10	5/22/2012
Selenium	1.5	1.2		mg/Kg-dry	10	5/22/2012
Silver	2.2	1.2		mg/Kg-dry	10	5/22/2012
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **5/21/2012**		Analyst: **JG**
Arsenic	0.019	0.01		mg/L	5	5/21/2012
Barium	1	0.5		mg/L	5	5/21/2012
Cadmium	0.079	0.005		mg/L	5	5/21/2012
Chromium	ND	0.01		mg/L	5	5/21/2012
Lead	0.32	0.005		mg/L	5	5/21/2012
Selenium	ND	0.01		mg/L	5	5/21/2012
Silver	ND	0.01		mg/L	5	5/21/2012
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Acetone	0.083	0.079		mg/Kg-dry	1	5/21/2012
Benzene	ND	0.0053		mg/Kg-dry	1	5/21/2012
Bromodichloromethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
Bromoform	ND	0.0053		mg/Kg-dry	1	5/21/2012
Bromomethane	ND	0.011		mg/Kg-dry	1	5/21/2012
2-Butanone	ND	0.079		mg/Kg-dry	1	5/21/2012
Carbon disulfide	ND	0.053		mg/Kg-dry	1	5/21/2012
Carbon tetrachloride	ND	0.0053		mg/Kg-dry	1	5/21/2012

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Client: ARCADIS U.S., Inc.
Lab Order: 12050486
Project: 127722.0000, ComEd-Crawford GS-13 Substation
Lab ID: 12050486-009

Client Sample ID: SB-14 (3.5-5')
Collection Date: 5/17/2012 1:15:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **5/17/2012**		Analyst: **ERP**
Chlorobenzene	ND	0.0053		mg/Kg-dry	1	5/21/2012
Chloroethane	ND	0.011		mg/Kg-dry	1	5/21/2012
Chloroform	ND	0.0053		mg/Kg-dry	1	5/21/2012
Chloromethane	ND	0.011		mg/Kg-dry	1	5/21/2012
Dibromochloromethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,2-Dichloroethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,1-Dichloroethene	ND	0.0053		mg/Kg-dry	1	5/21/2012
cis-1,2-Dichloroethene	ND	0.0053		mg/Kg-dry	1	5/21/2012
trans-1,2-Dichloroethene	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,2-Dichloropropane	ND	0.0053		mg/Kg-dry	1	5/21/2012
cis-1,3-Dichloropropene	ND	0.0021		mg/Kg-dry	1	5/21/2012
trans-1,3-Dichloropropene	ND	0.0021		mg/Kg-dry	1	5/21/2012
Ethylbenzene	ND	0.0053		mg/Kg-dry	1	5/21/2012
2-Hexanone	ND	0.021		mg/Kg-dry	1	5/21/2012
4-Methyl-2-pentanone	ND	0.021		mg/Kg-dry	1	5/21/2012
Methylene chloride	ND	0.011		mg/Kg-dry	1	5/21/2012
Methyl tert-butyl ether	ND	0.0053		mg/Kg-dry	1	5/21/2012
Styrene	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,1,2,2-Tetrachloroethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
Tetrachloroethene	ND	0.0053		mg/Kg-dry	1	5/21/2012
Toluene	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,1,1-Trichloroethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
1,1,2-Trichloroethane	ND	0.0053		mg/Kg-dry	1	5/21/2012
Trichloroethene	ND	0.0053		mg/Kg-dry	1	5/21/2012
Vinyl chloride	ND	0.0053		mg/Kg-dry	1	5/21/2012
Xylenes, Total	ND	0.016		mg/Kg-dry	1	5/21/2012
pH (25 °C)	**SW9045C**			Prep Date: **5/17/2012**		Analyst: **PBG**
pH	8.3			pH Units	1	5/17/2012
Percent Moisture	**D2974**			Prep Date: **5/17/2012**		Analyst: **RW**
Percent Moisture	14.8	0.2	*	wt%	1	5/18/2012
Sulfate in Soil	**M4500SO4,E**			Prep Date: **5/22/2012**		Analyst: **YZ**
Sulfate	ND	590	*	mg/Kg-dry	10	5/22/2012

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
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CHAIN OF CUSTODY RECORD

№: 843031 Page: 1 of 1

Company: ARCADIS
Project Number: 12722.0000 Client Tracking No.:
Project Name: ComEd-Crawford GS-13 Substation
Project Location: 3501 South Pulaski Road, Chicago, IL
Sampler(s): Dylan Raes
Report To: Dale Ellingson Phone: dale.ellingson@arcadis-us.com
Amy Schwarz Fax: amy.schwarz@arcadis-us.com
QC Level: 1 ____ 2 ____ 3 ____ 4 ____ e-mail:

P.O. No.:
Quote No.:

Turn Around: 4 DAY
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	VOCs	PNAs	PCBs	Total and TCLP RCRA Metals	pH	Water Soluble Sulfates	Remarks	Lab No.:
SB-1 (3.5-5')	5/14/12	1227	S		X		4	X	X	X	X	X	X		001
SB-5 (3.5-5')	5/14/12	1555	S		X		4	X	X	X	X	X	X		002
SB-10 (1-2.5')	5/15/12	0955	S		X		4	X	X	X	X	X	X		003
SB-8 (8.5-10')	5/15/12	1538	S		X		4	X	X	X	X	X	X		004
SB-9 (6-7.5')	5/16/12	0915	S		X		4	X	X	X	X	X	X		005
SB-11 (1-2.5')	5/17/12	0845	↓		↓		↓	↓	↓	↓	↓	↓	↓		006
SB-12 (3.5-5')		0950	↓		↓		↓	↓	↓	↓	↓	↓	↓		007
SB-13 (3.5-5')		1110	↓		↓		↓	↓	↓	↓	↓	↓	↓		008
SB-14 (3.5-5')	↓	1315	↓		↓		↓	↓	↓	↓	↓	↓	↓		009

Relinquished by: (Signature) Dylan Raes	Date/Time: 5/16/12 1555	Comments:
Received by: (Signature)	Date/Time: 5/16/12 1555	
Relinquished by: (Signature)	Date/Time: 5/17/12 1445	
Received by: (Signature)	Date/Time: 5-17-12 1445	
Relinquished by: (Signature)	Date/Time:	Preservation Code: A = None B = HNO_3 C = NaOH
Received by: (Signature)	Date/Time:	D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: 12050486
Received on Ice: Yes ☑ No ☐
Temperature: 3.3 °C

STAT Analysis Corporation

Sample Receipt Checklist

Client Name LFR

Date and Time Received: 5/17/2012 2:45:00 PM

Work Order Number 12050486

Received by: MAM

Checklist completed by: [signature] 5-17-12 (Signature / Date)

Reviewed by: CG 5/18/12 (Initials / Date)

Matrix:

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3.3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by: _____
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted? _____

Any No response must be detailed in the comments section below.

Comments: Sample "SB-8 (8.5-10')" 5035 kit not received but written on COC. Sample "SB-10 (8.5-10') 5035 kit recieved but not listed on COC.

Client / Person contacted: _____ Date contacted: _____ Contacted by: _____

Response: Run SB-12 (3.5-5) and SB-14 (3.5-5) full Scan SVOC on separate report per Scott verbal 5/18/12 CG