Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

ILLINOIS EPA RCRA CORRECTIVE ACTION CERTIFICATION

This certification must accompany any document submitted to Illinois EPA in accordance with the corrective action requirements set forth in a facility's RCRA permit. The original and two copies of all documents submitted must be provided.

1.0 Facility Identification

Name: Equilon Enterprises LLC d/b/a/ Shell
County: Madison
Street Address: 900 South Central Ave
Site No. (IEPA): 1191150002
City: Roxana
Site No. (USEPA): ILD080 012 305

2.0 Owner Information

Name: Not Applicable
Mail Address:
City:
State: Zip Code:
Contact Name:
Contact Title:
Phone:

3.0 Operator Information

Name: Equilon Enterprises LLC d/b/a/ Shell
Mail Address: 128 East Center Street
City: Nazareth
State: PA Zip Code: 18064
Contact Name: Leroy Bealer
Contact Title: Senior Program Manager
Phone: 484-632-7955

4.0 Type of Submission (check applicable item and provide requested information, as applicable)

☐ RFI Phase I Workplan/Report
☐ RFI Phase II Workplan/Report
☐ CMP Report;
☒ Other (describe): Former Public Works Yard - Additional Site Delineation Workplan (Area C)

IEPA Permit Log No. B-43R
Date of Last IEPA Letter on Project April 22, 2024
Log No. of Last IEPA Letter on Project B-43R-CA-116, CA-117

Does this submittal include groundwater information: ☒ Yes ☐ No

Date of Submittal 7/18/2024

5.0 Description of Submittal: (briefly describe what is being submitted and its purpose)

Workplan for additional delineation south of FPWY SEE Area C in project area located in the Village of Roxana, Illinois.

6.0 Documents Submitted (identify all documents in submittal, including cover letter; give dates of all documents)

Cover letter, RCRA Corrective Action Certification, and Report dated 7/18/2024. Copy of submittal also sent directly to V. Poornaka, T. Halteman, and A. Al-Janabi of IEPA.

7.0 Certification Statement

(This statement is part of the overall certification being provided by the owner/operator, professional and laboratory in Items 7.1, 7.2 and 7.3 below). The activities described in the subject submittals have been carried out in accordance with procedures approved by Illinois EPA. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

7.1 Owner/Operator Certification

(Must be completed for all submittals. Certification and signature requirements are set forth in 35 IAC 702.126.) All submittals pertaining to the corrective action requirements set forth in a RCRA Permit must be signed by the person designated below (or by a duly authorized representative of that person):

1. For a Corporation, by a principal executive officer of at least the level of vice president.
2. For a Partnership or Sole Proprietorship, by a general partner or the proprietor, respectively.
3. For a Governmental Entity, by either a principal executive officer or a ranking elected official.

A person is a duly authorized representative only if:

1. the authorization is made in writing by a person described above; and
2. the written authorization is provided with this submittal (a copy of a previously submitted authorization can be used).

Owner Signature: _____ Date: _____

Title: _____

Operator Signature: _____ Date: 7/11/2024

Title: **Senior Program Manager**

7.2 Professional Certification (if necessary)

Work carried out in this submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. No one is relieved from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44 (h))

Professional's Signature: Wendy Pennington Date: 7/17/2024

Professional's Name Wendy Pennington

Address 100 N. Broadway, 20th Floor

City St. Louis

State MO Zip Code 63102

Phone 314-452-8929

Professional's Seal:

7.3 Laboratory Certification (if necessary)

The sample collection, handling, preservation, preparation and analysis efforts for which this laboratory was responsible were carried out in accordance with procedures approved by Illinois EPA.

Name of Laboratory not applicable

_____ Date: _____

Signature of Laboratory Responsible Officer

Mailing Address of Laboratory

Address _____

City _____

State _____ Zip Code _____

_____

Name and Title of Laboratory Responsible Officer

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July 18, 2024

M. Jacqueline M. Cooperider, PE
Manager, Permit Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62702

Former Public Works Yard – Additional Site Delineation Workplan (Area C)
Roxana, Illinois
1191150002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43R-CA-116, CA-117

Dear Ms. Cooperider:

AECOM Technical Services, Inc. (AECOM), on behalf of Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell), submits this enclosed workplan in accordance with Condition 10 of the IEPA letter dated January 26, 2024 and Condition 3 of the IEPA letter dated April 22, 2024.

A copy of this submittal is being sent separately directly to Visal Poornaka, Amy Butler, Takako Halteman, and Ali Al-Janabi with the IEPA.

If you have any questions please contact Buddy Bealer, Shell Senior Program Manager, at leroy.bealer@shell.com (484-632-7956), or Wendy Pennington at wendy.pennington@aecom.com (314-452-8929).

Sincerely,

AECOM, on behalf of Shell Oil Products US

Brett Howell, PG
Geologist

Samuel Fisher, CHMM
Environmental Scientist

Wendy Pennington, PE
Project Manager

Enclosures: Additional Site Delineation Workplan

cc:

Buddy Bealer, Shell
Amy Butler, IEPA, Springfield
Takako Halteman, IEPA, Springfield
Visal Poornaka, IEPA, Springfield
Ali Al-Janabi, IEPA, Collinsville
Ryan Mohr, Fox Smith LLC
Roxana Public Library
Project Website
Project File

AECOM

Former Public Works Yard
Additional Site Delineation Workplan (Area C)
Roxana, IL

Prepared For:
Equilon Enterprises LLC dba Shell Oil Products US
Roxana, IL

Project Reference: 60721927
July 18, 2024

Delivering a better world

Quality information

Prepared by	Verified by	Approved by
Brett Howell Geologist, PG	Samuel Fisher, Environmental Scientist, CHMM	Wendy Pennington, Engineer, PE

Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

# Hard Copies	PDF Required	Association / Company Name
1 – original	No	Ms. Jacqueline M. Cooperider, PE IEPA, Springfield
None	Yes	Ms. Megan Lipscomb Phillips 66
None	Yes	Ms. Amy Butler IEPA, Springfield
None	Yes	Mr. Visal Poornaka IEPA, Springfield
None	Yes	Ms. Takako Halteman IEPA, Springfield
None	Yes	Mr. Ali Al-Janabi IEPA, Collinsville
None	Yes	Roxana Public Library, Website
None	Yes	Leroy (Buddy) Bealer Shell
None	Yes	Mr. Ryan Mohr Fox Smith LLC

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1. Introduction

On behalf of Equilon Enterprises LLC, dba Shell Oil Products US (SOPUS), AECOM Technical Services, Inc. (AECOM) has prepared this additional delineation workplan to expand upon previous site delineation efforts along the south-central portion of the Village of Roxana Former Public Works Yard (PWY) located in Roxana, Illinois (**Figure 1**). This workplan was requested at the behest of the Illinois Environmental Protection Agency (IEPA), in a letter dated January 26, 2024, in order to further delineate hydrocarbon contamination impacts along the south-central portion of the PWY near the Norfolk Southern railway and Phillips 66 border (IEPA, 2024).

In Condition 10 of the letter dated January 26, 2024, IEPA relayed that vertical and horizontal delineation had not been achieved in the south-central portion of the PWY. Condition 10.b requested that a workplan for additional delineation in this area be submitted to IEPA, in which a minimum of four borings be advanced in the area southwest, south, and southeast of the southern extent of PWY SEE system Area C. Conditions 10.b.i-iv referenced four borings in that area with soil sample results of concern, thus requiring additional delineation efforts, specifically borings GP-17, SB-103, SB-106, and SB-107. On February 23, 2024, Shell and AECOM submitted a response to the January 26, 2024 letter indicating that a workplan would be submitted within 180 days of the receipt of the January 26, 2024 letter. On April 22, 2024, IEPA provided an approval letter with conditions for Shell and AECOM's path forwarded regarding the SEE system and this requested delineation workplan. Refer to **Figure 2** for a PWY site layout map.

1.1 Schedule

The workplan activities described herein will be scheduled after receipt of approval from the IEPA, completion of the PWY Steam Enhanced Extraction (SEE) system operation, and in conjunction with the RCRA Closure Plan submitted by Antea Group on behalf of Buckeye Partners LP (Buckeye) in May 2023 (Antea Group, 2023). Any intrusive investigative activities that are carried out by AECOM will not commence until after SEE operation is completed, the subsurface temperatures returns to ambient levels, and SEE Effectiveness sampling efforts begin. AECOM intends to collaborate with Buckeye when their assessment near the Norfolk Southern railway occurs. As neither Shell nor AECOM have control over the schedule of the Buckeye investigation activities, comments on timing and schedule of that assessment cannot be relayed at the time of this submittal.

Area C Delineation Workplan Submitted:	July 2024
Workplan Approval Received:	Workplan actions will be coordinated with Antea Group's assessment schedule and post-SEE system operation.
One to Two Months After Onset of Investigation:	Investigation Activities expected to be completed.
Six Months After Investigation Completion:	Delineation Report planned to be submitted.

2. Background

2.1 Site Description

The PWY is bounded on the west and north by Illinois Route 111/Old Edwardsville Road and East Eighth Street, respectively. There is a Norfolk Southern railroad corridor along the southern boundary, and the Phillips 66 Wood River Refinery (WRR) forms the eastern boundary. Residential properties are directly north of the PWY. The property occupies approximately 2.4 acres, where approximately 0.4 acres is covered or obstructed by buildings and/or structures. Topographically, the western and southern portions of the PWY are at a lower elevation relative to the northeastern portion of the PWY. This relief across the PWY is approximately 13 feet. The PWY is owned by the Village of Roxana and is infrequently used by the Village for vehicle maintenance and storage. The PWY is also the location of the Village's former wastewater treatment plant (WWTP). In-ground concrete tanks associated with the former WWTP continue to be used to help manage stormwater overflow in the Village. Most of the PWY is enclosed by a chain link fence.

2.2 Investigation History

SOPUS has conducted several subsurface investigations at the PWY (URS, 2007; URS, 2009; URS, 2010; URS, 2013). Quarterly groundwater and soil vapor monitoring began in 2010 per the IEPA letter dated 8/5/2010 (IEPA, 2010). These investigations indicate dissolved-phase benzene concentrations ranging from 100 milligrams per liter (mg/L) to 1,900 mg/L[1]. In 2011, SOPUS constructed a soil vapor extraction (SVE) system compound on the adjoining WRR which includes a header-line connecting to extraction wells at the PWY. The SVE system has operated continuously at the PWY since late 2012. Soil vapor data for the PWY demonstrates the shallow and intermediate zones have been remediated (AECOM, 2024). Deep (>25 feet below ground surface) soil vapor concentrations have also decreased over time, but remain in some areas with fluctuating groundwater levels and submerged impacts.

The WRR, adjacent to the eastern PWY boundary, currently maintains hydraulic control of groundwater in the area with a groundwater production system consisting of several pumping wells which operate at a minimum combined flow of 3,000 gallons per minute (gpm). The pumped groundwater is used by Phillips 66 (P66), the refinery operator, as process and cooling water. Groundwater pumping is required to contain groundwater contamination within refinery property boundaries, in accordance with RCRA Part B Post-Closure Hazardous Waste Permit B-43R (Part B Permit), Section IV (IEPA, 2019).

IEPA requested that SOPUS evaluate additional remedial technologies to reduce the highest benzene concentrations in the PWY. In 2019, in-situ thermal remediation (ISTR) was identified as a potentially viable alternative; a predesign investigation was conducted to gather information to better assess its viability. This predesign investigation consisted of both soil and groundwater sampling, as well as Cone Penetration Test (CPT) and Dye-enhanced Laser Fluorescence (Dye-LIF) technology. Results from the May-July 2019 Predesign Investigation led AECOM and SOPUS to request proposals from multiple leading ISTR firms, and each firm proposed implementation of SEE as the most effective ISTR technology for soil and groundwater impacts at the PWY. Upon review of the proposals, AECOM, on behalf of SOPUS, contracted McMillan-McGee Corporation (McMillan-McGee) to design, install, and operate the SEE system for the PWY. The SEE system was constructed and installed in 2023-2024 and is anticipated to begin full operation in July 2024. The SEE thermal treatment area boundaries (Areas A, B and C) are depicted on **Figure 2**.

On November 24, 2020, Buckeye Partners, L.P. (Buckeye) reported a gasoline pipeline release near the southeast corner of the PWY. The release is associated with IEPA Violation Notice L-2021-00084, LPC #1190905036 – Madison County. Impacts from the Buckeye release have been observed at nearby SVE well, VMP, and groundwater monitoring well locations. Impacts have also been observed at SEE extraction and injection wells in the vicinity of the release.

Activities associated with the installation and construction of the PWY SEE system began in February 2023 and concluded in April 2024. During this time a total of 147 borings were advanced at the Site, of which 36 were sampled. Results from these samples will be used for effectiveness evaluation upon the completion of SEE system operation.

[1] Values are from Roxana Interim Groundwater Monitoring reports – wells MW-7 and MW-8.

2.3 Misidentification of Kerosene at PWY

In Condition 10.b of the letter dated 1/26/2024, IEPA states, regarding Area C of the SEE system, “The Illinois EPA is aware of a former kerosene release associated with Shell, and a Buckeye release to the south.” In Condition 3 of the letter dated 4/22/2024, IEPA discusses “further investigation of the southern extent of Area C with regards to kerosene and Diesel Range Organics (DRO). Based on a survey of past correspondence and submittals, it appears that belief in the presence of kerosene impacts at the PWY stems from the 1991 report titled *WRMC North Property Benzene Study for the Wood River Manufacturing Complex in Wood River, Illinois* (ES, 1991), and the 2013 report titled *Public Work Yard Soil Sampling Report*, dated March 13, 2013 (URS, 2013). IEPA responded to the 3/13/2013 report in a letter dated January 18, 2017 (IEPA, 2017). Shell responded to IEPA’s 1/18/2017 letter with a letter and report titled *Response to Agency Comments Provided in January 18, 2017 Letter and Comprehensive Soil and Groundwater Sampling and Analysis Report*, dated April 21, 2017 (AECOM, 2017). To date, IEPA has not responded to the Shell 4/21/2017 report.

In the 4/21/2017 report, in the *Response to Condition 1.e*, Shell stated:

> The January 1991 report mentions the “presence of Jet A fuel (based on product analysis) in the southwest corner of the North Property is attributable to a previous release, discovered in 1989”. However, there is no mention of a kerosene release in the January 1991 report. Jet A fuel is kerosene-based and, as such, is virtually indistinguishable from kerosene. It may have been supplemented with additional levels of components such as benzene, toluene, cyclohexane, trimethylbenzene or naphthalene in order to burn more cleanly and efficiently.

Also in the 4/21/2017 report, in the *Response to Condition 1.f,* Shell stated:

> Based on new information from Phillips 66 (P66), it appears that the 6-inch kerosene pipeline mentioned in the first full paragraph of the September 12, 2013, submittal is erroneous (a misinterpreted gridline or property line incorrectly identified as a pipeline). The 6-inch kerosene line, in actuality, runs from the WRR old loading area northward, along and within the West Fenceline of the North Property.

Section 3.2 of the 4/21/2017 report contains further discussion of kerosene.

It appears that concerns regarding potential kerosene impacts at the PWY were based on incomplete or misinterpreted information. In light of the above, Shell respectfully requests that investigation and/or remediation related specifically to kerosene no longer be considered at the PWY. This workplan aims to further investigate hydrocarbon impacts in the south-central portion of the PWY, but not kerosene.

3. Soil Delineation Efforts

Extensive site delineation efforts have been conducted within the bounds of the PWY to date. Delineation efforts occurred within the bounds of the PWY in May 2008, December 2012 through January 2013, May through July 2019, and December 2022 through November 2023. This section summarizes the results from these individual assessments and are described in detail below.

3.1 May 2008

During the May 2008 investigation activities two borings, GP-7 and GP-12, were advanced within the bounds of the PWY via direct push technology to a depth of 20 feet bgs and were analyzed for volatile organic compounds (VOCs) via USEPA Method 8260. Upon evaluation of the analytical results, the only observed exceedance[2] was for benzene (0.795 mg/kg) at boring GP-7 at a depth of 19 feet bgs. **Figure 3** depicts the location of GP-7 and GP-12. Results from the May 2008 investigation were originally provided to the IEPA in the Revised Route 111/Rand Avenue Subsurface Investigation Report, dated January 21, 2009 (URS, 2009). The 2009 report is included herein as **Appendix A**. Note – due to size, the 2009 analytical lab reports are not included with **Appendix A**, but were included with the original 2009 submittal, and are retained AECOM's project files.

3.2 December 2012 – January 2013

Based on the results from the May 2008 soil sampling efforts, additional soil sampling was performed from late 2012 through early 2013 to further assess the extent of hydrocarbon impacts within the PWY. Five borings (GP-14 through GP-18) were advanced to depths ranging from 48 to 93 feet bgs along the southern bound of the PWY and were analyzed for VOCs via USEPA Method 8260. Four to seven discrete samples were collected at each boring based on field headspace readings and/or Sudan IV field screening results. Evaluation of these results found that the zone of highest concentration was between 35 and 55 ft bgs and that benzene was the chemical present with the highest concentrations. Benzene concentrations in the 35 to 55 ft bgs zone were greater than 100 mg/kg and began decreasing with depth until boring termination. The highest observed concentration of benzene during this assessment was at GP-17 (1,550 mg/kg). Concentrations were lower along the western edge of the PWY, especially at GP-14. **Figure 3** depicts the locations of borings GP-14 through GP-18. Results from the December 2012-January 2013 investigation were originally provided to the IEPA in the Public Work Yard Soil Sampling Report, dated March 13, 2013 (URS, 2013). The 2013 report is included herein as **Appendix B**. Note – due to size, the 2013 analytical lab reports are not included with **Appendix B**, but were included with the original 2013 submittal, and are retained AECOM's project files.

3.3 May 2019 – July 2019 (PWY Predesign Investigation)

In preparation for the construction of the thermal remediation system at the PWY, additional site assessment activities were conducted from May 2019 through July 2019. This assessment consisted of CPT/DyeLIF technology, groundwater profiling, and soil sampling. CPT/DyeLIF technology was utilized at 18 discrete locations (PD-01 through PD-17, and PD-19)[3] across the entirety of the PWY. CPT/Dye LIF borings were advanced to depths ranging from 40 to 74 feet bgs, and as LIF logs were produced,,they were used real-time to inform the selection of soil sampling locations and depths. Based on the results of the LIF logs, soil sampling was conducted at 13 of the 18 locations. Soil borings were advanced using hollow stem auger and mud rotary techniques to depths ranging from 62 to 72 feet bgs. Three to five samples were collected from each of these 13 borings based on PID field measurements and Sudan IV soil test kits. Soil samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), and polycyclic aromatic hydrocarbons (PAHs). A total of 41 investigative soil samples were collected. Evaluation of the soil results from this assessment found that the zone of highest concentration was between 37 and 54 feet bgs, where benzene was the constituent most frequently detected. The average benzene concentration in this zone was 1,526 mg/kg. Benzene concentrations generally decreased with depth below this zone, except at PD-02 (northern PWY) where the highest detected concentrations was at a depth of 60 feet bgs. Along the southern bound of the PWY, the highest observed benzene concentration below the zone of greatest impact (37 to 54 ft bgs) was observed at PD-11 (benzene = 8.9 mg/kg) at a depth of 61 ft

[2] 35 IAC Section 742, Appendix B, Table A, Tier 1 Soil Remediation Objectives for Residential Properties
[3] PD-18 was proposed during the work but was not performed due to underground and overhead utilities.

bgs. Except for PD-11, southern PWY benzene concentrations below this depth were found to be less than 1 mg/kg. Findings from this assessment concluded that existing soil hydrocarbon impacts at the PWY are below the water table, primarily in the 37 to 54 ft bgs interval. **Figure 3** depicts the locations of borings from this assessment. Results from the May-July 2019 investigation activities were originally provided to the IEPA as Attachment A of the Public Works Yard Steam Enhanced Extraction Workplan, dated January 31, 2022 (AECOM, 2022). The 2019 Predesign Investigation Report is included herein as **Appendix C**. Note – due to size, the 2019 analytical lab reports and low-flow groundwater sampling sheets are not included with **Appendix C**, but were included with the original 2022 submittal, and are retained AECOM's project files.

3.4 December 2022 – November 2023

In February 2023, drilling activities associated with the installation of an IEPA-approved Steam Enhanced Extraction (SEE) system commenced. Between February and November 2023, a total of 147 borings were advanced to depths ranging between 57 and 89.5 ft bgs utilizing sonic drilling technology. Soil sampling was conducted at 35 of the 147 borings. Each soil sample was analyzed for VOCs, while some soil samples were additionally analyzed for gasoline range organics (TPH-GRO), diesel range organics (TPH-DRO), oil range organics (TPH-ORO), and kerosene range organics (TPH OA-2) at the request of the IEPA. A total of 159 investigative samples were collected from these 35 borings. Evaluation of these results were similar to previous investigations, indicating that the zone of highest concentration was between 37 and 54 feet bgs, which coincides with the targeted treatment interval of the SEE system. As found in previously conducted assessments, hydrocarbon impacts generally decrease with depth below this zone. Results from sampling activities conducted in 2023 found that concentrations of benzene and TPH ranges (GRO, DRO and ORO) decreased with depth to non-detect levels. **Appendix D** contains a data table summarizing soil analytical results from the 2022-2023 investigative activities. **Appendix D** was taken from a draft of the PWY SEE Construction Completion Report (CCR), which has not been finalized at the time of this submittal; therefore, there may be minor formatting differences when compared to the corresponding data table that will be included with the CCR. **Figure 3** depicts the soil sampling locations referenced in this section.

3.5 Evaluation of Delineation Efforts

After a thorough evaluation of the investigative history, Shell and AECOM respectfully assert that hydrocarbon impacts at the PWY have been delineated vertically. Investigative soil samples collected over the past 15 years at the PWY have found that hydrocarbon impacts present in the subsurface are primarily between the 37 to 54 feet bgs interval. Detections of benzene and TPH are encountered below this interval but decreases with depth. The central-southern boundary of the PWY is the portion where horizontal delineation is limited. Delineation in the central-southern direction has been limited to date because at the southern boundary is an active Norfolk Southern railroad corridor. The southern border also contains active underground and aboveground pipelines. Immediately south of the railroad corridor is refinery property and is the location of the 2020 Buckeye gasoline release. Efforts to delineate hydrocarbon impacts at the PWY southern border were requested by the IEPA in a letter dated January 26, 2024, and will be primary focal point for the assessment activities outlined in **Section 4**.

4. Approach

The following section describes the investigation activities. References are made to AECOM's Standard Operating Procedures (SOPs) used for Shell projects. Work will be performed in accordance with IEPA-approved SOPs that IEPA has on file for the Roxana project. The following will be utilized in these additional delineation efforts.

1. Soil sampling in conjunction with Antea Group's drilling activities (up to five locations along Norfolk Southern Railway and WRR property according to Antea Group's plan).

2. Additional soil sampling will be conducted, if needed, based upon Antea Group's final sample locations. AECOM will not directly coordinate or manage drilling that occurs on Norfolk Southern property.

3. Review of historical soil data, with consideration to the age of the data, within and adjacent to SEE Area C, as well as locations extending to the south of the railroad corridor immediately south of the PWY.

4.1 Pre-Field Activities

The proposed sample locations are shown on **Figure 3** and are subject to accessibility and underground utilities/obstructions. Any locations proposed by AECOM will be marked in the field (e.g., spray paint, stakes). The proposed locations will be reviewed with Phillips 66 (P66) representatives and Illinois' Joint Utility Locating Information for Excavators (JULIE). Maps of underground pipelines from Phillips 66 will also be reviewed. Proposed boring locations are adjacent to Norfolk Southern, Village of Roxana, and Phillips 66 property. Any borings being advanced on Norfolk Southern property will be conducted by Buckeye/Antea group contractors. Shell has an access agreement with the Village of Roxana and Phillips 66. Notification to Village of Roxana, Phillips 66, and Buckeye will be made prior to any work being conducted.

A third-party private utility locate will be performed for each of AECOM's planned intrusive locations to identify potential obstructions. This is expected to include Ground Penetrating Radar (GPR) and potentially other techniques such as Electro-Magnetic (EM) locating. The limitations of any equipment used will be conveyed by the locator. For planning purposes, the locator will check a 10 foot by 10-foot box around each proposed location.

Investigation locations will be surveyed for horizontal and vertical control.

4.2 Intrusive Activities

Air-Knifing

For any borings being advanced by AECOM subcontractors, an air-vac system will be used to advance air-knife holes to depths of 10 feet below ground surface (bgs) to assess the presence of utility lines or other obstructions at each proposed subsurface location . Note that some piping associated with Phillips 66 and Buckeye may be deeper than 10 feet. If true, based on information from underground utility representatives or available drawings, then the air knife depth may be adjusted for locations near piping. The clearance depth may be adjusted based on available information on the depth of utilities and in consultation with Shell. Air knife holes will be filled with sand when completed. The air-knife work will be conducted by a vacuum excavation firm contracted and supervised by AECOM for borings. If subsurface obstructions are encountered, an offset hole will be advanced approximately 2 to 3 feet from the original location, perpendicular to the trend of the obstruction, if known. Air knifing will be used for offset holes in the same manner described above.

Soil Borings

To adequately delineate per IEPA's request, AECOM will split sample applicable locations when Antea Group advances the four borings outlined in their RCRA Closure Plan (Antea Group, 2023). A figure from Antea Group's Plan depicting

proposed soil boring locations is included as **Appendix E**[4]. Any additional soil borings advanced on behalf of AECOM will be advanced to a planned depth of 70-80 ft using direct-push technology, or hollow stem auger (HSA), performed by a driller contracted and supervised by AECOM. The locations of these additional borings will be determined once the final locations of the Antea Group borings are identified but will still be to the south, southwest, and southeast of the four borings outlined in the IEPA January 26, 2024, letter. These borings will be continuously sampled and visually evaluated for evidence of impact and screened in the field using a PID. The subsurface stratigraphy will be continuously logged by a qualified geologist in accordance with the Unified Soil Classification System (USCS). The geologist will note soil attributes such as color, particle size, consistency, moisture content, structure, plasticity, odor (if obvious), and organic content (if visible). Observations will be noted on soil boring logs. Selected samples[5] will also be field tested using Sudan IV test kits which qualitatively identify oils (LNAPLs and DNAPLs). For planning purposes, up to four samples per boring will be tested.

Selected samples will be retained for laboratory analysis from within each of the known strata with exact depths based on Sudan tests, field screening and visual observations. Up to eight samples per boring are planned. Samples will be placed in laboratory-supplied containers suitable for analysis for VOCs, TPH-GRO, and TPH-DRO. Refer to **Section 4.4** for additional details.

Borings will be grouted upon completion with Type I cement grout placed via tremie methods.

4.3 Decontamination

Field personnel and equipment will undergo decontamination procedures for the health and safety of those present, to maintain sample integrity, and to minimize the potential for cross-contamination. A temporary decontamination area will be established on the Public Works property. Non-disposable/reusable sampling equipment (e.g., soil samplers) will be decontaminated prior to the collection of each analytical sample by spraying with Liquinox® and distilled water. Decontamination fluids will be collected and containerized for proper management and disposal. Large equipment (e.g., drill rig augers) will be cleaned with a high-pressure cold-water wash at a decontamination pad established on the Public Works property. A rinseate sample will be collected for analysis to assess the effectiveness of cold-water cleaning[6]. Additional decontamination details are further described in the HASP.

4.4 Investigation Derived Waste

Investigation derived waste (IDW) will include investigation spoils (e.g., soil from air knife and auger borings), decontamination water, purge water, PPE and expendable materials (e.g., gloves, tubing, etc.). Soils will be containerized for disposal using drums and/or roll-off type containers. Composite samples will be collected from the spoils containerized to confirm characterization and facilitate proper disposal. Decontamination water will be containerized separately for disposal using drums. Composite samples of the decontamination water will be collected to confirm characterization and facilitate proper disposal. The expendable materials having a low probability of impact will be collected in trash bags and disposed with municipal waste.

Containers will be staged on site at a location determined in conjunction with Village personnel and SOPUS. Wastes will be managed in accordance with SOPUS' Residuals Management Program (RMP) guidance.

4.5 QA/QC, Sample Control and Laboratory Testing

Quality assurance samples in the form of duplicates, equipment blanks, trip blanks, and matrix spike and matrix spike duplicates (MS/MSD) will be collected for soil samples. Duplicates of selected samples will be collected and analyzed from 10 percent of the investigative samples to check for sampling and analytical reproducibility. MS/MSD samples will be collected and analyzed from 5 percent of the investigative samples to evaluate the effect of the sample matrix on the accuracy of the analysis. Trip blanks will be collected and analyzed on a daily basis to assess VOC cross contamination of samples during shipment to the laboratory. The trip blank will consist of one or more VOA vials prepared by the laboratory, transported to the field, and shipped with the other samples to the laboratory. The trip

[4] Locations of some existing Shell wells depicted on Antea Group's figure are incorrect (SVE-27, P-66, VMP-16).
[5] Selected samples displaying visual evidence of hydrocarbons or elevated PID results will be tested in the field using Sudan IV test kits.
[6] The rinseate sample will be analyzed for VOCs and SVOCs on a 24-hour turnaround basis by Teklab.

blanks will not be opened in the field. Equipment blanks will be collected and analyzed in proportion to 10 percent of the investigative samples if non-dedicated or non-expendable equipment are used.

Personnel conducting the sampling will wear clean disposable protective gloves. Sample containers will be labeled with a sample ID number, site name, sampler initials, sample date and time, sample preservative, and the parameters to be analyzed. After sample collection, the samples will be logged on a chain-of-custody (COC) form, packaged to prevent damage during shipment, and cooled to ≤6°C. The samples will then be delivered, under the proper COC documentation, to the appropriate laboratory via delivery or courier service.

Soil samples will be analyzed for the following:

- USEPA Method 8260B Volatile Organic Compounds (VOCs)
- USEPA Method 8015 Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO)
- USEPA Method 8015 Total Petroleum Hydrocarbons Diesel Range Organics (TPH-DRO)

The above methods were chosen to match the analyses that are planned for Post-SEE Effectiveness Sampling. The primary testing laboratory will be Eurofins TestAmerica of Pensacola, FL (or alternate Eurofins TestAmerica locations).

5. Health and Safety

Health and Safety during these investigation activities will be governed by a site-specific Health and Safety Plan (HASP), currently being developed. Personal protective equipment (PPE) and monitoring equipment to be used are described in the HASP.

Shell's 9 Life Saving Rules (LSR) are mandatory rules for working on any Shell property or site and they aim to help employees and contractors comply with company-wide rules with the goal of zero incidents. Additionally, for all work done for Shell Soil and Groundwater (SGW) in the USA, the Shell Permit to Work (PtW) must be followed. Employees and subcontractors working on Shell Soil and Groundwater Projects in the US will complete LSR and PtW Training prior to working onsite.

Task hazard assessments (THA) will be completed before starting work activities. The THA requires the worker to describe steps to reduce the risk, including specific hazards and mitigations to be addressed, protective equipment to be used, and controls to be implemented. Work will not proceed until hazards are adequately mitigated. All employees and visitors must sign the THAs daily. All tasks to be performed must be discussed, including driving to the site, parking, and walking, as well as the hazards, associated risk, and appropriate controls for each step. THAs must be reviewed in advance by AECOM project safety personnel.

Prior to beginning work, Project Management will conduct a pre-field meeting or call. Last minute scope of work and safety concerns should be brought up during this meeting. Throughout the performance of assessment activities, air within the breathing zone of the field personnel will be monitored.

6. Reporting

AECOM will work with the analytical laboratory to attain reporting limits for compounds that have screening criteria so that, to the extent possible, the reporting limits are less than the screening criteria. In some cases, this will necessitate reporting results between the method detection limit (MDL) and reporting limit (RL). Although results reported in this range will be "J"-flagged as estimated, these data may be beneficial in cases where analytes would otherwise be reported as non-detect at RLs above screening levels.

Laboratory data will be provided in electronic form, and analytical data will be independently reviewed and qualified by AECOM, consistent with other analytical data collected for the Roxana project. One hundred percent of the data will be subjected to a data quality review. Evaluation of the data will follow procedures outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020). Specific criteria to be reviewed include sample receipt condition and holding times, method blanks, surrogate spike recoveries, laboratory control samples, results reported from dilutions, and field duplicate results. The laboratory will assign data qualifiers on the basis of their quality control or to indicate sample analysis information (e.g., dilutions). Data qualifiers will also be added by AECOM, as appropriate, and will be included on the data tables and laboratory result pages. Laboratory reports will be retained in the project file.

Field and analytical data, (e.g., lithology, concentration), will be compiled and loaded into an Environmental Visualization Systems (EVS) model to facilitate interpretation and decision-making. Field data and documentation collected as part of this scope of work will become part of the project file. AECOM maintains the files for the site and the database management system.

A report will be prepared summarizing and providing documentation of the field work, collected soil samples, and evaluation of historical soil samples from the area of concern. This report will include tables, figures, and any other supporting information to define delineation and propose any potential next steps.

7. References

AECOM, 2017 (AECOM, 2017); *Response to Agency Comments Provided in January 18, 2017 Letter and Comprehensive Soil and Groundwater Sampling and Analysis Report*. Prepared for Shell Oil Products US (Shell); dated April 21, 2017.

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URS Corporation (URS), 2010; (URS, 2010); Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Report – Roxana, Illinois; Prepared for Shell Oil Products US (SOPUS); dated February 18, 2010.

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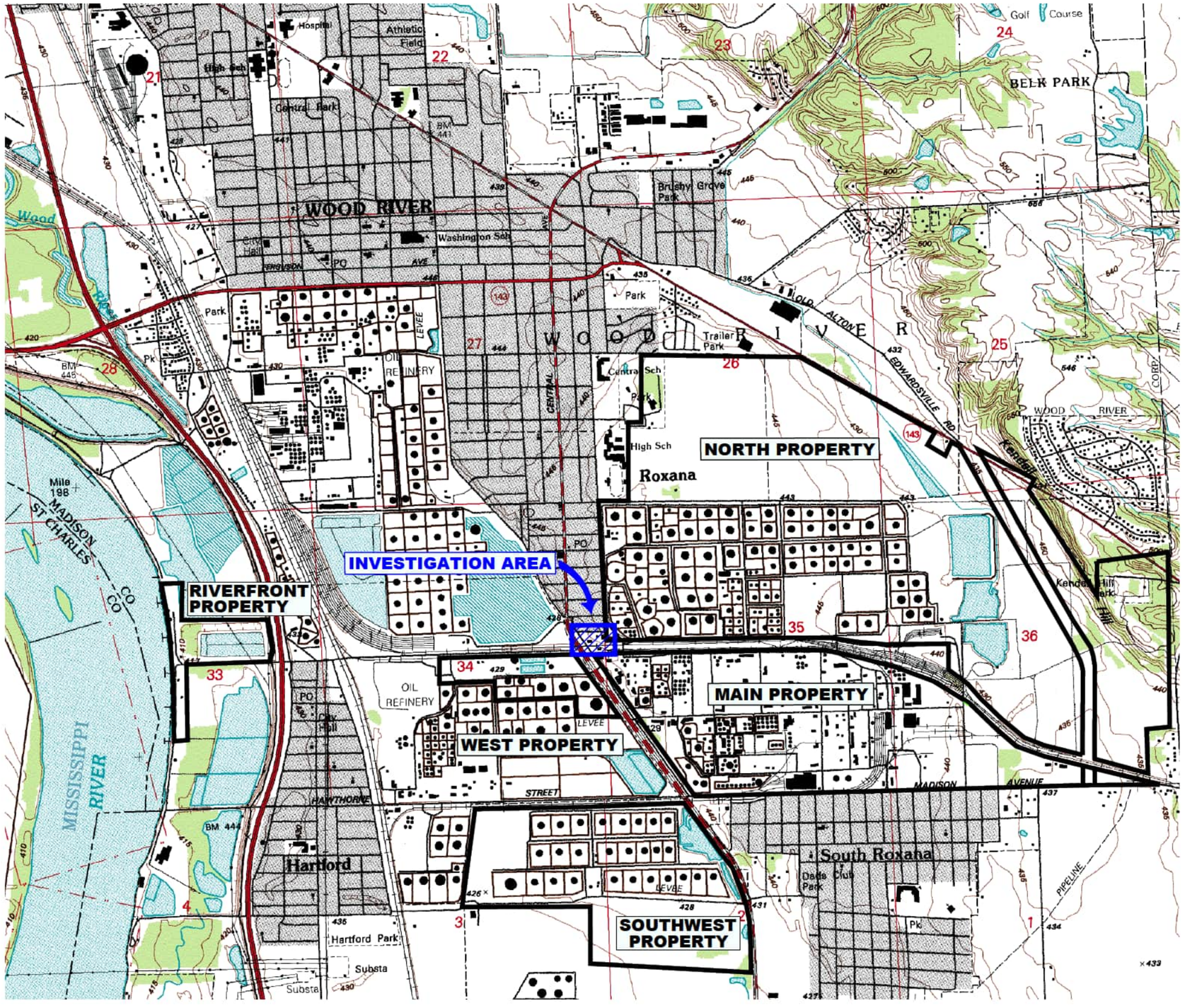
US Environmental Protection Agency (USEPA), November 2020; (USEPA, 2020); *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*.

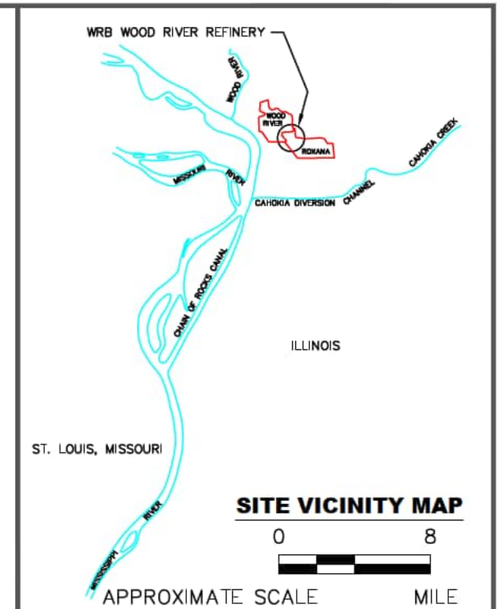
Figures

Figure 1 – Investigation Area Location Map

Figure 2 – Site Layout Map

Figure 3 – PWY Historical Soil Sample Locations and Proposed Soil Sample Locations





LEGEND

- WOOD RIVER REFINERY PROPERTY BOUNDARY
- INVESTIGATION AREA

SOURCE: ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, IL–MO REVISED 1994.

0 2000

APPROXIMATE SCALE FEET

N

Equilon Enterprises LLC dba Shell Oil Products US
Additional Site Delineation Workplan
Former Public Works Yard, Roxana, IL

PROJECT NO. 60721927

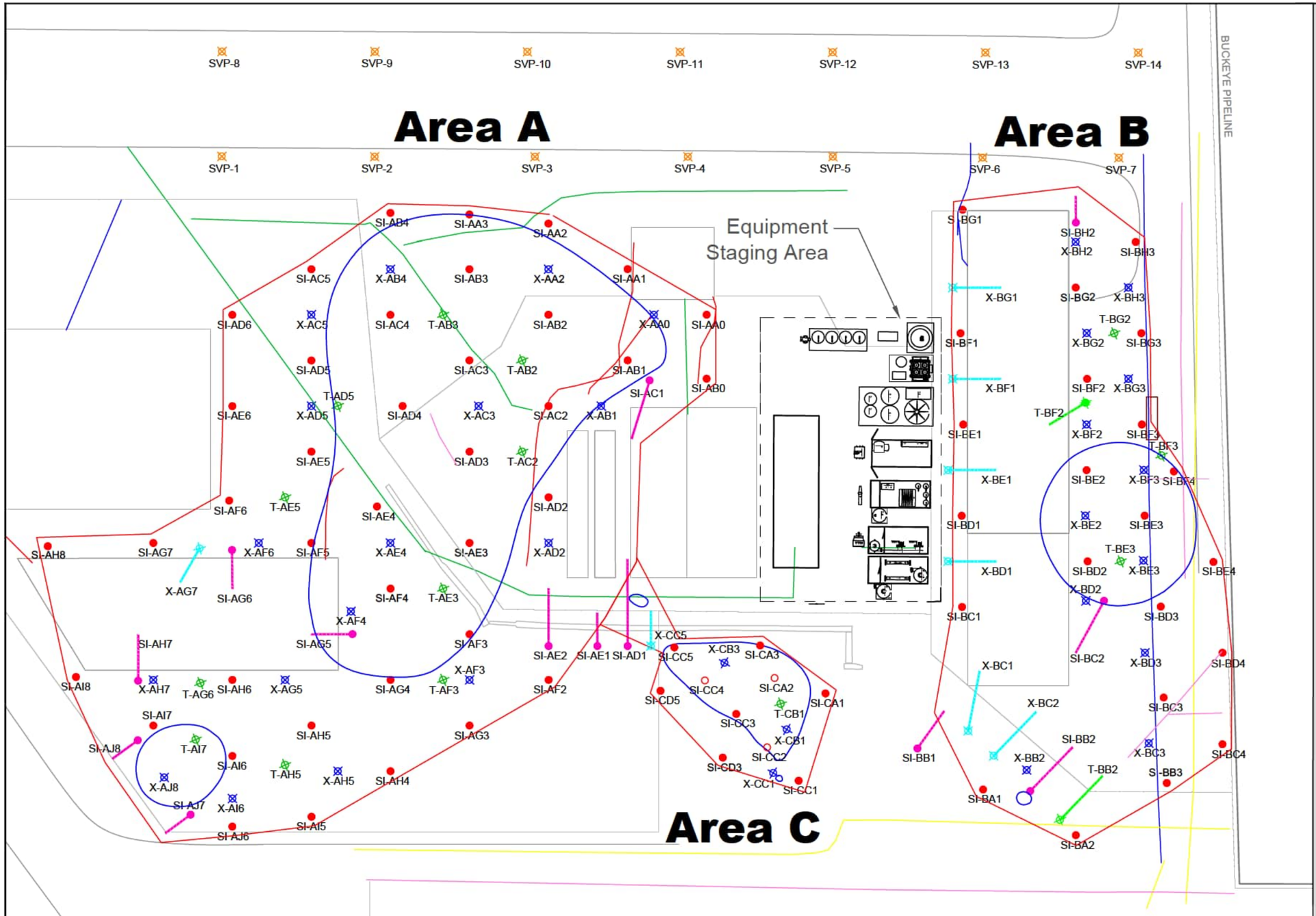
AECOM

DRN. BY: bah OCT 2022
DSGN. BY: djd
CHKD. BY: bs

Former Public Works Yard Location Map

FIG. NO. 1

File: C:\USERS\BRETT.HOWELL\ONEDRIVE - AECOM\DOCUMENTS\PUBLIC WORKS\PUBLIC WORKS 2022\FIGURES (CAD)\PWY SEE FIG 1 - LOCATION MAP - 10.31.22.DWG Last edited: 10/31/22 ● 10:18 AM ● WCC-ST.LOUIS



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REV.	DATE (D/M/Y)	DESCRIPTION	DRAWN BY	CHK/ ENGR	Approved Dist.
C8	2023/09/07	UPDATED WELL COUNTS	CW	CW	CC
C7	2023/07/14	ADDED AREA C ANGLED X WELL	JS	JS	CC
C6	2023/07/13	AREA C REVISED	JS	JS	CC
C5	2023/07/07	AREA C ADDED	JS	JS	CC
A2	2023/03/13	REVISED DRAFT FOR DISCUSSION	JS	JS	CC
A1	2023/02/22	DRAFT FOR DISCUSSION	JS	JS	CC

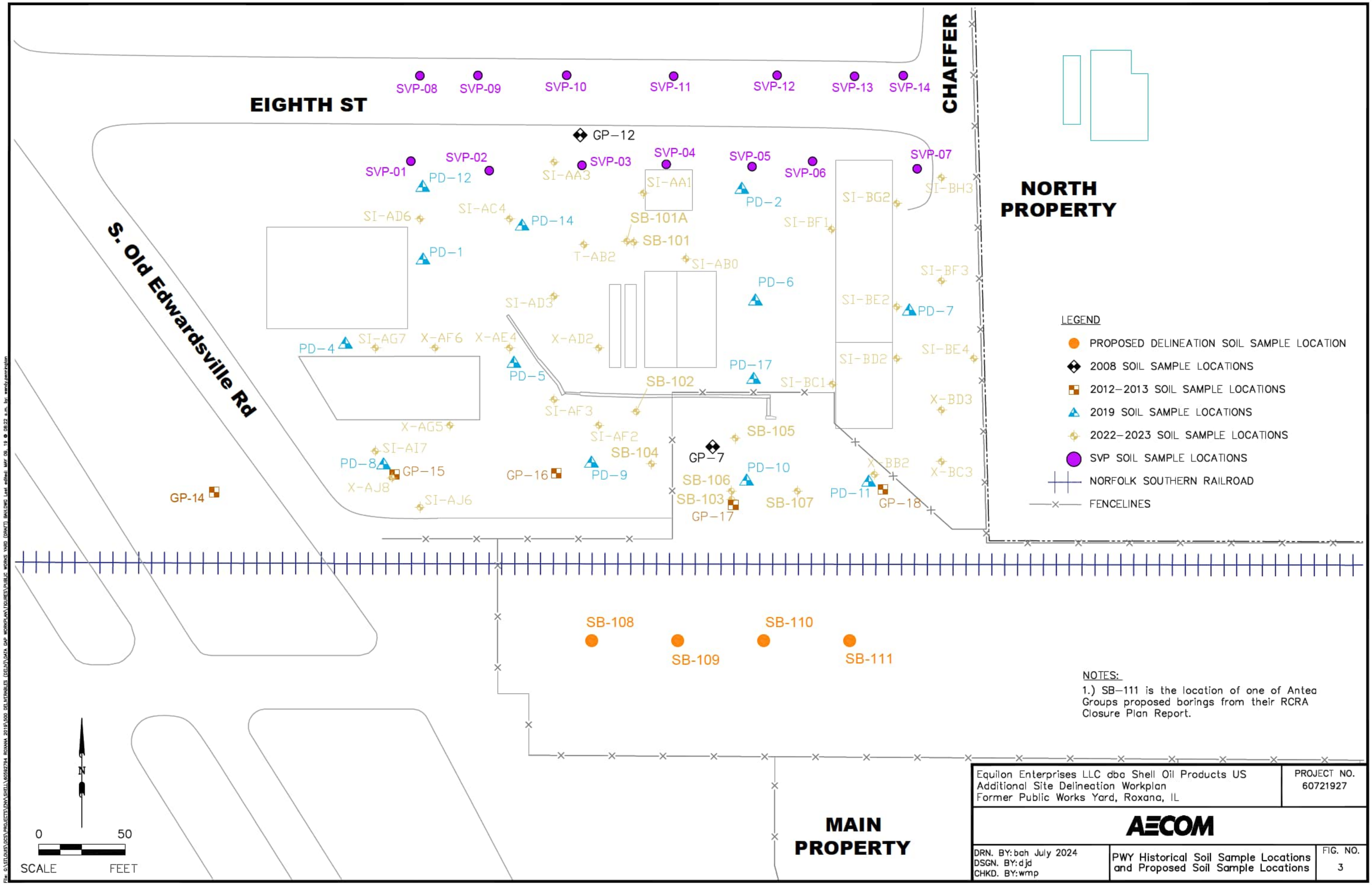
LPE
DATE
APEGA PERMIT NUMBER: P09178
SCALE: NOT TO SCALE

TITLE: **SITE LAYOUT**

CLIENT: **AECOM**

PROJECT: **Roxana Former Public Works Yard**
Roxana, Illinois

SHEET: **2**



Equilon Enterprises LLC dba Shell Oil Products US
Additional Site Delineation Workplan
Former Public Works Yard, Roxana, IL

PROJECT NO. 60721927

AECOM

DRN. BY: bah July 2024
DSGN. BY: djd
CHKD. BY: wmp

PWY Historical Soil Sample Locations and Proposed Soil Sample Locations

FIG. NO. 3

Appendix A

2009 Revised Route 111/Rand Ave Subsurface Investigation Report

REPORT

SUBSURFACE INVESTIGATION

Route 111/Rand Avenue Vicinity Investigation
Roxana, Illinois

Prepared for:

Shell Oil Products US
17 Junction Drive
PMB#399
Glen Carbon, Illinois 62034

August 2008
Revised January 21, 2009

URS Corporation
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project 21561979.00006

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EXECUTIVE SUMMARY

Shell Oil Products US (SOPUS) conducted subsurface investigation activities at and outside the WRB Refining LLC (WRB) Wood River Refinery (WRR) in Roxana, Illinois. The investigation area is generally located in a mixed use area (e.g., commercial/industrial and residential). The purpose of the investigation was to further assess a benzene release which apparently occurred from an underground line on January 30, 1986. URS Corporation (URS), on behalf of SOPUS, performed an initial study in 2006 to help gather information on the extent of the benzene impact. The work described in this report was conducted based on a work plan *provided* ~~submitted~~ to the Illinois Environmental Protection Agency (IEPA) on February 15, 2008. *The IEPA provided comments regarding implementation of the work.*

This report was initially submitted to IEPA in August 2008 and IEPA provided comments on this report in a letter dated November 25, 2008. Based on IEPA's November 25, 2008 letter, this report has been revised. The "Response to Comments" document summarizes the revisions to the report. Text additions as a result of those comments are shown in italic font, and text removed from the report as a result of those comments is shown in strike-through format.

The field investigation included direct-push rig soil sampling, small diameter well installation, well development, vapor monitoring point sampling, and monitoring well gauging and sampling. Field activities were conducted between May and July 2008.

The surface topography across the investigation area generally slopes downward to the west-southwest, with a total drop in elevation of approximately 15 feet across the area. The stratigraphy beneath the area consists of the following materials, from top down: fill (gravel, clay, cinders, etc.) extending to a maximum depth 6 feet below ground surface (bgs); clay extending to a maximum depth of 20 feet bgs; and sand, consisting of glacial outwash, primarily silty sand grading to poorly graded, fine grained sand which coarsens with depth. The sand unit is water saturated below a depth of approximately 35 to 50 feet bgs (approximately elevation 397 to 395). Groundwater contours for the sand indicate flow toward the northeast, toward WRR production water pumping centers.

Soil samples were collected from each boring and analyzed for volatile organic compounds (VOCs). The soil borings generally exhibited low levels of impact or were non-detect, consistent with that expected given their distance from the 1986 release point. The borings closest to the benzene line tended to exhibit relatively higher concentrations of benzene, toluene, ethylbenzene and xylenes (BTEX) (less than 1 mg/kg). The highest concentrations were found in samples between depths of 14 and 24 feet bgs. This is in the area where the clayey soils are thickest, and may indicate residual hydrocarbons sorbed to the fine grained soils.

Groundwater samples were collected from six new monitoring wells and seven existing monitoring wells and analyzed for VOCs. The cumulative analytical information (i.e., including the 2006 data) depicts the highest concentrations generally in a band on the order of 200 feet wide extending between the 1986 release point and the refinery. This area generally underlies the Village Public Works yard and wastewater treatment facility. The core area of impact widens closer to the refinery, consistent with groundwater flow toward pumping centers on WRR North and Main properties. Benzene concentrations in the core area have been identified in the hundreds to thousands of parts per million (ppm). Wells on the north and south sides of this band bound the core area, exhibiting part per billion (ppb) or non-detect concentrations.

Soil vapor samples were collected from four existing probe locations that overlie the highest observed groundwater concentrations. The results show relatively low and sporadic BTEX concentrations. The highest detected benzene concentration was in a probe at the 20 foot depth (37 ppb). Concentrations in the shallower samples (from 5, 10 and 15 feet) were lower or non-detect. Benzene concentrations were non-detect in the other probe locations. This marked attenuation from groundwater to shallow soil vapor is attributed to the distance to groundwater (approximately 45 feet) and biodegradation in the subsurface. It is expected that soil vapor concentrations would be lower in areas where groundwater concentrations are lower (e.g., north or south of the "core").

Based on discussions with IEPA, and SOPUS' Proposed Compliance Commitment Agreement, a work plan is being developed to assess the nature and extent of any mixed hydrocarbons identified along the WRR's west fenceline, generally north of the area investigated for this report. This work plan will also address the following data needs identified in this investigation, including:

- Characterization of soils in the area of the 1986 release
- Refinement of the northern extent of benzene-related groundwater impact north of Eighth Street and east of Highway 111.
- Collection of additional soil vapor data in areas north of the existing vapor probes.
- Collection of reproducible groundwater data over time in the area of highest concentrations (i.e., installation of monitoring wells).

This work plan was initially submitted on September 5, 2008. IEPA provided comments in a letter dated November 25, 2008, and the revised work plan is being submitted to the IEPA concurrent with this report.

Shell Oil Products U.S. (SOPUS) conducted subsurface investigation activities at and outside the WRB Refining LLC (WRB)[1] Wood River Refinery (WRR) in Roxana, Illinois. The investigation area is generally located between the intersection of Illinois Route 111 and Rand Avenue and the west fenceline of the refinery (**Figure 1**).

The area is being investigated to further assess a benzene release which apparently occurred on January 30, 1986, from an underground pipeline located just northwest of the Route 111 and Rand Avenue intersection. The pipeline extended from the refinery to barge loading facilities on the Mississippi River, along a route parallel to and just north of Rand Avenue. Beginning in 2005, increased benzene concentrations in groundwater have been observed in the WRR P-93 monitoring well cluster (i.e., P-93A and P-93B) located along the west fenceline of the refinery's North Property. URS Corporation (URS), on behalf of SOPUS, performed a subsurface investigation in 2006 to help gather information on the extent of the benzene impact (URS, 2007). The 2006 investigation provided initial information on the distribution of benzene in groundwater in the area, focusing primarily on screening technologies (e.g., cone penetration testing (CPT), membrane interface probe (MIP) and groundwater profiling).

The work described in this report was conducted based on a work plan *provided* ~~submitted~~ to the Illinois Environmental Protection Agency (IEPA) on February 15, 2008. In an April 18, 2008 letter to SOPUS and the WRR, the IEPA ~~approved the work plan and~~ provided: 1) conditions related to information to be included in the report for this work; and 2) a condition requiring a Water Well Survey.

This report was initially submitted to IEPA in August 2008 and IEPA provided comments on this report in a letter dated November 25, 2008. Based on IEPA's November 25, 2008 letter, this report has been revised. The "Response to Comments" document summarizes the revisions to the report. Text additions based on those comments are shown in italic font, and text removed from the report based on those comments is shown in strike-through format.

[1] WRB, formed January 1, 2007, is a 50/50 joint venture between ConocoPhillips (ConocoPhillips) and EnCana US Refineries LLC. The facility is owned by WRB and operated by ConocoPhillips.

The field investigation was performed in accordance with the work plan developed for this project, and included direct push rig soil sampling, small diameter well installation, well development, vapor monitoring point sampling, and monitoring well gauging and sampling.

Soil sampling and well installation was conducted between May 14 and 23, 2008. Well development was conducted between May 27 and June 2, 2008. Soil vapor sampling was conducted on June 3 and 4, 2008. Groundwater sampling was conducted between June 9 and 13, 2008.

2.1 PREFIELD ACTIVITIES

A meeting was held on April 22, 2008 between representatives of SOPUS, ConocoPhillips, URS and the Village of Roxana to discuss logistical issues regarding the upcoming work (e.g., site access, underground utilities, work schedule, etc.).

On May 30, 2008, at the request of the Village of Roxana, URS (on behalf of SOPUS) mailed fact sheets to residents in the investigation area. The fact sheet provided background information on the release, described the planned field activities and provided contact information.

The field activities in Roxana were conducted on village property or rights-of-way. This work was performed in accordance with an access agreement, signed May 8, 2008, between SOPUS and the Village of Roxana.

A utility locate was arranged for the drilling locations using Illinois' Joint Utility Locating Information for Excavators (JULIE) services. The Roxana Public Works Department also provided information concerning utilities in the area.

Prior to beginning site work, and at the start of work each day, a daily safety meeting was held. The purpose of this meeting was to discuss the day's planned activities and to address any potential health and safety concerns. URS and subcontract employees attended these daily meetings.

2.2 SOIL SAMPLING, WELL INSTALLATION AND DEVELOPMENT AND IEPA OVERSIGHT

URS subcontracted Roberts Environmental Drilling Inc. (REDI) of Millstadt, Illinois to perform the drilling activities associated with this project. Prior to direct push advancement, non-mechanized advancement techniques (i.e., air vacuum, water jetting, and hand augering) were used from ground surface to a depth of approximately seven feet below ground surface (bgs) in order to clear subsurface utilities and/or other obstructions that were not uncovered with the hand auger, per SOPUS protocol.

Shallow soil samples were collected for logging (detected stratigraphic information) and sampling purposes by utilizing a hand auger to a depth of seven feet bgs. At seven feet bgs, the borings were further advanced with direct push, dual-tube advancement techniques (e.g., Geoprobe®). The eight borings that were advanced as part of this investigation are shown in **Figure 2** and described as follows:

- Borings B-1 through B-4 are located in alleys between Sixth Street and Eight Street.
- Borings B-5, GP-7(11) and GP-12(11) are located at the Roxana Public Works yard south of Eighth Street.
- Boring B-6 is located along the Route 111 frontage road, just south of the entrance to the WRR.

Borings B-1 through B-6 were advanced approximately 10 feet below the depth at which groundwater was observed during probing. Total boring depths ranged from 48 to 64 feet bgs.

Borings GP-7 (11) and GP-12 (11) were advanced at locations adjacent to two existing vapor monitoring points. These borings were advanced to a depth of 20 feet bgs to collect more detailed stratigraphic information.

Below seven feet bgs, soil samples were continuously collected using a 2-inch diameter by 4-foot long Dual-Tube® soil sampler with acetate liners. This technique uses an outer 2.25-inch diameter casing to maintain borehole integrity while samples are obtained using an 1.125 inch inner casing. The subsurface stratigraphy was logged by a qualified field scientist in accordance with the Unified Soil Classification System (USCS). Soil cores from each boring were visually evaluated for evidence of impact and screened in the field for organic vapors using a photoionization detector (PID). The field scientist noted attributes such as color, particle size, consistency, moisture content, structure, plasticity, odor and organic content. PID headspace measurements were obtained at approximately 2-foot intervals by placing a small amount of soil in a ziploc-type bag, and measuring the headspace after approximately 10 minutes (**Table 1)**. Boring logs for each of the borings are included in **Appendix A**.

In general, the surface of the project area is covered by a thin layer of fill material, including gravel, clay, and topsoil, with occasional cinders. This is generally underlain by a layer of clay and clayey sand ranging in thickness from 3 to 15 feet. Below the clay lies medium dense sand to the depth probed during this investigation.

For this investigation, URS collected one soil sample from the top seven feet and another soil sample at the depth of greatest apparent impact above the water table. Soil samples were not collected for analysis from below the water table. Groundwater typically entered the boreholes at an approximate elevation of 390 feet (36 to 50 feet bgs).

The soil samples were collected for analysis of volatile organic compounds (VOCs) via Method 8260B. **Table 2** summarizes the soil samples collected for chemical analysis at each of the soil boring locations. Additional information regarding sample preparation and shipment, and laboratory testing, is provided in **Section 2.7** of this report. IEPA personnel were onsite on May 20th and 22nd, 2008 to observe soil sampling and well installation activities.

Small diameter wells were installed at locations B-1 through B-6 to obtain fluid level data and groundwater samples. These wells were constructed of 1-inch diameter threaded PVC, schedule 40 casing, installed through the dual-tube casing. Each well was installed with 15-feet of 0.010-inch slotted PVC well screen extending from the bottom of each boring. The well screens were placed to intersect the groundwater surface. *This length of screen allowed for accurate determination of the water table under variable, but at the same time unknown, fluctuations of the water table.* The native sand was allowed to collapse to approximately 5 feet above the top of the well screen. The remainder of each boring's annulus was filled with a high solids bentonite cement grout and topped with an 8-inch diameter flush-mount well vault. Well construction diagrams are provided in **Appendix B** and **Table 3** provides a well completion summary.

The drill rods and tools were decontaminated between borings. Additional information regarding decontamination practices and waste disposal is provided in **Section 2.6** of this report.

Between May 27 and June 2, 2008, the newly installed small diameter wells were developed in an attempt to remove fines from the sand pack. Development was performed via pumping and/or bailing a minimum of five well volumes of water. During well development, water quality parameters, including pH, temperature, conductivity, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP), were measured and recorded on the field sheets (**Appendix C**) after each well volume was removed. Development continued until the water quality parameters stabilized over two consecutive well volumes after the removal of the required well volumes.

2.3 SOIL VAPOR SAMPLING

Eighteen soil vapor samples were collected at four different vapor monitoring point (VMP) locations on or adjacent to the Roxana Public Works yard. Six VMP locations were originally

planned to be sampled, but only four were located and determined to be accessible. These four VMP locations, designated GP-9, GP-11, GP-12 and GP-13 were installed by Equilon in 1999/2000. The two VMP locations which could not be located included GP-7 and GP-8.

Each VMP location consists of four separate *0.375-inch ($^3/_8$-inch) diameter thin-walled polyethylene* tubes with 6-inch long ~~sampling ports screened~~ *stainless steel screens* at *depths of* approximately 5, 10, 15, and 20 feet bgs. These different sample depths are designated as A, B, C, and D, respectively, in the sample IDs used during this field investigation.

Prior to sampling from a vapor port, the vacuum/pressure reading was collected utilizing a three-way plastic micro-valve and a digital manometer. Readings from the manometer were allowed to stabilize. These initial measurements were then recorded on vapor monitoring sampling field sheets, and any fluctuations during data collection were also noted.

After vacuum/pressure readings were determined, ~~a total of three well volumes~~ *one well volume* of air ~~were~~ *was* purged utilizing a 60 milliliter (mL) syringe.

Once purging was completed, a peristaltic pump, one-liter Tedlar bag, and one-liter Summa canister were readied for sampling.

The summa canister, regulator, and assembly were inspected for damage or defects. The Summa canister was prepared for sampling by labeling with the sample information. *A pressure gauge was used prior to sampling to verify there were no leaks in the sampling apparatus.* The 30-minute flow regulator and the initial vacuum of the canister were then verified to be at 25 to 30 inches of mercury (Hg). The canister identification number, flow regulator identification number, and initial inches of Hg were recorded on the field sampling sheets. The *flow regulator and summa canister are connected to the vapor port via rigid-walled Teflon tubing and the* setup was configured in order to allow extraction from the monitoring port only and shut off from the atmosphere. Once setup was complete, the valve on the canister was opened and the sample start time was recorded. The sample was collected with a minimum change of 15 inches of Hg while not allowing the canister vacuum to go below 2 inches of Hg. Once the sample collection was completed, the valve on the canister was closed and the sample end time was recorded. *Leak detection methods (e.g., using a tracer) were not used during sampling.*

The Tedlar bag was then filled using a peristaltic pump *and the Teflon tubing*. A rotometer was used to adjust the flow to a rate of less than or equal 200 mL/minute. The flow was adjusted as quickly as possible in order to reduce unnecessary purging. Once the flow rate was adjusted, the rotometer was removed and the Tedlar bag was attached, allowing the sample to be collected. Once the sample was collected, a PID meter and a 4-Gas (carbon monoxide, hydrogen sulfide,

oxygen, and the lower explosive limit) meter were inserted and the readings recorded on the field sampling sheets.

The field sampling sheets for this soil vapor sampling event are provided in **Appendix D**.

The soil vapor samples were collected for analysis of VOCs via Method TO-15 and for analysis of relevant natural gases (such as carbon dioxide, carbon monoxide, ethane, ethane, methane, nitrogen, and oxygen) via Method ASTM D-1946. **Table 2** summarizes the soil vapor samples collected for chemical analysis. Additional information regarding sample preparation and shipment, and laboratory testing, is provided in **Section 2.7** of this report.

Once the sampling was complete, the micro-valve was left in place on the monitoring port, but was closed to ensure that the line was not open to the atmosphere. The remaining equipment was dismantled. Information regarding equipment decontamination and material disposal is provided in **Section 2.6** of this report.

2.4 GROUNDWATER GAUGING AND SAMPLING

After development of the newly installed small diameter monitoring wells, sufficient time was allowed for the new wells to equilibrate with the groundwater.

The wells were gauged utilizing a Heron interface probe in order to detect the presence of any free-phase hydrocarbons and determine groundwater levels. Fluid levels in the wells were gauged on June 9, 2008, prior to sampling. In addition, fluid levels were also gauged on July 2, 2008 following the investigation. **Table 3** displays the fluid level summary for both events.

The comprehensive groundwater sampling event utilizing low-flow procedures was performed between June 9 and 13, 2008, utilized low-flow purging and sampling procedures. ConocoPhillips monitoring wells P-54, P-56, P-58, P-66, P-73, and P-75 were purged and sampled utilizing a 1.82-inch diameter Proactive Stainless Steel Monsoon submersible pump and disposable polyethylene tubing. The newly installed small diameter wells and ConocoPhillips well P-57 were purged and sampled utilizing a 0.850-inch diameter stainless steel submersible bladder pump, powered by the Geotech Geocontrol PRO™, and bonded disposable polyethylene tubing. New tubing was used at each well.

The submersible groundwater pump with the proper length of disposable polyethylene tubing was slowly lowered into the well to be sampled and set with the pump intake near the mid-point of the ~~screen or~~ water column, ~~whichever was deeper~~ *which was deeper than the mid-point of the screen (i.e., the water surface was within the well screen). For the WRR wells, the pump intake was positioned approximately 6.5 to 9.5 feet below the top of the water column. For the small*

diameter wells (in Roxana), the pump intake was positioned approximately 5 to 6.5 feet below the top of the water column. The tubing from the pump was connected to a flow-through cell, which discharged into a 5-gallon plastic bucket. Pumping was performed at a low flow rate (≤ 500 mL/minute) so as to not create drawdown of the water level within the well. During groundwater purging, water quality parameters (pH, temperature, conductivity, turbidity, DO and ORP) were measured and recorded on the field sheets (**Appendix C**) after every flow-through cell volume. Purging continued until a minimum of three flow-through cell volumes of water were removed and the water quality parameters stabilized.

Once stabilization was achieved, the groundwater flow was diverted from the flow-through cell and the groundwater sample was collected. The groundwater samples were collected for analysis of VOCs via Method 8260B. **Table 2** summarizes the groundwater samples collected for chemical analysis. Additional information regarding sample preparation and shipment, and laboratory testing, is provided in **Section 2.7** of this report.

ConocoPhillips well P-54 was re-sampled on July 25, 2008 utilizing a HydraSleeve® groundwater sampler[2]. This passive sampler was lowered into the well and positioned to collect a groundwater sample from the midpoint of the well screen. When activated, the HydraSleeve® collected a representative water sample from an approximately two-foot interval without mixing fluid from other intervals. Once the sampler was full, the one-way reed valve collapsed, preventing mixing of extraneous, non-representative fluid during recovery. A short plastic discharge tube was then used to fill the sample containers. This sample was collected for analysis of VOCs via Method 8260B. This method of passive sampling does not create drawdown, and causes only minimal agitation or displacement of the water column.

Reusable equipment was decontaminated between well locations. Additional information regarding decontamination practices and waste disposal is provided in **Section 2.6** of this report.

2.5 SURVEYING

On July 2, 2008 Crawford, Murphy, and Tilly, Inc. (CMT) of Edwardsville, Illinois, conducted a closed circuit survey of points associated with the field activities (under contract to URS). The horizontal coordinates as well as the elevation were determined for each newly installed small diameter wells, four existing wells along the refinery's west fenceline, the four vapor points that were sampled, and the locations of five previously sampled investigation points (2006) in the Village of Roxana.

[2] Re-sampling to confirm the validity of the original sample result was discussed in the meeting with IEPA on July 3, 2008.

Each location was surveyed relative to Illinois State Plane Coordinates (NAD 83), while elevations were determined using the 1988 USGS datum.

The following general procedures were used for the survey.

- The top of the casing elevation and location were measured at each monitoring well. Typically, the measurement was taken on the north side of the well casing. Well casings were marked to indicate the measuring point. The ground surface elevation was also measured at each monitoring well. The ground surface measurement was taken one foot north of the center of the well completion.
- The location and elevation of each vapor monitoring point were measured. Each vapor monitoring point is completed flush with the surrounding ground surface. Therefore, the location and elevation of each vapor monitoring point were taken from the center of the flush mount vault cover while the cover was closed.
- The ground surface location and elevation for the former investigation points were surveyed near the approximate location of the investigation point.

Survey data supplied by CMT was used to develop soil borings, well completion logs, pertinent figures (groundwater and stratum contours), and geologic cross-sections included within this report.

2.6 DECONTAMINATION AND INVESTIGATION-DERIVED WASTE

The drill rods and tools were decontaminated between borings at a temporary decontamination pad located at the Public Works yard. Decontamination consisted of a high-pressure hot water wash. The soil cuttings and decontamination water was containerized in 55-gallon drums, labeled and staged on-site. The soil sampler was cleaned between each run at the boring location.

Non-disposable soil vapor and groundwater sampling equipment was dismantled and decontaminated prior to the collection of each analytical sample, between sample locations, and prior to leaving the site by washing with Alconox®, a desorbing agent (i.e., isopropyl alcohol), and a distilled water rinse.

Decontamination water and purge water accumulated while sampling ConocoPhillips wells within the WRR was disposed daily at Site 9 of the Main Property, in accordance with WRR procedures. Decontamination water and purge water accumulated during sampling activities outside the WRR was collected and containerized in 55-gallon drums, labeled and staged on-site.

Field personnel wore disposable, chemical resistant nitrile gloves when environmental media or equipment was handled, to reduce the potential for personal exposure to potential chemical hazards. Clean gloves were also worn for the collection of analytical samples. With a low probability of impact, disposable materials, such as sample liners, gloves, and other investigation derived waste (IDW), were bagged and disposed as municipal waste.

The water and soil cuttings generated during this investigation were characterized for waste disposal purposes and the results are provided in **Appendix E**. The soil and water will be properly disposed following SOPUS procedures.

2.7 QA/QC, LABORATORY TESTING AND DATA QUALITY REVIEW

Once samples were collected, they were logged onto a Chain-of-Custody (COC) noting all of the sample information. Duplicate samples were collected at a frequency of 10 percent for all samples collected. Equipment blank samples were collected at a frequency of 10 percent, and MS/MSD sample pairs were collected at a frequency of 5 percent for the groundwater samples collected.

Soil and groundwater samples were collected for analysis of VOCs via Method 8260B and were submitted to Xenco Laboratories (Xenco) in Stafford, Texas (under contract to SOPUS). One trip blank accompanied each sample cooler containing samples to be analyzed for VOCs.

Soil vapor samples were collected for analysis of VOCs via Method TO-15 and for relevant natural gases (such as carbon dioxide, carbon monoxide, ethane, ethane, methane, nitrogen, and oxygen) via Method ASTM D-1946. These vapor samples were submitted for analysis to Air Toxics laboratory in Folsom, California (under contract to SOPUS).

The samples, with their corresponding COCs, were packaged and shipped via overnight delivery service to the appropriate laboratory.

Laboratory data from both laboratories were provided in electronic form for Level 4 reporting format. URS conducted an independent review of the analytical data following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, 1999, and the work plan for this project. A total of 46 investigative samples (soil and groundwater), six duplicates, two equipment blanks, two MS and MSD pairs, and seven trip blanks *(each consisting of a set of two 40-mL vials)* were submitted as part of this sampling program. Qualifiers were assigned to data when results from the review were outside control limits. These qualifiers are included in the data tables (**Tables 4** through **7**) and the analytical reports included in **Appendix F**. Based on the above mentioned criteria, results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and

precision, based on MS/MSD, laboratory control sample (LCS), surrogate and field duplicate data, were achieved for the work orders to meet the project objectives. Completeness, which is defined to be the percentage of analytical results that are judged to be valid, including estimated (J/UJ) data, was 100 percent for the soil vapor analytical data, and 98.5 percent for the soil and groundwater analytical data.

The data for the investigative and field QA/QC samples for the various media (e.g., soil, soil vapor and groundwater) are provided in **Appendix F**. The **Appendix F** data are organized by investigative media type and then listed by sample delivery group (SDG) or work order associated with the sample media.

2.8 RELATED ACTIVITIES

Water Well Survey

As requested by IEPA (April 18, 2008 letter to SOPUS), URS conducted a Water Well Survey, in accordance with 35 Ill. Adm. Code, Part 1600. The survey identified water wells within 2,500 feet of the 1986 release site. No public water wells were identified within the survey area. Four wells were found to be active, with three being identified as being for commercial/industrial (i.e., non-potable) use and one for private (residential) use. The private (residential) well identified in the survey was found to be miss-located, with the actual location being outside the survey area in Wood River, Illinois. Nine additional wells within the survey area were identified as sealed or abandoned. There were no set-back zones, well head protection areas, or regulated recharge areas relating to public water supply wells identified within the water well survey area.

The well survey was submitted to IEPA on June 16, 2008.

Violation Notice

A Violation Notice (VN) was issued to SOPUS by the IEPA on May 2, 2008 regarding the groundwater conditions as presented in the investigation report dated September 28, 2007. After timely response, SOPUS and URS met with IEPA on July 3, 2008 to discuss the "suggested resolutions" described in the VN. Preliminary data from the subject investigation was conveyed. Subsequent to this meeting, SOPUS submitted a Compliance Commitment Agreement to IEPA on July 22, 2008.

Community Relations

As mentioned in Section 2.1, SOPUS mailed a fact sheet to residents in the investigative area on May 30, 2008, informing them of the basic history of the site, upcoming investigative activities, and contact information. A copy of the fact sheet was also sent to IEPA on May 15, 2008.

On June 13, 2008, IEPA notified SOPUS and WRR that it was their interpretation that the Illinois Administrative Code Part 1600 rules (aka Right to Know) apply to this site. SOPUS and URS met with IEPA on July 22, 2008 to discuss this topic. As a result of this meeting, IEPA stated that Shell would be issued a revised letter, allegedly expanding the area to be part of any community relations effort. Purportedly, this expanded boundary would include the area west of Route 111 to the western fence line of WRR and north of Eight Street to approximately 1st Street.

Village of Roxana Groundwater Ordinance

The Village of Roxana has enacted an ordinance which prohibits the installation and use of private potable water supply wells. The ordinance was adopted on June 2, 2008 (Ordinance No. 867). The ordinance applies to a portion of the Village which does not have private wells. The subject investigation area is contained within the ordinance area.

3.1 DESCRIPTION OF SITE CONDITIONS

A total of eight Geoprobe® soil probes and six groundwater monitoring wells were completed at the investigative area in May and June 2008 as part of the field activities. These, in addition to cone penetration testing (CPT) locations from URS investigative work performed in 2006, and monitoring well logs for monitoring wells in the vicinity of the investigation area were used to help refine the current understanding of the investigative site geologic and hydrogeologic conditions.

3.1.1 Site Geology

The investigative site and surrounding area are located on a broad floodplain of the Mississippi River known as the American Bottoms. The site is located approximately 0.7 miles east of the Mississippi River. The surface topography across the investigation area generally slopes downward to the west-southwest, with a total drop in elevation of approximately 15 feet across the area. The floodplain deposits consist of recent alluvial (i.e., river) deposits overlying Pleistocene (i.e., Ice Age) glacial outwash. The recent alluvial deposits consist of a complex, heterogeneous sequence of sands, silts, and clays. The underlying glacial outwash deposits consist of more uniform sands and gravels that extend to bedrock. The depth to bedrock in the area typically exceeds 100 feet.

The stratigraphy beneath the investigative site area consists of the following materials, from top down:

- Fill (gravel, clay, cinders, etc.) extending between 1 and 6 feet in depth
- Clay extending between 2 to 20 feet in depth, an intermittent layer of silty clayey sand (0 to 4 feet thick)
- Sand, consisting of glacial outwash, primarily silty sand grading to poorly graded, fine grained sand which coarsens with depth.

The depth to the top of the sand ranges between approximately 3 and 24 feet bgs. This unit was explored to a depth of about 60 feet bgs at the boring locations.

Cross-section locations can be viewed in **Figure 3** and typical subsurface cross-sections are shown in **Figures 4** through **7**.

3.1.2 Site Hydrogeology

The glacial outwash deposits (i.e., sands) underlying the area are the primary source for large volume water production in the area (e.g., industrial and municipal supply). Prior to development in

the area, the natural movement of groundwater through the valley material was toward the west (toward the Mississippi River) (Schicht, 1965).

Since development in the area, groundwater pumping has significantly altered this pattern. Regional groundwater flow in the area is directed toward pumping centers, locally the WRR to the east and the BP former Wood River refinery to the west.

The sand unit is water saturated below a depth of approximately 35 to 50 feet bgs (approximately elevation 397 to 395).

The groundwater contours for the sand are shown in **Figure 8**, based on gauging conducted on July 2, 2008. Groundwater flow in the sand is generally toward the northeast, toward WRR pumping wells.

Potentiometric surfaces are also interpreted on the cross sections shown in **Figures 4** through **7**.

3.2 SOIL ANALYTICAL RESULTS

The laboratory analytical results for the soil samples collected during this investigation can be viewed in **Appendix F.** A tabular summary of the analytical detections is presented in **Table 4** and the BTEX/MTBE results are also depicted in **Figure 9** of this report.

The following analytes were detected at concentrations ranging to a maximum of 5.59 mg/kg.

- Benzene
- Ethylbenzene
- Toluene
- m,p-Xylenes
- o-Xylenes
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- 2-Butanone (MEK)
- Acetone
- Isopropylbenzene
- Methylene Chloride
- Naphthalene
- n-Butylbenzene
- n-Propylbenzene
- p-Isopropyltoluene
- sec-Butylbenzene
- tert-Butylbenzene

These are hydrocarbon constituents, except for MEK, acetone and methylene chloride which are common laboratory artifacts.

The analytical detections were compared with Tier 1 soil remediation objectives for residential properties outlined in the Tiered Approach to Corrective Action Objectives (TACO) rules (35 IAC Part 742 Appendix B). This comparison is also presented in **Table 4**.

The analytical results for organics generally meet the residential property screening criteria except for two organic exceedances: B-2 at a depth of 41 feet; and GP-7(II) at a depth of 19 feet.

- The soil component of the groundwater ingestion pathway screening criterion for benzene (0.03 mg/kg) was exceeded in the soil sample at B-2 at a depth of 41 feet (0.0927 mg/kg). At this depth, the detection is likely related to residual groundwater impact (described in Section 3.4).
- The soil component of the groundwater ingestion pathway screening criterion for benzene (0.03 mg/kg) was exceeded in the soil sample and duplicate sample at GP-7(II) at a depth of 19 feet (0.344 and 0.795 mg/kg).

Soil data collected in 2007 for a subsurface investigation ConocoPhillips conducted were also reviewed for this report. These data were collected in early 2007 by ATC Associates Inc. and provided by ConocoPhillips to IEPA in a report dated April 24, 2007. These soil samples were analyzed by Teklab, Inc. in Collinsville, Illinois for BTEX and MTBE via USEPA Method 8260B. The table of soil analytical results from this investigation report is presented in **Appendix G** and the BTEX/MTBE results are depicted in **Figure 9** of this report. The analytical results generally meet the residential property screening criteria except for benzene exceedances at ConocoPhillips B-3 at depths of 14 to 16, 22 to 24, and 34 to 36 feet, and at ConocoPhillips B-5 at a depth of 38 to 40 feet.

3.3 SOIL VAPOR ANALYTICAL RESULTS

The laboratory analytical results for the soil vapor samples collected during this investigation can be viewed in **Appendix F**. A tabular summary of the volatile organic analytical detections is presented in **Table 5** and a tabular summary of the natural or fixed gas detections is presented in **Table 6**. The results for BTEX and MTBE are depicted in **Figure 10**.

The soil vapor analytical results indicate that benzene, the target constituent, is not present to any significant degree in the locations sampled. Benzene was only detected in 2 of the 16 samples, at concentrations of 1.4 and 37 parts per billion (ppb) in samples from location GP-12 at depths of 10 feet and 20 feet bgs (samples were non-detect at depths of 5 feet and 15 feet). Low ppb concentrations of toluene and xylenes were detected more frequently and at more locations.

3.4 GROUNDWATER ANALYTICAL RESULTS

The laboratory analytical results for the groundwater samples collected during this investigation can be viewed in **Appendix F**. A tabular summary of the analytical detections is presented in **Table 7** and the results for BTEX and MTBE are depicted in **Figure 11**. The analytical

detections were compared with the groundwater remediation objectives outlined in the TACO rules. This comparison is also presented in **Table 7** and in **Figure 11**.

The following analytes were detected at concentrations ranging to a maximum of 366 mg/L.

Benzene	Dibromomethane
Ethylbenzene	Dichlorodifluoromethane
Toluene	Isopropylbenzene
m,p-Xylenes	Methyl tert-Butyl Ether
o-Xylenes	Methylene chloride
1,2,4-Trimethylbenzene	Naphthalene
1,2-Dichloropropane	n-Butylbenzene
1,3,5-Trimethylbenzene	n-Propylbenzene
Acetone	p-Isopropylbenzene
Bromomethane	sec-Butylbenzene
Carbon disulfide	tert-Butylbenzene
Chlorobenzene	

The analytical results for organics generally meet the groundwater screening criteria except for exceedances of benzene, ethylbenzene, toluene, 1,2,4-trimethylbenzene, MTBE, methylene chloride and naphthalene.

- The groundwater screening criterion for benzene (0.005 mg/L) was exceeded in the samples from wells B-2 (1.1 and 1.12 mg/L) and B-5 (0.0338 mg/L), and in all but one of the ConocoPhillips wells sampled[3] (with a maximum of 366 mg/L).
- The groundwater screening criterion for ethylbenzene (0.7 mg/L) was exceeded in the samples from well B-2 (1.62 and 1.53 mg/L), and in ConocoPhillips well P-56 (1.67 mg/L), ConocoPhillips well P-58 (0.87 and 0.914 mg/L) and ConocoPhillips well P-73 (0.89 mg/L).
- The groundwater screening criterion for toluene (1.0 mg/L) was exceeded in the samples from well B-2 (3 and 3.03 mg/L), and in ConocoPhillips well P-73 (1.37 mg/L).
- The groundwater screening criterion for 1,2,4-trimethylbenzene (0.35 mg/L) was exceeded in the samples from well B-2 (0.718 and 0.689 mg/L), and in ConocoPhillips

[3] The sample collected from well P-54 on June 10, 2008 had a benzene detection of 0.00629 mg/L. The detection was considered suspect due to its location. It was resampled on July 25, 2008 and benzene was non-detect (<0.005 mg/L). The June 10th data is considered anomalous.

well P-56 (0.338 mg/L), ConocoPhillips well P-58 (0.734 to 0.82 mg/L), and ConocoPhillips well P-73 (0.596 mg/L).

- The groundwater screening criterion for MTBE (0.07 mg/L) was exceeded in the sample from ConocoPhillips well P-75 (0.125 mg/L).

- The groundwater screening criterion for methylene chloride (0.005 mg/L) was exceeded in the samples from wells B-2 (0.0422 and 0.0472 mg/L) and B-5 (0.00518 mg/L). Methylene chloride is a common laboratory artifact and its presence is judged not to be site related.

- The groundwater screening criterion for naphthalene (0.14 mg/L) was exceeded in the samples from well B-2 (0.145 mg/L), and in ConocoPhillips well P-56 (0.18 mg/L), ConocoPhillips well P-58 (0.179 to 0.202 mg/L), ConocoPhillips well P-73 (0.145 mg/L) and ConocoPhillips well P-75 (0.162 mg/L).

Groundwater data collected during second quarter 2008 from ConocoPhillips wells (collected April 30, 2008) were also reviewed for this report[4]. These data will be included in the upcoming semiannual report to IEPA which ConocoPhillips submits on Shell's behalf. The analytical detections for VOCs are included in **Table 7** and the analytical results for BTEX and MTBE are depicted in **Figure 11** of this report. These analytical results for VOCs generally meet the groundwater criteria except for exceedances of benzene and MTBE at wells P-93A and P-93B.

Groundwater analytical data collected during the 2006 West Fenceline P-93 investigation were also reviewed for this report. These groundwater samples were collected during profiling (e.g., grab samples) in the spring of 2006 by URS and provided in a report dated September 2007. The samples were analyzed by TestAmerica Laboratories (TestAmerica) in Nashville, Tennessee for VOCs via USEPA Method 8260B. A table of these groundwater analytical results compared to the screening criteria is presented in **Appendix H** and the analytical detections for BTEX and MTBE are depicted in **Figure 11** of this report. These analytical results for organics generally meet the groundwater criteria except for exceedances of benzene, ethylbenzene, toluene, xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, MTBE, naphthalene, and n-propylbenzene at various wells and groundwater profile locations in the study area.

Groundwater data collected in 2007 for a subsurface investigation ConocoPhillips conducted were also reviewed for this report. These data were collected in early 2007 by ATC Associates

[4] Well P-93A was included in the subject sampling plan, however, obstructions in the well precluded the ability to sample using low-flow techniques.

Inc. and provided by ConocoPhillips to IEPA in a report dated April 24, 2007. These groundwater samples were analyzed by Teklab, Inc. in Collinsville, Illinois for BTEX and MTBE via USEPA Method 8260B. The table of groundwater analytical results from this investigation is presented in **Appendix G** and the BTEX/MTBE results are depicted in **Figure 11** of this report. These analytical results for organics generally meet the residential property screening criteria except for benzene exceedances at ConocoPhillips B-1 and ConocoPhillips B-5.

URS conducted a subsurface investigation on behalf of SOPUS at and outside the WRR. The activities performed during this subsurface investigation expanded upon the 2006 investigation and furthered information on the extent of the groundwater impacts for the area.

The following conclusions are based on the data collected as part of this work plan, as integrated with previous site work.

Soil

- Subsurface conditions generally consist of a variable thickness of surficial fill and lower permeability soils (e.g., clay, silt, clayey sand) underlain by the sands to the depths explored. The maximum thickness of lower permeability soils, up to 24 feet, occurs to the west and southwest, near the intersection of Rand Avenue and Route 111. This material thins toward the east, coincident with the rise in surface topography, and is approximately 4 to 7 feet thick beneath the rest of the investigation area.
- The soil borings generally exhibited low levels of impact or were non-detect, consistent with that expected given their distance from the 1986 release point[5]. The borings closest to the benzene line, e.g., GP-7(ll) and the ConocoPhillips borings, tended to exhibit relatively higher concentrations of BTEX (less than 1 mg/kg). The highest concentrations were found in samples between depths of 14 and 24 feet bgs. This is in the area where the clayey soils are thickest, and may indicate residual hydrocarbons sorbed to the fine grained soils. One exception to this was found in the sample at location B-2 from a depth of 41 feet bgs. The highest concentrations were in the low ppm range, and this likely reflects residual impact from groundwater.

Soil Vapor

- Soil vapor samples were collected from existing probe locations that overlie the highest observed groundwater concentrations. The results show relatively low and sporadic BTEX concentrations. The highest detected benzene concentration was in a probe at the 20 foot depth (37 ppb). Concentrations in the shallower samples (from 5, 10 and 15 feet) were lower or non detect. Benzene concentrations were non detect in the other probe locations. This marked attenuation from groundwater to shallow soil vapor is attributed to the distance to groundwater (approximately 45 feet) and biodegradation in the subsurface.

[5] It should be noted that characterization of soils in the immediate release area was not part of this scope of work.

It is expected that soil vapor concentrations would be lower in areas where groundwater concentrations are lower (e.g., north or south of the "core").

Groundwater

- Groundwater occurs at depths varying from approximately 35 to 50 feet bgs in the areas investigated, as a result of the change in surface elevation. This corresponds to a groundwater elevation of approximately 397 to 395 feet, from west to east. The groundwater contours show a clear gradient toward WRR pumping centers.
- The cumulative analytical information (i.e., including the 2006 data and 2007 ConocoPhillips' results) depicts the highest concentrations generally in a band on the order of 200 feet wide extending between the 1986 release point and the refinery. This area generally underlies the Village Public Works yard and wastewater treatment facility. The core area of impact widens closer to the refinery, consistent with groundwater flow toward pumping centers on WRR North and Main properties. Benzene concentrations in the core area have been identified in the hundreds to thousands of ppm. Wells on the north and south sides of this band bound the core area, exhibiting ppb or non detect concentrations.

Based on discussions with IEPA, and SOPUS' Compliance Commitment Agreement, a work plan is being developed to assess the nature and extent of the mixed hydrocarbons identified along the WRR's west fenceline, generally north of the area investigated for this report. This work plan will also address the following data needs identified in this investigation, including:

- Characterization of soils in the area of the 1986 release
- Refinement of the northern extent of benzene-related groundwater impact north of Eighth Street to approximately 1st Street and east of Route 111.
- Collection of additional soil vapor data in areas north of the existing vapor probes.
- Collection of reproducible groundwater data over time in the area of highest concentrations (i.e., installation of monitoring wells).

*As discussed in **Section 1**, IEPA commented on the work plan as submitted in September 2008, and the revised work plan is being submitted to the IEPA concurrent with this report.*

ATC Associates Inc., 2007; *Subsurface Investigation Report on #1 and #4 Dock Lines Report*; Prepared for ConocoPhillips – WRR; dated April 24, 2007.

Illinois Environmental Protection Agency (IEPA); Tiered Approach to Corrective Action Objectives (TACO); Title 35 of the Illinois Administrative Code, Part 742.

Illinois Environmental Protection Agency (IEPA); Notice of Violation L-2008-01134 letter; Issued to Shell Oil Products U.S. (SOPUS); dated May 2, 2008.

Illinois Environmental Protection Agency (IEPA); Letter regarding the review of submitted materials and planned future activities; Issued to Shell Oil Products U.S. (SOPUS); dated April 18, 2008.

Schicht, R.J., 1965; *Groundwater Development in the East St. Louis Area, Illinois*; Illinois State Water Survey Report of Investigation 51.

URS Corporation (URS), 2007; *West Fenceline P-93 Dissolved Phase Benzene Investigation Report – Roxana, Illinois*; Prepared for Shell Oil Products U.S. (SOPUS) and WRB Refining LLC (WRB) Wood River Refinery (WRR); dated September 2007.

URS Corporation (URS), 2008; *Route 111/Rand Avenue Vicinity Investigation Health and Safety Plan – Roxana, Illinois*; Prepared for Shell Oil Products U.S. (SOPUS); dated May 2008.

URS Corporation (URS), 2008; *Route 111/Rand Avenue Vicinity Investigation Work Plan – Roxana, Illinois*; Prepared for Shell Oil Products U.S. (SOPUS); dated February 15, 2008.

US Environmental Protection Agency (USEPA), 1999; Contract Laboratory Program National Functional Guidelines for Organic Data Review.

TABLE 1
ORGANIC VAPOR HEADSPACE MEASUREMENTS

Boring	Depth (ft bgs)	PID (ppm)
B-1	1	0.0
	3	0.0
	5	0.0
	7	0.0
	9	2.1
	11	3.7
	14	3.0
	17	0.9
	19	1.4
	21	2.1
	23	1.8
	25	0.2
	27	4.1
	29	1.8
	31	1.1
	33	1.7
	35	2.0
	37	1.8
	39	1.4
	41	1.8
	43	0.4
	45	0.3
	47	1.3
	49 v	0.4
	51	1.8
B-2	9	2.7
	11	11.0
	13	3.1
	15	31.4
	17	5.9
	19	6.1
	21	2.4
	23	4.5
	25	10.1
	27	18.5
	29	5.5
	31	7.3
	33	16.5
	35	9.5
	37	10.3
	39	39.9
	41	192
	43	167
	45	20.7
	47	11.1
	49	69.0
	51	530
	53 v	597
	55	1134
	57	1122

Boring	Depth (ft bgs)	PID (ppm)
B-3	1	0.0
	3	0.0
	9	0.9
	11	0.2
	13	1.3
	15	1.8
	17	1.6
	19	1.4
	21	2.4
	23	1.5
	25	0.8
	27	0.7
	29	1.3
	31	1.8
	33	2.7
	35 v	1.6
	37	1.8
	39	2.3
	41	2.7
	43	1.5
	45	12.1
	47	13.6
B-4	1	0.0
	3	0.0
	5	0.0
	7	0.0
	10	0.3
	13	1.2
	15	0.8
	17	0.8
	19	1.2
	21	1.2
	23	0.0
	25	1.2
	27	1.6
	29	0.8
	31	1.7
	33	1.4
	35	2.1
	39	1.5
	41	0.8
	43	0.2
	47	0.9
	49 v	9.5
	51	18.7
	53	28.4

Boring	Depth (ft bgs)	PID (ppm)
B-5	1	0.0
	3	0.0
	5	0.0
	7	3.6
	9	2.6
	11	1.8
	13	2.3
	15	2.6
	17	1.8
	19	2.3
	21	0.6
	23	1.8
	25	2.8
	27	4.7
	29	2.2
	31	2.5
	33	3.3
	35 v	4.2
	37	3.1
	39	2.8
	41	4.3
	43	6.5
	45	14.5
	47	19.2
B-6	1	0.0
	3	0.0
	5	0.0
	6.5	0.5
	7.5	1.4
	9	2.3
	11	2.2
	13	3.9
	15	4.3
	17	3.9
	19	3.4
	21	4.2
	23	4.7
	25	3.2
	27	2.3
	29	2.3
	31	2.0
	33	2.2
	35	2.3
	37	2.2
	39 v	1.8
	41	0.0
	43	0.0
	45	0.0
	47	0.0

Boring	Depth (ft bgs)	PID (ppm)
GP-7(II)	1	0.0
	3	0.0
	5	0.0
	9	0.7
	11	118
	13	537
	15	293
	17	403
	19	541
GP-12(II)	6.5	0.8
	9	1.2
	11	0.7
	13	1.8
	15	1.5
	17	2.3
	19	1.9

NOTES:
1) Headspace measurements were obtained using a photoionization detector (PID) with a 10.6-eV lamp.
2) v Denotes the level of groundwater in the boring at the time of drilling.

TABLE 2
SAMPLE SUMMARY FOR SOIL, SOIL VAPOR, AND GROUNDWATER

Sample Location	Sample ID	Sample Date	Sample Time	Analysis
SOIL SAMPLES COLLECTED				
B-1	B-1-03	5/14/2008		VOCs 8260 B
	B-1-27	5/20/2008	1445	VOCs 8260 B
B-2	B-2-04	5/14/2008		VOCs 8260 B
	B-2-41	5/20/2008	1000	VOCs 8260 B
B-3	B-3-06	5/14/2008		VOCs 8260 B
	B-3-33	5/21/2008	1100	VOCs 8260 B
B-4	B-4-06	5/15/2008	945	VOCs 8260 B
	B-4-35	4/22/2008	935	VOCs 8260 B
B-5	B-5-04.5	5/15/2008	1345	VOCs 8260 B
	B-5-27	5/21/2008	1400	VOCs 8260 B
B-6	B-6-04	5/15/2008	1250	VOCs 8260 B
	B-6-23	5/19/2008	1205	VOCs 8260 B
GP-7(II)	GP-7(II)-03	5/15/2008	1115	VOCs 8260 B
	GP-7(II)-19	5/19/2008	1635	VOCs 8260 B
	GP-7(II)-19-Dup	5/19/2008	1635	VOCs 8260 B
GP-12(II)	GP-12(II)-04	5/15/2008	1025	VOCs 8260 B
	GP-12(II)-17	5/22/2008	1425	VOCs 8260 B
	GP-12(II)-17-Dup	5/22/2008	1425	VOC 8260 B
SOIL VAPOR SAMPLES COLLECTED				
GP-9	GP-9-A-060408	6/4/2008	1045	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-9-B-060408	6/4/2008	1050	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-9-C-060408	6/4/2008	1055	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-9-C-060408-DUP	6/4/2008	1055	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-9-D-060408	6/4/2008	1115	VOCs by TO-15; Natural Gas by ASTM D-1946
GP-11	GP-11-A-060308	6/3/2008	1345	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-11-B-060308	6/3/2008	1350	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-11-B-060308-DUP	6/3/2008	1350	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-11-C-060308	6/3/2008	1355	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-11-D-060308	6/3/2008	1410	VOCs by TO-15; Natural Gas by ASTM D-1946
GP-12	GP-12-A-060308	6/3/2008	925	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-12-B-060308	6/3/2008	929	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-12-C-060308	6/3/2008	935	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-12-D-060308	6/3/2008	940	VOCs by TO-15; Natural Gas by ASTM D-1946
GP-13	GP-13-A-060408	6/4/2008	850	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-13-B-060408	6/4/2008	855	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-13-C-060408	6/4/2008	900	VOCs by TO-15; Natural Gas by ASTM D-1946
	GP-13-D-060408	6/4/2008	905	VOCs by TO-15; Natural Gas by ASTM D-1946
GROUNDWATER SAMPLES COLLECTED				
P-54	P54-061008	6/10/2008	1612	VOCs 8260 B
	P54072508	7/25/2008	1430	VOCs 8260 B
P-56	P56-060908	6/9/2008	1615	VOCs 8260 B
P-57	P57-061108	6/11/2008	1310	VOCs 8260 B
P-58	P58-060908	6/9/2008	1425	VOCs 8260 B
	P58-060908D	6/9/2008	1425	VOCs 8260 B
P-66	P66-061008	6/10/2008	1340	VOCs 8260 B
P-73	P73-061008	6/10/2008	943	VOCs 8260 B
P-75	P75-061008	6/10/2008	1040	VOCs 8260 B
P-93	USED COP MONITORING DATA FROM 2Q08			
B-1	B1-061208	6/12/2008	1045	VOCs 8260 B
B-2	B2-061208	6/12/2008	1245	VOCs 8260 B
	B2-061208D	6/12/2008	1245	VOCs 8260 B
B-3	B3-061208	6/12/2008	1500	VOCs 8260 B
B-4	B4-061208	6/12/2008	1630	VOCs 8260 B
B-5	B5-061308	6/13/2008	1005	VOCs 8260 B
B-6	B6-061308	6/13/2008	1200	VOCs 8260 B

NOTES:

1) The natural gases analyzed for include: Carbon Dioxide, Carbon Monoxide, Ethane, Ethene, Methane, Nitrogen, and Oxygen.
2) The sample times for samples B-1-03, B-2-04, and B-3-06 were inadvertantly not recorded at the time of sample collection.

TABLE 3
MONITORING WELL COMPLETION SUMMARY AND GROUNDWATER GAUGING

Well ID	Surface Completion	Well Diameter (in)	Top of Casing Elevation (ft MSL)	Ground Surface Elevation (ft MSL)	Height Above Ground Surface (ft)	Constructed Well Depth (ft btoc)	Bottom of Well Elevation (ft MSL)	Screened Interval (ft btoc)		Screen Length (ft)	Screened Interval Elevation (ft MSL)		Depth to Water 6/9/2008 (ft btoc)	Product Thickness (ft)	Corrected Water Elevation 6/9/2008 (ft MSL)	Depth to Water 7/2/2008 (ft btoc)	Product Thickness (ft)	Corrected Water Elevation 7/2/2008 (ft MSL)
SOPUS WELLS - VILLAGE OF ROXANA																		
B-1	FM	1	442.86	443 24	-0.38	58.18	384.68	42.93	57 93	15	399 93	384.93	47.78	NE	395.08	46.84	NE	396.02
B-2	FM	1	443.93	444 21	-0.28	63.46	380.47	48.21	63 21	15	395.72	380.72	49 38	NE	394.55	48.43	NE	395.5
B-3	FM	1	430.36	430 69	-0.33	45.99	384.37	30.74	45.74	15	399 62	384.62	34.16	NE	396 2	33.17	NE	397.19
B-4	FM	1	441.58	441 86	-0.28	57.70	383.88	42.45	57.45	15	399.13	384.13	46 03	NE	395.55	45.09	NE	396.49
B-5	FM	1	429.73	429 98	-0.25	46.20	383.53	30.95	45 95	15	398.78	383.78	33.49	NE	396.24	32.49	NE	397.24
B-6	FM	1	432.42	432.75	-0 33	47.64	384.78	32.39	47 39	15	400 03	385.03	35 89	NE	396.53	34.97	NE	397.45
COP WELLS - WRR & VILLAGE OF ROXANA																		
P-54	FM	2	442.44	442 62	-0.18	62.82	379.62	37.82	62 82	25	404.62	379.62	47 09	NE	395.35	46.16	NE	396.28
P-56	SU	2	446.22	444.41	1 81	65.31	380.91	40.31	65 31	25	405.91	380.91	52 08	NE	394.14	51.17	NE	395.05
P-57	SU	2	447.22	445 22	2 0	65.5	381.72	40.50	65 50	25	406.72	381.72	51 82	NE	395.4	50.91	NE	396.31
P-58	SU	2	445.60	NRA	NRA	*63.5*	382.10	*38.50*	*63.50*	25	407.10	382.10	49 93	0.34	395.92	48.84	0.12	396.85
P-59	SU	2	447.53	445.03	2 5	72.5	375.03	47.50	72 50	25	400.03	375.03	NM	NM	NA	52.25	NE	395.28
P-66	FM	2	436.91	437.23	-0 32	59.68	377.23	34.68	59 68	25	402.23	377.23	41 00	NE	395.91	40.11	NE	396.80
P-73	SU	4	444.51	442.01	2 5	67.5	377.01	42.50	67 50	25	402.01	377.01	49 82	NE	394.69	48.96	NE	395.55
P-75	SU	4	446.96	444.46	2 5	68.5	378.46	43.50	68.50	25	403.46	378.46	51 01	NE	395.95	50.14	NE	396.82
P-93A	SU	2	446.73	444.58	2.15	63.15	383.58	48.15	63.15	15	398.58	383.58	51.68	NE	395.05	50.79	NE	395.94
P-93B	SU	2	447.18	NRA	NRA	76.53	370.65	74.58	76.53	1.95	372.60	370.65	NM	NM	NA	NM	NM	NA
P-93C	SU	2	447.55	NRA	NRA	96.84	350.71	94.85	96.84	1.99	352.70	350.71	NM	NM	NA	NM	NM	NA
P-93D	SU	2	447.13	NRA	NRA	128.02	319.11	126.03	128.02	1.99	321.10	319.11	NM	NM	NA	50 6	NE	396.53
T-6	SU	4	447 37	NRA	NRA	66.83	380 54	NRA	NRA	NRA	NRA	NRA	NM	NM	NA	51.10	NE	396.27
T-12	SU	4	445 37	NRA	NRA	72.83	372 54	NRA	NRA	NRA	NRA	NRA	NM	NM	NA	50.72	NE	394.65

NOTES

1) The corrected water elevations presented in this table were corrected by a specific gravity of 0.74 for the wells in which product was identified.
2) Elevations presented in this table are relative to the 1988 USGS datum.
3) NA = Not Applicable
4) NE = Not Encountered
5) NM = Not Measured
6) NRA = Not Readily Available

TABLE 4
SUMMARY OF SOIL ANALYTICAL DETECTIONS AND SCREENING

EXCEEDANCES ARE HIGHLIGHTED IN YELLOW

Analyte (Results in mg/kg)			Benzene			Ethylbenzene			Toluene			m,p-Xylenes		o-Xylenes	1,2,4-Trimethylbenzene			1,3,5-Trimethylbenzene			2-Butanone (MEK)			Acetone		
Ingestion / Inhalation / Soil to GW Screening Values (mg/kg)			12	0.8	0.03	7,800	400	13	16,000	650	12	16,000	420	200	39,000*	73*	18*	39,000*	45*	10*	47,000*	25,000*	17*	70,000	100,000	25
Location	**Sample ID**	**Date**																								
B-1	B-1-03	5/14/2008	<0.00394			<0.00394			<0 00394			<0.00787		<0.00394	<0 00394			<0 00394			<0.0394			<0.0787		
	B-1-27	5/20/2008	<0.00575			**0.00208 J**			**0.00204 J**			<0.0115		<0.00575	<0 00575			<0 00575			<0.0575			<0.115		
B-2	B-2-04	5/14/2008	<0.00517			<0.00517			<0 00517			<0.0103		<0.00517	<0 00517			<0 00517			**0.0142 J**			**0.0404 J**		
	B-2-41	5/20/2008	**0.0927 J**			**4.39 D**			**0.0136**			**2.45 D**		**0.0246 J**	**5.59 D**			**0.184 J**			<0.0626			<0.125		
B-3	B-3-06	5/14/2008	<0 005			<0 005			<0.005			<0 010		<0 005	<0.005			<0.005			<0.050			<0.100		
	B-3-33	5/21/2008	<0.00567			<0.00567			**0.00137 J J**			<0.0113		<0.00567	<0 00567			<0 00567			<0.0567			<0.113		
B-4	B-4-06	5/15/2008	<0.00479			<0.00479			<0 00479			<0.00958		<0.00479	<0 00479			<0 00479			<0.0479			**0.0197 J**		
	B-4-35	5/22/2008	<0.00591			<0.00591			**0.00176 J**			<0.0118		<0.00591	<0 00591			<0 00591			<0.0591			<0.118		
B-5	B-5-04.5	5/15/2008	<0.00498			<0.00498			<0 00498			<0.00996		<0.00498	<0 00498			<0 00498			<0.0498			<0.0996		
	B-5-27	5/21/2008	<0.00533			<0.00533			<0 00533			<0.0107		<0.00533	<0 00533			<0 00533			<0.0533			<0.107		
B-6	B-6-04	5/15/2008	<0.00391			<0.00391			<0 00391			<0.00782		<0.00391	<0 00391			<0 00391			<0.0391			<0.0782		
	B-6-23	5/19/2008	<0.00513			<0.00513			<0 00513			<0.0103		<0.00513	<0 00513			<0 00513			<0.0513			<0.103		
GP-7(II)	GP-7(II)-19	5/19/2008	**0.344 E J**			<0.00529			**0.00115 J**			<0.0106		<0.00529	<0 00529			<0 00529			<0.0529			<0.106		
	GP-7(II)-19-Dup	5/19/2008	**0.795 E J**			<0.0051			**0.00109 J**			<0.0102		<0.0051	<0.0051			<0.0051			<0.051			<0.102		
GP-12(II)	GP-12(II)-17	5/22/2008	<0.00549			**0.00132 J**			**0.00206 J**			<0 011		<0.00549	<0 00549			<0 00549			<0.0549			<0.110		
	GP-12(II)-17-Dup	5/22/2008	<0.0055			<0.0055			**0.00116 J**			<0 011		<0.0055	<0.0055			<0.0055			<0.055			**0.0323 JB**		

Analyte (Results in mg/kg)			Isopropylbenzene	Methylene Chloride			Naphthalene			n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene			sec-Butylbenzene	tert-Butylbenzene
Ingestion / Inhalation / Soil to GW			570**	85	13	0.02	1,600	170	12	240**	240**				220**	390**
Location	**Sample ID**	**Date**														
B-1	B-1-03	5/14/2008	<0.00394		<0.0157		<0 00787			<0.00394	<0.00394	<0 00394			<0 00394	<0 00394
	B-1-27	5/20/2008	<0.00575		<0 023		<0.0115			<0.00575	<0.00575	<0 00575			<0 00575	<0 00575
B-2	B-2-04	5/14/2008	<0.00517		<0.0207		<0.0103			<0.00517	<0.00517	<0 00517			<0 00517	<0 00517
	B-2-41	5/20/2008	**0.115 J**		**0.0123 JB**		**0.0406 J**			**0.0913 J**	**1.73 D**	**0.0251 J**			**0.0413 J**	**0.0136 J**
B-3	B-3-06	5/14/2008	<0 005		<0 020		<0.010			<0 005	<0 005	<0.005			<0.005	<0.005
	B-3-33	5/21/2008	<0.00567		**0.00922 JB**		<0.0113			<0.00567	<0.00567	<0 00567			<0 00567	<0 00567
B-4	B-4-06	5/15/2008	<0.00479		<0.0192		<0 00958			<0.00479	<0.00479	<0 00479			<0 00479	<0 00479
	B-4-35	5/22/2008	<0.00591		**0.0136 JB**		<0.0118			<0.00591	<0.00591	<0 00591			<0 00591	<0 00591
B-5	B-5-04.5	5/15/2008	<0.00498		<0.0199		<0 00996			<0.00498	<0.00498	<0 00498			<0 00498	<0 00498
	B-5-27	5/21/2008	<0.00533		<0.0213		<0.0107			<0.00533	<0.00533	<0 00533			<0 00533	<0 00533
B-6	B-6-04	5/15/2008	<0.00391		<0.0156		<0 00782			<0.00391	<0.00391	<0 00391			<0 00391	<0 00391
	B-6-23	5/19/2008	<0.00513		<0.0205		<0.0103			<0.00513	<0.00513	<0 00513			<0 00513	<0 00513
GP-7(II)	GP-7(II)-19	5/19/2008	<0.00529		<0.0212		<0.0106			<0.00529	<0.00529	<0 00529			<0 00529	<0 00529
	GP-7(II)-19-Dup	5/19/2008	<0.0051		<0.0204		<0.0102			<0.0051	<0.0051	<0.0051			<0.0051	<0.0051
GP-12(II)	GP-12(II)-17	5/22/2008	<0.00549		**0.0109 JB**		<0.011			<0.00549	<0.00549	<0 00549			<0 00549	<0 00549
	GP-12(II)-17-Dup	5/22/2008	<0.0055		**0.00605 JB**		<0.011			<0.0055	<0.0055	<0.0055			<0.0055	<0.0055

NOTES

1) Screening values shown above are the Tier 1 Soil Remediation Objectives for Residential Properties.
2) <#.## Denotes the result was not detected below the indicated reporting limit.
3) **BOLD** indicates the analytical detection of the analyte.
4) Sample ID explanation --> X-XX-ZZ --> X-XX is the boring location at which the sample was collected;
ZZ is the depth at which the sample was collected.
5) The soil borings at GP-7(II) and GP-12(II) were located adjacent to the location of the vapor monitoring points GP-7 and GP-12, respectively.
6) The screening values provided are for Xylenes (total), which is the summation of m,p-Xylenes and o-Xylenes.

REFERENCES

Illinois Environmental Protection Agency (EPA); Tiered Approach to Corrective Action Objectives (TACO); Title 35 of the Illinois Administrative Code, Part 742, Appendix B, Table A.
* IEPA; Tiered Approach to Corrective Action Objectives (TACO); Chemicals not in TACO Tier 1 Tables; Table A; May 1, 2007.
** U.S. Environmental Protection Agency (USEPA), Region 9; Preliminary Remediation Goals (PRGs) Table; October 2004.

LAB QUALIFIERS

B = A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
D = The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
E = The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
J = The target analyte was positively identified below the RL and above the MDL.

URS QUALIFIERS

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

TABLE 5
SUMMARY OF SOIL VAPOR ANALYTICAL DETECTIONS

Location	Sample ID	Depth (ft)	Date	Analyte (Results in ppbV)								
				Benzene	Toluene	m,p-Xylene	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene	2-Butanone (MEK)	2-Propanol	4-Ethyltoluene	Acetone
GP-9	GP-9-A-060408	5	6/4/2008	<5.6	**12**	<5.6	<5.6	**12**	<5.6	**2,800 E J**	<5.6	**71**
	GP-9-B-060408	10	6/4/2008	<2.9	**9.9**	<2.9	<2.9	**11**	**17**	**1,600 E J**	<2.9	**180**
	GP-9-C-060408	15	6/4/2008	<140	<140	<140	<140	<140	<140	**120,000 E J**	<140	**1,000**
	GP-9-C-060408-DUP	15	6/4/2008	<140	<140	<140	<140	<140	<140	**94,000 E J**	<140	**1,300**
	GP-9-D-060408	20	6/4/2008	<1.3	**10**	**2.2**	<1.3	**14**	**4.6**	**1,900 E J**	<1.3	**83**
GP-11	GP-11-A-060308	5	6/3/2008	<11	**24**	<11	<11	**18**	<11	**21,000 E J**	<11	**130**
	GP-11-B-060308	10	6/3/2008	<60	<60	<60	<60	<60	<60	**20,000**	<60	<240
	GP-11-B-060308-DUP	10	6/3/2008	<11	**13**	<11	<11	**18**	<11	**20,000 E J**	<11	**83**
	GP-11-C-060308	15	6/3/2008	<11	**18**	<11	<11	**16**	<11	**17,000 E J**	<11	**89**
	GP-11-D-060308	20	6/3/2008	<300	<300	<300	<300	<300	<300	**370,000 E J**	<300	<1200
GP-12	GP-12-A-060308	5	6/3/2008	<1.5	**2.5**	**1.8**	<1.5	<1.5	**4**	**10**	<1.5	**32**
	GP-12-B-060308	10	6/3/2008	**1.4**	**2.7**	**1.9**	<1.4	<1.4	**5.8**	**14**	<1.4	**43**
	GP-12-C-060308	15	6/3/2008	<1.4	**2.6**	**1.8**	<1.4	<1.4	**4.5**	**12**	<1.4	**40**
	GP-12-D-060308	20	6/3/2008	**37**	**2.6**	**2**	<1.3	<1.3	**12**	**12**	<1.3	**54**
GP-13	GP-13-A-060408	5	6/4/2008	<150	<150	<150	<150	<150	<150	**220,000 E J**	<150	**2,700**
	GP-13-B-060408	10	6/4/2008	<140	<140	**250**	**150**	<140	<140	**32,000**	**140**	<580
	GP-13-C-060408	15	6/4/2008	<130	<130	<130	<130	<130	<130	**280,000 E J**	<130	**2,800**
	GP-13-D-060408	20	6/4/2008	<140	<140	<140	<140	<140	<140	**38,000**	<140	<580

Location	Sample ID	Depth (ft)	Date	Analyte (Results in ppbV)							
				cis-1,2-Dichloroethene	Cyclohexane	Ethanol	Heptane	Hexachlorobutadiene	Hexane	Tetrahydrofuran	Trichloroethene
GP-9	GP-9-A-060408	5	6/4/2008	<5.6	<5.6	**610**	<5.6	<23	<5.6	**6.2**	<5.6
	GP-9-B-060408	10	6/4/2008	<2.9	<2.9	**550**	<2.9	<12	<2.9	**3.6**	<2.9
	GP-9-C-060408	15	6/4/2008	<140	<140	<580	<140	<580	<140	<140	<140
	GP-9-C-060408-DUP	15	6/4/2008	<140	<140	<580	<140	<580	<140	**140**	<140
	GP-9-D-060408	20	6/4/2008	<1.3	<1.3	**690 E**	<1.3	<5.4	<1.3	**3.7**	<1.3
GP-11	GP-11-A-060308	5	6/3/2008	<11	<11	**7,800 E J**	<11	<45	<11	<11	<11
	GP-11-B-060308	10	6/3/2008	<60	<60	**1,800**	<60	**240 UJ J**	<60	<60	<60
	GP-11-B-060308-DUP	10	6/3/2008	<11	<11	**2,500**	<11	**44 UJ UJ**	<11	<11	<11
	GP-11-C-060308	15	6/3/2008	<11	<11	**4,400**	<11	**45 UJ UJ**	<11	<11	<11
	GP-11-D-060308	20	6/3/2008	<300	<300	**2,100**	<300	**1,200 UJ UJ**	<300	<300	<300
GP-12	GP-12-A-060308	5	6/3/2008	**1.5**	<1.5	**37**	<1.5	**5.9 UJ UJ**	<1.5	**7.3**	**16**
	GP-12-B-060308	10	6/3/2008	<1.4	<1.4	**57**	<1.4	**5.5 UJ UJ**	<1.4	**8**	<1.4
	GP-12-C-060308	15	6/3/2008	<1.4	<1.4	**54**	**1.7**	**5.6 UJ UJ**	**2.1**	**7.8**	**2.1**
	GP-12-D-060308	20	6/3/2008	<1.3	**27**	**49**	<1.3	**5.4 UJ UJ**	**3.5**	**7.9**	<1.3
GP-13	GP-13-A-060408	5	6/4/2008	<150	<150	<610	<150	<610	<150	<150	<150
	GP-13-B-060408	10	6/4/2008	<140	<140	**1,100**	<140	<580	<140	<140	<140
	GP-13-C-060408	15	6/4/2008	<130	<130	<540	<130	<540	<130	<130	<130
	GP-13-D-060408	20	6/4/2008	<140	<140	<580	<140	<580	<140	**200**	<140

NOTES:
1) <#.## Denotes the result was not detected low the indicated reporting limit.
2) **BOLD** indicates the analytical detection of the analyte.
3) Sample ID explanation --> GP-XX-Y-DDDDDD --> GP-XX is he VMP location at which the sample was collected; Y is the VMP port at which the sample was collected; DDDDDD is the date on which the sample was collected.
4) VMP port A is screened at about 5 ft bgs; port B is screened at about 10 ft bgs; port C is screened at about 15 ft bgs; and port D is screened at about 20 ft bgs.

LAB QUALIFIERS
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV.

URS QUALIFIERS
J = The analyte was positively identified; however, the concentration given is approximate.
UJ = The analyte was not detected above the reported quantitation limit; however, the reported quantitation limit is approximate.

TABLE 6
SUMMARY OF SOIL VAPOR NATURAL GAS DETECTIONS

Location	Sample ID	Depth (ft)	Date	Analyte (Results in %)			
				Carbon Dioxide	Methane	Nitrogen	Oxygen
GP-9	GP-9-A-060408	5	6/4/2008	**8.5**	ND	**83**	**8.9**
	GP-9-B-060408	10	6/4/2008	**9.2**	ND	**83**	**7.5**
	GP-9-C-060408	15	6/4/2008	**9.5**	ND	**84**	**7**
	GP-9-C-060408-DUP	15	6/4/2008	**9.4**	ND	**83**	**7.2**
	GP-9-D-060408	20	6/4/2008	**10**	ND	**84**	**5.6**
GP-11	GP-11-A-060308	5	6/3/2008	**6.1**	ND	**80**	**14**
	GP-11-B-060308	10	6/3/2008	**6.9**	ND	**80**	**13**
	GP-11-B-060308-DUP	10	6/3/2008	**7**	ND	**80**	**13**
	GP-11-C-060308	15	6/3/2008	**7.8**	ND	**80**	**12**
	GP-11-D-060308	20	6/3/2008	**10**	ND	**82**	**8.5**
GP-12	GP-12-A-060308	5	6/3/2008	**12**	ND	**81**	**7**
	GP-12-B-060308	10	6/3/2008	**15**	ND	**80**	**4.7**
	GP-12-C-060308	15	6/3/2008	**16**	**0.00047**	**80**	**3.4**
	GP-12-D-060308	20	6/3/2008	**17**	**0.0014**	**80**	**2.9**
GP-13	GP-13-A-060408	5	6/4/2008	**10**	**0.00039**	**81**	**9.3**
	GP-13-B-060408	10	6/4/2008	**12**	**0.0026**	**81**	**6.5**
	GP-13-C-060408	15	6/4/2008	**14**	**0.00084**	**81**	**4.9**
	GP-13-D-060408	20	6/4/2008	**16**	**0.003**	**81**	**3.2**

NOTES:
1) **BOLD** indicates the analytical detection of the analyte.
2) Natural gases which were analyzed for but not detected in any of the samples include Carbon Monoxide, Ethane, and Ethene.
3) ND = Not Detected

TABLE 7
SUMMARY OF GROUNDWATER ANALYTICAL DETECTIONS AND SCREENING

EXCEEDANCES HIGHLIGHTED IN YELLOW

Analyte (Results in mg/L)			Benzene	Ethylbenzene	Toluene	m,p-Xylene	o-Xylene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Chlorobenzene	Dichlorodifluoromethane
Ingestion Screening Values (mg/L)			0.005	0.7	1 0	10		0.35*	0 35*	0.1	1.4*
Location	Sample ID	Date									
SOPUS WELLS											
B-1	B1-061208	6/12/2008	**0.00101 J**	<0 005	<0.005	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
B-2	B2-061208	6/12/2008	**1.1 D**	**1.62 D**	**3 D**	**3.13 D**	**0.933 D**	**0.718**	**0.188**	< 0.025	< 0 025
	B2-061208D	6/12/2008	**1.12 D**	**1.53 D**	**3.03 D**	**3 D**	**0.867 D**	**0.689 D**	**0.202**	< 0.025	< 0 025
B-3	B3-061208	6/12/2008	**0.00159 J**	**0.00797**	**0.0501**	**0.0894**	**0.007**	<0.005	<0 005	<0 005	<0 005
B-4	B4-061208	6/12/2008	<0.005	<0 005	<0.005	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
B-5	B5-061308	6/13/2008	**0.0338**	**0.003 J**	**0.00617**	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
B-6	B6-061308	6/13/2008	<0.005	<0 005	<0.005	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
COP WELLS											
P-54	P54-061008	6/10/2008	**0.00629**	**0.00101 J**	<0.005	<0.010	<0 005	**0.00294 J**	<0.005	<0 005	<0 005
	P54072508	7/25/2008	<0.005	<0 005	<0.005	<0.010	<0 005	<0.005	<0.005	<0 005	<0 005
P-56	P56-060908	6/9/2008	**0.383 D**	**1.67 D**	**0.46 D**	**2.22 D**	**0.233 D**	**0.388 D**	**0.0937**	<0 005	<0 005
P-57	P57-061108	6/11/2008	**257 D**	**0.624**	**0.133**	**0.76**	**0.117**	**0.106**	**0.0285 J**	<0 050	**0.127 J**
P-58	P58-060908	6/9/2008	**349 D J**	**0.87 J**	**0.148 J**	**0.769 J**	**0.157 J**	**0.734 J**	**0.116 J**	<0 050	**0.115 J**
	P58-060908D	6/9/2008	**348 D J**	**0.914 J**	**0.155 J**	**0.805 J**	**0.168 J**	**0.82 J**	**0.129 J**	<0 050	**0.122 J**
P-66	P66-061008	6/10/2008	**0.659 D**	**0.288 D**	**0.00167 J**	**0.00387 J**	<0 005	**0.0903**	**0.00569**	<0 005	<0 005
P-73	P73-061008	6/10/2008	**4 D**	**0.89 D**	**1.37 D**	**1.76 D**	**0.52 D**	**0.596 D**	**0.137**	**0.00312 J**	<0 005
P-75	P75-061008	6/10/2008	**3.62 D**	**0.0836**	**0.0464**	**0.0345**	**0.00674 J**	**0.0382**	**0.0108**	<0 010	<0 010
P-93A	P-93A	4/30/2008	**366 D**	**0.238**	**0.0187**	**0.347**	**0.0255**	**0.105**	**0.0145**	<0 010	<0 010
P-93B	P-93B	4/30/2008	**232 D**	**0.0907**	**0.11**	**0.174**	**0.0394**	**0.0118**	<0.010	<0 010	<0 010

Analyte (Results in mg/L)			Isopropyl benzene	Methyl tert-Butyl Ether	Methylene chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene
Ingestion Screening Values (mg/L)			0 66**	0 07	0.005	0.14	0.24***	0 24***		0.24***	0.24***
Location	Sample ID	Date									
SOPUS WELLS											
B-1	B1-061208	6/12/2008	<0.005	**0.00438 J**	**0.00321 J**	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
B-2	B2-061208	6/12/2008	**0.0539**	< 0.025	**0.0422 B**	**0.129**	< 0 025	**0.117**	< 0 025	< 0.025	< 0 025
	B2-061208D	6/12/2008	**0.0546**	< 0.025	**0.0472 B**	**0.145**	< 0 025	**0.124**	< 0 025	< 0.025	< 0 025
B-3	B3-061208	6/12/2008	**0.0295**	<0 005	<0.005	< 0.010	**0.00269 J**	**0.0549**	<0 005	**0.00229 J**	**0.00216 J**
B-4	B4-061208	6/12/2008	<0.005	<0 005	**0.00482 J**	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
B-5	B5-061308	6/13/2008	**0.00193 J**	<0 005	**0.00518**	< 0.010	<0 005	**0.00257 J**	<0 005	<0 005	**0.00172 J**
B-6	B6-061308	6/13/2008	<0.005	**0.00104 J**	**0.00157 J**	< 0.010	<0 005	<0.005	<0 005	<0 005	<0 005
COP WELLS											
P-54	P54-061008	6/10/2008	<0.005	<0 005	**0.00207 JB**	<0 010	<0 005	<0.005	<0.005	<0 005	<0 005
	P54072508	7/25/2008	<0.005	<0 005	**0.00384 J**	<0 010	<0 005	<0.005	<0.005	<0 005	<0 005
P-56	P56-060908	6/9/2008	**0.0611**	<0 005	<0.005	**0.18 D**	**0.0094**	**0.0869**	**0.00415 J**	<0 005	<0 005
P-57	P57-061108	6/11/2008	**0.0183 J**	<0 050	<0.050	**0.065 J**	<0 050	**0.0171 J**	<0.050	<0 050	<0 050
P-58	P58-060908	6/9/2008	**0.0766 J**	<0 050	<0.050	**0.179 J**	**0.0189 J J**	**0.109 J**	<0.050	<0 050	**0.0371 J J**
	P58-060908D	6/9/2008	**0.0868 J**	<0 050	<0.050	**0.202 J**	**0.0212 J J**	**0.124 J**	**0.0118 J J**	<0 050	**0.0425 J J**
P-66	P66-061008	6/10/2008	**0.0915**	<0 005	<0.005	**0.0755**	**0.0175**	**0.114**	**0.00445 J**	**0.0196**	**0.00596**
P-73	P73-061008	6/10/2008	**0.0497**	<0 005	<0.005	**0.145**	**0.0255**	**0.0809**	**0.0124**	**0.0199**	**0.0478**
P-75	P75-061008	6/10/2008	**0.126**	**0.125**	<0.010	**0.162**	**0.0268**	**0.0607**	**0.00398 J**	**0.0241**	**0.00496 J**
P-93A	P-93A	4/30/2008	<0.010	**6.26 D**	<0.050	<0 050	<0 010	**0.0117**	<0.010	<0 010	<0 010

NOTES

1) Screening values shown above are the Tier 1 Groundwater Remediation Objectives for the Ingestion Route.
2) **BOLD** indicates the analytical detection of the analyte.
3) Sample ID explanation --> XX-DDDDDD --> XX is the well location at which the sample was collected; DDDDDD is the date on which the sample was collected.
4) The screening values provided are for Xylenes (total), which is the summation of m,p-Xylenes and o-Xylenes.
5) Analytical results for P-93A are from the 2Q08 monitoring event for the Wood River Refinery and were provided by COP.
6) The 6/10/2008 data for well P-54 are considered suspect.

REFERENCES

Illinois Environmental Protection Agency (EPA); Tiered Approach to Corrective Action Objectives (TACO); Title 35 of the Illinois Administrative Code, Part 742, Appendix B, Table E.

* IEPA; TACO; Groundwater Remediation Objectives for Chemicals not listed in TACO; May 1, 2007.

** U.S. Environmental Protection Agency (USEPA); Region 6 Human Health Medium Specific Screening Levels; December 2007.

*** U.S. Environmental Protection Agency (USEPA), Region 9; Preliminary Remediation Goals (PRGs) Table; October 2004.

LAB QUALIFIERS

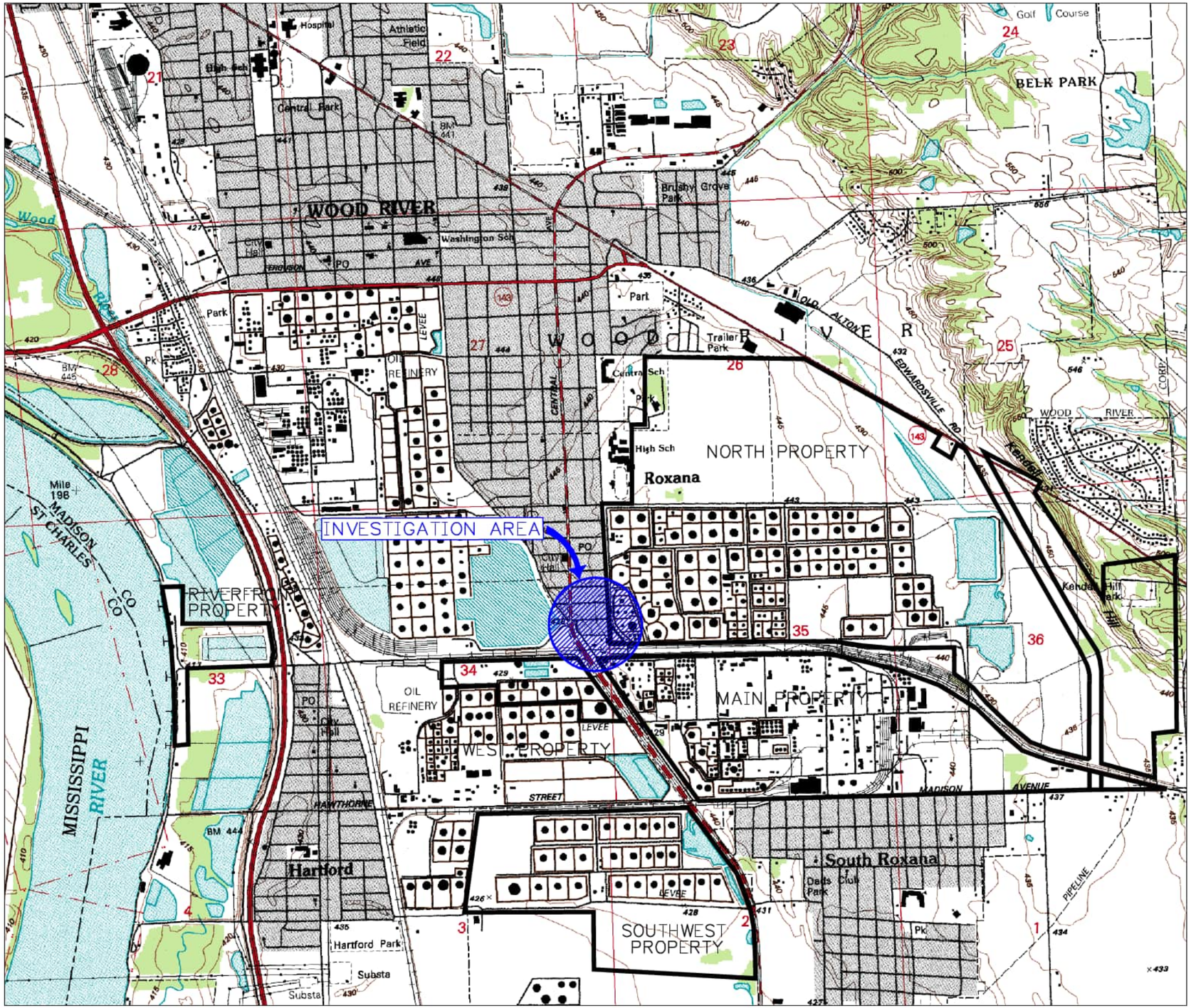
B = A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

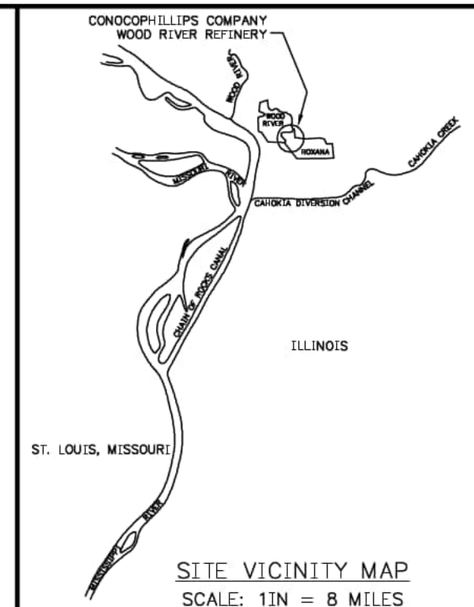
D = The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

J = The target analyte was positively identified below the RL and above the MDL.

URS QUALIFIERS

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





SITE VICINITY MAP
SCALE: 1IN = 8 MILES

LEGEND

- WOOD RIVER REFINERY PROPERTY BOUNDARY
- INVESTIGATION AREA

SOURCE: MAP TAKEN FROM ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, ILL–MO REVISED 1994.

CONTOUR INTERVAL = 10FT

0 2000

SCALE FEET

N

SHELL OIL PRODUCTS US ROUTE 111/RAND AVENUE VICINITY INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 21561979
URS	
DRN. BY: djd 7/19/06 DSGN. BY: gh CHKD. BY: wmp	Site Location Map — FIG. NO. 1

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 1 SITE LOCATION MAP.DWG Last edited: 08/19/08 @ 10:16 a.m. @ WCC-ST.LOUIS

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 2 INVESTIGATION LOCATION MAP.DWG Last edited: AUG. 19, 08 @ 10:52 a.m. by: david_deguire

LEGEND

- URS SOIL/GROUNDWATER SAMPLING LOCATION (MAY–JUNE 2008)
- URS GROUNDWATER PROFILING LOCATION (MARCH–APRIL 2006)
- EXISTING COP MONITORING WELL SAMPLED (JUNE 2008)
- EXISTING VAPOR MONITORING POINT SAMPLED (JUNE 2008)
- COP SOIL/GROUNDWATER SAMPLING LOCATION (MARCH 2007)

NOTES:

1. LOCATION OF "COP" BORINGS PROVIDED BY CONOCOPHILLIPS.

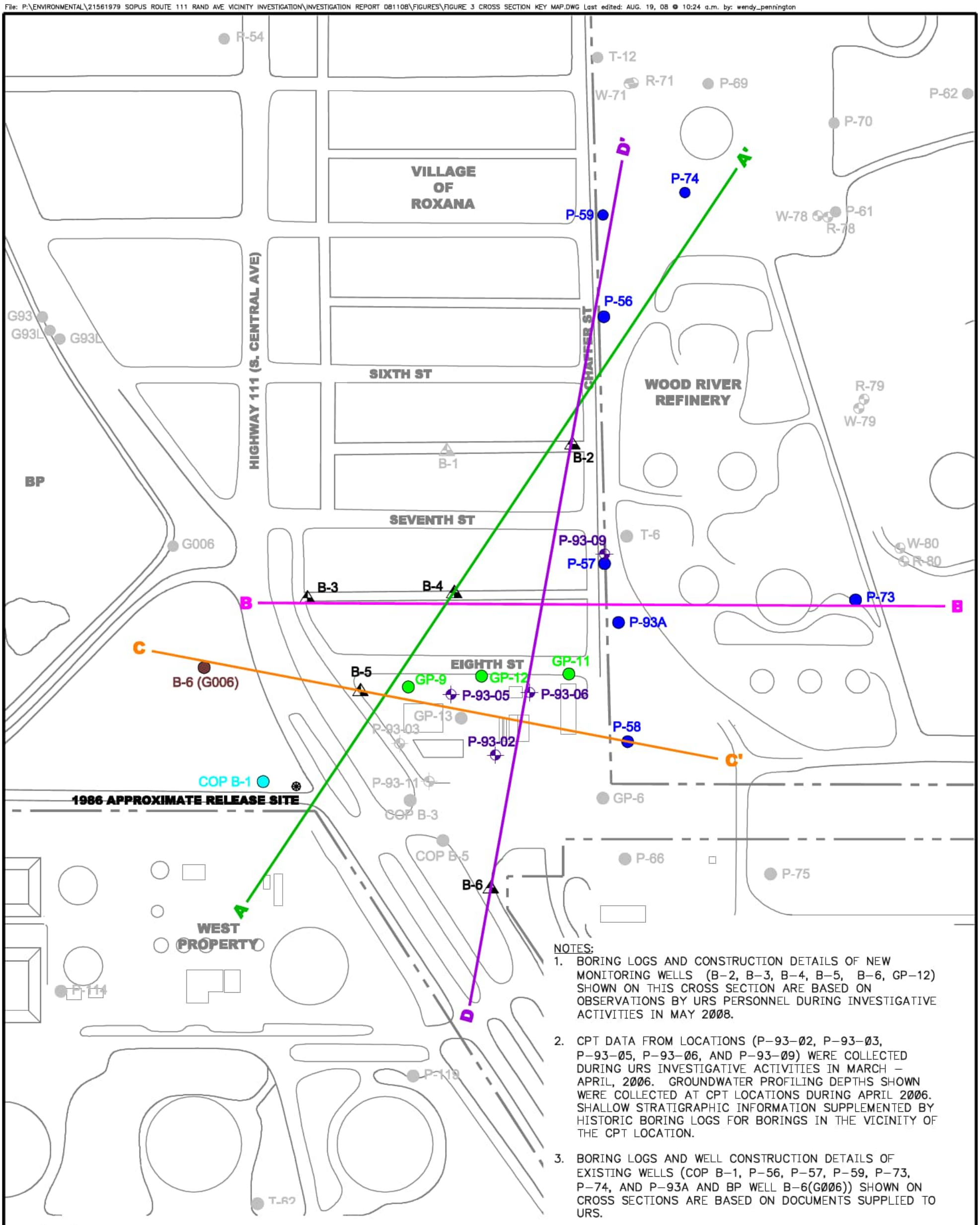
0 200
SCALE FEET

N

REFERENCE:
SHELL OIL COMPANY, WRB REFINING LLC 2008; RCRA PART B POST CLOSURE PERMIT APPLICATION; DATED JUNE 2008; PREPARED BY URS.

SHELL OIL PRODUCTS U.S ROUTE 111/RAND AVENUE VICINITY INVESTIGATION ROXANA, ILLINOIS		PROJECT NO. 21561979
URS		
DRN. BY:djd 7/1/08 DSGN. BY:taj CHKD. BY:bJ	Investigation Locations	FIG. NO. 2

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 3 CROSS SECTION KEY MAP.DWG Last edited: AUG. 19, 08 @ 10:24 a.m. by: wendy_pennington



NOTES:

1. BORING LOGS AND CONSTRUCTION DETAILS OF NEW MONITORING WELLS (B-2, B-3, B-4, B-5, B-6, GP-12) SHOWN ON THIS CROSS SECTION ARE BASED ON OBSERVATIONS BY URS PERSONNEL DURING INVESTIGATIVE ACTIVITIES IN MAY 2008.
2. CPT DATA FROM LOCATIONS (P-93-02, P-93-03, P-93-05, P-93-06, AND P-93-09) WERE COLLECTED DURING URS INVESTIGATIVE ACTIVITIES IN MARCH – APRIL, 2006. GROUNDWATER PROFILING DEPTHS SHOWN WERE COLLECTED AT CPT LOCATIONS DURING APRIL 2006. SHALLOW STRATIGRAPHIC INFORMATION SUPPLEMENTED BY HISTORIC BORING LOGS FOR BORINGS IN THE VICINITY OF THE CPT LOCATION.
3. BORING LOGS AND WELL CONSTRUCTION DETAILS OF EXISTING WELLS (COP B-1, P-56, P-57, P-59, P-73, P-74, AND P-93A AND BP WELL B-6(G006)) SHOWN ON CROSS SECTIONS ARE BASED ON DOCUMENTS SUPPLIED TO URS.
4. CROSS SECTION TRACE LINE SHOWS DISTANCE AND DIRECTION EACH POINT WAS PROJECTED TO CONSTRUCT THIS CROSS SECTION.
5. GROUNDWATER ELEVATIONS WERE GAUGED ON JULY 2, 2008.

LEGEND

- URS GROUNDWATER SAMPLING LOCATION (JUNE 2008)
- EXISTING COP MONITORING WELL
- EXISTING VAPOR MONITORING POINTS
- EXISTING URS GROUNDWATER PROFILE / CPT LOCATION (2006)
- COP SOIL SAMPLING/GROUNDWATER SAMPLING LOCATION (MARCH 2007)
- EXISTING BP GROUNDWATER MONITORING WELL

0 200
SCALE FEET

N

REFERENCE:
SHELL OIL COMPANY, WRB REFINING LLC 2008; RCRA PART B POST CLOSURE PERMIT APPLICATION; DATED JUNE 2008; PREPARED BY URS.

SHELL OIL PRODUCTS U.S ROUTE 111/RAND AVENUE VICINITY INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 21561979
URS	
DRN. BY:lrm 7/31/08 DSGN. BY:tja CHKD. BY:mm	Cross Section Key Map FIG. NO. 3

SOUTHWEST

NORTHEAST

PLAN VIEW (DEPICTING OFFSETS)

1986 Release Site

A

A'

COP B-1

B-5

B-4

B-2

P-56

P-74

ELEVATION, FEET NGVD

440

430

420

410

400

390

380

Ground Surface

P:\Environmental\21561979 SOPUS Route 111 Rand Ave Vicinity Investigation\Investigation Report 081108\Figures\Figure 4 Cross Section A-A'.vsd Last edit: 8/5/2008 4:42:50 PM

Legend:

- Fill (gravel, clay, etc.) projected between points
- Silt projected between points
- Clay projected between points
- Clayey Sand projected between points
- Sand projected between points
- Water Level
- Potentiometric Surface – estimated (7/2/08)
- Stratum boundary - estimated
- Well Screen

Notes:

1) The ground surface elevation for boring COP B-1 was estimated based on nearby elevation information.

Vertical Scale: 0 10

Plan View and Horizontal Scale: 0 100

SHELL OIL PRODUCTS U.S
ROUTE 111/RAND AVENUE VICINITY INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 21561979

URS

DRN. BY: mpm 07/29/08
DSGN. BY: mpm
CHKD. BY:

Cross Section A - A'

FIG. NO. 4

WEST

PLAN VIEW (DEPICTING OFFSETS)

EAST

B

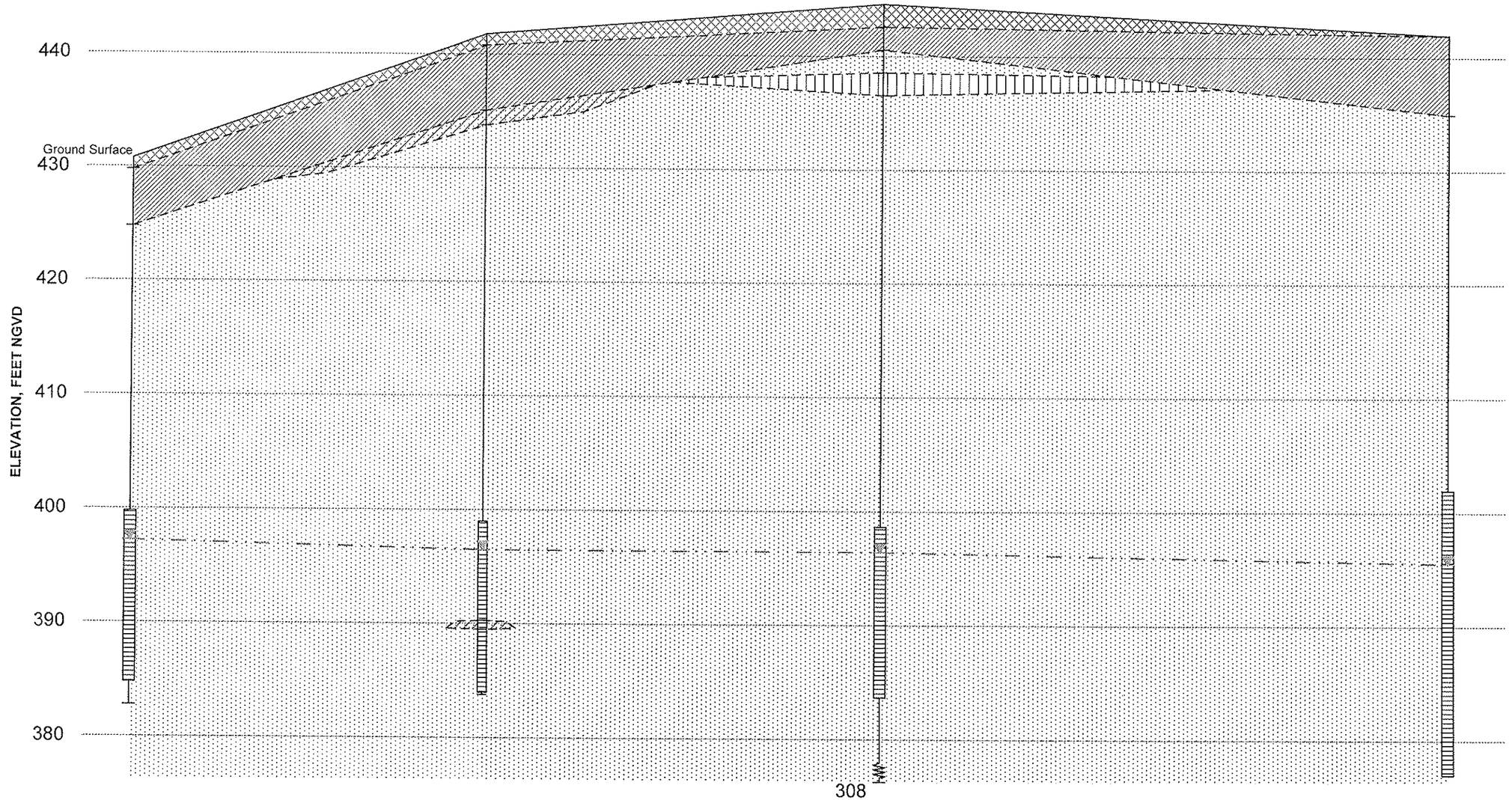
B-3

B-4

P-93 A

P-73

B'



Legend:

- Fill (gravel, clay, etc.) projected between points
- Silt projected between points
- Clay projected between points
- Clayey Sand projected between points
- Sand projected between points
- Water Level
- Potentiometric Surface - assumed
- Stratum boundary - assumed
- Well Screen

Vertical Scale: 0 10

Plan View and Horizontal Scale: 0 100

SHELL OIL PRODUCTS U.S. ROUTE 111/RAND AVENUE VICINITY INVESTIGATION ROXANA, ILLINOIS		PROJECT NO. 21561979
URS		
DRN. BY: mpm 07/29/08 DSGN. BY: mpm CHKD. BY:	Cross Section B - B'	FIG. NO. 5

P:\Environmental\21561979 SOPUS Route 111 Rand Ave Vicinity Investigation\Investigation Report 081108\Figures\Figure 5 Cross Section B-B'.vsd Last edit: 8/5/2008 4:43:19 PM

WEST

PLAN VIEW (DEPICTING OFFSETS)

EAST

BP Boring B-6 (G006)

C

B-5

GP-9

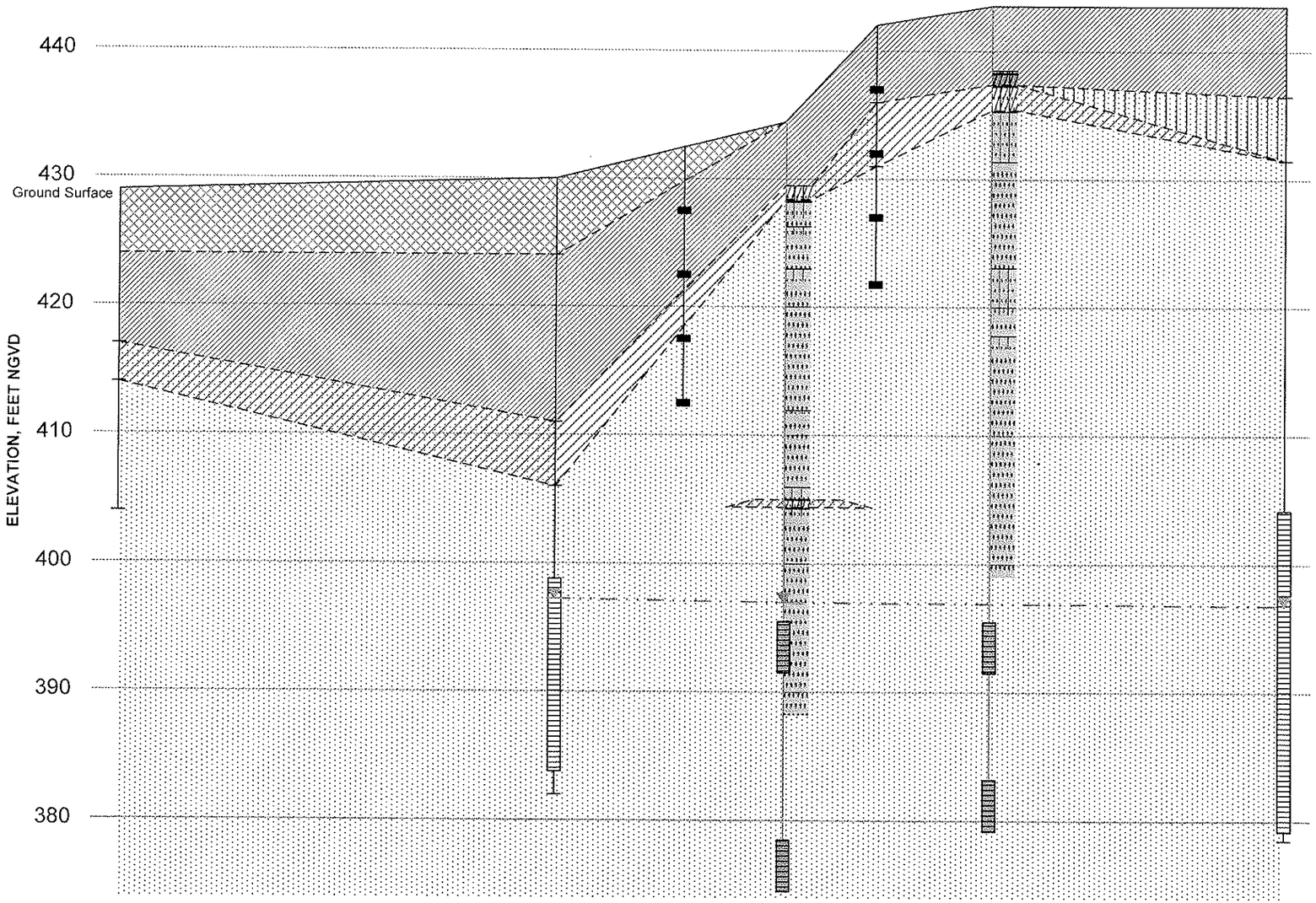
P-93-05

GP-12

P-93-06

P-58

C'



Legend:

- Fill (gravel, clay, etc.) projected between points
- Silt projected between points
- Clay projected between points
- Clayey Sand projected between points
- Sand projected between points
- CPT interpreted Clay
- CPT interpreted Sandy Clay
- CPT interpreted Sand
- Water Level
- Potentiometric Surface - assumed
- Stratum boundary - assumed
- Well Screen
- Groundwater Profiling Interval
- Vapor Port Screen

NOTES:

1) GP-9 is included to illustrate vapor screen depths. This boring was not used to create this cross section.

Vertical Scale: 0 10

Plan View and Horizontal Scale: 0 100

SHELL OIL PRODUCTS U.S.
ROUTE 111/RAND AVENUE VICINITY INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 21561979

URS

DRN. BY: mpm 07/29/08
DSGN. BY: mpm
CHKD. BY:

Cross Section C - C'

FIG. NO. 6

P:\Environmental\21561979 SOPUS Route 111 Rand Ave Vicinity Investigation\Investigation Report 081108\Figures\Figure 6 Cross Section C-C' vsd Last edit: 8/8/2008 1:49:31 PM

SOUTH

D

NORTH

D'

PLAN VIEW (DEPICTING OFFSETS)

B-6

P-93-02

P-93-06

GP-11

P-93-09

B-2

P-56

P-59

ELEVATION, FEET NGVD

440

430

420

410

400

390

380

Ground Surface

Legend:

- Fill (gravel, clay, etc.) projected between points
- Silt projected between points
- Clay projected between points
- Clayey Sand projected between points
- Sand projected between points
- CPT interpreted Clay
- CPT interpreted Sandy Clay
- CPT interpreted Sand
- Water Level
- Potentiometric Surface - assumed
- Stratum boundary - assumed
- Well Screen
- Groundwater Profiling Interval
- Vapor Port Screen

NOTES:

1) GP-11 is included to illustrate vapor screen depths. This boring was not used to create this cross section.

Vertical Scale: 0 10

Plan View and Horizontal Scale: 0 100

SHELL OIL PRODUCTS U.S.
ROUTE 111/RAND AVENUE VICINITY INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 21561979

URS

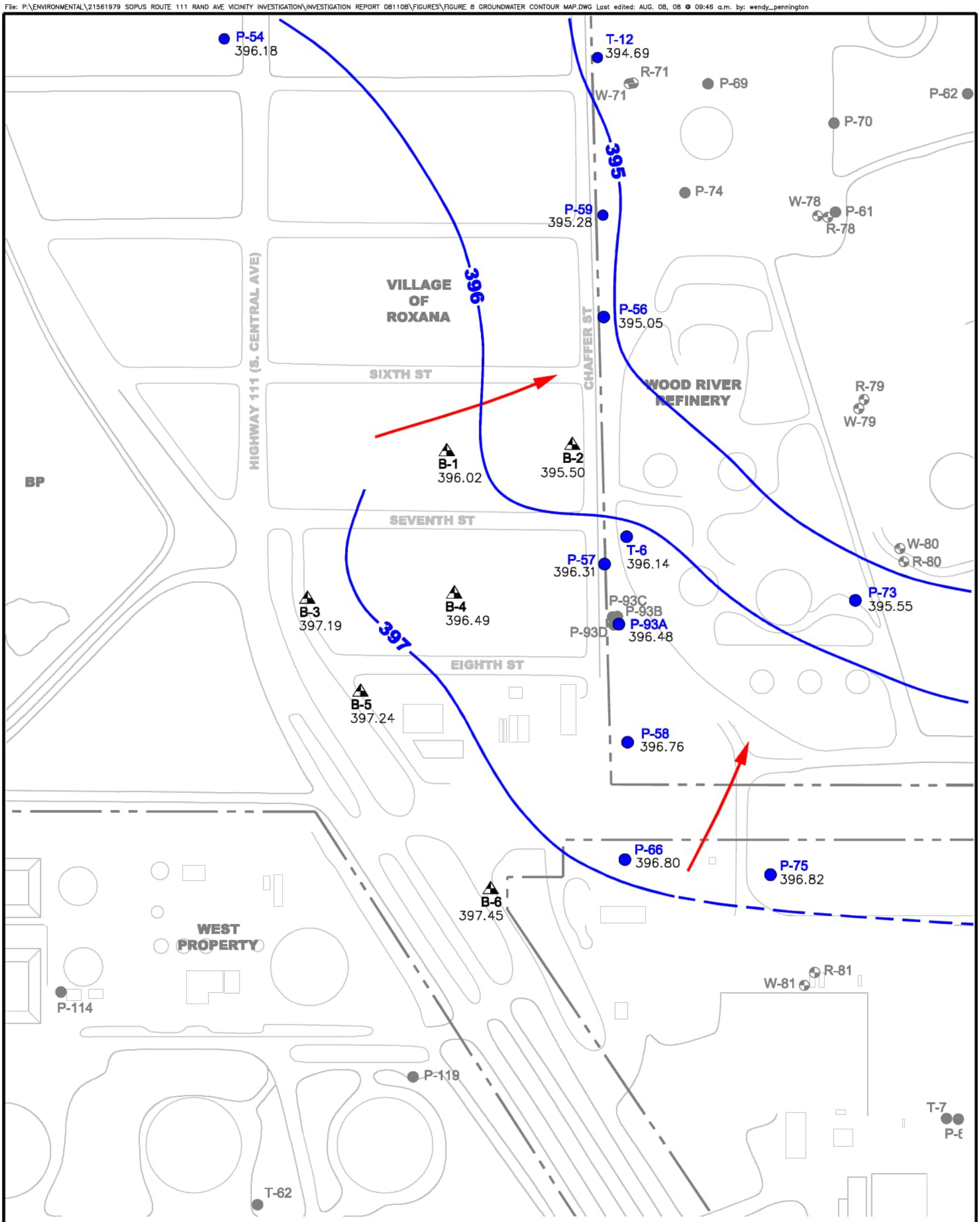
DRN. BY: mpm 07/29/08
DSGN. BY: mpm
CHKD. BY:

Cross Section D - D'

FIG. NO. 7

P:\Environmental\21561979 SOPUS Route 111 Rand Ave Vicinity Investigation\Investigation Report 081108\Figures\Figure 7 Cross Section D-D' vsd Last edit: 8/8/2008 1:51:44 PM

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 8 GROUNDWATER CONTOUR MAP.DWG Last edited: AUG. 08, 08 @ 09:46 a.m. by: wendy_pennington



LEGEND

- URS GROUNDWATER SAMPLING LOCATION (JUNE 2008)
- EXISTING COP MONITORING WELL GAUGED
- EXISTING COP WATER PRODUCTION WELLS/OIL RECOVERY WELLS
- GRADIENT
- 397 CONTOUR LINE (INFERRED WHERE DASHED)

NOTES:

1. GROUNDWATER GAUGING CONDUCTED ON JULY 2, 2008.

0 200 SCALE FEET N

REFERENCE:
SHELL OIL COMPANY, WRB REFINING LLC 2008; RCRA PART B POST CLOSURE PERMIT APPLICATION; DATED JUNE 2008; PREPARED BY URS.

SHELL OIL PRODUCTS U.S ROUTE 111/RAND AVENUE VICINITY INVESTIGATION ROXANA, ILLINOIS		PROJECT NO. 21561979
URS		
DRN. BY:lrm 7/17/08 DSGN. BY:tja CHKD. BY:bJ	Groundwater Contour Map	FIG. NO. 8

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 9 SOIL ANALYTICAL DETECTIONS MAP.DWG Last edited: AUG. 19, 08 @ 10:27 a.m. by: wendy_pennington

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
B-1	5/14/2008	3 ft bgs	Benzene	<0.00394
			Ethylbenzene	<0.00394
			Toluene	<0.00394
			m,p-Xylene	<0.00787
			o-Xylene	<0.00394
			Methyl tert-butyl ether	<0.00394
	5/20/2008	27 ft bgs	Benzene	<0.00575
			Ethylbenzene	**0.00208 J**
			Toluene	**0.00204 J**
			m,p-Xylene	<0.0115
			o-Xylene	<0.00575
			Methyl tert-butyl ether	<0.00575

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
B-2	5/14/2008	4 ft bgs	Benzene	<0.00517
			Ethylbenzene	<0.00517
			Toluene	<0.00517
			m,p-Xylene	<0.0103
			o-Xylene	<0.00517
			Methyl tert-butyl ether	<0.00517
	5/20/2008	41 ft bgs	Benzene	**0.0927 J**
			Ethylbenzene	**4.39 D**
			Toluene	**0.0136**
			m,p-Xylene	**2.45 D**
			o-Xylene	**0.0246 J**
			Methyl tert-butyl ether	<0.00626

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
B-4	5/15/2008	6 ft bgs	Benzene	<0.00479
			Ethylbenzene	<0.00479
			Toluene	<0.00479
			m,p-Xylene	<0.00958
			o-Xylene	<0.00479
			Methyl tert-butyl ether	<0.00479
	5/22/2008	35 ft bgs	Benzene	<0.00591
			Ethylbenzene	<0.00591
			Toluene	**0.00176 J**
			m,p-Xylene	<0.0118
			o-Xylene	<0.00591
			Methyl tert-butyl ether	<0.00591

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
B-5	5/15/2008	4.5 ft bgs	Benzene	<0.00498
			Ethylbenzene	<0.00498
			Toluene	<0.00498
			m,p-Xylene	<0.00996
			o-Xylene	<0.00498
			Methyl tert-butyl ether	<0.00498
	5/21/2008	27 ft bgs	Benzene	<0.00533
			Ethylbenzene	<0.00533
			Toluene	<0.00533
			m,p-Xylene	<0.0107
			o-Xylene	<0.00533
			Methyl tert-butyl ether	<0.00533

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
B-3	5/14/2008	6 ft bgs	Benzene	<0.005
			Ethylbenzene	<0.005
			Toluene	<0.005
			m,p-Xylene	<0.010
			o-Xylene	<0.005
			Methyl tert-butyl ether	<0.005
	5/21/2008	33 ft bgs	Benzene	<0.00567
			Ethylbenzene	<0.00567
			Toluene	**0.00137 J**
			m,p-Xylene	<0.0113
			o-Xylene	<0.00567
			Methyl tert-butyl ether	<0.00567

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
GP-12(II)	5/15/2008	4 ft bgs	Benzene	<0.00498
			Ethylbenzene	<0.00498
			Toluene	<0.00498
			m,p-Xylene	<0.00996
			o-Xylene	<0.00498
			Methyl tert-butyl ether	<0.00498
	5/22/2008	17 ft bgs	Benzene	<0.00549
			Ethylbenzene	**0.00132 J**
			Toluene	**0.00206 J**
			m,p-Xylene	<0.0110
			o-Xylene	<0.00549
			Methyl tert-butyl ether	<0.00549
	5/22/2008 (Duplicate)	17 ft bgs (Duplicate)	Benzene	<0.0055
			Ethylbenzene	<0.0055
			Toluene	**0.00116 J**
			m,p-Xylene	<0.0110
			o-Xylene	<0.0055
			Methyl tert-butyl ether	<0.0055

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
COP B-1	3/7/2007	12-14 ft	Benzene	0.0017
			Ethylbenzene	<0.0063
			Toluene	<0.0063
			Xylenes (total)	<0.0063
			Methyl tert-butyl ether	<0.0025
	3/7/2007	22-24 ft	Benzene	<0.0011
			Ethylbenzene	<0.0054
			Toluene	<0.0054
			Xylenes (total)	<0.0054
			Methyl tert-butyl ether	<0.0021

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
GP-7(II)	5/15/2008	3 ft bgs	Benzene	<0.00501
			Ethylbenzene	<0.00501
			Toluene	<0.00501
			m,p-Xylene	<0.010
			o-Xylene	<0.00501
			Methyl tert-butyl ether	<0.00501
	5/19/2008	19 ft bgs	Benzene	**0.344 E J**
			Ethylbenzene	<0.00529
			Toluene	**0.00115 J**
			m,p-Xylene	<0.0106
			o-Xylene	<0.00529
			Methyl tert-butyl ether	<0.00529
	5/19/2008 (Duplicate)	19 ft bgs (Duplicate)	Benzene	**<0.795 E J**
			Ethylbenzene	<0.0051
			Toluene	**0.00109 J**
			m,p-Xylene	<0.0102
			o-Xylene	<0.0051
			Methyl tert-butyl ether	<0.0051

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
COP B-3	3/1/2007	14-16 ft	Benzene	0.287
			Ethylbenzene	0.548
			Toluene	<0.141
			Xylenes (total)	<0.141
			Methyl tert-butyl ether	<0.0564
	3/1/2007	22-24 ft	Benzene	21.9
			Ethylbenzene	8.22
			Toluene	<0.972
			Xylenes (total)	7.89
			Methyl tert-butyl ether	<0.389
	3/1/2007	34-36 ft	Benzene	3.71
			Ethylbenzene	<0.138
			Toluene	<0.138
			Xylenes (total)	0.42
			Methyl tert-butyl ether	<0.0552

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
COP B-5	2/28/2007	14-16 ft	Benzene	0.001
			Ethylbenzene	<0.005
			Toluene	<0.005
			Xylenes (total)	<0.005
			Methyl tert-butyl ether	<0.002
	2/28/2007	38-40 ft	Benzene	165
			Ethylbenzene	1.5
			Toluene	1.26
			Xylenes (total)	4.17
			Methyl tert-butyl ether	<0.0647

Sample Location	Sample Date	Sample Depth	Analyte	Result (mg/kg)
B-6	5/15/2008	4 ft bgs	Benzene	<0.00391
			Ethylbenzene	<0.00391
			Toluene	<0.00391
			m,p-Xylene	<0.00782
			o-Xylene	<0.00391
			Methyl tert-butyl ether	<0.00391
	5/21/2008	23 ft bgs	Benzene	<0.00513
			Ethylbenzene	<0.00513
			Toluene	<0.00513
			m,p-Xylene	<0.0103
			o-Xylene	<0.00513
			Methyl tert-butyl ether	<0.00513

SIXTH ST
SEVENTH ST
EIGHTH ST
CHAFFER ST
VILLAGE OF ROXANA
B-1
B-2
B-3
B-4
B-5
B-6
GP-12(II)
GP-7(II)
COP B-1
COP B-3
COP B-5
1986 APPROXIMATE RELEASE SITE

NOTES:

1. NO ANALYTICAL DETECTIONS WERE OBSERVED IN SAMPLES COLLECTED FROM LOCATIONS B-5 AND B-6.
2. EXCEEDANCES OF THE RESIDENTIAL SCREENING CRITERIA ARE HIGHLIGHTED IN YELLOW ABOVE.
3. D = (LAB) DENOTES THE RESULT IS FROM A DILUTED SAMPLED.
   E = (LAB) DENOTES THE DATA EXCEEDS THE UPPER CALIBRATION LIMIT; CONCENTRATION IS ESTIMATED.
   J = (LAB) DENOTES THE ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.
   J = (URS) DENOTES THE ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.

REFERENCE:
SHELL OIL COMPANY, WRB REFINING LLC 2008; RCRA PART B POST CLOSURE PERMIT APPLICATION; DATED JUNE 2008; PREPARED BY URS.

LEGEND

▲ URS SOIL SAMPLING LOCATION (JUNE 2008)
● COP SOIL SAMPLING LOCATION (APRIL 2007)

N

Ø 200
SCALE FEET

SHELL OIL PRODUCTS U.S
ROUTE 111/RAND AVENUE VICINITY INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 21561979

URS

DRN. BY:wmp 7/29/08
DSGN. BY:lrm
CHKD. BY:b3

Soil Analytical BTEX & MTBE Results Map

FIG. NO. 9

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 10 VAPOR ANALYTICAL DETECTIONS MAP.DWG Last edited: AUG. 19, 08 @ 11:01 a.m. by: wendy_pennington

Sample Location	Sample Date	Vapor Port	Analyte	Result (ppbV)
GP-9	6/4/2008	A (5 ft)	Benzene	<5.6
			Ethylbenzene	<5.6
			Toluene	**12**
			m,p-Xylene	<5.6
			o-Xylene	<5.6
			Methyl tert-butyl Ether	<5.6
	6/4/2008	B (10 ft)	Benzene	<2.9
			Ethylbenzene	<2.9
			Toluene	**9.9**
			m,p-Xylene	<2.9
			o-Xylene	<2.9
			Methyl tert-butyl Ether	<2.9
	6/4/2008	C (15 ft)	Benzene	<140
			Ethylbenzene	<140
			Toluene	<140
			m,p-Xylene	<140
			o-Xylene	<140
			Methyl tert-butyl Ether	<140
	6/4/2008 (Duplicate)	C (Duplicate)	Benzene	<140
			Ethylbenzene	<140
			Toluene	<140
			m,p-Xylene	<140
			o-Xylene	<140
			Methyl tert-butyl Ether	<140
	6/4/2008	D (20 ft)	Benzene	<1.3
			Ethylbenzene	<1.3
			Toluene	**10**
			m,p-Xylene	**2.2**
			o-Xylene	<1.3
			Methyl tert-butyl Ether	<1.3

Sample Location	Sample Date	Vapor Port	Analyte	Result (ppbV)
GP-12	6/3/2008	A (5 ft)	Benzene	<1.5
			Ethylbenzene	<1.5
			Toluene	**2.5**
			m,p-Xylene	**1.8**
			o-Xylene	<1.5
			Methyl tert-butyl Ether	<1.5
	6/3/2008	B (10 ft)	Benzene	**1.4**
			Ethylbenzene	<1.4
			Toluene	**2.7**
			m,p-Xylene	**1.9**
			o-Xylene	<1.4
			Methyl tert-butyl Ether	<1.4
	6/3/2008	C (15 ft)	Benzene	<1.4
			Ethylbenzene	<1.4
			Toluene	**2.6**
			m,p-Xylene	**1.8**
			o-Xylene	<1.4
			Methyl tert-butyl Ether	<1.4
	6/3/2008	D (20 ft)	Benzene	**37**
			Ethylbenzene	<1.3
			Toluene	**2.6**
			m,p-Xylene	**2**
			o-Xylene	<1.3
			Methyl tert-butyl Ether	<1.3

VILLAGE OF ROXANA

SIXTH ST

SEVENTH ST

EIGHTH ST

GP-9

GP-12

GP-11

GP-13

1986 APPROXIMATE RELEASE SITE

Sample Location	Sample Date	Vapor Port	Analyte	Result (ppbV)
GP-13	6/4/2008	A (5 ft)	Benzene	<150
			Ethylbenzene	<150
			Toluene	<150
			m,p-Xylene	<150
			o-Xylene	<150
			Methyl tert-butyl Ether	<150
	6/4/2008	B (10 ft)	Benzene	<140
			Ethylbenzene	<140
			Toluene	<140
			m,p-Xylene	**250**
			o-Xylene	<140
			Methyl tert-butyl Ether	<140
	6/4/2008	C (15 ft)	Benzene	<130
			Ethylbenzene	<130
			Toluene	<130
			m,p-Xylene	<130
			o-Xylene	<130
			Methyl tert-butyl Ether	<130
	6/4/2008	D (20 ft)	Benzene	<140
			Ethylbenzene	<140
			Toluene	<140
			m,p-Xylene	<140
			o-Xylene	<140
			Methyl tert-butyl Ether	<140

Sample Location	Sample Date	Vapor Port	Analyte	Result (ppbV)
GP-11	6/3/2008	A (5 ft)	Benzene	<11
			Ethylbenzene	<11
			Toluene	**24**
			m,p-Xylene	<11
			o-Xylene	<11
			Methyl tert-butyl Ether	<11
	6/3/2008	B (10 ft)	Benzene	<60
			Ethylbenzene	<60
			Toluene	<60
			m,p-Xylene	<60
			o-Xylene	<60
			Methyl tert-butyl Ether	<60
	6/3/2008 (Duplicate)	B (Duplicate)	Benzene	<11
			Ethylbenzene	<11
			Toluene	**13**
			m,p-Xylene	<11
			o-Xylene	<11
			Methyl tert-butyl Ether	<11
	6/3/2008	C (15 ft)	Benzene	<11
			Ethylbenzene	<11
			Toluene	**18**
			m,p-Xylene	<11
			o-Xylene	<11
			Methyl tert-butyl Ether	<11
	6/3/2008	D (20 ft)	Benzene	<300
			Ethylbenzene	<300
			Toluene	<300
			m,p-Xylene	<300
			o-Xylene	<300
			Methyl tert-butyl Ether	<300

LEGEND

● EXISTING VAPOR MONITORING POINT SAMPLED

N

Ø 200Ø

SCALE FEET

REFERENCE:
SHELL OIL COMPANY, WRB REFINING LLC 2008; RCRA PART B POST CLOSURE PERMIT APPLICATION; DATED JUNE 2008; PREPARED BY URS.

SHELL OIL PRODUCTS U.S/WRB REFINING LLC
ROUTE 111/RAND AVENUE VICINITY INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 21561979

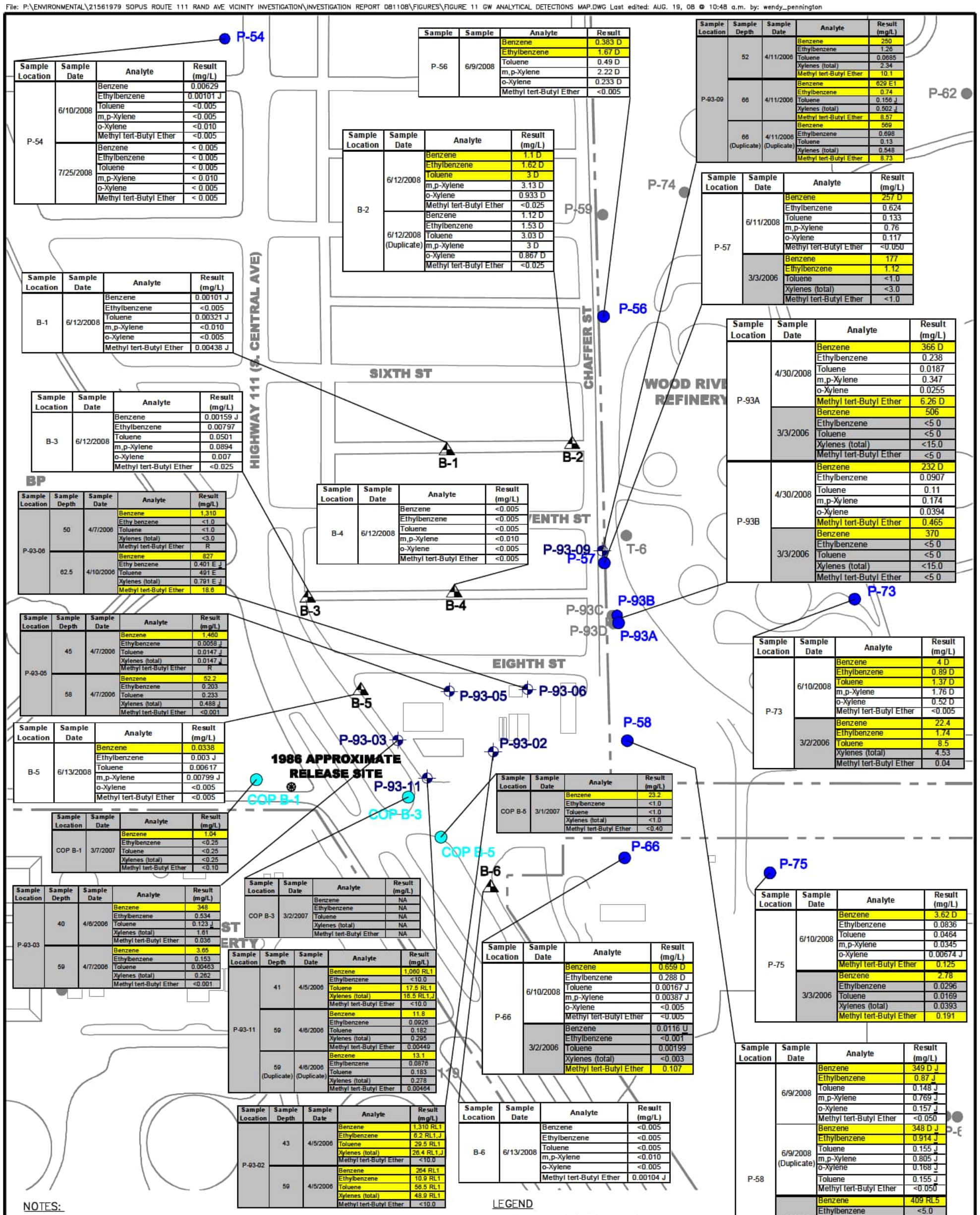
URS

DRN. BY:wmp 7/29/08
DSGN. BY:lrm
CHKD. BY:b3

Soil Vapor Analytical BTEX & MTBE Results Map

FIG. NO. 10

File: P:\ENVIRONMENTAL\21561979 SOPUS ROUTE 111 RAND AVE VICINITY INVESTIGATION\INVESTIGATION REPORT 081108\FIGURES\FIGURE 11 GW ANALYTICAL DETECTIONS MAP.DWG Last edited: AUG. 19, 08 @ 10:48 a.m. by: wendy_pennington



Sample Location	Sample Date	Analyte	Result (mg/L)
P-54	6/10/2008	Benzene	0.00629
		Ethylbenzene	0.00101 J
		Toluene	<0.005
		m,p-Xylene	<0.005
		o-Xylene	<0.010
		Methyl tert-Butyl Ether	<0.005
	7/25/2008	Benzene	< 0.005
		Ethylbenzene	< 0.005
		Toluene	< 0.005
		m,p-Xylene	< 0.010
		o-Xylene	< 0.005
		Methyl tert-Butyl Ether	< 0.005

Sample Location	Sample Date	Analyte	Result (mg/L)
P-56	6/9/2008	Benzene	0.383 D
		Ethylbenzene	1.67 D
		Toluene	0.49 D
		m,p-Xylene	2.22 D
		o-Xylene	0.233 D
		Methyl tert-Butyl Ether	<0.005

Sample Location	Sample Depth	Sample Date	Analyte	Result (mg/L)
P-93-09	52	4/11/2006	Benzene	250
			Ethylbenzene	1.26
			Toluene	0.0685
			Xylenes (total)	2.34
			Methyl tert-Butyl Ether	10.1
	66	4/11/2006	Benzene	629 E1
			Ethylbenzene	0.74
			Toluene	0.156 J
			Xylenes (total)	0.502 J
			Methyl tert-Butyl Ether	8.57
	66 (Duplicate)	4/11/2006 (Duplicate)	Benzene	569
			Ethylbenzene	0.698
			Toluene	0.13
			Xylenes (total)	0.548
			Methyl tert-Butyl Ether	8.73

Sample Location	Sample Date	Analyte	Result (mg/L)
B-2	6/12/2008	Benzene	1.1 D
		Ethylbenzene	1.62 D
		Toluene	3 D
		m,p-Xylene	3.13 D
		o-Xylene	0.933 D
		Methyl tert-Butyl Ether	<0.025
	6/12/2008 (Duplicate)	Benzene	1.12 D
		Ethylbenzene	1.53 D
		Toluene	3.03 D
		m,p-Xylene	3 D
		o-Xylene	0.867 D
		Methyl tert-Butyl Ether	<0.025

Sample Location	Sample Date	Analyte	Result (mg/L)
P-57	6/11/2008	Benzene	257 D
		Ethylbenzene	0.624
		Toluene	0.133
		m,p-Xylene	0.76
		o-Xylene	0.117
		Methyl tert-Butyl Ether	<0.050
	3/3/2006	Benzene	177
		Ethylbenzene	1.12
		Toluene	<1.0
		Xylenes (total)	<3.0
		Methyl tert-Butyl Ether	<1.0

Sample Location	Sample Date	Analyte	Result (mg/L)
B-1	6/12/2008	Benzene	0.00101 J
		Ethylbenzene	<0.005
		Toluene	0.00321 J
		m,p-Xylene	<0.010
		o-Xylene	<0.005
		Methyl tert-Butyl Ether	0.00438 J

Sample Location	Sample Date	Analyte	Result (mg/L)
P-93A	4/30/2008	Benzene	366 D
		Ethylbenzene	0.238
		Toluene	0.0187
		m,p-Xylene	0.347
		o-Xylene	0.0255
		Methyl tert-Butyl Ether	6.26 D
	3/3/2006	Benzene	506
		Ethylbenzene	<5 0
		Toluene	<5 0
		Xylenes (total)	<15.0
		Methyl tert-Butyl Ether	<5 0
P-93B	4/30/2008	Benzene	232 D
		Ethylbenzene	0.0907
		Toluene	0.11
		m,p-Xylene	0.174
		o-Xylene	0.0394
		Methyl tert-Butyl Ether	0.465
	3/3/2006	Benzene	370
		Ethylbenzene	<5 0
		Toluene	<5 0
		Xylenes (total)	<15.0
		Methyl tert-Butyl Ether	<5 0

Sample Location	Sample Date	Analyte	Result (mg/L)
B-3	6/12/2008	Benzene	0.00159 J
		Ethylbenzene	0.00797
		Toluene	0.0501
		m,p-Xylene	0.0894
		o-Xylene	0.007
		Methyl tert-Butyl Ether	<0.025

Sample Location	Sample Date	Analyte	Result (mg/L)
B-4	6/12/2008	Benzene	<0.005
		Ethylbenzene	<0.005
		Toluene	<0.005
		m,p-Xylene	<0.010
		o-Xylene	<0.005
		Methyl tert-Butyl Ether	<0.005

Sample Location	Sample Depth	Sample Date	Analyte	Result (mg/L)
P-93-06	50	4/7/2006	Benzene	1,310
			Ethy benzene	<1.0
			Toluene	<1.0
			Xylenes (total)	<3.0
			Methyl tert-Butyl Ether	R
	62.5	4/10/2006	Benzene	827
			Ethy benzene	0.401 E J
			Toluene	491 E
			Xylenes (total)	0.791 E J
			Methyl tert-Butyl Ether	18.6

Sample Location	Sample Depth	Sample Date	Analyte	Result (mg/L)
P-93-05	45	4/7/2006	Benzene	1,460
			Ethylbenzene	0.0058 J
			Toluene	0.0147 J
			Xylenes (total)	0.0147 J
			Methyl tert-Butyl Ether	R
	58	4/7/2006	Benzene	52.2
			Ethylbenzene	0.203
			Toluene	0.233
			Xylenes (total)	0.488 J
			Methyl tert-Butyl Ether	<0.001

Sample Location	Sample Date	Analyte	Result (mg/L)
P-73	6/10/2008	Benzene	4 D
		Ethylbenzene	0.89 D
		Toluene	1.37 D
		m,p-Xylene	1.76 D
		o-Xylene	0.52 D
		Methyl tert-Butyl Ether	<0.005
	3/2/2006	Benzene	22.4
		Ethylbenzene	1.74
		Toluene	8.5
		Xylenes (total)	4.53
		Methyl tert-Butyl Ether	0.04

Sample Location	Sample Date	Analyte	Result (mg/L)
B-5	6/13/2008	Benzene	0.0338
		Ethylbenzene	0.003 J
		Toluene	0.00617
		m,p-Xylene	0.00799 J
		o-Xylene	<0.005
		Methyl tert-Butyl Ether	<0.005

Sample Location	Sample Date	Analyte	Result (mg/L)
COP B-5	3/1/2007	Benzene	23.2
		Ethylbenzene	<1.0
		Toluene	<1.0
		Xylenes (total)	<1.0
		Methyl tert-Butyl Ether	<0.40

Sample Location	Sample Date	Analyte	Result (mg/L)
COP B-1	3/7/2007	Benzene	1.04
		Ethylbenzene	<0.25
		Toluene	<0.25
		Xylenes (total)	<0.25
		Methyl tert-Butyl Ether	<0.10

Sample Location	Sample Depth	Sample Date	Analyte	Result (mg/L)
P-93-03	40	4/6/2006	Benzene	348
			Ethylbenzene	0.534
			Toluene	0.123 J
			Xylenes (total)	1.61
			Methyl tert-Butyl Ether	0.036
	59	4/7/2006	Benzene	3.65
			Ethylbenzene	0.153
			Toluene	0.00463
			Xylenes (total)	0.262
			Methyl tert-Butyl Ether	<0.001

Sample Location	Sample Date	Analyte	Result (mg/L)
COP B-3	3/2/2007	Benzene	NA
		Ethylbenzene	NA
		Toluene	NA
		Xylenes (total)	NA
		Methyl tert-Butyl Ether	NA

Sample Location	Sample Depth	Sample Date	Analyte	Result (mg/L)
P-93-11	41	4/5/2006	Benzene	1,060 RL1
			Ethylbenzene	<10.0
			Toluene	17.5 RL1
			Xylenes (total)	16.5 RL1,J
			Methyl tert-Butyl Ether	<10.0
	59	4/6/2006	Benzene	11.8
			Ethylbenzene	0.0926
			Toluene	0.182
			Xylenes (total)	0.295
			Methyl tert-Butyl Ether	0.00449
	59 (Duplicate)	4/6/2006 (Duplicate)	Benzene	13.1
			Ethylbenzene	0.0876
			Toluene	0.183
			Xylenes (total)	0.278
			Methyl tert-Butyl Ether	0.00464

Sample Location	Sample Date	Analyte	Result (mg/L)
P-66	6/10/2008	Benzene	0.659 D
		Ethylbenzene	0.288 D
		Toluene	0.00167 J
		m,p-Xylene	0.00387 J
		o-Xylene	<0.005
		Methyl tert-Butyl Ether	<0.005
	3/2/2006	Benzene	0.0116 U
		Ethylbenzene	<0.001
		Toluene	0.00199
		Xylenes (total)	<0.003
		Methyl tert-Butyl Ether	0.107

Sample Location	Sample Depth	Sample Date	Analyte	Result (mg/L)
P-93-02	43	4/5/2006	Benzene	1,310 RL1
			Ethylbenzene	6.2 RL1,J
			Toluene	29.5 RL1
			Xylenes (total)	26.4 RL1,J
			Methyl tert-Butyl Ether	<10.0
	59	4/5/2006	Benzene	264 RL1
			Ethylbenzene	10.9 RL1
			Toluene	56.5 RL1
			Xylenes (total)	48.9 RL1
			Methyl tert-Butyl Ether	<10.0

Sample Location	Sample Date	Analyte	Result (mg/L)
B-6	6/13/2008	Benzene	<0.005
		Ethylbenzene	<0.005
		Toluene	<0.005
		m,p-Xylene	<0.010
		o-Xylene	<0.005
		Methyl tert-Butyl Ether	0.00104 J

Sample Location	Sample Date	Analyte	Result (mg/L)
P-75	6/10/2008	Benzene	3.62 D
		Ethylbenzene	0.0836
		Toluene	0.0464
		m,p-Xylene	0.0345
		o-Xylene	0.00674 J
		Methyl tert-Butyl Ether	0.125
	3/3/2006	Benzene	2.78
		Ethylbenzene	0.0296
		Toluene	0.0169
		Xylenes (total)	0.0393
		Methyl tert-Butyl Ether	0.191

Sample Location	Sample Date	Analyte	Result (mg/L)
P-58	6/9/2008	Benzene	349 D J
		Ethylbenzene	0.87 J
		Toluene	0.148 J
		m,p-Xylene	0.769 J
		o-Xylene	0.157 J
		Methyl tert-Butyl Ether	<0.050
	6/9/2008 (Duplicate)	Benzene	348 D J
		Ethylbenzene	0.914 J
		Toluene	0.155 J
		m,p-Xylene	0.805 J
		o-Xylene	0.168 J
		Toluene	0.155 J
		Methyl tert-Butyl Ether	<0.050
	3/2/2006	Benzene	409 RL5
		Ethylbenzene	<5.0
		Toluene	<5.0
		Xylenes (total)	<15.0
		Methyl tert-Butyl Ether	<5.0
	3/2/2006 (Duplicate)	Benzene	464 RL5
		Ethylbenzene	<5.0
		Toluene	<5.0
		Xylenes (total)	<15.0
		Methyl tert-Butyl Ether	<5.0

NOTES:

1. EXCEEDANCES OF THE SCREENING CRITERIA ARE HIGHLIGHTED IN YELLOW ABOVE.
2. SHADED BOXES REPRESENT DATA FROM GROUNDWATER SAMPLING CONDUCTED IN 2006 (URS ON BEHALF OF SHELL) OR 2007 (COP).
3. D = (LAB) DENOTES THE RESULT IS FROM A DILUTED SAMPLE.
   E = (LAB) DENOTES CONCENTRATION EXCEEDS CALIBRATION RANGE AND RESULT IS SEMI-QUANTITATIVE.
   E1 = (LAB) DENOTES ANALYTE EXCEEDED CALIBRATION RANGE AND CONCENTRATION IS ESTIMATED.
   J = (LAB) DENOTES THE ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.
   J = (URS) DENOTES THE ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.
   NA = NOT ANALYZED.
   RL1 = (LAB) DENOTES THE REPORTING LIMIT WAS RAISED DUE TO SAMPLE MATRIX EFFECTS.
   RL5 = (LAB) DENOTES THE REPORTING LIMIT WAS RAISED DUE TO HIGH SINGLE PEAK ANALYTE.
   U = (URS) THE ANALYTE WAS ANALYZED FOR BUT WAS NOT DETECTED.
   R = DATA REJECTED DURING VALIDATION EFFORTS.

LEGEND

- URS GROUNDWATER SAMPLING LOCATION (JUNE 2008)
- EXISTING COP MONITORING WELL SAMPLED
- URS GROUNDWATER PROFILING LOCATION (MARCH–APRIL 2006)
- COP GROUNDWATER SAMPLING LOCATION (APRIL 2007)

Ø 200
SCALE FEET

N

REFERENCE:
SHELL OIL COMPANY, WRB REFINING LLC 2008; RCRA PART B POST CLOSURE PERMIT APPLICATION; DATED JUNE 2008; PREPARED BY URS.

SHELL OIL PRODUCTS U.S ROUTE 111/RAND AVENUE VICINITY INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 21561979
URS	
DRN. BY:wmp 7/29/08 DSGN. BY:lrm CHKD. BY:bJ	Groundwater Analytical BTEX & MTBE Results Map
	FIG. NO. 11

Log:ENVIRON KEY RAND 2008 - NO WELL 8/5/2008 4:02:48 PM

KEY TO BORING LOGS

SUBSURFACE MATERIAL LEGEND

	Graphic Symbol	Description	USCS Classification
SAND		SAND with little or no fines	SP
		Silty SAND	SM
		Clayey SAND	SC
LOW PLASTIC SILTS AND CLAYS		Low plastic SILT	ML
		Low plastic CLAY Medium plastic CLAY Silty CLAY or Sandy CLAY	CL
SURFACE MATERIALS		FILL	

SAMPLER LEGEND

Air Knife / Hand Auger Sampler

Split Spoon Sampler

Geoprobe - Soil sampling not performed

Geoprobe Dual-Tube Sampler

▼ Depth Groundwater enters at time of drilling.

NOTES:

Boring log details shown on the following logs are based upon ground surface and field conditions at the time of drilling and well installation.

LOG OF BORING
B-1

Start Date: 5/14/08 Completion Date: 5/21/08
Coordinates: Northing:792528.13 Easting:2321982.84
Boring Location: Village of Roxana
Ground Elevation: 443.24

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
						FILL	Gravel base coarse, gravel asphalt, and gravel FILL (FILL)	Boring advanced to a depth of 8' via hand auger, then continued with geoprobe
			0.0				Soft to medium stiff, moist, brown and gray, medium plastic CLAY (CL), trace gravel	Slight tar odor
			0.0			CL		(05/14/08) Sample B-1-03 collected for VOCs
5			0.0				Becomes reddish brown	
			0.0			CL	Soft, moist, brown, low plastic silty CLAY (CL)	
							Medium dense, moist to wet, brown, fine grained clayey SAND (SC)	Air knife completed deeper than hand auger. Soil contact not observed.
			2.1					
10	48	32				SC	Dark and light brown banding	
			3.7					
	48	20	3.0				Loose, dry, tan, fine grained SAND (SP)	
15								
			0.9					
	48	32						
			1.4			SP		
20							Becomes medium dense, fine to medium grained	
			2.1					
	48	32						
			1.8					

Completion Depth: 60.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 49 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-1

Start Date: 5/14/08 Completion Date: 5/21/08
Coordinates: Northing:792528.13 Easting:2321982.84
Boring Location: Village of Roxana
Ground Elevation: 443.24

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	32	0.2 4.1				SAME: Medium dense, dry, tan, fine to medium grained SAND (SP)	1445 (05/20/08) Samples B-1-27, B-1-27-MS, and B-1-27-MSD collected for VOCs.
30	48	32	1.8 1.1					
35	48	32	1.7 2.0					
	48	32	1.8 1.4			SP	With interbedded clay seams Clay grades out	Black staining (8 inches) Slight black staining
40	48	32	1.8 0.4				Becomes medium grained Becomes dense, fine grained, trace silt	
45	48	30	0.3 1.3				Becomes medium grained	
	48	30	0.4				Becomes wet ▽	

Completion Depth: 60.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 49 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▼ Water level ATD
▽ Water level after drilling
▨ Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
⊠ Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-1

Start Date: 5/14/08 Completion Date: 5/21/08
Coordinates: Northing:792528.13 Easting:2321982.84
Boring Location: Village of Roxana
Ground Elevation: 443.24

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			1.8				SAME: Dense, wet, tan, medium grained, SAND (SP)	
	48	0						Bottom of liner from 48 - 52 ft crushed. Liner from 42 - 56 ft crushed at end; no recovery
55								
	48	0						Liner from 56 - 60 ft stuck in rods; no recovery
60							Bottom of boring at 60 ft bgs	
65								
70								

Completion Depth: 60.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 49 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-2

Start Date: 5/14/08 Completion Date: 5/20/08
Coordinates: Northing:792541.10 Easting:2322245.99
Boring Location: Village of Roxana
Ground Elevation: 444.21

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
0						TOPSOIL	TOPSOIL	Boring advanced to a depth of 8' via hand auger, then continued with geoprobe
						CL	Soft, moist, brown, low plastic, silty CLAY (CL)	
							Loose to medium dense, moist, brown, fine grained, SAND (SP)	(05/14/08) Sample B-2-04 collected for VOCs
5								
	48	24	2.7				Becomes loose, tan, trace silt	
10			11.0				Silt grades out	
	48	30	3.1			SP	Becomes medium dense, dry	
15			31.4					
	48	30	5.9				Becomes fine to medium grained	
			6.1					
20	48	30	2.4					
			4.5					

Completion Depth: 64.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 53 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▼ Water level ATD
▽ Water level after drilling
Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
⊠ Geoprobe Dual-Tube Sampler

URS

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTILEV.GDT 8/5/08

LOG OF BORING
B-2

Start Date: 5/14/08 Completion Date: 5/20/08
Coordinates: Northing:792541.10 Easting:2322245.99
Boring Location: Village of Roxana
Ground Elevation: 444.21

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	30	10.1 18.5				SAME: Medium dense, dry, tan, fine to medium grained, SAND (SP)	
30	36	24	5.5 7.3					
	36	24	16.5					
35	48	30	9.5 10.3			SP		
40	48	30	39.9 192				Becomes fine grained	1000 (05/20/08) Sample B-2-41 collected for VOCs
	48	30	167				Black and gray banding	
45			20.7				Becomes gray, fine to medium grained	
	48	36	11.1 69.0					Slight hydrocarbon odor

Completion Depth: 64.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 53 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-2

Start Date: 5/14/08 Completion Date: 5/20/08
Coordinates: Northing:792541.10 Easting:2322245.99
Boring Location: Village of Roxana
Ground Elevation: 444.21

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	34	530 597				SAME: Medium dense, gray, dry, fine to medium grained, SAND (SP) Becomes moist Becomes wet ▽	
55	48	42	1134 1122					
	24	2						Sample liner broke off within rods. Pull rods to collect sample. Blind drill to 64' bgs
60	48	0						
							Bottom of boring at 64 ft bgs	
65								
70								

Completion Depth: 64.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 53 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

▼ Water level ATD
▽ Water level after drilling
▨ Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
☒ Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-3

Start Date: 5/14/08 Completion Date: 5/21/08
Coordinates: Northing:792218.77 Easting:2321690.48
Boring Location: Village of Roxana
Ground Elevation: 430.69

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
						TOPSOIL	TOPSOIL	Boring advanced to a depth of 8' via hand auger, then continued with geoprobe
			0.0			FILL	Clayey FILL (FILL) with gravel and asphalt	
							Medium stiff, moist, brown, medium plastic CLAY (CL)	
			0.0				With sand	
						CL		
5							Becomes gray and brown mottled, sandy	
							Loose to medium dense, moist, brown, fine to medium grained SAND (SP)	(05/14/08) Sample B-3-06 collected for VOCs
							Becomes loose, tan, trace silt	
			0.9					
10	48	24						
			0.2					
							Silt grades out	
			1.3					
	48	32						
15			1.8			SP		
							Becomes medium dense	
			1.6					
	48	32					Becomes reddish brown	
			1.4					
20							Becomes tan	
			2.4					
	48	32						
			1.5					

Completion Depth: 48.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 35.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-3

Start Date: 5/14/08 Completion Date: 5/21/08
Coordinates: Northing:792218.77 Easting:2321690.48
Boring Location: Village of Roxana
Ground Elevation: 430.69

Depth in feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	32	0.8 0.7				SAME: Medium dense, moist, tan, fine to medium grained SAND (SP)	
30	48	30	1.3 1.8					
35	48	34	2.7 1.6					1100 (05/21/08) Sample B-3-33 collected for VOCs
							Becomes wet ▽	
	48	36	1.8 2.3			SP	Becomes gray, medium grained Becomes dense, fine to medium grained	
40	48	36	2.7 1.5					
45	48	40	12.1 13.6					
							Bottom of boring at 48 ft bgs	

Completion Depth: 48.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 35.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

▼ Water level ATD
▽ Water level after drilling
▨ Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
☒ Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-4

Start Date: 5/15/08 Completion Date: 5/22/08
Coordinates: Northing:792229.68 Easting:2321998.37
Boring Location: Village of Roxana
Ground Elevation: 441.86

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	USCS	DESCRIPTION	NOTES
				FILL	Asphalt, gravel base coarse FILL (FILL)	Boring advanced to a depth of 8' via hand auger, then continued with geoprobe
			0.0	CL	Medium stiff, moist, brownish gray, silty CLAY (CL)	
			0.0		Becomes brown, sandy, with small sand zones	
5			0.0	CH	Stiff, moist, brown and red, mottled, medium to high plastic CLAY (CH)	
					with sand	0945 (05/15/08) Sample B-4-06 collected for VOCs
			0.0	CL	Medium stiff, moist, brown with red mottled, low to medium plastic CLAY (CL)	
				SC	Loose to medium dense, moist, brown, clayey SAND (SC)	
					Loose, moist, orangish brown, fine to medium grained, SAND (SP)	
10	48	16	0.3			
					Becomes medium dense	
			1.2			
	48	30				
15			0.8			
				SP		
			0.8			
	48	32				
			1.2			
20					Becomes tan	
			1.2			
	48	32			Becomes dry	
			0.0			

Completion Depth: 58.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 48.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-4

Start Date: 5/15/08 Completion Date: 5/22/08
Coordinates: Northing:792229.68 Easting:2321998.37
Boring Location: Village of Roxana
Ground Elevation: 441.86

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	32	1.2 1.6				SAME: Medium dense, dry, tan, fine to medium grained, SAND (SP)	
30	48	32	0.8 1.7					Dark gray staining (4 inches)
	48	36	1.4 2.1				Becomes orangish brown	0935 (05/22/08) Sample B-4-35 collected for VOCs
35	48	4	1.5			SP	Becomes tan	
40	48	32	0.8 0.2				Becomes dense Trace silt (4 inches)	Trace dark brown staining (varved layers)
45	48	4	0.9					
	48	48	9.5				Becomes moist Becomes silty Becomes wet, gray, medium grained	

Completion Depth: 58.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 48.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

▼ Water level ATD
▽ Water level after drilling
▨ Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
▮ Geoprobe - Soil sampling not performed
⊠ Geoprobe Dual-Tube Sampler

URS

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-4

Start Date: 5/15/08 Completion Date: 5/22/08
Coordinates: Northing:792229.68 Easting:2321998.37
Boring Location: Village of Roxana
Ground Elevation: 441.86

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			18.7			SP	SAME: Dense, wet, gray, medium grained, SAND (SP)	
						SC	Medium dense, wet, gray, fine grained, clayey SAND (SC)	
			28.4				Dense, wet, gray, medium to fine grained SAND (SP)	
	48	48						
55						SP		
	24	0						Solid tip driven to 58' bgs due to recovery issues
							Bottom of boring at 58 ft bgs	
60								
65								
70								

Completion Depth: 58.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 48.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▼ Water level ATD
▽ Water level after drilling
Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
☒ Geoprobe Dual-Tube Sampler

URS

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-5

Start Date: 5/15/08 Completion Date: 5/21/08
Coordinates: Northing:792023.99 Easting:2321801.86
Boring Location: Village of Roxana
Ground Elevation: 429.98

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			0.0			FILL	Gravel and asphalt FILL (FILL)	Boring advanced to a depth of 6' via hand auger, then continued with geoprobe
			0.0				Gray, silty CLAY (FILL) Dark gray clayey GRAVEL (FILL)	
			0.0				Brown, silty CLAY (FILL) Dark gray to black, clayey GRAVEL (FILL)	
5							Soft, wet, grayish brown, low plastic, silty CLAY (CL)	1345 (05/15/08) Sample B-5-04.5 collected for VOCs
	24	18	3.6				Becomes medium stiff, dark brown	
			2.6					
10	48	48				CL		
			1.8				Trace fine grained sand	
			2.3					
	48	48						
15			2.6				Becomes soft, grayish brown	
							Becomes sandy	
			1.8					
	48	48						
			2.3					
20						SC	Medium dense, wet, brown, fine grained, clayey SAND (SC)	
			0.6					
	48	48						
			1.8			SP	Medium dense, moist, tan, fine to medium grained, SAND (SP)	

Completion Depth: 48.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 35.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-5

Start Date: 5/15/08 Completion Date: 5/21/08
Coordinates: Northing:792023.99 Easting:2321801.86
Boring Location: Village of Roxana
Ground Elevation: 429.98

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	30	2.8 4.7				SAME: Medium dense, moist, tan, fine to medium grained, SAND (SP) Becomes dry to moist	0935 (05/21/08) Sample B-5-27 collected for VOCs
30	48	32	2.2 2.5				Becomes moist	
35	48	36	3.3 4.2				Becomes wet	
	48	36	3.1 2.8			SP	Becomes dense, gray	
40	48	48	4.3 6.5					
45	48	42	14.5 19.2					
							Bottom of boring at 48 ft bgs	

Completion Depth: 48.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 35.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-6

Start Date: 5/15/08 Completion Date: 5/19/08
Coordinates: Northing:791610.47 Easting:2322074.96
Boring Location: Village of Roxana
Ground Elevation: 432.75

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			0.0			FILL	Gravel (FILL) Dark gray and black, mottled, silty CLAY (FILL)	Boring advanced to a depth of 6' via hand auger, then continued with geoprobe
			0.0				Becomes soft, moist, gray and brown	
5			0.0				Becomes gray, with brown Black cinders and gravel (FILL), trace clay	1250 (05/15/08) Sample B-6-04 collected for VOCs
	24	24	0.5 1.4			CL	Soft, moist, dark gray, low plastic, silty CLAY (CL) Becomes medium stiff, dark brown Becomes soft, brown	
10	48	30	2.3 2.2				Becomes dark brown Becomes medium stiff	
15	48	30	3.9 4.3				Becomes medium stiff to stiff, brown, with orange mottling	
	48	30	3.9 3.4			SC	Dense, moist, brown, fine grained clayey SAND (SC)	
20	48	36	4.2 4.7			SP	Loose, moist, brownish gray, fine to medium grained SAND (SP), trace silt Silt grades out Becomes moist to dry	1205 (05/19/08) Sample B-6-23 collected for VOCs

Completion Depth: 50.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

Water Depth: 38 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

- Water level ATD
- Water level after drilling
- Air Knife / Hand Auger Sampler

Unified Soil Classification based on field visual observations.

ATD - At time of drilling

- Hollow Stem Auger - Soil sampling not performed
- Split Spoon Sampler
- Geoprobe - Soil sampling not performed
- Geoprobe Dual-Tube Sampler

URS

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
B-6

Start Date: 5/15/08 Completion Date: 5/19/08
Coordinates: Northing:791610.47 Easting:2322074.96
Boring Location: Village of Roxana
Ground Elevation: 432.75

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	36	3.2 2.3				SAME: Loose, moist to dry, brownish gray, fine to medium grained SAND (SP)	
30	48	30	2.3 2.0					
	48	30	2.2 2.3				Becomes tan	
35								
	48	36	2.2 1.8			SP	Becomes medium dense, moist Becomes wet ▽	
40	48	36	0.0 0.0					
45	48	30	0.0 0.0					
	24	0					Bottom of boring at 50 ft bgs	Solid tip driven to 50' bgs due to recovery issues

Completion Depth: 50.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▼ Water level ATD
▽ Water level after drilling
Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
⧓ Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
GP-12(II)

Start Date: 5/15/08 Completion Date: 5/22/08
Coordinates: Northing: N/A Easting: N/A
Boring Location: Village of Roxana
Ground Elevation: N/A

Depth In feet	Inches Driven	Inches Recovered	PID (ppm)	USCS	DESCRIPTION	NOTES
				TOPSOIL	TOPSOIL	Boring advanced to a depth of 5' via hand auger, then continued with geoprobe
				CL	Soft, moist, brown, low plastic, silty CLAY (CL)	
					Medium stiff, moist, brown, low to medium plastic CLAY (CL)	
5					Trace small roots	1025 (05/15/08) Sample GP-12(II)-04 collected for VOCs
					Medium stiff, moist, red brown, low plastic, silty CLAY (CL)	
	36	24	0.8	SC/CL	Soft, wet, brown, sandy CLAY to clayey SAND (CL/SC)	
					Trace silt	
			1.2	SP	Loose, moist to dry, tan, fine grained SAND (SP), trace silt	
10	48	24				
			0.7		Silt grades out	
			1.8			
	48	32				
15			1.5			
			2.3			1425 (05/22/08) Sample GP-12(II)-17 and GP-12(II)-17-DUP collected for VOCs
	48	32				
			1.9			
20					Bottom of boring at 20 ft bgs	

Completion Depth: 20.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: _____ ft., After _____ hrs.
Water Depth: _____ ft., After _____ hrs.
▼ Water level ATD
▽ Water level after drilling
Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
☒ Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

LOG OF BORING
GP-7(II)

Start Date: 5/15/08 Completion Date: 5/19/08
Coordinates: Northing: N/A Easting: N/A
Boring Location: Village of Roxana
Ground Elevation: N/A

Depth in feet	Inches Driven	Inches Recovered	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
0			0.0			FILL	Gravel with sand FILL (FILL) (2 inches) Asphalt with base coarse (FILL) (4 inches) Black gravel and cinders FILL (FILL) with clay	Boring advanced to a depth of 8' via hand auger, then continued with geoprobe
			0.0				Loose, moist, brown, fine to medium grained SAND (SP)	
5			0.0					1115 (05/15/08) Sample GP-7(II)-03 collected for VOCs
	48	30	0.7			SP	Becomes tan, trace clay	
10			118					
	48	36	537				Becomes gray	
15			293					
	48	36	403				Becomes dry, tan	
20			541				Bottom of boring at 20 ft bgs	1635 (05/19/08) Sample GP-7(II)-19 and GP-12(II)-19-DUP collected for VOCs

Completion Depth: 20.00 ft bgs
Project No.: 21561979
Project Name: Route 111 and Rand Avenue Vicinity
Drilling Contractor: Roberts Environmental Drilling, Inc.
Drilling method: Hand Auger / Dual-Tube Geoprobe Rig Type: 6610DT
Drilled by: J. Cox
Logged by: W. Pennington / M. Miller

URS

Water Depth: _____ ft., After _____ hrs.
Water Depth: _____ ft., After _____ hrs.
▼ Water level ATD
▽ Water level after drilling
Air Knife / Hand Auger Sampler
Unified Soil Classification based on field visual observations.

ATD - At time of drilling
☐ Hollow Stem Auger - Soil sampling not performed
■ Split Spoon Sampler
◧ Geoprobe - Soil sampling not performed
☒ Geoprobe Dual-Tube Sampler

URS (ENVIRON) LOG RAND 2008 21561979 ROXANA WELLS.GPJ URSSTLEV.GDT 8/5/08

2008 WELLS

B-1

B-2

B-3

B-4

B-5

B-6

ConocoPhillips WELLS

P-54

P-56

P-57

P-58

P-66

P-73

P-75

P-93

FLUSH MOUNT MONITORING WELL CONSTRUCTION DIAGRAM

GROUND SURFACE ELEVATION 443.24

TOP OF INNER WELL CASING ELEVATION 442.86

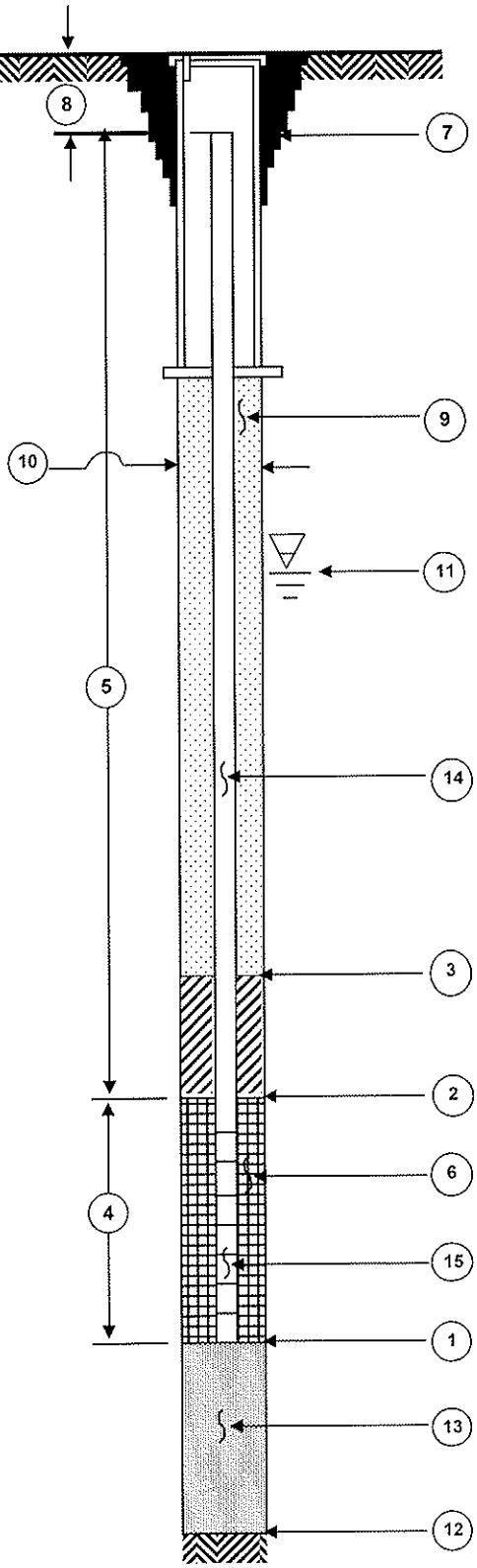
DATUM NAVD 88 - 1988 USGS Datum

JOB NUMBER 21561979

BORING NUMBER B-1

INSTALLATION DATE 21-May-08

LOCATION Roxana, Illinois



(1) DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 58.56 FEET.*

(2) DEPTH TO BOTTOM OF SEAL (IF INSTALLED) N/A FEET.*

(3) DEPTH TO TOP OF SEAL (IF INSTALLED) N/A FEET.*

(4) LENGTH OF WELL SCREEN 15 FEET.
SLOT SIZE 0.010 INCHES.

(5) TOTAL LENGTH OF RISER PIPE 43.18 FEET AT 1 INCH DIAMETER.

(6) TYPE OF PACK AROUND WELL POINT OR SLOTTED PIPE Native Sand.

(7) CONCRETE CAP? (YES) NO (CIRCLE ONE)

(8) DEPTH TO TOP OF INNER CASING BELOW GROUND SURFACE 0.38 FEET.

(9) TYPE OF UPPER BACKFILL High solids bentonite grout.

(10) BOREHOLD DIAMETER 2.125 INCHES.

(11) DEPTH TO GROUNDWATER 48.00 FEET BTOC ON 5/22/08.

(12) TOTAL DEPTH OF BOREHOLE 60 FEET.*

(13) TYPE OF LOWER BACKFILL Native soil (cave in).

(14) PIPE MATERIAL Schedule 40 PVC.

(15) SCREEN MATERIAL Schedule 40 PVC.

* (DEPTH FROM GROUND SURFACE)

MONITOR WELL INSTALLATION DETAILS

URS Corporation

FLUSH MOUNT MONITORING WELL CONSTRUCTION DIAGRAM

GROUND SURFACE ELEVATION 444.21

TOP OF INNER WELL CASING ELEVATION 443.93

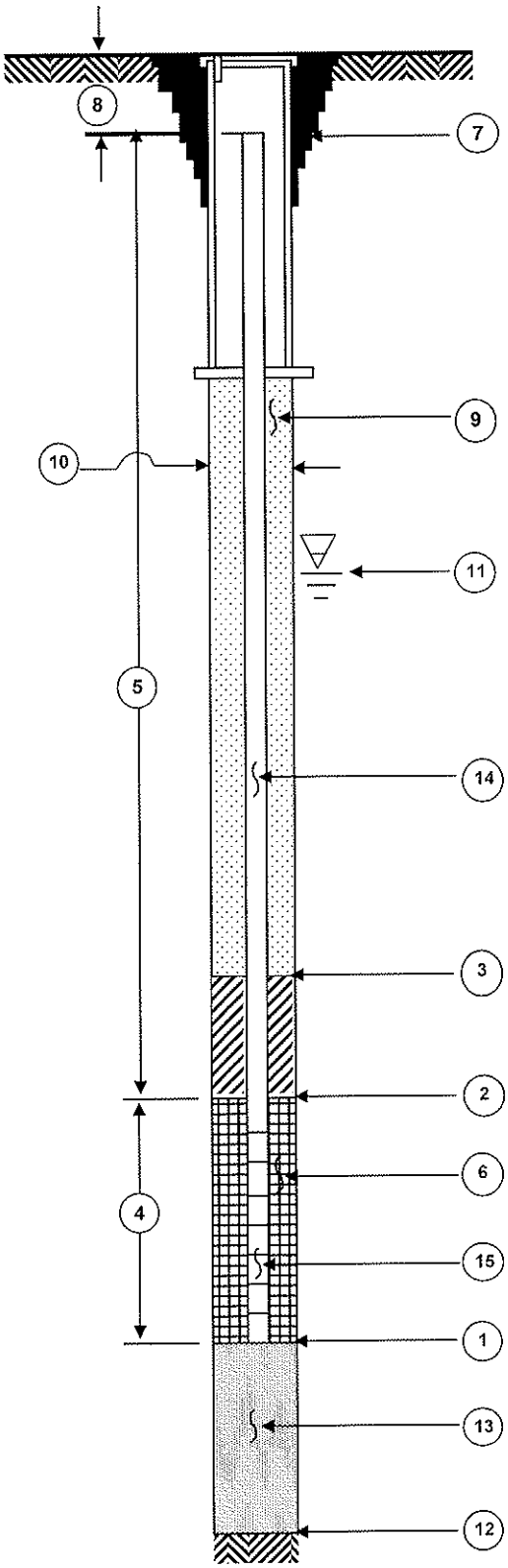
DATUM NAVD 88 - 1988 USGS Datum

JOB NUMBER 21561979

BORING NUMBER B-2

INSTALLATION DATE 20-May-08

LOCATION Roxana, Illinois



(1) DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 63.74 FEET.*

(2) DEPTH TO BOTTOM OF SEAL (IF INSTALLED) N/A FEET.*

(3) DEPTH TO TOP OF SEAL (IF INSTALLED) N/A FEET.*

(4) LENGTH OF WELL SCREEN 15 FEET.
SLOT SIZE 0.010 INCHES.

(5) TOTAL LENGTH OF RISER PIPE 48.46 FEET AT 1 INCH DIAMETER.

(6) TYPE OF PACK AROUND WELL POINT OR SLOTTED PIPE Native Sand.

(7) CONCRETE CAP? (YES) NO (CIRCLE ONE)

(8) DEPTH TO TOP OF INNER CASING BELOW GROUND SURFACE 0.28 FEET.

(9) TYPE OF UPPER BACKFILL High solids bentonite grout.

(10) BOREHOLD DIAMETER 2.125 INCHES.

(11) DEPTH TO GROUNDWATER 49.67 FEET BTOC ON 5/22/08.

(12) TOTAL DEPTH OF BOREHOLE 64 FEET.*

(13) TYPE OF LOWER BACKFILL Native soil (cave in).

(14) PIPE MATERIAL Schedule 40 PVC.

(15) SCREEN MATERIAL Schedule 40 PVC.

* (DEPTH FROM GROUND SURFACE)

MONITOR WELL INSTALLATION DETAILS

URS Corporation

FLUSH MOUNT MONITORING WELL CONSTRUCTION DIAGRAM

GROUND SURFACE ELEVATION 430.69

TOP OF INNER WELL CASING ELEVATION 430.36

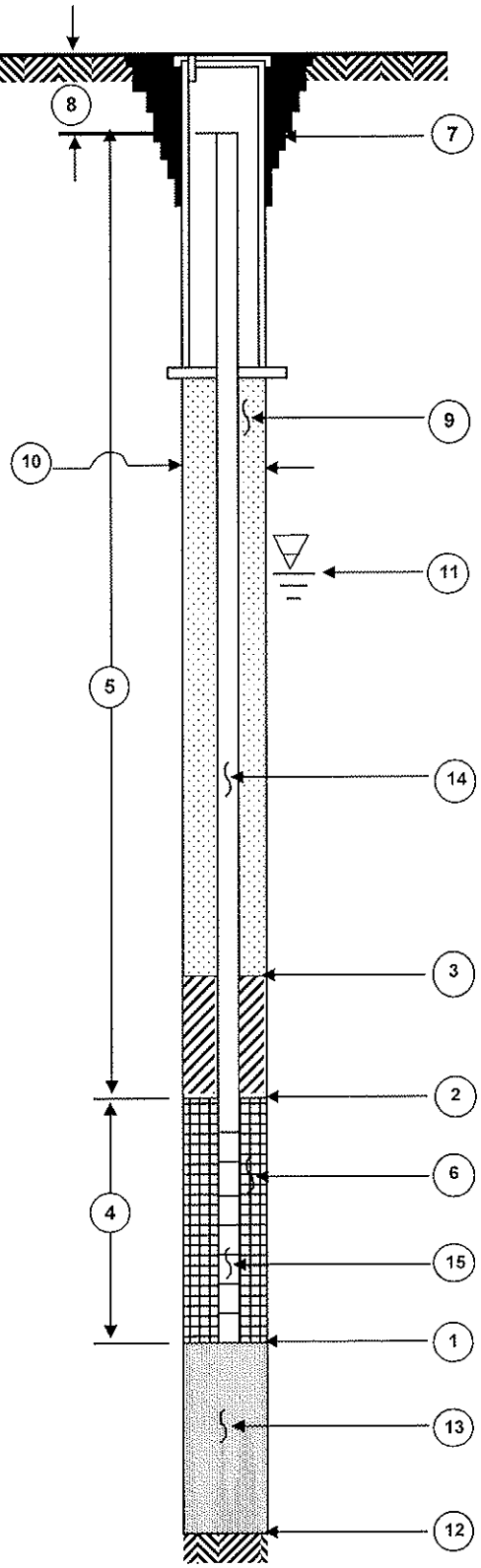
DATUM NAVD 88 - 1988 USGS Datum

JOB NUMBER 21561979

BORING NUMBER B-3

INSTALLATION DATE 21-May-08

LOCATION Roxana, Illinois



(1) DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 46.32 FEET.*

(2) DEPTH TO BOTTOM OF SEAL (IF INSTALLED) N/A FEET.*

(3) DEPTH TO TOP OF SEAL (IF INSTALLED) N/A FEET.*

(4) LENGTH OF WELL SCREEN 15 FEET.
SLOT SIZE 0.010 INCHES.

(5) TOTAL LENGTH OF RISER PIPE 30.99 FEET AT 1 INCH DIAMETER.

(6) TYPE OF PACK AROUND WELL POINT OR SLOTTED PIPE Native Sand.

(7) CONCRETE CAP? (YES) NO (CIRCLE ONE)

(8) DEPTH TO TOP OF INNER CASING BELOW GROUND SURFACE 0.33 FEET.

(9) TYPE OF UPPER BACKFILL High solids bentonite grout.

(10) BOREHOLD DIAMETER 2.125 INCHES.

(11) DEPTH TO GROUNDWATER 34.47 FEET BTOC ON 5/22/08.

(12) TOTAL DEPTH OF BOREHOLE 48 FEET.*

(13) TYPE OF LOWER BACKFILL Native soil (cave in).

(14) PIPE MATERIAL Schedule 40 PVC.

(15) SCREEN MATERIAL Schedule 40 PVC.

* (DEPTH FROM GROUND SURFACE)

MONITOR WELL INSTALLATION DETAILS

URS Corporation

FLUSH MOUNT MONITORING WELL CONSTRUCTION DIAGRAM

GROUND SURFACE ELEVATION 441.86

TOP OF INNER WELL CASING ELEVATION 441.58

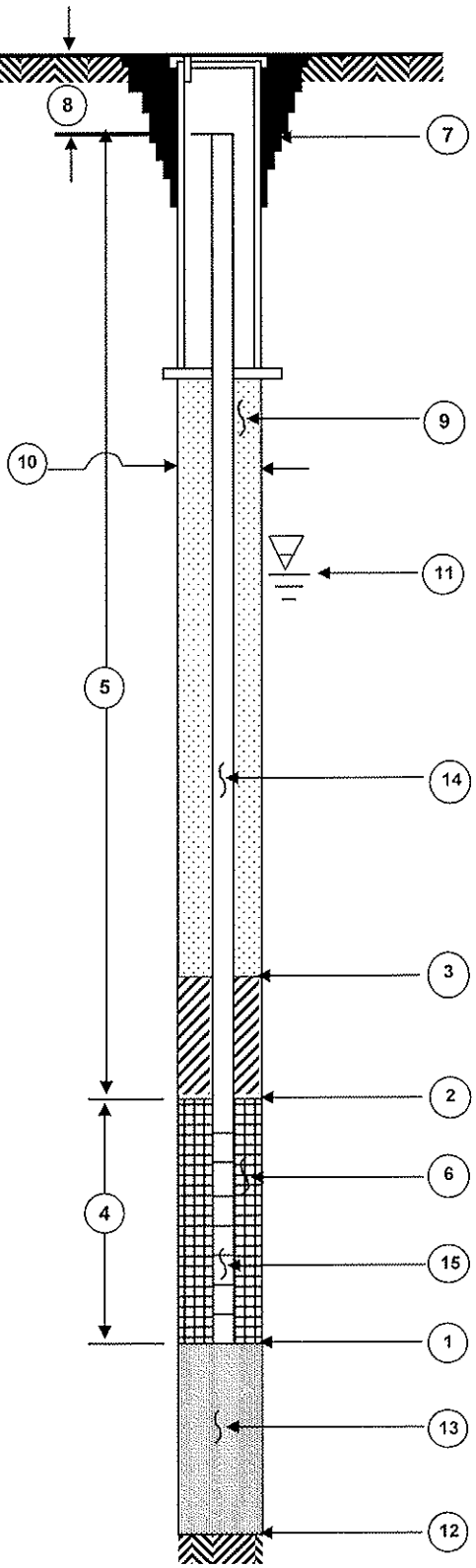
DATUM NAVD 88 - 1988 USGS Datum

JOB NUMBER 21561979

BORING NUMBER B-4

INSTALLATION DATE 22-May-08

LOCATION Roxana, Illinois



(1) DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 57.98 FEET.*

(2) DEPTH TO BOTTOM OF SEAL (IF INSTALLED) N/A FEET.*

(3) DEPTH TO TOP OF SEAL (IF INSTALLED) N/A FEET.*

(4) LENGTH OF WELL SCREEN 15 FEET.
SLOT SIZE 0.010 INCHES.

(5) TOTAL LENGTH OF RISER PIPE 42.70 FEET AT 1 INCH DIAMETER.

(6) TYPE OF PACK AROUND WELL POINT OR SLOTTED PIPE Native Sand.

(7) CONCRETE CAP? (YES) NO (CIRCLE ONE)

(8) DEPTH TO TOP OF INNER CASING BELOW GROUND SURFACE 0.28 FEET.

(9) TYPE OF UPPER BACKFILL High solids bentonite grout.

(10) BOREHOLD DIAMETER 2.125 INCHES.

(11) DEPTH TO GROUNDWATER 46.45 FEET BTOC ON 5/22/08.

(12) TOTAL DEPTH OF BOREHOLE 58 FEET.*

(13) TYPE OF LOWER BACKFILL Native soil (cave in).

(14) PIPE MATERIAL Schedule 40 PVC.

(15) SCREEN MATERIAL Schedule 40 PVC.

* (DEPTH FROM GROUND SURFACE)

MONITOR WELL INSTALLATION DETAILS

URS Corporation

FLUSH MOUNT MONITORING WELL CONSTRUCTION DIAGRAM

GROUND SURFACE ELEVATION 429.98

TOP OF INNER WELL CASING ELEVATION 429.73

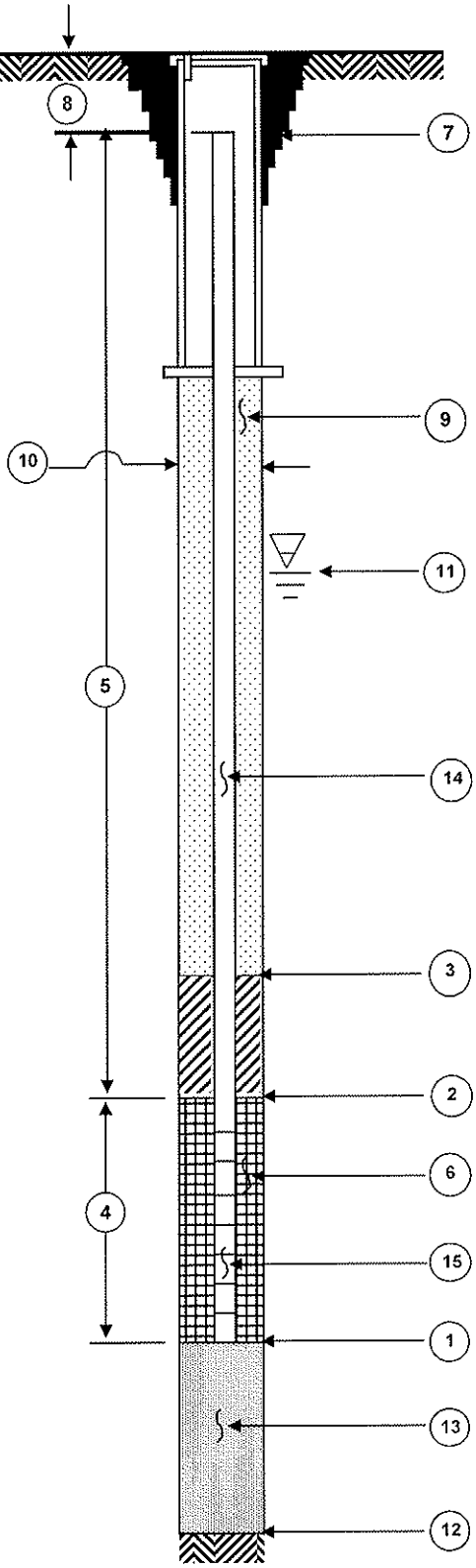
DATUM NAVD 88 - 1988 USGS Datum

JOB NUMBER 21561979

BORING NUMBER B-5

INSTALLATION DATE 21-May-08

LOCATION Roxana, Illinois



(1) DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 46.45 FEET.*

(2) DEPTH TO BOTTOM OF SEAL (IF INSTALLED) N/A FEET.*

(3) DEPTH TO TOP OF SEAL (IF INSTALLED) N/A FEET.*

(4) LENGTH OF WELL SCREEN 15 FEET.
SLOT SIZE 0.010 INCHES.

(5) TOTAL LENGTH OF RISER PIPE 31.20 FEET AT 1 INCH DIAMETER.

(6) TYPE OF PACK AROUND WELL POINT OR SLOTTED PIPE Native Sand.

(7) CONCRETE CAP? (YES) NO (CIRCLE ONE)

(8) DEPTH TO TOP OF INNER CASING BELOW GROUND SURFACE 0.25 FEET.

(9) TYPE OF UPPER BACKFILL High solids bentonite grout.

(10) BOREHOLD DIAMETER 2.125 INCHES.

(11) DEPTH TO GROUNDWATER 33.88 FEET BTOC ON 5/22/08.

(12) TOTAL DEPTH OF BOREHOLE 48 FEET.*

(13) TYPE OF LOWER BACKFILL Native soil (cave in).

(14) PIPE MATERIAL Schedule 40 PVC.

(15) SCREEN MATERIAL Schedule 40 PVC.

* (DEPTH FROM GROUND SURFACE)

MONITOR WELL INSTALLATION DETAILS

URS Corporation

FLUSH MOUNT MONITORING WELL CONSTRUCTION DIAGRAM

GROUND SURFACE ELEVATION 432.75

TOP OF INNER WELL CASING ELEVATION 432.42

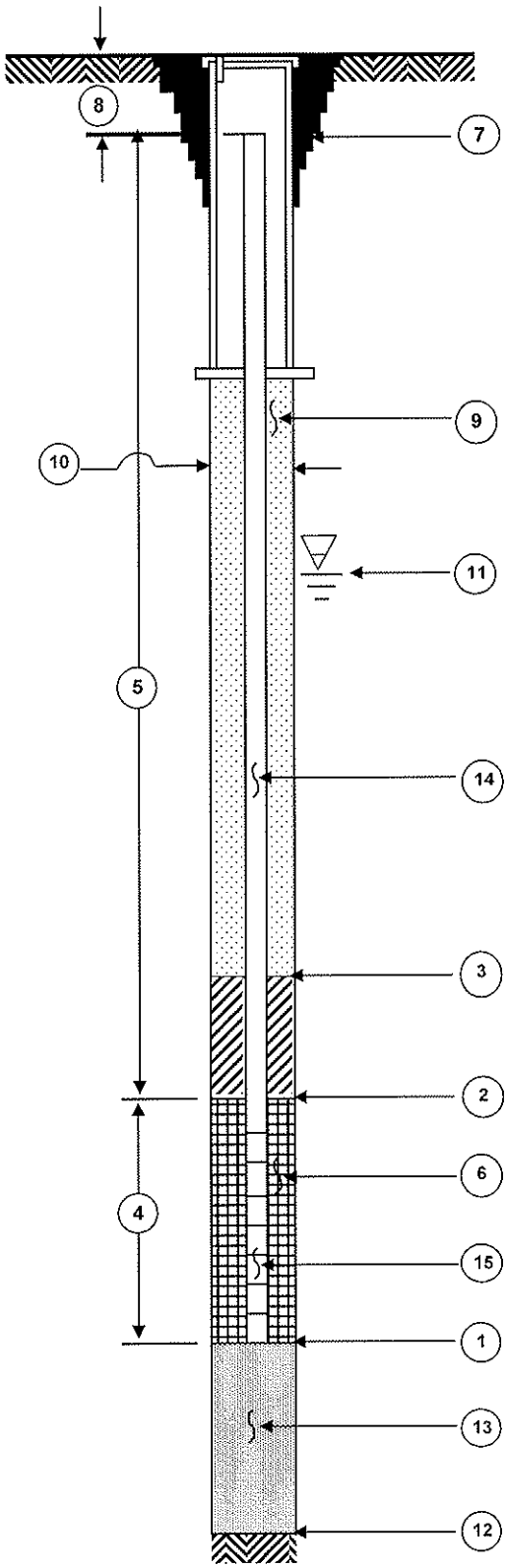
DATUM NAVD 88 - 1988 USGS Datum

JOB NUMBER 21561979

BORING NUMBER B-6

INSTALLATION DATE 19-May-08

LOCATION Roxana, Illinois



(1) DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 49.75 FEET.*

(2) DEPTH TO BOTTOM OF SEAL (IF INSTALLED) N/A FEET.*

(3) DEPTH TO TOP OF SEAL (IF INSTALLED) N/A FEET.*

(4) LENGTH OF WELL SCREEN 15 FEET.
SLOT SIZE 0.010 INCHES.

(5) TOTAL LENGTH OF RISER PIPE 34.42 FEET AT 1 INCH DIAMETER.

(6) TYPE OF PACK AROUND WELL POINT OR SLOTTED PIPE Native Sand.

(7) CONCRETE CAP? (YES) NO (CIRCLE ONE)

(8) DEPTH TO TOP OF INNER CASING BELOW GROUND SURFACE 0.33 FEET.

(9) TYPE OF UPPER BACKFILL High solids bentonite grout.

(10) BOREHOLD DIAMETER 2.125 INCHES.

(11) DEPTH TO GROUNDWATER 36.60 FEET BTOC ON 5/22/08.

(12) TOTAL DEPTH OF BOREHOLE 50 FEET.*

(13) TYPE OF LOWER BACKFILL Native soil (cave in).

(14) PIPE MATERIAL Schedule 40 PVC.

(15) SCREEN MATERIAL Schedule 40 PVC.

* (DEPTH FROM GROUND SURFACE)

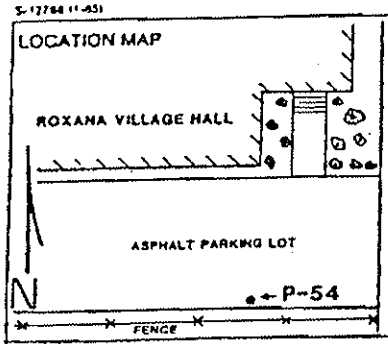
MONITOR WELL INSTALLATION DETAILS

URS Corporation

S-12764 (1-85)

SHELL OIL COMPANY — WELL LOG

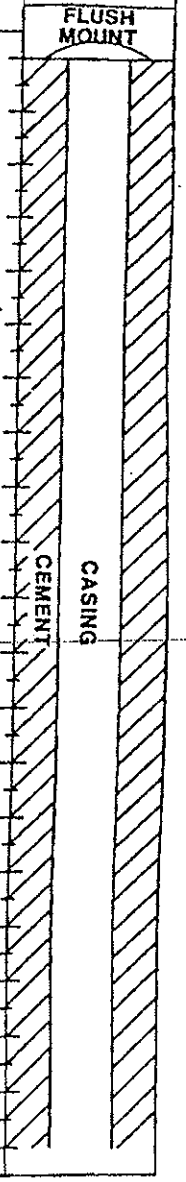
PAGE 1 OF 4



WELL NUMBER: P-54	LOCATION: Roxana Village Hall Southern Parking Lot
DATE: 03-29-89	WEATHER: Cloudy, low 70s
LOGGED BY: R. Chapin & J. Pawlik	DRILLED BY: Mathes Drilling
DRILLING METHOD: 4 1/4" Hollow-Stem Auger	SAMPLING METHOD: 1 1/2" split spoon
GRAVEL PACK: 63' to 36' (27') MB40 Sand	SEAL: 36' to 34' (2') Bentonite; 34' to surface (34') cement
CASING: TYPE Schedule 40 PVC	DIAMETER 2" LENGTH 38' HOLE DIA 8 1/4"
SCREEN: TYPE Schedule 40 PVC	SLOT 0.01" DIAMETER 2" LENGTH 2.5' TOTAL DEPTH 63'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
dry	poor	loose				0			0.00'-0.06' FILL, crush lime rock and asphalt.
damp		soft	sl. plas	1	0.8	4	1.11	2, 3	0.06'-0.58' CLAY, mottled dark brown and gray, silty.
damp		soft	sl. plas			5		5	0.58-1.11' CLAY, mottled dark brown and red brown, silty.
damp	mod.	loose		2	1.0	9	0.51	3, 5, 4	0.00'-0.51' SAND, dark brown, very fine-to fine-grained.
damp		soft	sl. plas.						0.00'-0.18' CLAY, light brown to tan, some orange layers, silty, and sandy.
damp	mod.	loose		3	0.4	4	1.18	2, 5, 7	0.18'-0.70' SAND, tan, fine-to very fine-grained, slightly silty.
damp	mod.	loose							0.70'-0.74' CLAY, light brown to tan, sandy.
damp	mod.	loose				5			0.74'-1.18' SAND, light tan to tan, fine-to very fine-grained.
damp	mod.	loose							0.00'-0.18' SAND, tan to brown, fine-grained, silty.
damp	mod.	loose							0.18'-0.45' SAND, dirty white to tan, fine-grained.
damp	mod.	loose				8			0.45'-0.65' SAND, layered tan and orange, fine-to very fine-grained, slightly silty.
damp		soft	sl. plas.	4	0.4	9	0.85	4, 4, 4	0.65'-0.85' CLAY, light tan, silty, sandy.

WELL COMPLETION



S-12788-11-451

SHELL OIL COMPANY — WELL LOG

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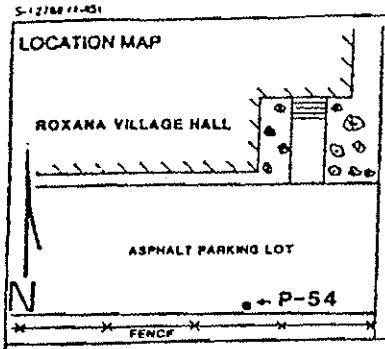
LOCATION MAP



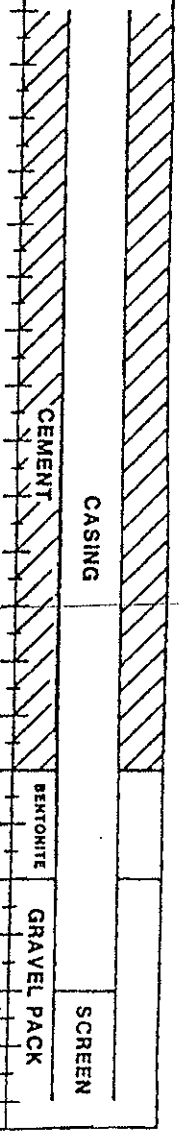
WELL NUMBER: P-54	LOCATION: Roxana Village Hall Southern Parking Lot
DATE: 03-29-89	WEATHER: Cloudy, low 70s
LOGGED BY: R. Chapin & J. Paulik	DRILLED BY: Mathes Drilling
DRILLING METHOD: 4 1/4" Hollow-Stem Auger	SAMPLING METHOD: 18" split spoon
GRAVEL PACK: 63' to 36' (27') MB40 sand	SEAL: 36' to 34' (2') Bentonite; 34' to surface (34') Cement

CASING: TYPE Schedule 40 PVC — DIAMETER 2" — LENGTH 38' — HOLE DIA 8 1/4"

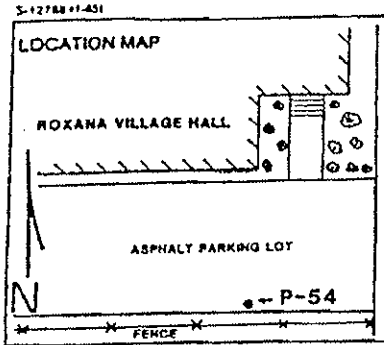
SCREEN: TYPE Schedule 40 PVC — SLOT 0.01" — DIAMETER 2" — LENGTH 25' — TOTAL DEPTH 63'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
damp	mod.	loose		5	0.2	4	1.5'	4 5 8	0.00'-1.50' SAND, light tan, fine-to medium-grained, rounded to subround grains.
damp	mod. well	loose		6	0.6	9	1.26	5 8 10	0.00'-0.80' SAND, yellow to tan, fine-to medium-grained composed of clear, white, black, red and orange, rounded grains, possible yellow staining.
damp	mod. well	loose				10			0.80-1.22' SAND, light tan to white, medium-grained, increase in white and clear grains.
damp	mod. well	loose							0.00'-0.45' SAND, light gray to white, medium-to coarse-grained.
damp	mod. well	loose		7	0.4	4	1.26	5 8 11	0.45'-1.14' SAND, light tan to light gray, orange and tan grains increasing percentages, which gives sand a tan color.
damp	mod. well	loose				5			1.14'-1.26' SAND, tan, medium-grained, orange and tan grains becoming dominate.
moist	mod.	loose				7			0.00'-0.15' SAND, tan to orange, medium-grained.
moist	mod.	loose							0.15'-0.23' SAND, light gray, medium-grained, white and clear grains predominate.
moist	mod.	loose				8			0.23'-0.26' SAND, dark gray to black, composed of 45% black organic material, appears to be natural.
moist	mod.	loose							0.26'-0.76' SAND, light gray, medium-to coarse-grained.
moist	mod.	loose		8	0.4	9	1.35'	8 10 10	0.76'-1.35' SAND, light tan to white, coarse-grained.
						40			

WELL COMPLETION



S-12788 (1-85)



SHELL OIL COMPANY — WELL LOG

WELL NUMBER	P-64	LOCATION	Roxana Village Hall Southern Parking Lot
DATE	03-29-89	WEATHER	Cloudy, low 70's
LOGGED BY	R. Chapin & J. Pawlik	DRILLED BY	Mathes Drilling
DRILLING METHOD	4 1/4" Hollow-Stem Auger	SAMPLING METHOD	18" Split Spoon
GRAVEL PACK	63' to 36' (27') MB40 sand	SEAL	36' to 34' (2') Bentonite 34' to surface (34') cement

CASING TYPE Schedule 40 PVC DIAMETER 2" LENGTH 38' HOLE DIA 8 1/4"

SCREEN TYPE Schedule 40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
						40				
						1				
						2				
						3				
moist	mod. well	loose to med. dense		9	0.8	4	1.29'	6 12 15	0.00-1.29' SAND, light gray, medium-to coarse-grained, composed of clear, white, black, red, and orange, rounded grains.	
						5				
						6				
						7				
						8				
sat.	well	med. dense		10	1.0	9	1.19'	10 21 29	0.00'-1.19' SAND, light gray, coarse-grained.	GRAVEL PACK SCREEN
						50				
						1				
						2				
						3				
sat.	well	loose to med. dense		11	0.3	4	1.50'	6 13 22	0.00'-1.50' SAND, gray, coarse-grained, rounded grains.	
						5				
						6				
						7				
						8				
sat.	well	loose		12	1.1	9	1.50'	6 11 17	0.00'-1.50' SAND, light to medium gray, coarse-to medium-grained.	
						60				

S-12788 11-85)

SHELL OIL COMPANY — WELL LOG

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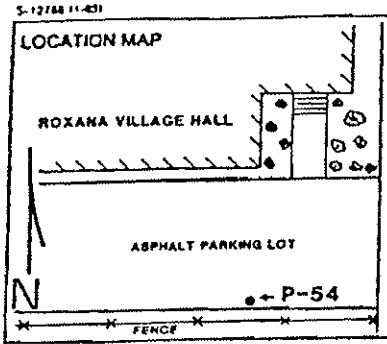
LOCATION MAP



WELL NUMBER: P-54	LOCATION: Roxana Village Hall Southern Parking Lot
DATE: 03-29-89	WEATHER: Cloudy, low 70s
LOGGED BY: R. Chapin & J. Pavlik	DRILLED BY: Mathes Drilling
DRILLING METHOD: 4 1/4" Hollow-Stem Auger	SAMPLING METHOD: 18" Split Spoon
GRAVEL PACK: 63' to 36' (27') MB40 sand	SEAL: 36' to 34' (2') Bentonite; 34' to surface (34') cement

CASING: TYPE Schedule 40 PVC; DIAMETER 2"; LENGTH 38'; HOLE DIA 8 1/4"

SCREEN: TYPE Schedule 40 PVC; SLOT 0.01"; DIAMETER 2"; LENGTH 25'; TOTAL DEPTH 63'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
						60				GRAVEL PACK / SCREEN
						1				
						2				
						3			NO SAMPLE TAKEN 63.5' - 65'	
						4				
						5				
						6				
						7				
						8				
						9				
						70				TD
						1				
						2				
						3				
						4				
						5				
						6				
						7				
						8				
						9				
						80				

SHELL OIL COMPANY — WELL LOG

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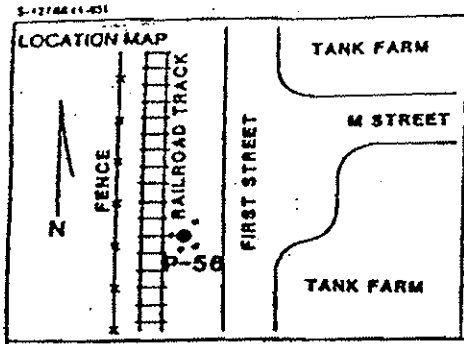
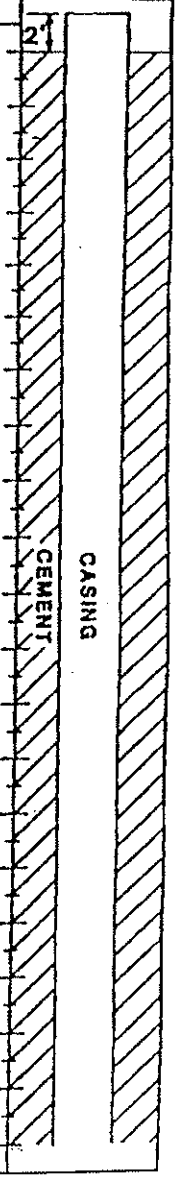


WELL NUMBER	F-56	LOCATION	North Property West Fence Line
DATE	4-2-89	WEATHER	Raining, 50's
LOGGED BY	J. Pavlik	DRILLED BY	Mathes Drilling
DRILLING METHOD	4 1/4" Hollow-Stem Auger	SAMPLING METHOD	18" Split Spoon
GRAVEL PACK	63.5' to 36.5' (27') #840 sand	SEAL	36.5' to 34.5' (2') Bentonite 34.5' to 0' (34.5') cement
CASING TYPE	Schedule 40 PVC	DIAMETER	2"
CASING LENGTH	38.5'	HOLE DIA	8 1/4"
SCREEN TYPE	Schedule 40 PVC	SLOT	0.01"
SCREEN DIAMETER	2"	SCREEN LENGTH	25'
		TOTAL DEPTH	63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist		v soft	plas.	1	704	0–4	1.50'	0 1 2	0.00' – 1.50' CLAY, dark black, some very fine-grained sand, strong hydrocarbon odor.
moist	v well	v loose		2	647	8–10	0.95'	1 2 3	0.00' – 0.95' SAND, dark brown, very fine-grained.
moist	v well	loose		3	109	4–5	1.30'	5 9 7	0.00'– 1.30' SAND, tan, fine-grained.
moist		v sofc	plas.	4	782	5–20	0.75'	2 1 2	0.00' – 0.75' CLAY, gray with thin laminations of brown, fine-grained sand.

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG

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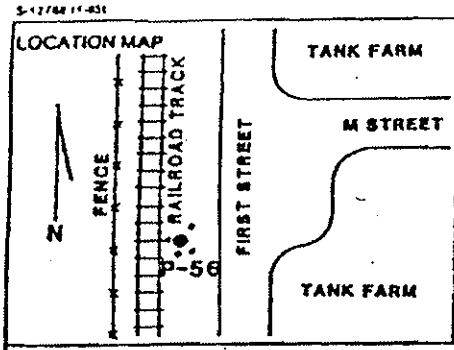
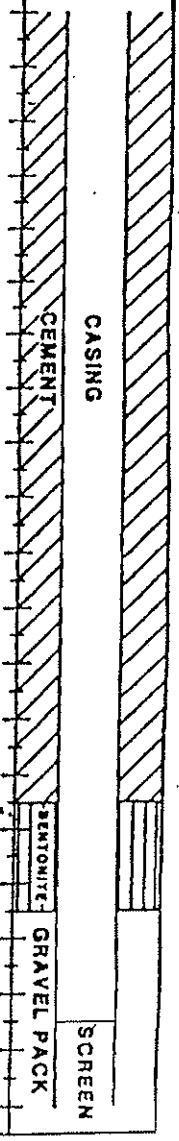


WELL NUMBER: P-56	LOCATION: North Property West Fence Line
DATE: 4-2-89	WEATHER: Raining, 50's
LOGGED BY: J. Paulik	DRILLED BY: Maches Drilling
DRILLING METHOD: 4 1/4" Hollow Stem Auger	SAMPLING METHOD: 18" Split Spoon
GRAVEL PACK: 63.5' to 36.5' (27') #3460 sand	SEAL: 36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement
CASING: TYPE Schedule 40 PVC	DIAMETER 2" LENGTH 38.5' HOLE DIA 8 1/4"
SCREEN: TYPE Schedule 40 PVC	SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod.	loose		5	565	4	1.50'	4 6 8	0.00' - 1.50' SAND, tan, fine- to medium-grained, subangular to angular grains.
moist	mod.	loose		6	775	9	1.50'	6 9 12	0.00' - 1.50' SAND, tan, fine- to medium-grained, black laminations, subrounded grains, hydrocarbon ordor.
moist	mod.	loose		7	290	4	1.50'	1 5 7	0.00' - 1.50' SAND, tan, medium-grained, trace of fine gravel, subrounded grains, black laminations, hydrocarbon odor.
moist	mod.	loose		8	811	9	1.50'	3 3 1	0.00' - 1.50' SAND, tan, medium-grained, trace of coarse-grained sand and fine-gravel, subrounded to rounded grains, black vertical streaking, hydrocarbon odors.

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG

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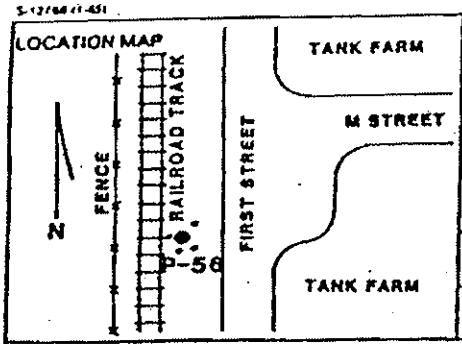


WELL NUMBER ▶ P-56	LOCATION ▶ North Property West Fence Line
DATE ▶ 4-2-89	WEATHER ▶ Raining, 50's
LOGGED BY ▶ J. Pawlik	DRILLED BY ▶ Hathes Drilling
DRILLING METHOD ▶ 4 1/4" Hollow-Stem Auger	SAMPLING METHOD ▶ 18" Split Spoon
GRAVEL PACK ▶ 63.5' to 36.5' (27') MR40 sand	SEAL ▶ 36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement

CASING ▶ TYPE Schedule 40 PVC DIAMETER 2" LENGTH 38.5' HOLE DIA 8 1/4"

SCREEN ▶ TYPE Schedule 40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod.	med. dense		9	627	4	1.50'	6 11 17	0.00' - 1.50' SAND, gray, medium-grained, subrounded grains, black laminations, hydrocarbon odors.
wet	mod.	med. dense		10	685	9	1.50'	18 27 33	0.00' - 1.50' SAND, gray, medium-grained, trace of coarse-grained, subrounded grains, black lamination hydrocarbon odor and hydrocarbon sheen.
sat.	poor	med. dense		11	300	4	1.50'	8 33 29	0.00' - 1.50' SAND, gray, medium- and coarse-grained, trace of fine gravel, subrounded to rounded grains, hydrocarbon odor and hydrocarbon sheen.
sat.	poor	med. dense		12	749	9	1.50'	6 14 23	0.00' - 1.50' SAND, gray, medium- to coarse-grained, trace of fine-gravel, hydrocarbon odor, and hydrocarbon sheen.

WELL COMPLETION

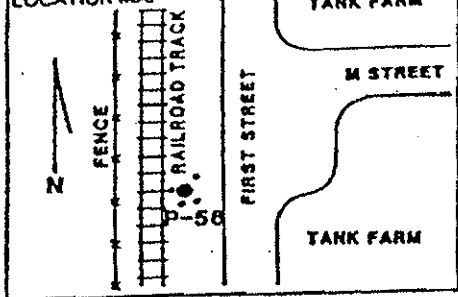
GRAVEL PACK

SCREEN

SHELL OIL COMPANY — WELL LOG

PAGE 1 OF 4

LOCATION MAP



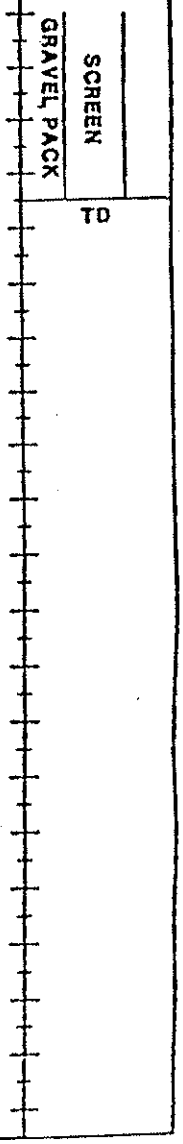
WELL NUMBER ▶ P-56	LOCATION ▶ North Property West Fence Line
DATE ▶ 4-2-89	WEATHER ▶ Raining, 50's
LOGGED BY ▶ J. Pavlik	DRILLED BY ▶ Haches Drilling
DRILLING METHOD ▶ 4 1/4" Hollow-Stem Auger	SAMPLING METHOD ▶ 18" Split Spoon
GRAVEL PACK ▶ 63.5' to 36.5' (27') MB40 sand	SEAL ▶ 36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement

CASING ▶ TYPE Schedule 40 PVC DIAMETER 2" LENGTH 38.5' HOLE DIA 8 1/4"

SCREEN ▶ TYPE Schedule 40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63.5'

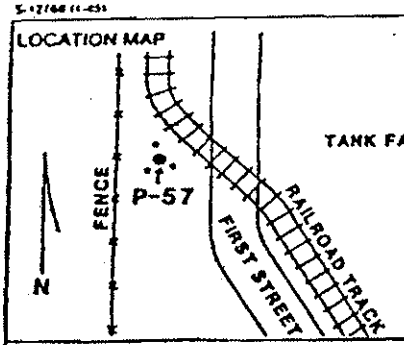
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
wet	poor	mod.		13	749	4	1.50'	8 19 26	0.00' - 1.50' SAND, medium- to coarse-grained, trace of fine-gravel, rounded to subrounded grains, hydrocarbon sheen.

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG

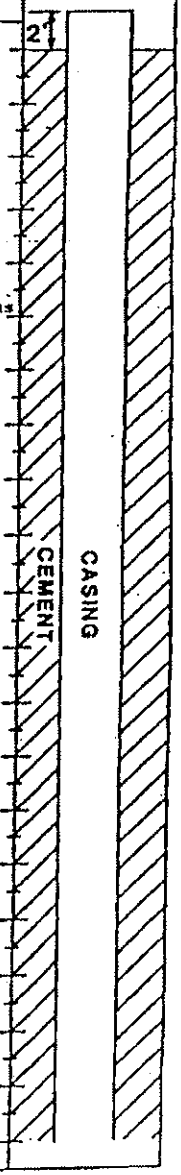
LOCATION MAP



WELL NUMBER: P-57	LOCATION: North Property West Fence Line
DATE: 4-1-89	WEATHER: Sunny, 40's
LOGGED BY: J. Pawlik	DRILLED BY: Mathes Drilling
DRILLING METHOD: 4 1/4" Hollow-Stem Auger	SAMPLING METHOD: 18" Split Spoon
GRAVEL PACK: 63.5' to 36.5' (27') NB40 sand	SEAL: 36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement
CASING: TYPE Schedule 40 PVC	DIAMETER 2" LENGTH 38.5'
SCREEN: TYPE Schedule 40 PVC	SLOT 0.01" DIAMETER 2" LENGTH 25'
HOLE DIA 8 1/4"	TOTAL DEPTH 63.5'

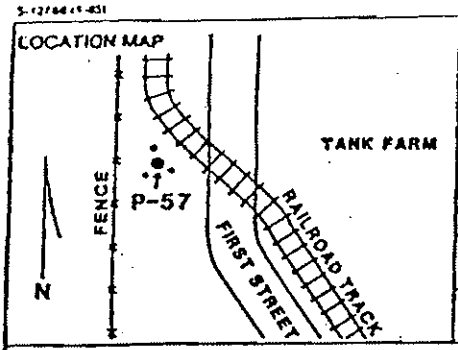
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist		soft	plas	1	1.5	4	1.00'	1 3	0.00'-0.85' CLAY,brown-orange,black streaks.
moist	v. well		v. loose			5		5	0.00'-1.00' SAND,tan,very fine-grained,subangular grains, silty.
moist		soft	plas	2	399	8	1.40'	2 2 2	0.00'-0.20' CLAY,dark gray. 0.20'-1.40' SAND,tan,fine grained.
moist	well	loose		3	588	4	2.20'	1 2 3	0.00'-1.20' SAND,tan to light brown,fine-grained, subangular to subrounded grains, slight hydrocarbon odor.
moist	well	loose		4	635	8	1.04'	3 4	0.00'-0.85' SAND,tan,fine-grained,subangular to subrounded grains.
moist		soft	plas			20		3	

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG

PAGE 2 OF 2



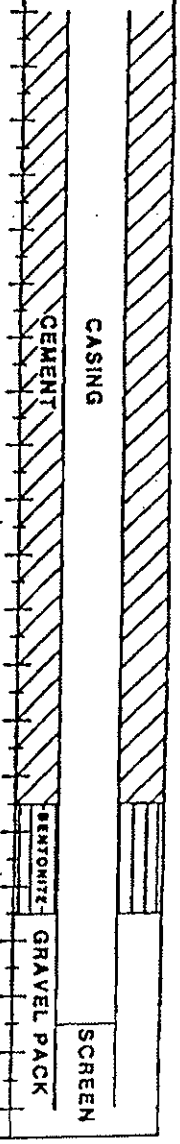
WELL NUMBER	P-57	LOCATION	North Property West Fence Line
DATE	4-1-89	WEATHER	Sunny, 40's
LOGGED BY	J. Pavlik	DRILLED BY	Mathes Drilling
DRILLING METHOD	4 1/4" Hollow-Stem Auger	SAMPLING METHOD	18" Split Spoon
GRAVEL PACK	63.5' to 36.5' (27') MB40 sand	SEAL	36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement

CASING: TYPE Schedule 40 PVC; DIAMETER 2"; LENGTH 38.5'; HOLE DIA 8 1/4"

SCREEN: TYPE Schedule 40 PVC; SLOT 0.01"; DIAMETER 2"; LENGTH 25'; TOTAL DEPTH 63.5'

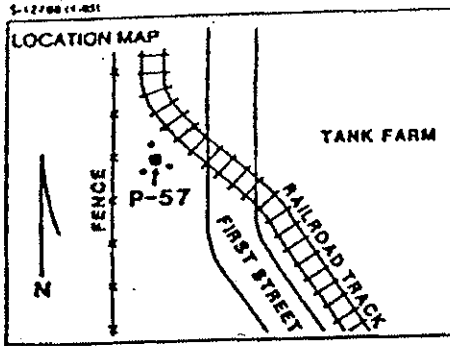
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	well	loose		5	174	4	1.25'	2, 3, 4	0.00'-1.25' SAND,tan,fine-grained,subrounded grains, black laminations throughout.
moist		soft	plas	6	367	9	1.50'	1	0.00'-1.08' CLAY,mottled olive green & orange.
moist	well	loose						5	1.08'-1.34' SAND,brown,medium grained,subrounded grains.
moist		soft	plas					3	1.34'-1.50' CLAY,brown.
moist	poor	loose		7	441	4	1.25'	3, 8, 9	0.00'-1.25' SAND,tan,fine-to medium grained,subrounded grains.
wet	poor	loose		8	681	9	1.50'	1	0.00'-0.45' SAND,brown to olive green,medium-to fine-grained,subrounded grains,hyrdocarbon odor.
moist		soft	plas					9	0.45'-0.60' CLAY,dark olive.
damp	well	loose				40		10	0.60'-1.50' SAND,orange-brown,fine-grained,subrounded grains.

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG

PAGE 3 OF 4



WELL NUMBER: P-57	LOCATION: North Property West Fence Line
DATE: 4-1-89	WEATHER: Sunny, 40's
LOGGED BY: J. Pavlik	DRILLED BY: Mathes Drilling
DRILLING METHOD: 4 1/4" Hollow-Stem Auger	SAMPLING METHOD: 18" Split Spoon
GRAVEL PACK: 63.5' to 36.5' (27') #2840 sand	SEAL: 36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement

CASING: TYPE Schedule 40 PVC; DIAMETER 2"; LENGTH 38.5'; HOLE DIA 8 1/4"

SCREEN: TYPE Schedule 40 PVC; SLOT 0.01"; DIAMETER 2"; LENGTH 25'; TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						40			
						1			
						2			
						3			
moist	mod.	loose				4		3	0.00'-0.70' SAND,gray,fine-grained,subangular grains, hydrocarbon odor.
moist	mod.	loose	9	1041			1.50'	7	
						5		8	0.70'-1.50' SAND,brown,medium-grained,trace fine-gravel, subangular to subrounded grains,hydrcarbon odor.
						6			
						7			
						8			
						9		8	
moist	mod.	med.	10	828			1.50'	10	0.00'-1.50' SAND,brown,fine-to medium-grained,trace of fine-gravel,subangular to subrounded grains, hydrocarbon odor.
						60		24	
						1			
						2			
						3			
						4		7	0.00'-1.40' SAND,dark brown,medium-grained,subrounded grains,hydrocarbon odor.
sat.	mod.	med.	11	630			1.50'	15	
sat.	mod.	med.				5		26	1.40'-1.50' SAND,black,medium-grained,trace of fine-gravel,subrounded grains,hydrocarbon odor.
						6			
						7			
						8			
						9		3	
sat.	poor	loose	12	729			1.50'	9	0.00'-1.50' SAND,brown,medium-grained,trace fine-gravel, subrounded to rounded grains,hydrocarbon odor.
						60		13	

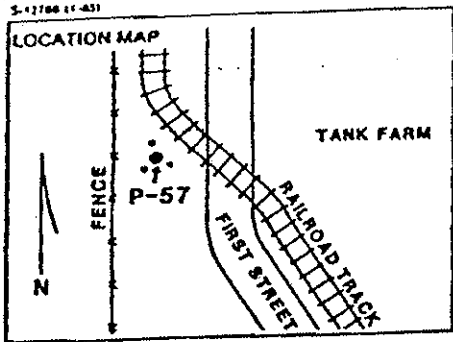
WELL COMPLETION

GRAVEL PACK

SCREEN

SHELL OIL COMPANY — WELL LOG

LOCATION MAP



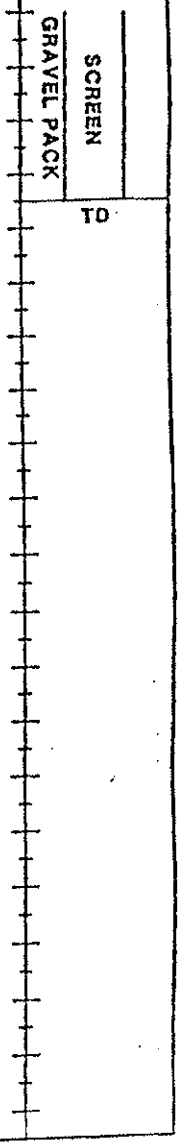
WELL NUMBER: P-57	LOCATION: North Property West Fence
DATE: 4-1-89	WEATHER: Sunny, 40's
LOGGED BY: J. Pavlik	DRILLED BY: Mathes Drilling
DRILLING METHOD: 4 1/4" Hollow Stem Auger	SAMPLING METHOD: 18" Split Spoon
GRAVEL PACK: 63.5' to 36.5' (27') M840 sand	SEAL: 36.5' to 34.5' (2') Bentonite; 34.5' to 0' (34.5') cement

CASING: TYPE Schedule 40 PVC DIAMETER 2" LENGTH 38.5' — HOLE DIA 8 1/4"

SCREEN: TYPE Schedule 40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' — TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TVP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
sat.	poor	v. loose		13	695	4	1.50'	2 1 2	0.00'-1.50' SAND, dark gray, medium-to coarse-grained, rounded to subrounded grains, traces of angular fine-gravel, hydrocarbon odor.

WELL COMPLETION

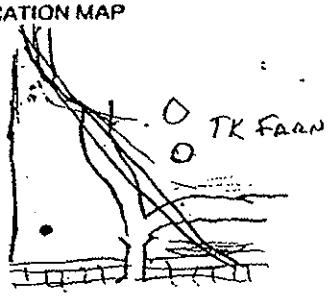


S-12788 (1-85)

SHELL OIL COMPANY — WELL LOG

PAGE 1 OF 4

LOCATION MAP



ELEVATION ▶

WELL NUMBER ▶ ES P-58 4	LOCATION ▶ NORTH PROP., SO. CORNER
DATE ▶ 3-30-89	WEATHER ▶ CLOUDY, RAINING, 50's
LOGGED BY ▶ JP	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8" Hollow Stem Auger	SAMPLING METHOD ▶ 18" SPLIT SPOON
GRAVEL PACK ▶ 63.5'-36.5' = 27'	SEAL ▶ 36.5-34.5 = 2' 34.5-0 = 34.5'

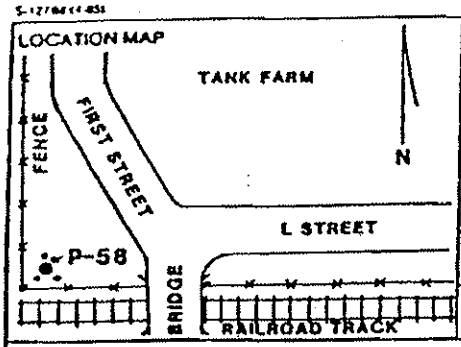
CASING ▶ TYPE S-40 PVC DIAMETER 2" LENGTH 38.5' HOLE DIA 8"

SCREEN ▶ TYPE S-40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
moist		soft	plastic	1	4	1.5	1 3 3	0 → 0.6 – light brown clay 0.6 → 1.5 – Olive green clay, black streaking	
moist		soft	plastic	15.3	5				
moist	very well	loose		2	9	1.0	3 4 4	0 – 0.4 – brown vfg sd. slightly silty 0.4 – 0.6 – Olive clay, silty 0.6 – 1.0 – tan, vfg sd	
moist	med. well	med.	plastic	10.8					
moist	very well	loose			10				
moist	very well	loose		3	4	0.97	5 5 7	0 – 0.7 – Tan sand, vfg, black streaking throughout 0.7 – 0.97 – tan sand, vfg, some streaking	
moist	very well	very loose		50.4	5				
moist	well	loose		4	9	1.15	5 7	0 – 1.15 – tan sand, medium grain, subangular → subrounded	
				9.1					

SHELL OIL COMPANY — WELL LOG

PAGE 1 OF 4



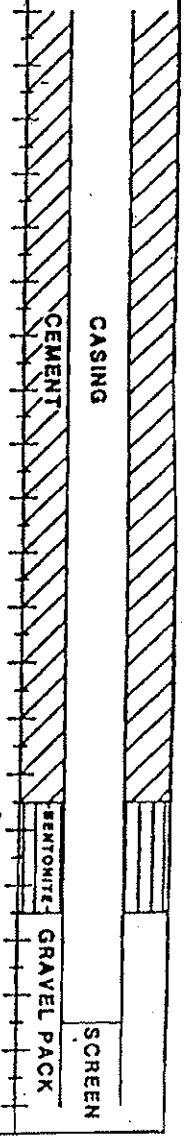
WELL NUMBER	P-58	LOCATION	North Property Southwest Corner
DATE	3-30-89	WEATHER	Cloudy, Raining 50's
LOGGED BY	J. Pawlik	DRILLED BY	Mathes Drilling
DRILLING METHOD	4 1/4" Hollow-Stem Auger	SAMPLING METHOD	18" Split Spoon
GRAVEL PACK	61.5' to 36.5' (27') MB40 sand	SEAL	36.5' to 34.5' (2') Benconite; 34.5' to 0' (34.5') cement
CASING TYPE	Schedule 40 PVC	DIAMETER 2"	LENGTH 38.5'
SCREEN TYPE	Schedule 40 PVC	SLOT 0.01" DIAMETER 2"	LENGTH 25'

HOLE DIA 8 1/4"

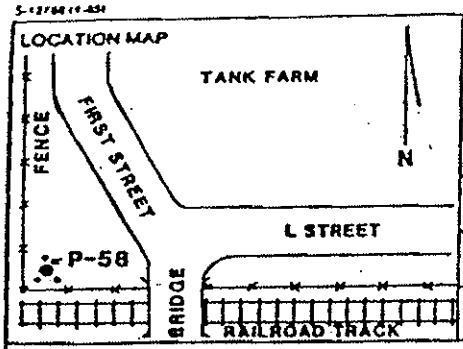
TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	well	loose		5	24.8	4	1.50'	7 11	0.00'-0.30' SAND,tan,medium-grained,subangular to subrounded grains,contains black streaks.
moist	well	med.				5		11	0.30'-1.50' SAND,tan,medium-grained,subangular to subrounded grains.
						6			
						7			
						8			
moist	v.	v. soft	sl plas	6	71.1	9	1.25'	1 11	0.00'-0.80' CLAY,mottled light brown & olive. 0.80'-1.25' SAND,tan,very fine-grained,organic material showing bedding plane laminations.
moist	well	med.				10		11	
						1			
						2			
						3			
moist	v. well	med.		7	18.6	4	1.50'	4 9	0.00'-0.50' SAND,dark brown,very fine-grained.
moist	well	med.				5		12	0.50'-1.50' SAND,dark brown,medium-grained,subangular to grains.
						6			
						7			
						8			
moist	well	loose		8	232	9	1.00'	5 11	0.00'-0.20' SAND,olive,medium-grained,subangular to subrounded grains.
moist	well	med.				40		11	0.20'-1.00' SAND,dark brown,medium-grained,subangular to subrounded grains.

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG



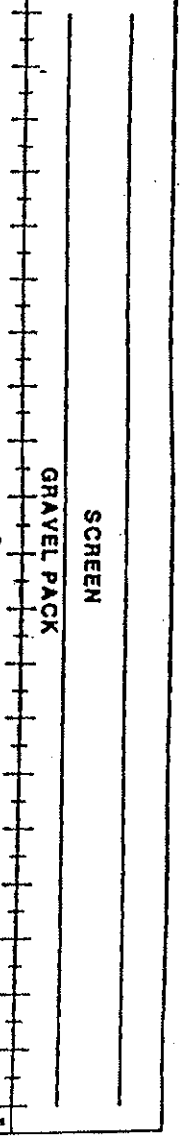
WELL NUMBER	P-58	LOCATION	North Property Southwest Corner
DATE	3-30-89	WEATHER	Cloudy, Raining, 50's
LOGGED BY	J. Paulik	DRILLED BY	Mathes Drilling
DRILLING METHOD	4 1/4" Hollow-Stem Auger	SAMPLING METHOD	18" Split Spoon
GRAVEL PACK	60' to 36.5' (27') NH40 sand	SEAL	36.5' to 34.5' (2') Bentonite 34.5' to 0' (34.5') cement

CASING ▶ TYPE Schedule 40 PVC DIAMETER 2" LENGTH 38.5' HOLE DIA 8 1/4"

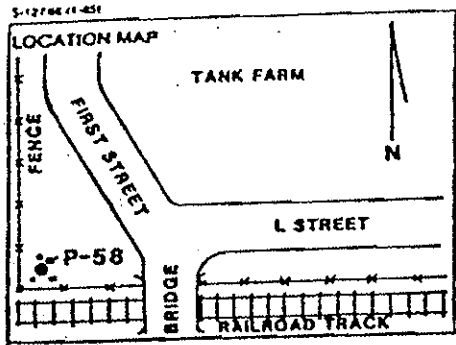
SCREEN ▶ TYPE Schedule 40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	poor	med.		9	725	4	1.50'	5 16 18	0.00'-1.50' SAND,dark brown,medium-to coarse-grained, subangular to subrounded grains,trace of fine-gravel,hydrocarbon odor.
wet	poor	med.		10	989	9	1.25'	12 21	0.00'-0.20' SAND,dark brown,medium-to coarse-grained, subangular to subrounded grains,trace of fine-gravel,gas odor.
wet	well	med.				60		25	0.20'-1.25' SAND,dark brown,medium-grained,subangular to subrounded grains,gas odor.
sat.	poor	loose		11	120	4	1.5'	6 3	0.00'-1.25' SAND,dark brown,medium-to coarse grained, subrounded grains,trace of angular,fine-gravel,gas odor.
wet		med.	plas			5		5	1.25'-1.50' CLAY,dark green.
sat.	poor	loose				8		4	0.00'-0.55' SAND,dark brown,medium-to fine-grained, subrounded grains.
sat.	well	loose		12	45.7	9	1.5'	6	0.55'-1.00' SAND,dark brown,very fine-grained,silty.
sat.	well	loose				60		10	1.00'-1.50' SAND,dark brown,very fine-grained, silty, laminated with thin beds of organic materials

WELL COMPLETION



SHELL OIL COMPANY — WELL LOG



WELL NUMBER	P-58	LOCATION	North Property Southwest Corner
DATE	1-30-89	WEATHER	Cloudy, Raining. 50's
LOGGED BY	J. Pavlik	DRILLED BY	Maches Drilling
DRILLING METHOD	4 1/4" Hollow-Stem Auger	SAMPLING METHOD	18" Split Spoon
GRAVEL PACK	63.5 to 36.5 (27') #840 sand	SEAL	36.5' to 34.5' (2') Bentonite 34.5' to 0' (34.5') cement

CASING ▶ TYPE Schedule 40 PVC DIAMETER 2" LENGTH 38.5' HOLE DIA 8 1/4"

SCREEN ▶ TYPE Schedule 40 PVC SLOT 0.01" DIAMETER 2" LENGTH 25' TOTAL DEPTH 63.5'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
sat.	poor	med.		13	51.3	0 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20	1.5'	5 13 18	0.00'-1.50' SAND, dark brown, medium-to coarse-grained, subrounded grains.

WELL COMPLETION

GRAVEL PACK

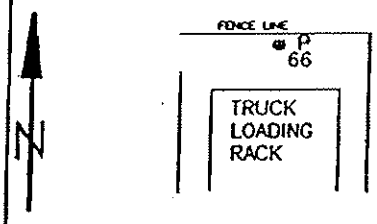
SCREEN

TD

T.O.W. 437.46

37746-402.46

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

WELL NUMBER ▶ P-66	LOCATION ▶ LOADING RACK
DATE ▶ 9-27-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP.60'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 6.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 60'-33'(27') WB-40 Sd	SEAL ▶ 33'-31' BENTONITE 31'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 2" LENGTH 35' HOLE DIA. 8"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 2" LENGTH 25' TOTAL DEPTH 60'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod	vloose		1	7.6	0-4	1.50	0, 0, 0, 0	0.0'-1.50' Sand, very fine-grained, gray, very silty. * Split-spoon pushed for 3'-5' sample.
moist	mod	vloose		2	7.3	8-9	1.55	1, 1, 1, 1	0.0'-1.02' Sand, very fine-grained, gray, very silty.
moist	mod	vloose							1.02'-1.55' Sand, fine-grained, tan, black laminations.
wet	mod	loose		3	3.6	13-14	0.75	4, 8, 10, 11	0.0'-0.25' Sand, very fine-grained, tan, very silty.
moist	mod	loose							0.25'-0.75' Sand, very fine-grained, gray, black laminations.
moist	mod	loose		4	2.1	18-19	1.40	3, 6, 6, 10	0.0'-1.40' Sand, fine and medium-grained, tan.

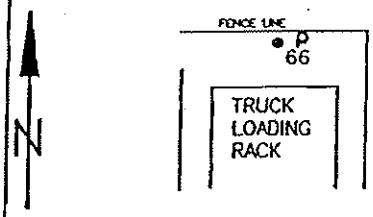
WELL COMPLETION

FLUSH MOUNT

35-60'

EXPLANATION GROUT SAND SCREEN

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

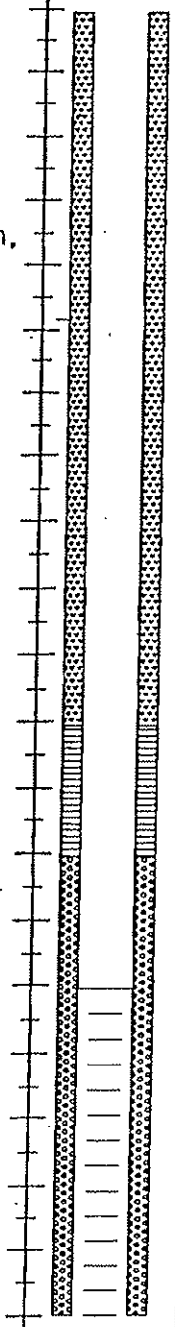
WELL NUMBER ▶ P-66	LOCATION ▶ LOADING RACK
DATE ▶ 9-27-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP.60'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 6.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 60'-33'(27') WB-40 Sd	SEAL ▶ 33'-31' BENTONITE 31'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 2" LENGTH 35' HOLE DIA. 8"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 2" LENGTH 25' TOTAL DEPTH 60'

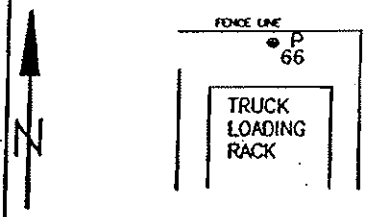
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	well	loose		5	21.3	23	1.54	2, 4, 8, 9	0.0'-1.54' Sand, medium-grained, tan, hydrocarbon odor.
moist	mod	loose		6	38.9	28	1.45	4, 8, 10, 12	0.0'-1.45' Sand, fine and medium-grained, tan, hydrocarbon odor.
moist	mod	mdense		7	350	33	1.75	6, 16, 25, 33	0.0'-1.75' Sand, medium and coarse-grained, tan, trace of fine gravel, hydrocarbon odor.
moist	mod	mdense		8	335	38	1.21	5, 10, 12, 14	0.0'-1.21' Sand, fine and medium-grained, tan, hydrocarbon odor.

WELL COMPLETION



EXPLANATION GROUT SAND SCREEN

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

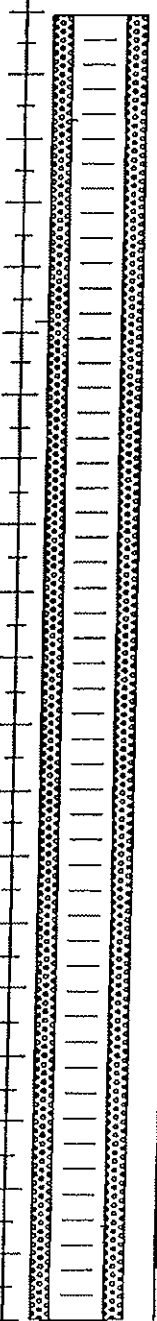
WELL NUMBER ▶ P-66	LOCATION ▶ LOADING RACK
DATE ▶ 9-27-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP.60'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 6.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 60'-33'(27') WB-40 Sd	SEAL ▶ 33'-31' BENTONITE 31'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 2" LENGTH 35' HOLE DIA. 8"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 2" LENGTH 25' TOTAL DEPTH 60'

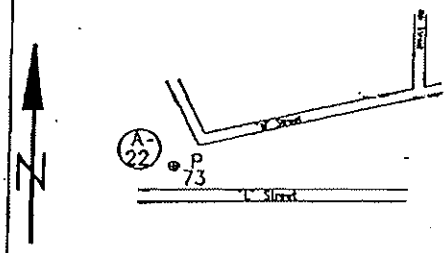
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
wet	mod	mdense		9	141	44	1.81'	5 13 18 24	0.0'-1.81' Sand, medium and coarse-grained, tan, trace of fine gravel, hydrocarbon odor.
sat	mod	mdense		10	233	49	1.78'	6 12 18 24	0.0'-1.78' Sand, fine and medium-grained, tan, some coarse-grained, trace of fine gravel, hydrocarbon odor.
sat	mod	mdense		11	107	54	2.0'	3 9 12 17	0.0'-2.0' Sand, medium and coarse-grained, tan, hydrocarbon odor.
sat	mod	mdense		12	112	59	0.70'	6 9 12 17	0.0'-0.10' Coal, black. 0.10'-0.25' Sand, medium and coarse-grained, tan. 0.25'-0.70' Sand, coarse-grained, tan, some fine and coarse gravel.

WELL COMPLETION



EXPLANATION GROUT SAND SCREEN

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

PAGE 1 OF 4

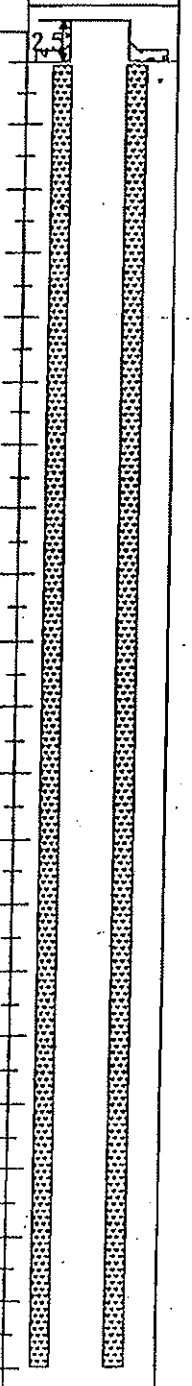
WELL NUMBER ▶ P-73	LOCATION ▶ TANK A-22
DATE ▶ 10-7-89	WEATHER ▶ CLEAR, WINDY TEMP. 50'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 65'-38'(27') WB-40 Sd	SEAL ▶ 38'-36' BENTONITE 36'-0' GROUT

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 4" LENGTH 40' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 65'

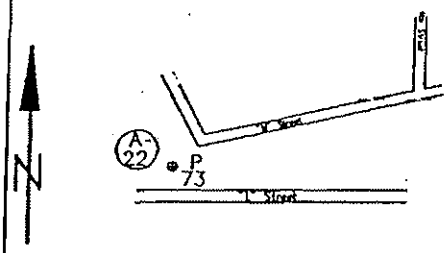
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist		soft	plastic	1	4.2	0-3	1.30	0 0 0 0	0.0'-1.30' Clay, green, very silty. * Split-spoon pushed for 3'-5' sample.
wet	well	loose		2	4.2	8-10	1.80	3 3 3 5	0.0'-1.80' Sand, very fine-grained, dark brown grading to black, very silty, hydrocarbon odor.
moist	well	loose		3	2.5	13-15	1.80'	3 5 5 6	0.0'-1.80' Sand, very fine-grained, tan, black mottled, very silty, hydrocarbon odor.
moist	mod	loose		4	3.1	18-20	1.42	4 4 6 7	0.0'-1.42' Sand, very fine-grained, some fine-grained, tan, hydrocarbon odor.

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

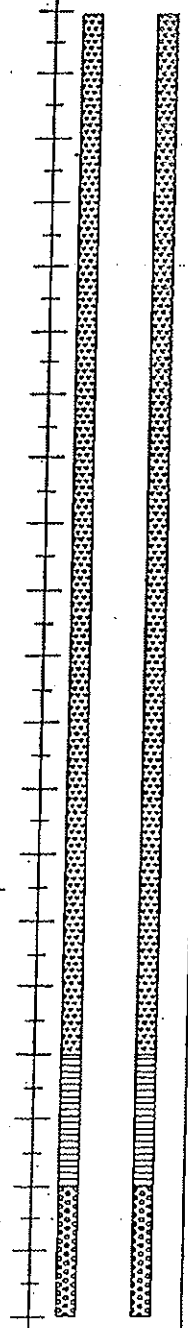
WELL NUMBER ▶ P-73	LOCATION ▶ TANK A-22
DATE ▶ 10-7-89	WEATHER ▶ CLEAR, WINDY TEMP. 50'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 65'-38'(27') WB-40 Sd	SEAL ▶ 38'-36' BENTONITE 36'-0' GROUT

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 4" LENGTH 40' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 65'

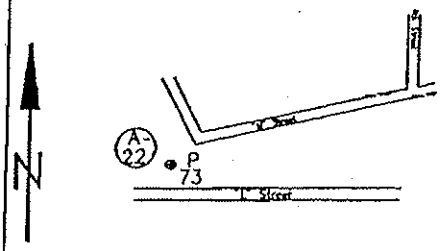
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod	loose		5	7.0	23-28	1.69	4 4 3 3	0.0'-1.69' Sand, very fine and fine-grained, tan, trace of medium-grained.
moist	mod	loose		6	8.4	28-33	1.37	3 6 7 9	0.0'-1.37' Sand, fine and medium-grained, tan.
moist	mod	loose		7	1.5	33-38	1.39	3 7 9 10	0.0'-1.39' Sand, medium and coarse-grained, tan.
moist	mod	mdense		8	310	38-40	1.55	4 8 12 17	0.0'-1.55' Sand, medium and coarse-grained, tan, hydrocarbon odor.

WELL COMPLETION



EXPLANATION: GROUT, BENTONITE, SAND, CASING, SCREEN, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

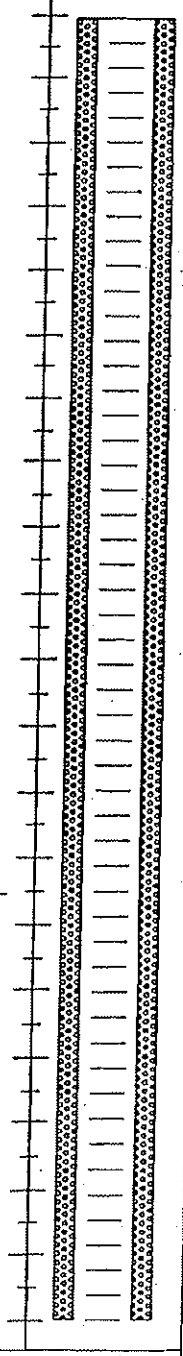
WELL NUMBER ▶ P-73	LOCATION ▶ TANK A-22
DATE ▶ 10-7-89	WEATHER ▶ CLEAR, WINDY TEMP. 50'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 65'-38'(27') WB-40 Sd	SEAL ▶ 38'-36' BENTONITE 36'-0' GROUT

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 4" LENGTH 40' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 65'

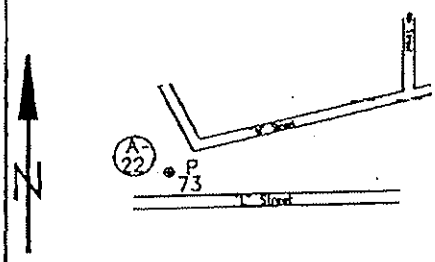
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod	mdense		9	364	44	1.31	6, 16, 20, 22	0.0'-1.31' Sand, fine and medium-grained, tan, hydrocarbon odor.
wet	mod	mdense		10	317	49	2.0'	4, 10, 17, 19	0.0'-2.0' Sand, fine and medium-grained, some coarse-grained, tan, hydrocarbon odor.
sat	mod	mdense		11	238	54	2.0'	1, 6, 16, 27	0.0'-2.0' Sand, medium and coarse-grained, trace of fine-grained, tan, hydrocarbon odor.
sat	mod	loose		12	221	59	2.0	1, 1, 7, 9	0.0'-2.0' Sand, medium and coarse-grained, tan, trace of fine gravel.

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

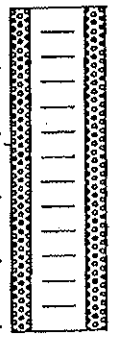
WELL NUMBER ▶ P-73	LOCATION ▶ TANK A-22
DATE ▶ 10-7-89	WEATHER ▶ CLEAR, WINDY TEMP. 50'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25" HSA	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON
GRAVEL PACK ▶ 65'-38'(27') WB-40 Sd	SEAL ▶ 38'-36' BENTONITE 36'-0' GROUT

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 4" LENGTH 40' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 65'

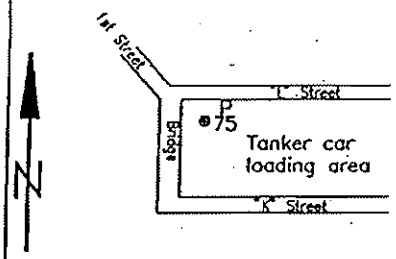
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						60			
						61			
						62			
						63		1	
sat	mod	loose		13	296	64	2.0'	6	0.0'-1.90' Sand, medium and coarse-grained, tan, hydrocarbon odor.
								17	
sat	poor	mdense				65		27	1.90'-2.0' Sand, coarse-grained, tan, and fine gravel, some coarse gravel.
						66			
						67			
						68			
						69			
						70			
						71			
						72			
						73			
						74			
						75			
						76			
						77			
						78			
						79			
						80			

WELL COMPLETION



EXPLANATION: GROUT, BENTONITE, SAND, CASING, SCREEN, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

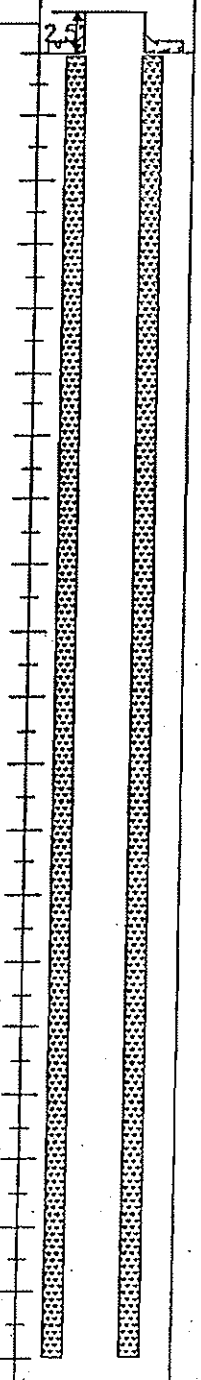
WELL NUMBER ▶ P-75	LOCATION ▶ TK CAR LOADING RACK
DATE ▶ 10-10-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP. 60'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25'	SAMPLING METHOD ▶ 1.50" SPLIT-SPOON
GRAVEL PACK ▶ 66'-39'(27') WB-40 Sd	SEAL ▶ 39'-37' BENTONITE 37'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 4" LENGTH 41' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 66'

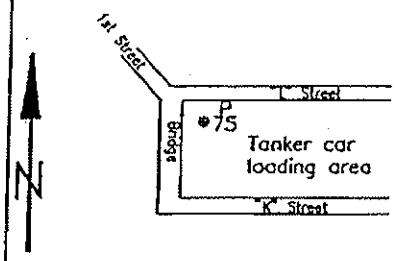
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist		soft	plastic	1	124	5	0.95'	2 3 4	0.0'-0.95' Clay, green, black laminations, very silty.
moist	well	loose		2	523	10	0.73	3 9 3	0.0'-0.73' Sand, very fine-grained, tan, slightly silty, hydrocarbon odor.
moist	mod	loose		3	705	14	0.88	3 5 9	0.0'-0.88' Sand, very fine-grained, little fine-grained, tan, hydrocarbon odor.
wet	mod	loose		4	517	19	0.88'	2 7 12	0.0'-0.88' Sand, very fine and fine-grained, tan, hydrocarbon odor.

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

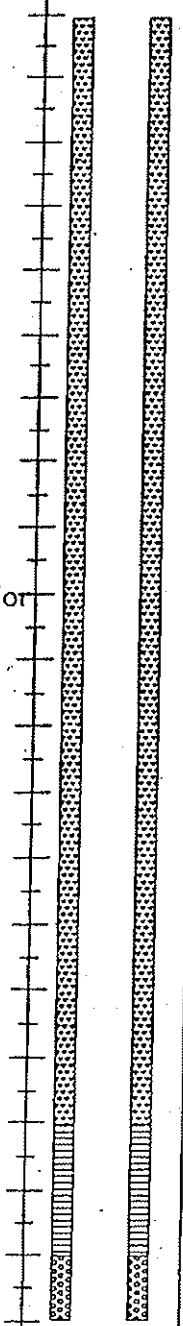
WELL NUMBER ▶ P-75	LOCATION ▶ TANK CAR LOADING RACK
DATE ▶ 10-10-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP. 60'S
LOGGED BY ▶ J.PAWLIK.	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25'	SAMPLING METHOD ▶ 1.50" SPLIT-SPOON
GRAVEL PACK ▶ 66'-39'(27') WB-40 Sd	SEAL ▶ 39'-37' BENTONITE 37'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 4" LENGTH 41' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 66'

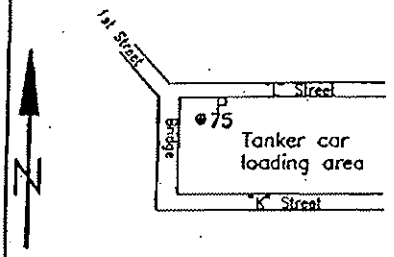
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						20			
						21			
						22			
moist	mod	mdense		5	612	23	0.91	3 15 19	0.0'-0.91' Sand, very fine and fine-grained, tan, trace of medium- grained.
						24			
						25			
						26			
moist	mod	loose		6	624	27	1.11	5 9 17	0.0'-1.11' Sand, very fine and fine-grained, trace of medium-grained, black laminations throughout, hydrocarbon odor
						28			
						29			
						30			
						31			
moist	well	loose						7	0.0'-0.20' Sand, very fine and fine-grained, tan.
moist	mod	mdense		7	913	32	1.12'	12 16	0.20'-1.12' Sand, fine and medium-grained, some coarse, tan, trace of fine gravel, hydrocarbon odor.
						33			
						34			
						35			
moist	mod	mdense		8	989	36	1.18	9 19 26	0.0'-1.18' Sand, medium and coarse-grained, trace of fine and coarse gravel, hydrocarbon odor.
						37			
						38			
						39			
						40			

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

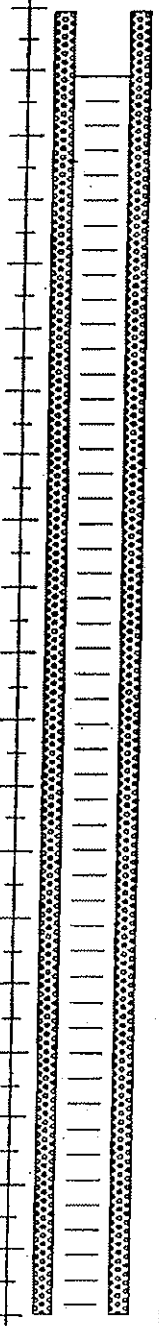
WELL NUMBER ▶ P-75	LOCATION ▶ TANK CAR LOADING RACK
DATE ▶ 10-10-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP. 60'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25'	SAMPLING METHOD ▶ 1.50' SPLIT-SPOON
GRAVEL PACK ▶ 66'-39'(27') WB-40 Sd	SEAL ▶ 39'-37' BENTONITE 37'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 4" LENGTH 41' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 66'

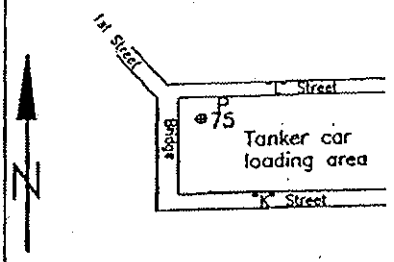
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod	mdense		9	1079	40-42	1.31	7, 19, 34	0.0'-1.31' Sand, medium and coarse-grained, tan, trace of fine and coarse gravel, hydrocarbon odor.
wet	mod	mdense		10	416	45-47	1.11	5, 15, 36	0.0.'-1.11' Sand, medium and coarse-grained, tan, trace of fine and coarse gravel, hydrocarbon odor.
sat	mod	mdense		11	613	50-51	1.5'	9, 19, 27	0.0'-1.50' Sand, medium and coarse-grained, tan, hydrocarbon odor.
sat	mod	mdense		12	775	54-55	1.18	3, 19, 25	0.0'-1.18' Sand, medium and coarse-grained, tan, trace of fine-gravel, hydrocarbon odor.
sat	mod	mdense		13	465	59-60	1.5'	5, 15, 27	0.0'-1.50' Sand, medium and coarse-grained, tan, trace of fine and coarse gravel, hydrocarbon odor.

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY-WELL LOG

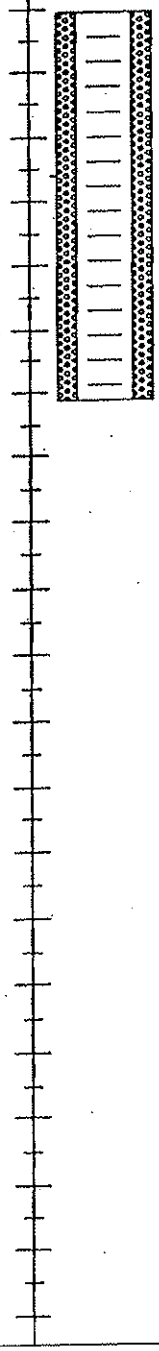
WELL NUMBER ▶ P-75	LOCATION ▶ TANK CAR LOADING RACK
DATE ▶ 10-10-89	WEATHER ▶ CLEAR, LIGHT WIND TEMP. 60'S
LOGGED BY ▶ J.PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ 8.25'	SAMPLING METHOD ▶ 1.50" SPLIT-SPOON
GRAVEL PACK ▶ 66'-39'(27') WB-40 Sd	SEAL ▶ 39'-37' BENTONITE 37'-0' GROUT

CASING ▶ TYPE SCHEDULE-40 PVC DIAMETER 4" LENGTH 41' HOLE DIA. 10"

SCREEN ▶ TYPE S-40 PVC SLOT 0.02" DIAMETER 4" LENGTH 25' TOTAL DEPTH 66'

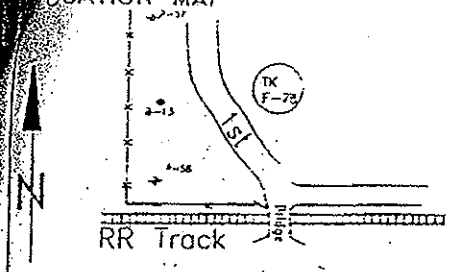
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
sat	mod	mdense		14	-	60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	0.0'	3 5 4	0.0'-1.5' No recovery. Well was overdrilled to 70', sample was not taken due to heaving sands, final depth of well was 66 feet.

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY

WELL NUMBER ▶ WELL P-93	LOCATION ▶ 1st STREET, NO. PROPERTY
DATE ▶ 3-11-91-3-22-91	WEATHER ▶ CLOUDY, WINDY TEMP. 50'S
LOGGED BY ▶ J. PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ MUD ROTARY 7 7/8" TRI-CONE	SAMPLING METHOD ▶ 2.0' SPLIT-SPOON ON JARS
GRAVEL PACK ▶ NONE	SEAL ▶ GROUT TO SURFACE

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 8" LENGTH 60'

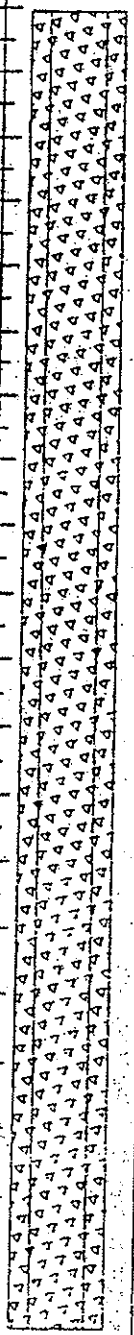
HOLE DIA. 12" TO 60' - 60'-TO-77/8"

SCREEN ▶ TYPE NA SLOT NA DIAMETER NA LENGTH NA

TOTAL DEPTH 136'

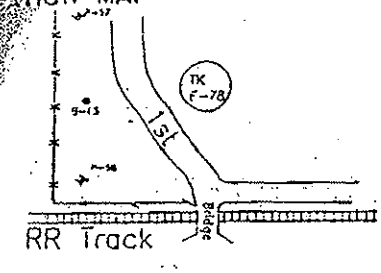
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						0			*Lithology descriptions from 0'-6' are from spud auger cuttings.
moist		soft	plas	1	-	1	2.0'		0.00'-2.00' Limestone gravel and clay.
moist		soft	plas	2	5.3	2	2.0'		2.00'-4.00' CLAY, black, some very fine-grained sand and silt.
damp	well	loose		3	8.6	4	2.0'		4.00'-6.00' SAND, tan, very fine-grained and silt.
moist	well	loose		4	3.0	6	2.0'		0.00'-2.00' SILT, tan to brown, some clay.
moist	well	loose		5	3.0	8	1.03		0.00'-1.03' SAND, black to gray to tan, very fine-grained and fine-grained, little silt.
moist	well	loose		6	9.1	10	1.0'		0.00'-1.00' SAND, gray to tan, very fine-grained and fine-grained, little silt.
moist	well	loose		7	11	12	0.99		0.00'-0.99' SAND, tan, fine-grained, some very fine-grained, trace of silt.
moist	well	loose		8	7	14	1.12		0.00'-1.12' SAND, tan, fine-grained, some very fine-grained, trace of silt.
moist	well	loose		9	16	16	1.14		0.00'-1.14' SAND, tan, fine-grained, little very fine-grained, trace of silt.
moist	well	loose		10	12	18	1.21		0.00'-1.21' SAND, tan to black, fine-grained, some very fine-grained, little silt.
						20			

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY — PAGE 2 OF 2

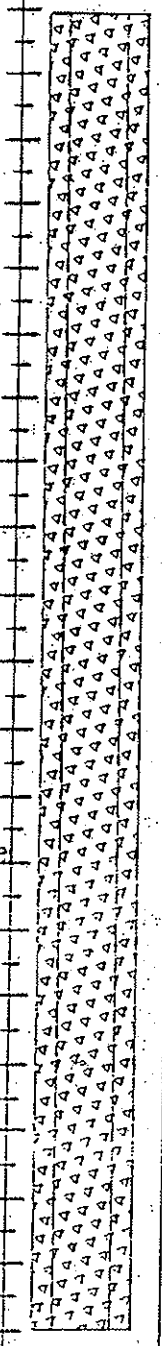
WELL NUMBER ▶ WELL P-93	LOCATION ▶ 1st STREET, NO. PROPERTY
DATE ▶ 3-11-91-3-22-91	WEATHER ▶ CLOUDY, WINDY TEMP. 50'S
LOGGED BY ▶ J. PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ MUD ROTARY 7 7/8" TRI-CONE	SAMPLING METHOD ▶ 2.0" SPLIT-SPOON ON JARS
GRAVEL PACK ▶ NONE	SEAL ▶ GROUT TO SURFACE

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 8" LENGTH 60' — HOLE DIA. 12" TO 60' 60'-10:7 7/8"

SCREEN ▶ TYPE NA SLOT NA DIAMETER NA LENGTH NA — TOTAL DEPTH 136'

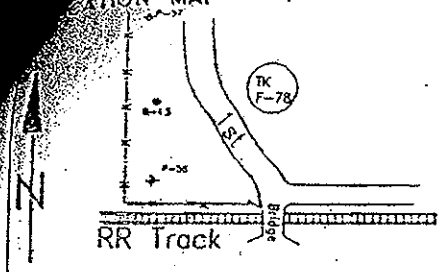
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	well	loose		11	2	20-21	1.30		0.00'-1.30' SAND, tan, fine-grained, some very fine-grained, little silt.
moist	well	loose		12	28	22-23	0.93'		0.00'-0.93' SAND, tan, black laminated, fine-grained, some very fine-grained, little silt.
moist	mod	loose		13	9	24-25	0.92		0.00'-0.92' SAND, tan, fine-grained, little very fine-grained, trace of medium-grained and silt.
moist	mod	loose		14	27	26-27	0.87		0.00'-0.87' SAND, tan, fine-grained, some medium-grained, little very fine-grained.
moist	mod	loose		15	2	28-29	0.92		0.00'-0.92' SAND, tan, fine-grained, some medium-grained, little very fine-grained.
moist	mod	loose		16	30	30-31	1.13		0.00'-1.13' SAND, tan, fine and medium-grained, little very fine-grained.
moist	mod	loose				32			0.00'-0.15' SAND, tan, fine and medium-grained, little very fine-grained.
moist	mod	loose		17	9	33	1.12		0.15'-1.12' SAND, tan, medium-grained, some fine-grained, trace of coarse-grained.
moist	mod	loose		18	19	34-35	0.92'		0.00'-0.92' SAND, tan, medium and fine-grained, little very fine-grained.
moist	mod	loose		19	4	36-37	0.91		0.00'-0.91' SAND, tan, medium-grained, some coarse-grained, trace of fine-grained.
moist	mod	loose		20	30	38-39	0.95		0.00'-0.95' SAND, tan, medium-grained, some fine-grained, little coarse-grained.
						40			

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY | PAGE 1 OF 1

WELL NUMBER ▶ WELL P-93		LOCATION ▶ 1st STREET, NO. PROPERTY	
DATE ▶ 3-11-91-3-22-91		WEATHER ▶ CLOUDY, WINDY TEMP. 50'S	
LOGGED BY ▶ J. PAWLIK		DRILLED BY ▶ MATHES	
DRILLING METHOD ▶ MUD ROTARY 7 7/8" TRI-CONE		SAMPLING METHOD ▶ 2.0" SPLIT-SPOON 2" JARS	
GRAVEL PACK ▶ NONE		SEAL ▶ GROUT TO SURFACE	

CASING ▶ TYPE SCHEDULE 40 PVC | DIAMETER 8" | LENGTH 60' | HOLE DIA. 30'-70': 7 7/8"

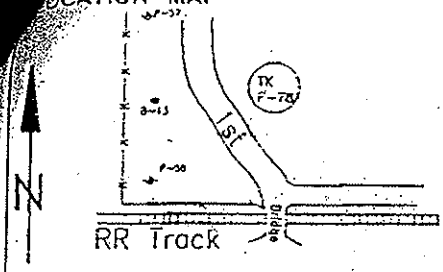
SCREEN ▶ TYPE NA | SLOT NA | DIAMETER NA | LENGTH NA | TOTAL DEPTH: 36'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
moist	mod	loose		21	26	40-41	0.85		0.00'-0.85' SAND, tan, medium and coarse-grained, little fine-grained, trace of fine-gravel.
moist	mod	loose		22	19	42-43	0.72		0.00'-0.72' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of fine-gravel.
moist	mod	loose		23	271	44-45	0.95		0.00'-0.95' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of fine and coarse-gravel.
moist	mod	loose		24	538	46-47	0.83		0.00'-0.83' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of fine-gravel.
moist	mod	loose		25	631	48-49	0.91		0.00'-0.91' SAND, tan, coarse-grained, some medium-grained., little fine-grained
sat	mod	loose		26	165	50-51	0.97		0.00'-0.97' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of fine-gravel.
sat	mod	loose		27	398	52-53	0.85		0.00'-0.85' SAND, tan, medium and coarse-grained, little fine-grained.
sat	mod	loose		28	634	54-55	0.74		0.00'-0.74' SAND, tan, medium and coarse-grained, little fine-grained.
sat	mod	loose		29	315	56-57	0.76		0.00'-0.76' SAND, tan, medium and coarse-grained, little fine-grained.
sat	mod	loose		30	332	58-59	0.81		0.00'-0.81' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of silt.
						60			

WELL COMPLETION

EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY

WELL NUMBER	WELL P-93	LOCATION	1st STREET, NO. PROPERTY
DATE	2-11-91-3-22-91	WEATHER	CLOUDY, WINDY TEMP. 50'S
LOGGED BY	J. PAWLIK	DRILLED BY	MATHES
DRILLING METHOD	MUD ROTARY 7 7/8" TRI-CONE	SAMPLING METHOD	2.0' SPLIT-SPOON ON BARS
GRAVEL PACK	NONE	SEAL	GROUT TO SURFACE

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 8" LENGTH 60' HOLE: 0 TO 60 DIA. 60'-70:77/8"

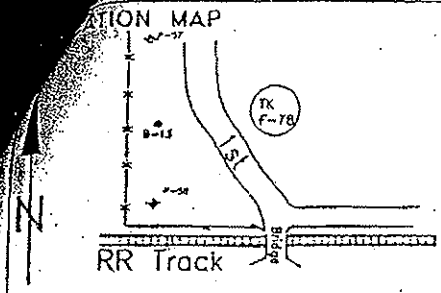
SCREEN ▶ TYPE NA SLOT NA DIAMETER NA LENGTH NA TOTAL DEPTH: 36'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						60			
-	-	-	-	31	-	61	-		No sample, grout only.
						62			
sat	mod	loose		32	7.1	63	0.72		0.00'-0.72' SAND, tan, medium-grained, some coarse-grained, little fine-grained.
						64			
sat	mod	loose		33	53	65	0.90		0.00'-0.90' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of coal.
						66			
sat	mod	loose		34	16	67	0.59		0.00'-0.59' SAND, tan, medium-grained, some coarse-grained, little fine-grained.
						68			
sat	mod	loose		35	15	69	1.0		0.00'-1.00' SAND, tan, medium-grained, some coarse-grained, little fine-grained.
						70			
sat	mod	loose		36	707	71	0.85		0.00'-0.85' SAND, tan, medium-grained, some very fine-grained, scattered coal.
						72			
sat	well	vloose		37	42	73	0.77		0.00'-0.77' SAND, tan, fine-grained, some very fine-grained, trace of silt.
						74			
sat	well	loose		38	78	75	0.76		0.00'-0.76' SAND, tan, fine-grained, some very fine-grained, trace of silt.
						76			
sat	mod	loose		39	35	77	0.90		0.00'-0.90' SAND, tan, coarse-grained, some medium-grained, little fine-gravel, chert.
						78			
sat	mod	loose		40	2.2	79	0.90		0.00'-0.90' SAND, tan, coarse-grained, some medium-grained, little fine-grained and fine-gravel, chert.
						80			

WELL COMPLETION

EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

ATION MAP



SHELL OIL COMPANY | PAGE 3 OF 7

WELL NUMBER ▶ WELL P-93	LOCATION ▶ 1st STREET, NO. PROPERTY
DATE ▶ 3-11-91-3-22-91	WEATHER ▶ CLOUDY, WINDY TEMP 50'S
LOGGED BY ▶ J. PAWLIK	DRILLED BY ▶ MATHES
DRILLING METHOD ▶ MUD ROTARY 7 7/8" TRI-CONE	SAMPLING METHOD ▶ 2.5" SPLIT-SPOON ON JARS
GRAVEL PACK ▶ NONE	SEAL ▶ GROUT TO SURFACE

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 8" LENGTH 60' | HOLE DIA. 12" TO 60' 7 7/8"

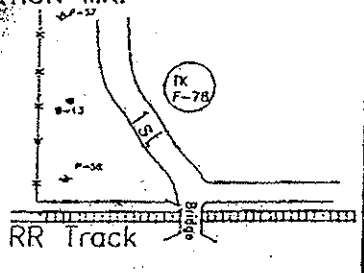
SCREEN ▶ TYPE NA SLOT NA DIAMETER NA LENGTH NA | TOTAL DEPTH 136'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						80			
sat	mod	loose		41	12	81	0.91		0.00'-0.91' SAND, tan, coarse-grained, little medium-grained, some fine-gravel (chert,quartz,rhyolite).
						82			
wet		soft	plas						0.00'-0.28' CLAY, tan.
sat	mod	loose		42	9.7	83	0.97		0.28'-0.97' SAND, tan, coarse-grained, little medium-grained, some fine-gravel (chert,quartz,rhyolite).
						84			
sat	mod	loose		43	3.4	85	0.76		0.28'-0.76' SAND, tan, coarse-grained, little medium-grained, some fine-gravel (chert,quartz,rhyolite).
						86			
sat	mod	loose		44	6.0	87	0.98		0.00'-0.98' SAND, tan, coarse-grained, little fine-gravel and medium-grained sand.
						88			
sat	mod	loose		45	3.4	89	0.81		0.00'-0.81' SAND, tan, coarse-grained, little fine-gravel and medium-grained sand.
						90			
sat	mod	loose		46	6.0	91	0.83		0.00'-0.83' SAND, tan, medium-grained, little fine-grained, trace of fine-gravel and very fine-grained sand.
						92			
sat	well	loose		47	4.1	93	1.02		0.00'-1.02' SAND, tan, coarse-grained, little medium-grained, trace of fine-gravel (quartz and limestone).
						94			
sat	mod	loose		48	4.3	95	0.55		0.00'-0.55' SAND, tan, coarse-grained, some medium-grained, little fine-grained, trace of fine-gravel.
						96			
sat	mod	loose		49	5.3	97	0.93		0.00'-0.93' SAND, tan, coarse-grained, little medium-grained, trace of fine-grained and fine-grave.
						98			
sat	mod	loose		50	12	99	0.94		0.00'-0.94' SAND, tan, coarse-grained, little medium-grained, trace of fine-grained and fine-grave.
						100			

WELL COMPLETION

EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

CATION MAP



SHELL OIL COMPANY | PAGE 3 OF 7

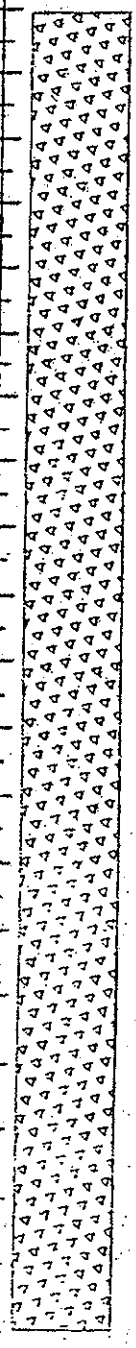
WELL NUMBER ▶ WELL P-93		LOCATION ▶ 1st STREET, NO. PROPERTY	
DATE ▶ 3-11-91-3-22-91		WEATHER ▶ CLOUDY, WINDY TEMP 50'S	
LOGGED BY ▶ J. PAWLIK		DRILLED BY ▶ MATHES	
DRILLING METHOD ▶ MUD ROTARY 7 7/8" TRI-CONE		SAMPLING METHOD ▶ 2.0' SPLIT-SPOON ON JARS	
GRAVEL PACK ▶ NONE		SEAL ▶ GROUT TO SURFACE	

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 8" LENGTH 60' | HOLE DIA. 0' TO 60' 7 7/8"

SCREEN ▶ TYPE NA SLOT NA DIAMETER NA LENGTH NA | TOTAL DEPTH 136'

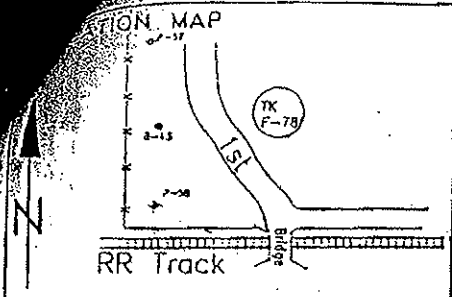
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
sat	mod	loose		51	14	100 101	0.80		0.00'-0.80' SAND, tan, coarse-grained, some medium-grained, little fine-grained.
sat	poor	loose		52	14	102 103	0.87		0.00'-0.87' SAND, tan, coarse-grained, little medium-grained, little fine-gravel, trace of coarse-gravel (chert,quartz,limestone).
sat	poor	loose		53	9	104 105	0.62'		0.00'-0.62' SAND, tan, coarse-grained, little medium-grained, little fine-gravel, trace of coarse-gravel (chert,quartz,).
sat	poor	loose		54	12	106 107	0.83		0.00'-0.83' SAND, tan, coarse-grained, little medium-grained, little fine-gravel, trace of coarse-gravel (chert,quartz,).
sat	poor	loose		55	8	108 109	0.88		0.00'-0.88' SAND, tan, coarse-grained, little medium-grained, little fine-gravel, trace of coarse-gravel (chert,quartz,limestone).
sat	poor	loose		56	9.7	110 111	0.83		0.00'-0.83' SAND, tan, coarse-grained, little medium-grained, little fine-gravel, trace of coarse-gravel (chert,quartz,limestone).
sat	poor	loose		57	7.2	112 113	0.63'		0.00'-0.25' SAND, tan, coarse-grained, little medium-grained, little fine-gravel, trace of coarse-gravel (chert,quartz,limestone).
sat	mod	loose				114			0.25'-0.63' SAND, tan, coarse-grained, some medium-grained, little fine-grained.
sat	poor	loose		58	9.7	115	0.81'		0.00'-0.81' SAND, tan, coarse-grained and fine-gravel, little medium-grained, trace of coarse-gravel.
sat	mod	loose		59	4.1	116 117	0.83		0.00'-0.83' SAND, tan, coarse-grained, some medium-grained, trace of fine-gravel(quartz,chert,mafic igneous).
sat	mod	loose		60	6.6	118 119	0.90		0.00'-0.90' SAND, tan, coarse-grained, some medium-grained, trace of fine-gravel(quartz, chert, mafic igneous).
						120			

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP



SHELL OIL COMPANY | PAGE 1 OF 1

WELL NUMBER ▶ WELL P-93		LOCATION ▶ 1st STREET, NO. PROPERTY	
DATE ▶ 11-91-3-22-91		WEATHER ▶ CLOUDY, WINDY TEMP 50'S	
LOGGED BY ▶ J. PAWLIK		DRILLED BY ▶ MATHES	
DRILLING METHOD ▶ MUD ROTARY 7 7/8" TRI-CONE		SAMPLING METHOD ▶ 2.0" SPLIT-SPOON ON JARS	
GRAVEL PACK ▶ NONE		SEAL ▶ GROUT TO SURFACE	

CASING ▶ TYPE SCHEDULE 40 PVC DIAMETER 8" LENGTH 60' | HOLE DIA. 12" TO 60' 60'-0.77/8" | TOTAL DEPTH 136'

SCREEN ▶ TYPE NA SLOT NA DIAMETER NA LENGTH NA

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	TIP READING (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
sat	mod	loose				120			0.00'–0.05' SAND, tan, coarse-grained, some medium-grained, little fine-grained.	
wet		soft	plas						0.05'–0.18' CLAY, brown, little silt.	
sat	well	dense		61	2.2	121	0.92		0.18'–0.42' SAND, tan, fine-grained, some very fine-grained, little silt.	
sat	mod	loose				122			0.42'–0.92' SAND, tan, coarse-grained, little medium-grained and fine-gravel.	
sat	mod	loose		62	7.8	123	1.04		0.00'–1.04' SAND, tan, medium-grained, some coarse-grained, little fine-grained, trace of silt.	
						124				
sat	well	loose		63	2.4	125	0.50		0.00'–0.50' SAND, tan, medium-grained, little fine-grained and coarse-grained.	
						126				
damp		vplas	vstiff	64	1.5	127	1.15		0.00'–0.25' CLAY, gray to dark gray, little very fine-grained sand.	
dry		hard	ehard						0.25'–1.15' SHALE, gray, trace of silt.	
						128			*Hard drilling at 127.5'.	
dry		hard	ehard	65	2.2	129	1.05		0.00'–1.05' SHALE, gray, trace of silt.	
						130			*Hard drilling from 130'–137.75', mud returns show gray to white limestone. Gray to blue clay from 134'.	
				NS		131				
						132				
				NS		133				
						134				
dry		hard	ehard	66	1.1	135	0.55		0.00'–0.55' SHALE, good fissility, gray to blue, very calcareous, trace of limestone.	
						136				
dry		hard	ehard	67	0.8	137	0.45		0.00'–0.38' SHALE, good fissility, gray to blue, very calcareous, trace of limestone.	
dry		hard	ehard			138			0.38'–0.45' LIMESTONE, brown.	
						139			Final boring depth =136', last interval sampled = 136'–138'.	
						140				

EXPLANATION: GROUT | SAND | SCREEN | BENTONITE | CASING | WATER LEVEL

GROUNDWATER DEVELOPMENT DATA SHEET

PROJECT NAME: RAND AVENUE PROJECT NUMBER: ~~21561294.00001~~ 21561979
DATE: 5/27/08
WEATHER: 70s, cloudy
FIELD PERSONNEL: ~~Brian Williamson Billy~~ S Moore
MONITORING WELL ID: B-1

INITIAL DATA

Well Diameter: 1 in.
Total Depth of Well: 58.41 ft
Depth to Water: 48.23 ft
Height of Water Column: 10.18 ft
1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft[1]: —
Vol. Of Water Column: 0.415 gallons
Min. Purge Volume: 2.07 gallons (5 volumes)
Depth to Top of Screen: 43.31 ft

Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm
LNAPL / DNAPL NA ft

PURGE DATA

Purge Method: bail & check valve (Qwater)/bailer 10.18 x 0.0408 x 5 (well vols) =

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	mS Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
2.0	1210	NA	lt brown	NA	6.24	20.47	1.811	1068	14.6	-8.1
2.4	1218	↓	↓	↓	6.53	19.83	1.749	363	19.4	-8.3
2.8	1224	↓	tan	↓	6.59	19.54	1.765	446	2.50	-8.1
3.0	1236	↓	lt	↓	6.50	19.54	1.787	296	1.67	-1.8
3.2	1241	↓	clear	↓	6.39	19.20	1.718	282	2.42	-0.8
3.4	1247	↓	↓	↓	6.61	19.23	1.712	221	2.12	2.8
3.5	1250	↓	↓	↓	6.60	19.54	1.753	244	2.34	1.9

Start Time: ~~1133~~ 0945 Purge Stop Time: 1250 Elapsed Time: 185 min Total Volume Purged: 3.5 gallons
Average Purge Rate (gallons/min): 0.019 Well Volumes Purged: 5 Water Quality Meter ID: YSI 556 Calibrated on: 5/29/08

SAMPLING DATA

Sampling Method:

Sample Date: Sample Time: Analysis:

COMMENTS:

GROUNDWATER DEVELOPMENT DATA SHEET

PROJECT NAME: Rte 111 Rand ave Vicinity PROJECT NUMBER: 21561979
DATE: 5/29/08
WEATHER: 70s, Sunny
FIELD PERSONNEL: S. Moore
MONITORING WELL ID: B-2

INITIAL DATA

Well Diameter: 1 in.
Total Depth of Well: 63.20 ft
Depth to Water: 49.71 ft
Height of Water Column: 13.49 ft
Depth to Top of Screen: 48.49 ft
1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft[1]: —
Vol. Of Water Column: ~~0.795~~ 0.55 gallons
Volume Of Water Introduced From Drilling: 10 gallons
Min. Purge Volume: ~~3.97 (13.97)~~ 2.75 (12.75) gallons (5 volumes)

13.49
~~19.49~~ + 0.0408 x 5 well vols =

Ambient PID/FID Reading: 0.0 p
Wellbore PID/FID Reading: 0.0 p
LNAPL / DNAPL NA f

PURGE DATA

Purge Method: bailer

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	mS Cond. (~~umhos~~/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
4	1610	NA	brown	gasoline like	5.98	20.03	1.157	155.2	1.08	-10.3
4.5	1618	↓	↓	↓	6.09	19.04	1.146	63.2	0.92	-29.3
4.75	1626	↓	↓	↓	6.50	19.13	1.141	81.3	0.70	-29.3
5	1636	↓	↓	↓	6.41	19.16	1.145	63.0	0.83	-29.7

Start Time: 1330
Average Purge Rate (gallons/min): 0.03
Purge Stop Time: 1640
Well Volumes Purged: 5
Elapsed Time: 190 min
Water Quality Meter ID: YSI 556
Total Volume Purged: 5 gall
Calibrated on: 5/29/08

SAMPLING DATA

Sampling Method:

Sample Date: Sample Time: Analysis:

COMMENTS:

~~DTW = 49.70 gm~~
~~DTB =~~

GROUNDWATER DEVELOPMENT DATA SHEET

PROJECT NAME: Rte 111 / Rand Ave Vicinity PROJECT NUMBER: 21561979
DATE: 5/30/08
WEATHER: 70s, breezy
FIELD PERSONNEL: S. Moore
MONITORING WELL ID: B-3

INITIAL DATA

Well Diameter: 1 in.
Total Depth of Well: 45.98 ft
Depth to Water: 34.52 ft
Height of Water Column: 11.46 ft
Depth to Top of Screen: 31.07 ft
1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft¹: ~~0.47~~ 0.47 5/30/2008
Vol. Of Water Column: 0.47 gallons
Volume Of Water Introduced From Drilling: 10 gallons
Min. Purge Volume: 2.39 gallons (5 volumes)
11.46 x 0.0408 x 5 =

Ambient PID/FID Reading: 0.0 p
Wellbore PID/FID Reading: 0.0 p
LNAPL / DNAPL NA f

PURGE DATA

Purge Method: bailer

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
2.5	0920	NA	brown	NA	6.64	20.40	1.347	307	1.31	65.5
3.0	0926	↓	↓	↓	6.30	19.74	1.362	281	1.33	2.1
3.25	0935	↓	lt brown	↓	6.65	19.75	1.345	765	2.22	-18.5
3.5	0944	↓	cloudy	↓	6.33	19.42	1.335	22.2	2.03	-23.6
4.0	0949	↓	↓	↓	6.60	20.16	1.310	144	2.00	-29.3
					6.54	19.49	1.274	148	2.20	-36.2
					6.64	19.83	~~1.265~~ 1.267	255	3.20	-30.9

Start Time: 0800 Purge Stop Time: 0949 Elapsed Time: 109 min Total Volume Purged: 4.0 gall
Average Purge Rate (gallons/min): 0.04 Well Volumes Purged: 5 Water Quality Meter ID: YSI 556 Calibrated on: 5-30-08

SAMPLING DATA

Sampling Method:

Sample Date: Sample Time: Analysis:

COMMENTS:

a

GROUNDWATER DEVELOPMENT DATA SHEET

PROJECT NAME: Rte 111 / Rand Ave Vicinity PROJECT NUMBER: 21561979
DATE: 5/30/08
WEATHER: 70s, Sunny
FIELD PERSONNEL: S. Moore
MONITORING WELL ID: B-4

INITIAL DATA

Well Diameter: 1 in.
Total Depth of Well: 57.69 ft
Depth to Water: 46.35 ft
Height of Water Column: 11.34 ft
Depth to Top of Screen: 42.73 ft
1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft[1]: —
Vol. Of Water Column: 0.44 gallons
Volume Of Water Introduced From Drilling: gallons
Min. Purge Volume: 2.31 gallons (5 volumes)

11.34 x 0.408 x 5 =

Ambient PID/FID Reading: 0.1 P
Wellbore PID/FID Reading: 0.0 P
LNAPL / DNAPL NA f

PURGE DATA

Purge Method: bailer.

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
2.5	1330	NA	lt brown	NA	10.78	23.25	1.494	3.15	1.43	-31.7
2.75	1342				7.04	21.80	1.530	321	1.82	-55.0
3.0	1350				7.05	22.14	1.512	1338	2.45	-31.6
4.0	1355		cloudy		7.07	20.83	1.546	1135	3.36	-20.9

Start Time: 1023 Purge Stop Time: 1400 Elapsed Time: 187 Total Volume Purged: 4.6 gall
Average Purge Rate (gallons/min): 0.025 Well Volumes Purged: 5 Water Quality Meter ID: ysi 556 Calibrated on: 5-30-08

SAMPLING DATA

Sampling Method:

Sample Date: Sample Time: Analysis:

COMMENTS:
allowed for recharge time

GROUNDWATER DEVELOPMENT DATA SHEET

PROJECT NAME: Rte 111 / Rand Ave Vicinity PROJECT NUMBER: 21561979
DATE: 5/30/08
WEATHER: 80s, Sunny
FIELD PERSONNEL: S. Moore
MONITORING WELL ID: B-5

INITIAL DATA

Well Diameter: 1 in.
Total Depth of Well: 46.15 ft
Depth to Water: 33.79 ft
Height of Water Column: 12.36 ft
Depth to Top of Screen: 31.20 ft
1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft[1]: —
Vol. Of Water Column: 0.50 gallons
Volume Of Water Introduced From Drilling: gallons
Min. Purge Volume: 2.5 gallons (5 volumes)

Ambient PID/FID Reading: 0.0
Wellbore PID/FID Reading: 0.0
LNAPL / DNAPL NA

PURGE DATA

Purge Method: bailer

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
2.5	1600	NA	lt brown	NA	6.40	22.68	1.116	2292	1.30	-48.8
3.0	1604	↓	↓	↓	6.05	20.98	1.144	1189	1.36	-8.9
3.5	1609				6.14	20.45	0.978	967	1.22	-35.3
4.0/4.5	1616		cloudy		6.30	20.77	1.035	392	3.21	-38.8
4.25	1620		cloudy	↓	6.43	20.79	1.022	246	3.81	-29.4

Start Time: ~~1600~~ 1420 Purge Stop Time: 1620 Elapsed Time: 120 Total Volume Purged: 4.5 gall
Average Purge Rate (gallons/min): 0.0375 Well Volumes Purged: 5 Water Quality Meter ID: YSI 556 Calibrated on: 5-30-08

SAMPLING DATA

Sampling Method:

Sample Date: Sample Time: Analysis:

COMMENTS:

GROUNDWATER DEVELOPMENT DATA SHEET

PROJECT NAME: Rte 111 / Rand Ave Vicinity PROJECT NUMBER: 21561979
DATE: 6/2/08
WEATHER: 70s, Sunny
FIELD PERSONNEL: S. Mabee
MONITORING WELL ID: B-6

INITIAL DATA

Well Diameter: 1 in.
Total Depth of Well: 46.90 ft
Depth to Water: 36.16 ft
Height of Water Column: 10.74 ft
Depth to Top of Screen: 35.00 ft
1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft¹: ~~0.43~~ SW 6-2-08
Vol. Of Water Column: 0.43 gallons
Volume Of Water Introduced From Drilling: .20 gallons
Min. Purge Volume: 2.1 gallons (5 volumes)

Ambient PID/FID Reading: 0.0
Wellbore PID/FID Reading: 0.0
LNAPL / DNAPL NA

PURGE DATA

Purge Method: bailer

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
3.0	1013	NA	dk brown		6.27	20.47	1.712	9.55	2.21	3.6
3.25	1018	↓	↓		6.33	20.43	1.706	7.45	2.13	-14.8
3.5	1024				6.36	20.25	1.775	6.82	2.09	-5.3
4.0	1032	↓	cloudy		6.09	20.32	1.768	2.41	2.89	10.1

Start Time: 0810 Purge Stop Time: 1032 Elapsed Time: 142 ~~82~~ 140 min Total Volume Purged: 4 gall
Average Purge Rate (gallons/min): 0.028 Well Volumes Purged: 5 Water Quality Meter ID: YSI 556 Calibrated on: 6-2-08

SAMPLING DATA

Sampling Method:

Sample Date: Sample Time: Analysis:

COMMENTS:
bailer lost in well after last reading. Development Not Complete.
bailer retreival attempted.

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/12/08 WEATHER: 80s, sunny
MONITORING WELL ID: B-1 SAMPLE ID: B1-061208

INITIAL DATA

Well Diameter: 1 in
Total Well Depth (btoc): 58.41 ft
Depth to Water (btoc): 47.69 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 43.41 ft
Screen Length: 15 ft

Water Column Height (do not include LNAPL or DNAPL): 10.72 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 53.05 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 77.3 ppm

PURGE DATA

HEADSPACE PID = 0.0 ppm

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
400	0916	47.39	lt. brn. cloudy	v. sl. petr.-like	6.41	22.41	1.839	727.4	5.50	210.5
1600	0928	47.39	"	"	6.28	22.01	1.790	286.5	6.10	221.2
2800	0940	47.39	"	"	6.16	22.17	1.720	115.7	7.41	233.4
4000	~~0950~~ 0952	47.39	clearing	"	6.09	22.48	1.706	47.3	7.57	209.5
5200	1004	"	"	"	6.02	22.62	1.700	28.0	8.24	202.4
6400	1016	"	"	"	5.92	22.52	1.644	5.7 ~~56.7~~ WMP	8.12	204.9
7600	1028	"	"	"	5.83	22.61	1.681	2.4	8.18	218.8
8800	1040	"	"	"	5.85	22.67	1.650	3.1	8.02	227.4

Start Time: 0912 Elapsed Time: 93 min Water Quality Meter ID: YSI 6820
Stop Time: 1045 Average Purge Rate (mL/min): 100 Date Calibrated: 6/12/08

SAMPLING DATA

Sample Date: 6/12/08 Sample Time: 1045 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QC: —

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous Iron (filtered): — ppm~~
Total Purge Volume: 9300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/12/08 WEATHER: 80s, sunny, humid
MONITORING WELL ID: B-2 SAMPLE ID: B2-061208

INITIAL DATA

Well Diameter: 1 in
Total Well Depth (btoc): 62.19 ft
Depth to Water (btoc): 49.24 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 47.19 ft
Screen Length: 15 ft

Water Column Height (do not include LNAPL or DNAPL): 12.95 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 55.72 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 675 ppm

PURGE DATA

Headspace PID = 1108 ppm

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
500	1130	49.25	lt. brn.	mod. petr.	5.67	25.38	1.052	940.6	0.70	-53.1
1700	1142	49.25			5.47	24.19	1.064	793.1	0.64	-57.5
2900	1154	49.25			5.21	23.55	1.072	458.8	0.68	-51.5
4100	1206		clearing		5.06	23.67	1.074	172.1	0.73	-41.6
5300	1218				4.97	23.50	1.072	57.7	0.70	-49.4
6500	1230				4.86	23.47	1.070	26.1	0.73	-47.6
7700	1242				4.88	23.51	1.068	~~NTUs~~ 9.8	0.66	-48.8

Start Time: ~~1130~~ 1125 Elapsed Time: ~~75 min~~ 80 min Water Quality Meter ID: YSI 6820
Stop Time: 1245 Average Purge Rate (mL/min): 100 Date Calibrated: 6/12/08

SAMPLING DATA

Sample Date: 6/12/08 Sample Time: 1245 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QC: Dup (B2-061208D)

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous Iron (filtered): — ppm~~
Total Purge Volume: ~~7500~~ 8000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/12/08 WEATHER: 80s, sunny, humid
MONITORING WELL ID: B-3 SAMPLE ID: B3-061208

INITIAL DATA

Well Diameter: 1 in
Total Well Depth (btoc): 45.98 ft
Depth to Water (btoc): 34.03 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 30.98 ft
Screen Length: 15 ft

Water Column Height (do not include LNAPL or DNAPL): 11.68 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 40.14 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 22.0 ppm

PURGE DATA

Headspace PID = 10.7ppm

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1200	1416	34.04	fairly clear	sl. petr.-like	5.48	25.27	1.229	65.2	1.23	-102.4
2400	1424	34.04	"	"	5.27	25.12	1.225	16.4	1.07	-102.2
3600	1432	34.04	clear	"	5.13	24.72	1.227	5.4	0.90	-101.9
4800	1440	34.04	"	"	5.07	24.32	1.222	2.7	1.07	-98.3
6000	1448	"	"	"	4.96	24.32	1.221	1.2	1.07	-99.2
7200	1456	"	"	"	5.03	24.44	1.220	5.2	1.14	-97.2

Start Time: 1408 Elapsed Time: 52 min Water Quality Meter ID: YSI 6820
Stop Time: 1500 Average Purge Rate (mL/min): 150 Date Calibrated: 6/12/08

SAMPLING DATA

Sample Date: 6/12/08 Sample Time: 1500 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 150 QA/QC:

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous Iron (filtered): — ppm~~
Total Purge Volume: 7800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/12/08 WEATHER: 80s, mostly sunny, humid
MONITORING WELL ID: B-4 SAMPLE ID: B4-061208

INITIAL DATA

Well Diameter: 1 in
Total Well Depth (btoc): 57.03 ft
Depth to Water (btoc): 45.90 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 42.63 ft
Screen Length: 15 ft

Water Column Height (do not include LNAPL or DNAPL): 11.73 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 51.77 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 41.5 ppm

PURGE DATA

Headspace PID = 0.0

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1200	1538	45.90	brn	none	5.68	26.44	1.787	1253.9	8.54	422.3
2400	1546	45.90			5.92	27.19	1.824	1197.0	2.38	99.2
3600	1554	45.90			6.07	27.18	1.830	884.3	2.41	77.5
4800	1602	45.90			6.15	27.25	1.825	556.9	2.31	63.5
6000	1610	45.90	clearing		6.11	27.28	1.821	156.7	2.27	60.2
7200	1618	"			6.06	27.10	1.833	114.6	2.37	62.4
8400	1626	"			5.95	27.05	1.830	115.4	2.35	70.3

Start Time: 1530 Elapsed Time: 60 min Water Quality Meter ID: YSI 6820
Stop Time: 1630 Average Purge Rate (mL/min): 150 Date Calibrated: 6/12/08

SAMPLING DATA

Sample Date: 6/12/08 Sample Time: 1630 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 150 QA/QC: —

COMMENTS:

Water coming to the surface contained air bubbles so turbidity would not settle down completely.

~~Sulfate:~~ ~~ppm~~
~~Ferrous Iron (filtered):~~ ~~ppm~~

Total Purge Volume: 9000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/13/08 WEATHER: 70s, cloudy, slight rain
MONITORING WELL ID: B-5 SAMPLE ID: B5-061308

INITIAL DATA

Well Diameter: 1 in
Total Well Depth (btoc): 46.13 ft
Depth to Water (btoc): 33.37 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 31.13 ft
Screen Length: 15 ft

Water Column Height (do not include LNAPL or DNAPL): 12.76 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 39.75 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 00 ppm
Wellbore PID/FID Reading: 85.9 ppm

PURGE DATA

headspace PID = 4.8ppm

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1100	0836	33.38	brn.	none	6.34	20.29	0.990	986.7	0.81	-93.8
2200	0847	33.38	"	"	6.30	19.82	0.988	813.4	0.75	-92.9
3300	0858	33.38	"	"	6.30	19.66	0.984	620.2	0.73	-92.4
4400	0909	33.38	lt. brn.	"	6.31	19.49	0.982	353.3	0.80	-92.7
5500	0920	"	"	"	6.32	19.55	0.978	185.3	0.74	-94.3
6600	0931	"	"	"	6.31	19.69	0.975	83.2	0.73	-95.9
7700	0942	"	"	"	6.30	19.70	0.973	48.0	0.72	-97.0
8800	0953	"	"	"	6.27	19.54	0.974	20.1	0.72	-97.0
9900	1004	"	"	"	6.30	19.62	0.976	10.0	0.71	-97.8

Start Time: 0825 Elapsed Time: 100 min Water Quality Meter ID: YSI 6820
Stop Time: 1005 Average Purge Rate (mL/min): 100 Date Calibrated: 6/13/08

SAMPLING DATA

Sample Date: 6/13/08 Sample Time: 1005 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QC: —

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous iron (filtered): — ppm~~
Total Purge Volume: 10000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/13/08 WEATHER: 70s, overcast, intermittent rain
MONITORING WELL ID: B-6 SAMPLE ID: B6-061308

INITIAL DATA

Well Diameter: 1 in
Total Well Depth (btoc): 46.98 ft
Depth to Water (btoc): 35.81 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 31.98 ft
Screen Length: 15 ft

Water Column Height (do not include LNAPL or DNAPL): 11.17 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.40 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 3.6 ppm

PURGE DATA

Headspace PID = 15.4ppm

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1100	1110	35.82	V. sl. cloudy	none	6.35	19.84	1.6090	93.3	4.45	-79.1
2200	1121	35.83	clearing		6.37	19.65	1.702	57.1	5.24	-83.6
3300	1132	35.82			6.38	19.53	1.752	34.4	5.09	-82.7
4400	1143	35.82			6.40	19.46	1.789	24.9	4.95	-84.7
5500	1154				6.40	19.45	1.806	5.7	4.90	-80.6
~~6600~~	~~1205~~ WNP									

Start Time: 1059 Elapsed Time: 61 min Water Quality Meter ID: YSI 6820
Stop Time: 1200 Average Purge Rate (mL/min): 100 Date Calibrated: 6/13/08

SAMPLING DATA

Sample Date: 6/13/08 Sample Time: 1200 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QC: EB (B6-061308 EB)

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous Iron (filtered): — ppm~~
Total Purge Volume: 6100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/10/08 WEATHER: upper 70's, sunny
MONITORING WELL ID: P-54 SAMPLE ID: P54-061008

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 62.78 ft
Depth to Water (btoc): 47.06 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 37.78 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 15.72 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 54.92 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.2 ppm

PURGE DATA

HEADSPACE PID = 0.2 ppm

Pump Type: Monsoon Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1250	1530	47.08	grayish-brown	none	5.66	19.20	0.915	114.3	0.67	507.7
2500	1535	47.08	cloudy		5.60	19.32	0.940	78.7	0.45	513.7
3750	1540	47.08			5.55	19.18	0.957	61.7	0.43	511.7
5000	1545	47.08			5.54	19.11	0.963	52.6	0.39	508.9
6250	1550		clearing		5.52	19.03	0.966	35.2	0.33	506.2
7500	1555				5.51	19.00	0.969	27.5	0.32	504.8
8750	1600				5.51	19.00	0.972	18.9	0.31	501.6
9000	1605				5.51	19.02	0.974	14.3	0.30	498.3
10250	1610				5.52	19.07	0.978	10.4	0.30	497.0

Start Time: 1525 Elapsed Time: 47 min Water Quality Meter ID: YSI 6820
Stop Time: 1612 Average Purge Rate (mL/min): 250 Date Calibrated: 6/10/08

SAMPLING DATA

Sample Date: 6/10/08 Sample Time: 1612 Lab Analysis: VOC 8260
Sample Method: Monsoon / Low Flow Sample Flow Rate (mL/min): 250 QA/QC: MS/MSD (P54-061008MS, P54-061008MSD)

COMMENTS:
Possible problem with ORP sensor in YSI sonde.

~~Sulfate:~~ — ppm
~~Ferrous Iron (filtered):~~ — ppm

Total Purge Volume: 11750 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/9/08 WEATHER: 80s, partly sunny
MONITORING WELL ID: P-56 SAMPLE ID: P56-060908

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 65.08 ft
Depth to Water (btoc): 52.08 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.08 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 13.00 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 58.58 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 265 ppm

PURGE DATA

HEADSPACE PID = 80.3ppm

Pump Type: Monsoon Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1000	1546	52.07	clear	sl. petr-like	5.81	24.38	1.529	4.8	1.70	-74.0
2250 ~~1250~~	1551	52.06	"	"	5.46	24.23	1.555	1.3	0.89	-70.3
3500 ~~1500~~	1556	52.06	"	"	5.38	24.17	1.602	1.5	0.73	-70.1
4750 ~~1750~~	1601	52.06	"	"	5.38	24.28	1.612	1.4	0.69	-70.4
6000 ~~2000~~	1606	"	"	"	5.39	24.36	1.631	0.8	0.67	-75.6
7250	1611	"	"	"	5.32	24.29	1.632	1.1	0.65	-71.2

Start Time: 1542 Elapsed Time: 33 Water Quality Meter ID: YSI 6820
Stop Time: 1615 Average Purge Rate (mL/min): 250 Date Calibrated: 6/9/08

SAMPLING DATA

Sample Date: 6/9/08 Sample Time: 1615 Lab Analysis: VOC 8260
Sample Method: Monsoon / Low Flow Sample Flow Rate (mL/min): 250 QA/QC: —

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous Iron (filtered): — ppm~~
Total Purge Volume: 8250 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Werning
DATE: 6/11/08 WEATHER: 80s, sunny
MONITORING WELL ID: P-57 SAMPLE ID: P57-061108

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 65.21 ft
Depth to Water (btoc): 51.75 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.21 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 13.46 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 58.48 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.2 ppm
Wellbore PID/FID Reading: 427 ppm

PURGE DATA

Headspace PID = 1946 ppm

Pump Type: Bladder Pump / Low Flow

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1950	1227	51.70	clear	petr.-like	5.71	28.69	1.331	7.9	1.70	-26.5
3150	1235	51.70			5.63	~~25.53~~ 27.53	1.323	8.1	1.47	-20.0
4350	1243	51.70			5.52	27.26	1.308	7.2	1.31	-11.9
5550	1251	51.72			5.59	27.08	1.345	8.3	1.17	-17.0
6750	1259	51.72			5.48	27.10	1.337	7.8	1.20	-13.0
7960	1307	51.72			5.56	27.13	1.336	7.8	1.21	-15.1

Start Time: 1214 Elapsed Time: 56 min Water Quality Meter ID: YSI 6820
Stop Time: 1310 Average Purge Rate (mL/min): 150 Date Calibrated: 6/11/08

SAMPLING DATA

Sample Date: 6/11/08 Sample Time: 1310 Lab Analysis: VOC 8260
Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 150 QA/QC: —

COMMENTS:

~~Sulfate: — ppm~~
~~Ferrous Iron (filtered): — ppm~~
Total Purge Volume: 8400 mL

m

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/9/08 WEATHER: 80° cloudy
MONITORING WELL ID: P-58 SAMPLE ID: P58-060908

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 64.94 ft
Depth to Water (btoc): 49.93 ft
Depth to LNAPL/DNAPL (btoc): 49.59 ft
Depth to Top of Screen (btoc): 39.94 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 15.01 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 57.10 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.1 ppm
Wellbore PID/FID Reading: 676 ppm

PURGE DATA

JAR PID = 9968 ppm

Pump Type: Monsoon Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
4200	1356	49.74	sl. yellow	petr-like	5.78	21.39	3.136	15.5	0.62	-33.9
5600	1400	49.74	clear		5.62	21.04	3.143	4.7	0.59	-32.6
7000	1404	49.74			5.46	20.91	3.116	4.6	0.58	-28.7
8400	1408	49.74			5.24	20.83	3.082	4.3	0.57	-11.5
9800	1412				5.08	20.88	3.082	4.4	0.57	with -14.8
11200	1416				4.95	20.74	3.092	4.3	0.58	12.7
12600	1420				4.88	20.69	3.075	4.2	0.58	7.6
14000	1424				4.87	20.71	3.080	4.2	0.58	3.1

Start Time: 1344 Elapsed Time: 41 Water Quality Meter ID: YSI 6820
Stop Time: 1425 Average Purge Rate (mL/min): 350 Date Calibrated: 6/9/08

SAMPLING DATA

Sample Date: 6/9/08 Sample Time: 1425 Lab Analysis: VOC 8260
Sample Method: Monsoon / Low Flow Sample Flow Rate (mL/min): 300 QA/QC: DUP (~~P58~~-060908D)

COMMENTS:

~~Sulfate:~~ ~~ppm~~
~~Ferrous Iron (filtered):~~ ~~ppm~~

Total Purge Volume: 14350 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/10/08 WEATHER: 70s, sunny
MONITORING WELL ID: P-66 SAMPLE ID: P66-061008

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 59.67 ft
Depth to Water (btoc): 41.13 ft
Depth to LNAPL/DNAPL (btoc): 40.99 ft *
Depth to Top of Screen (btoc): 34.67 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 18.54 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 50.26 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 18.8 ppm

PURGE DATA

HEADSPACE PID = 26.1 ppm

Pump Type: Monsoon Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1200	1312	41.04	cloudy	petro.-like	5.67	21.84	1.583	68.5	0.90	-54.7
2400	1316	41.04			5.57	21.72	1.551	62.3	0.86	-48.1
3600	1320	41.04			5.50	21.69	1.536	58.6	0.84	-45.6
4800	1324	41.05			5.43	21.73	1.517	73.3	0.82	-41.6
6000	1328	41.07			5.38	21.80	1.507	69.9	0.81	-40.1
7200	1332	41.08			5.34	21.78	1.503	67.0	0.80	-37.7
8400	1336				5.27	21.76	1.502	66.7	0.79	-35.7
9600	1340				5.22	21.70	1.499	67.0	0.78	-33.4

Start Time: 1308 Elapsed Time: 32 min Water Quality Meter ID: YSI 6820
Stop Time: 1340 Average Purge Rate (mL/min): 300 Date Calibrated: 6/10/08

SAMPLING DATA

Sample Date: 6/10/08 Sample Time: 1340 Lab Analysis: VOC 8260
Sample Method: Monsoon / Low Flow Sample Flow Rate (mL/min): 300 QA/QC: —

COMMENTS:

* Product tone given by interface probe suspected to be from sediment / debris on water surface. No residue observed on interface probe. Sheen possible.

~~Sulfate: ppm~~
~~Ferrous Iron (filtered): ppm~~

Total Purge Volume: 9600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Werrig
DATE: 6/10/08 WEATHER: upper 70s, cloudy
MONITORING WELL ID: P-73 SAMPLE ID: P73-061008

INITIAL DATA

Well Diameter: 4 in
Total Well Depth (btoc): 66.38 ft
Depth to Water (btoc): 49.98 ft
Depth to LNAPL/DNAPL (btoc): 49.87 ft *
Depth to Top of Screen (btoc): 41.38 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 16.4 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 58.07 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.7 ppm

PURGE DATA

HEADSPACE PID = 216 ppm

Pump Type: Monsoon Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1500	0920	50.00	relatively clear	none	6.60	20.43	1.216	19.1	1.02	-108.4
2700	0924	50.02	"	"	6.53	20.56	1.226	19.2	0.70	-102.9
3900	0928	50.05	"	"	6.45	20.60	1.235	16.5	0.58	-98.2
5100	0932	50.05	"	"	6.35	20.65	1.243	2.5	0.56	-92.0
6300	0936	50.05	"	"	6.32	20.76	1.247	3.8	0.58	-89.0
7500	0940	"	"	"	6.28	20.69	1.256	3.9	0.56	-83.1

Start Time: 0915 Elapsed Time: 28 min Water Quality Meter ID: YSI 6820
Stop Time: 0943 Average Purge Rate (mL/min): 300 Date Calibrated: 6/10/08

SAMPLING DATA

Sample Date: 6/10/08 Sample Time: 0943 Lab Analysis: VOC 8260
Sample Method: Monsoon / Low Flow Sample Flow Rate (mL/min): 300 QA/QC: —

COMMENTS:

* Product tone given by interface probe suspected to be from sediment/debris on surface of water. No residue on interface probe. Sheen possible.

~~Sulfate:~~ ppm
~~Ferrous Iron (filtered):~~ ppm

Total Purge Volume: 8400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Route 111 & Rand Vicnity PROJECT NUMBER: 21561979 FIELD PERSONNEL: W. Pennington & ~~S. Moore~~ R. Wernig
DATE: 6/10/08 WEATHER: 80, partly cloudy
MONITORING WELL ID: P-75 SAMPLE ID: P75-061008

INITIAL DATA

Well Diameter: 4 in
Total Well Depth (btoc): 67.08 ft
Depth to Water (btoc): 51.09 ft
Depth to LNAPL/DNAPL (btoc): 51.05 ft *
Depth to Top of Screen (btoc): 42.08 ft
Screen Length: 25 ft

Water Column Height (do not include LNAPL or DNAPL): 15.99 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Lenth is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 59.05 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 1,150 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume): 3,450 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.00 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

HEADSPACE PID = 214 ppm

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
1050	1020	51.14	clear	V. sl. petr.	6.10	23.28	1.972	14.9	0.73	-63.2
2450	1024	51.14	"	"	6.06	23.26	1.976	10.8	0.62	-62.2
3850	1028	"	"	"	6.02	23.31	1.965	11.8	0.56	-60.1
5250	1032	"	"	"	6.00	23.40	1.950	8.9	0.52	-58.1
6650	1036	"	"	"	5.98	23.43	1.948	6.3	0.50	-57.1

Start Time: 1017 Elapsed Time: 23 min Water Quality Meter ID: YSI 6820
Stop Time: 1040 Average Purge Rate (mL/min): 350 Date Calibrated: 6/10/08

SAMPLING DATA

Sample Date: 6/10/08 Sample Time: 1040 Lab Analysis: VOC 8260
Sample Method: Monsoon / Low Flow Sample Flow Rate (mL/min): 300 QA/QC: EB (P75-061008EB)

COMMENTS: of ~~water~~ NAPL interface probe
* Product tone ^ suspected to be from sediment/debris on surface of water. ~~Sulfate: ppm~~
sheen possible. No residue on interface probe. ~~Ferrous Iron (filtered): ppm~~

Total Purge Volume: 8050 mL

SOIL VAPOR SAMPLING - SUMMA CANISTER

URS CORPORATION
RAND AVENUE REMEDIATION SITE
170 EAST RAND AVENUE / HARTFORD, ILLINOIS 62048

MONITORING TEAM INFORMATION

Field Personnel: M. Miller / S. Moore

Date: 6/3/08

Job Number: 21561974

FIELD CONDITIONS

Weather: Cloudy	Temperature:	Low:	High:
Wind Direction: North	Level of Protection:	Level D	

SUMMA CANISTER SAMPLE INFORMATION

Sample ID	Canister ID Number	Flow Regulater ID Number	Canister Vacuum (inches of Mercury [Hg])		Sample Time (24 hours)		Additional Comments
			Initial	Final	Start	Finish	
GP-12-A-060308	13389	FC00580	29	8	0935	0955	No
GP-12-B-060308	33406	FC00244	29	8	0939	1003	No
GP-12-C-060308	31752	FC00496	29	7	0935	1007	No
GP-12-D-060308	36564	FC00216	30	8	0940	1014	No
GP-11-A-060308	n2186	FC00490	30	9	1345	1420	No
GP-11B-060308	n2033	FC00610	29	10	1350	1428	No
GP-11-B-060308-DUP	n2170	FC00434	29	6.5	1350	1428	No
GP-11-C-060308	n2032	FC00857	30	9	1355	1432	No
GP-11-D-060308	36341	FC00505	30	9	1410	1420	No

Tedlar Bags ~~0.75~~ ~~0.00764~~ ~~0.15~~ 21.65315 CO / H_2S / LEL / O_2

FIELD DATA

Sample ID	Sample Time (24 hrs)	Vacuum Reading (inches of H_2O)	Calculated Purge Volume (3 well volumes)	Actual Volume Purged	Purge Method	Tedlar Bag Collection Method	PID Reading	4-Gas Meter Reading	Additional Comments (Yes / No)
GP-12-A-060308	0915	0.00	130 mL	130 mL	Syringe	Peristaltic Pump	0.1	0 / 1 / 0 / 11.6	No
GP-12-B-060308	0916	0.00	217 mL	220 mL	Syringe	Peristaltic Pump	0.0	0 / 1 / 0 / 4.5	No
GP-12-C-060308	0917	0.00	303 mL	305 mL	Syringe	Peristaltic Pump	0.1	0 / 1 / 0 / 1.6	No
GP-12-D-060308	0918	0.00	390 mL	390 mL	Syringe	Peristaltic Pump	0.2	0 / 1 / 0 / 3.0	No
GP-11-A-060308	1332	0.00	130 mL	130 mL	Syringe	Peristaltic Pump	2.4	0 / 1 / 0 / 11.2	No
GP-11-B-060308	1333	0.00	260 mL	260 mL	Syringe	Peristaltic Pump	2.6	0 / 1 / 0 / 10.3	No
GP-11-C-060308	1334	0.01	303 mL	305 mL	Syringe	Peristaltic Pump	~~2.7~~ 2.7	0 / 1 / 0 / 10.0	No
GP-11-D-060308	1335	0.00	390 mL	390 mL	Syringe	Peristaltic Pump	2.1	0 / 1 / 0 / 2.8	No
GP-11-B-060308-Dup	1333	0.00	260 mL	260 mL	Syringe	Peristaltic Pump	2.6	0 / 1 / 0 / 10.3	No
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			
					Syringe	Peristaltic Pump			

NOTES: Abbreviations: L = liter; mL = milliliter; N/A = Not Applicable; N = No; Y = Yes

6/3/08

SOIL VAPOR SAMPLING - SUMMA CANISTER

URS CORPORATION
RAND AVENUE REMEDIATION SITE
170 EAST RAND AVENUE / HARTFORD, ILLINOIS 62048

MONITORING TEAM INFORMATION

Field Personnel: M. Miller / S. Moore

Date: 6/4/08

Job Number: 21561979

FIELD CONDITIONS

Weather:	Temperature:	Low:	High:
Wind Direction:	Level of Protection:		

SUMMA CANISTER SAMPLE INFORMATION

Sample ID	Canister ID Number	Flow Regulater ID Number	Canister Vacuum (inches of Mercury [Hg])		Sample Time (24 hours)		Additional Comments
			Initial	Final	Start	Finish	
GP-13-A-060408	(SC62)	FC00239	29	8.5	0850	0928	No
GP-13B-060408	3369 (SC749)	FC 00955	30	9	0855	0930	No
GP-13C-060408	3297 (SC64)	FC00073	30	8	0900	0935	No
GP-13D-060408	1423	FC00741	27	7	0905	0936	No
GP-9-A-060408	34153	FC00198	29	7	1045	1115	No
GP-9-B-060408	36519	FC00154	30	8.5	1050	1120	No
GP-9-C-060408	SC52	FC00381	30	9	1055	1125	No
GP-9-C-060408-Dup	SC66	FC00573	29.5	8.5	1055	1125	No
GP-9-D-060408	9358	FC00360	30	6	1115	1145	No

SOIL VAPOR SAMPLING - TEDLAR BAG

21.65315

URS CORPORATION
RAND AVENUE REMEDIATION SITE
170 EAST RAND AVENUE / HARTFORD, ILLINOIS 62048

MONITORING TEAM INFORMATION

Field Personnel: M. Miller S. Moore

Date: 6/4/08

Job Number: 21561979

FIELD CONDITIONS

Weather:

Temperature: Low: High:

Wind Direction:

Level of Protection:

EQUIPMENT & CALIBRATION INFORMATION

Meter Type:

Manufacturer:

Model No.:

CO | H_2S
LEL | O_2

FIELD DATA

Sample ID	Sample Time (24 hrs)	Vacuum Reading (inches of H_2O)	Calculated Purge Volume (3 well volumes)	Actual Volume Purged	Purge Method	Tedlar Bag Collection Method	PID Reading	4-Gas Meter Reading	Additional Comments (Yes / No)
GP-13-A-060408	0834	0.00	5 152	155	Syringe	Peristaltic Pump	1.2	0 / 0 / 0 / 7.0	No
GP-13-B-060408	0835	0.00	10 260	260	Syringe	Peristaltic Pump	0.9	0 / 0 / 0 / 2.1	No
GP-13-C-060408	0836	0.00	15 368	370	Syringe	Peristaltic Pump	0.9	0 / 0 / 0 / 2.4	No
GP-13-D-060408	0837	0.00	20 477	480	Syringe	Peristaltic Pump	1.2	0 / 0 / 0 / 0.0	No
GP-9-A-060408	1027	0.00	5 152	155	Syringe	Peristaltic Pump	1.8	0 / 0 / 0 / 5.7	No
GP-9-B-060408	1028	0.05	10 260	260	Syringe	Peristaltic Pump	1.2	0 / 0 / 0 / 2.6	No
GP-9-C-060408	1029	-0.00	15 368	370	Syringe	Peristaltic Pump	1.4	0 / 0 / 0 / 2.8	No
GP-9-D-060408	1030	-0.00	20 477	480	Syringe	Peristaltic Pump	0.9	0 / 0 / 0 / 3.8	No
GP-9-C-060408-DUP	1024	-0.00	368	370	Syringe	Peristaltic Pump	1.4	0 / 0 / 0 / 2.8	No
					Syringe	Peristaltic Pump			

Analytical Report 305128

for

URS Corporation-St. Louis

Project Manager: Wendy Pennington

900 S. Central Avenue

Route 111 & Rand Avenue Vicinity / 21561979

18-JUN-08

E84880

4143 Greenbriar Dr., Stafford, TX 77477 Ph:(281) 240-4200 Fax:(281) 240-4280

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

18-JUN-08

Project Manager: **Wendy Pennington**
URS Corporation-St. Louis
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110

Reference: XENCO Report No: **305128**
900 S. Central Avenue
Project Address: Roxana, Illinois 62084

Wendy Pennington:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 305128. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 305128 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Carlos Castro
Managing Director, Texas

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY
Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

Certificate of Analysis Summary 305128
URS Corporation-St. Louis, St. Louis, MO

Project Name: 900 S. Central Avenue

Project Id: Route 111 & Rand Avenue Vicinity / 2156
Contact: Wendy Pennington
Project Location: Roxana, Illinois 62084

Date Received in Lab: Jun-04-08 10:00 am
Report Date: 18-JUN-08
Project Manager: Debbie Simmons

Analysis Requested		*Lab Id:*	305128-001	305128-002	305128-003	
		Field Id:	Rt 111/Rand Ave-IDW Soil	Rt 111/Rand Ave-IDW Wate	Trip Blank	
		Depth:				
		Matrix:	SOIL	WATER	WATER	
		Sampled:	Jun-03-08 10:45	Jun-03-08 13:30	Jun-03-08 00:00	
BOD by SM5210B	*Extracted:*					
	Analyzed:			Jun-04-08 16:14		
	Units/RL:			mg/L RL		
Biochemical Oxygen Demand, 5 day				16.6 2.00		
BTEX-MTBE by SW 8260B	*Extracted:*			Jun-11-08 09:24	Jun-11-08 09:00	
	Analyzed:			Jun-11-08 13:33	Jun-11-08 09:57	
	Units/RL:			mg/L RL	mg/L RL	
MTBE				U 0.0050	U 0.0050	
Benzene				0.0307 0.0010	U 0.0010	
Toluene				0.2042 0.0010	U 0.0010	
Ethylbenzene				0.0918 0.0010	U 0.0010	
m,p-Xylene				0.1325 0.0020	U 0.0020	
o-Xylene				0.0653 0.0010	U 0.0010	
Total Xylenes				0.1978	U	
Total BTEX				0.5245	U	
COD by EPA 410.4	*Extracted:*					
	Analyzed:			Jun-05-08 17:38		
	Units/RL:			mg/L RL		
COD - Chemical Oxygen Demand				37.0 20.0		
Inorganic Anions by EPA 300	*Extracted:*					
	Analyzed:			Jun-04-08 15:04		
	Units/RL:			mg/L RL		
Nitrate as N				0.984 0.113		
Oil and Grease by EPA 1664A	*Extracted:*					
	Analyzed:			Jun-12-08 16:08		
	Units/RL:			mg/L RL		
Oil & Grease, Total Recovered				3.33 J 5.00		
TCLP Herbicides by SW8151	*Extracted:*		Jun-09-08 10:12			
	Analyzed:		Jun-11-08 22:25			
	Units/RL:		ug/L RL			
2,4,5-Tp			U 2.50			
2,4-D			U 2.50			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 305128
URS Corporation-St. Louis, St. Louis, MO

Project Name: 900 S. Central Avenue

Project Id: Route 111 & Rand Avenue Vicinity / 2156
Contact: Wendy Pennington
Project Location: Roxana, Illinois 62084

Date Received in Lab: Jun-04-08 10:00 am
Report Date: 18-JUN-08
Project Manager: Debbie Simmons

Analysis Requested					
	Lab Id:	305128-001	305128-002	305128-003	
	Field Id:	Rt 111/Rand Ave-IDW Soil	Rt 111/Rand Ave-IDW Wate	Trip Blank	
	Depth:				
	Matrix:	SOIL	WATER	WATER	
	Sampled:	Jun-03-08 10:45	Jun-03-08 13:30	Jun-03-08 00:00	
TCLP Metals by SW 6020A	*Extracted:*	Jun-09-08 10:05			
	Analyzed:	Jun-09-08 20:29			
	Units/RL:	mg/L RL			
Arsenic		U 0.010			
Barium		0.831 0.025			
Cadmium		U 0.005			
Chromium		0.009 J 0.015			
Lead		U 0.010			
Mercury		U 0.0020			
Selenium		U 0.015			
Silver		U 0.010			
TCLP Pesticides by SW8081A	*Extracted:*	Jun-09-08 10:15			
	Analyzed:	Jun-09-08 20:17			
	Units/RL:	ug/L RL			
Heptachlor Epoxide		U 0.250			
Chlordane		U 2.50			
Endrin		U 0.250			
Gamma-BHC (Lindane)		U 0.250			
Heptachlor		U 0.250			
Methoxychlor		U 0.250			
Toxaphene		U 2.50			
TCLP SVOCs by EPA 8270C	*Extracted:*	Jun-11-08 11:45			
	Analyzed:	Jun-12-08 18:08			
	Units/RL:	mg/L RL			
1,4-Dichlorobenzene		U 0.010			
2,4-Dinitrotoluene		U 0.010			
Hexachlorobenzene		U 0.010			
Hexachlorobutadiene		U 0.010			
Hexachloroethane		U 0.010			
2-methylphenol		U 0.010			
3&4-Methylphenol		U 0.010			
Nitrobenzene		U 0.010			
Pentachlorophenol		U 0.010			
Pyridine		U 0.010			
2,4,5-Trichlorophenol		U 0.010			
2,4,6-Trichlorophenol		U 0.010			

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Managing Director, Texas

Certificate of Analysis Summary 305128
URS Corporation-St. Louis, St. Louis, MO

Project Name: 900 S. Central Avenue

Project Id: Route 111 & Rand Avenue Vicinity / 2156 **Date Received in Lab:** Jun-04-08 10:00 am
Contact: Wendy Pennington **Report Date:** 18-JUN-08
Project Location: Roxana, Illinois 62084 **Project Manager:** Debbie Simmons

Analysis Requested		*Lab Id:*	305128-001	305128-002	305128-003	
		Field Id:	Rt 111/Rand Ave-IDW Soil	Rt 111/Rand Ave-IDW Wate	Trip Blank	
		Depth:				
		Matrix:	SOIL	WATER	WATER	
		Sampled:	Jun-03-08 10:45	Jun-03-08 13:30	Jun-03-08 00:00	
TCLP VOAs by EPA 8260B	*Extracted:*		Jun-12-08 14:34			
	Analyzed:		Jun-12-08 16:34			
	Units/RL:		mg/L RL			
Benzene			U 0.025			
2-Butanone			U 0.250			
Carbon Tetrachloride			U 0.025			
Chlorobenzene			U 0.025			
Chloroform			U 0.025			
1,2-Dichloroethane			U 0.025			
1,1-Dichloroethene			U 0.025			
Tetrachloroethylene			U 0.025			
Trichloroethene			U 0.025			
Vinyl Chloride			U 0.010			
TPH DRO by SW846-8015	*Extracted:*			Jun-06-08 12:04		
	Analyzed:			Jun-09-08 13:28		
	Units/RL:			mg/L RL		
TPH-DRO (Diesel Range Organics)				1.14 0.053		
TPH GRO by EPA 8015 Mod.	*Extracted:*			Jun-13-08 12:16		
	Analyzed:			Jun-14-08 04:31		
	Units/RL:			mg/L RL		
TPH-GRO (Gasoline Range Organics)				3.30 0.050		
TSS by SM2540D	*Extracted:*					
	Analyzed:			Jun-09-08 17:14		
	Units/RL:			mg/L RL		
TSS				3090 5.00		
Total Lead by EPA 200.8	*Extracted:*			Jun-09-08 10:05		
	Analyzed:			Jun-09-08 19:03		
	Units/RL:			mg/L RL		
Lead				0.006 0.002		
pH, Electrometric by EPA 150.2	*Extracted:*					
	Analyzed:			Jun-04-08 16:02		
	Units/RL:			SU RL		
pH				7.71		

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Certificate of Analysis Summary 305128
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Project Name: 900 S. Central Avenue

Project Id: Route 111 & Rand Avenue Vicinity / 2156
Contact: Wendy Pennington
Project Location: Roxana, Illinois 62084

Date Received in Lab: Jun-04-08 10:00 am
Report Date: 18-JUN-08
Project Manager: Debbie Simmons

Analysis Requested		*Lab Id:*	305128-001	305128-002	305128-003	
		Field Id:	Rt 111/Rand Ave-IDW Soil	Rt 111/Rand Ave-IDW Wate	Trip Blank	
		Depth:				
		Matrix:	SOIL	WATER	WATER	
		Sampled:	Jun-03-08 10:45	Jun-03-08 13:30	Jun-03-08 00:00	
Flash Point (CC) SW-846 1010	*Extracted:*					
	Analyzed:		Jun-12-08 12:45			
	Units/RL:		Deg F RL			
Flash Point			> 150 50.0			
Reactive Cyanide by EPA 9010B	*Extracted:*					
	Analyzed:		Jun-09-08 23:18			
	Units/RL:		mg/kg RL			
Cyanide			U 0.200			
Reactive Sulfide by EPA 9030B	*Extracted:*					
	Analyzed:		Jun-09-08 23:52			
	Units/RL:		mg/kg RL			
Reactive Sulfide			U 50.0			
Soil pH by EPA 9045C	*Extracted:*					
	Analyzed:		Jun-12-08 10:32			
	Units/RL:		SU RL			
pH			8.67			

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Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
11381 Meadowglen Ln; Ste L; Houston, TX
☑ XENCO (PH: 281-589-0692; FAX: 281-589-0695)
☐ CALSCIENCE ( )
☐ TEST AMERICA ( )
☐ SPL ( )
☐ OTHER ( )

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: KEVIN DYER
PO #:
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 6/3/08
PAGE: 1 of 1

CONSULTANT COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300
CITY: ST. LOUIS, MISSOURI 63110
TELEPHONE: OFF: 314-743-4166 CELL: 314-452-8929
FAX: OFF: 314-743-4166 CELL: 314-452-8929

URS CORPORATION - FIELD OFFICE
170 E. RAND AVENUE
HARTFORD, ILLINOIS 62048
E-MAIL: wendy_pennington@urscorp.com

SOPUS SITE ADDRESS (Street, City and State): 900 S. CENTRAL AVENUE; ROXANA, ILLINOIS 62084
CONSULTANT PROJECT CONTACT (Report to): WENDY PENNINGTON
CONSULTANT PROJECT NAME / NO.: Route 111 & Rand Ave Vicinity / 21561979
SAMPLER NAME(S) (Print): W. Pennington
LAB USE ONLY: 305128-H1

TURNAROUND TIME (CALENDAR DAYS):
☒ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

DELIVERABLES: ☐ LEVEL 1 ☒ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY)

TEMPERATURE ON RECEIPT C°: Cooler #1 2-0°C | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Please provide "J" values in the Level 2 Report.

☑ SHELL CONTRACT RATE APPLIES

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	~~TCLP VOC~~	TCLP SVOC	TCLP Pesticide	TCLP Herbicide	TCLP Metal	Ignitibility	Corrosivity	Reactivity	BTEX/MTBE 8021	pH 150.2	TSS SM2540D	Nitrate E300.0	Oil/Grease 1664A	Lead 200.8	BOD SM5210B	COD 410.4	DRO/GRO 8015	PID (ppm)	Container PID Readings or Laboratory Notes
	Rt 111/Rand Ave-IDW Soil-060308	6/3/08	1045	~~WATER~~ Soil				X		15	X	X	X	X	X	X	X	X											
	Rt 111/Rand Ave-IDW Water-060308	6/3/08	1330	~~WATER~~ Water	X	X	X	X		16									X	X	X	X	X	X	X	X	X		
				~~WATER~~																									
				~~WATER~~																									
				~~WATER~~																									
				~~WATER~~																									
				~~WATER~~																									
				~~WATER~~																									

WMP

Page 50 of 51

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Wendy Pennington	FED Ex	6/3/08	1730
FEDEX		6/4/08	1000

05/2/08 Revision

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: URS

Date/ Time: 6/4/8

Lab ID # : 305128-17

Initials: [illegible]

Sample Receipt Checklist

#1	Temperature of container/ cooler?	Yes	No	N/A	2-0°C
#2	Shipping container in good condition?	Yes	No	None	
#3	Samples received on ice?	Yes	No	N/A	Blue/Water
#4	Custody Seals intact on shipping container/ cooler?	Yes	No	N/A	
#5	Custody Seals intact on sample bottles/ container?	Yes	No	N/A	
#6	Chain of Custody present?	Yes	No		
#7	Sample instructions complete of Chain of Custody?	Yes	No		
#8	Any missing/extra samples?	Yes	No		
#9	Chain of Custody signed when relinquished/ received?	Yes	No		
#10	Chain of Custody agrees with sample label(s)?	Yes	No		
#11	Container label(s) legible and intact?	Yes	No		
#12	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#13	Samples in proper container/ bottle?	Yes	No		
#14	Samples properly preserved?	Yes	No	N/A	
#15	Sample container intact?	Yes	No		
#16	Sufficient sample amount for indicated test(s)?	Yes	No		
#17	All samples received within sufficient hold time?	Yes	No		
#18	Subcontract of sample(s)?	Yes	No	N/A	
#19	VOC samples have zero headspace?	Yes	No	N/A	

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: TB not on COC 003

Corrective Action Taken:

Check all that Apply:

- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

SOIL SAMPLE RESULTS:

NOTE - Laboratory reports not included herein due to size. Available upon request.

SDG 303978	SDG 304253
B-1-03	B-2-41
B-2-04	B-1-27
B-3-06	**SDG 304421**
B-4-06	B-3-33
GP-12(II)-04	B-5-27
GP-7(II)-03	**SDG 304536**
B-6-04	GP-12(II)-17
B-5-04.5	GP-12(II)-17-Dup
SDG 304173	B-4-35
B-6-23	
GP-7(II)-19	
GP-7(II)-19-Dup	

SOIL VAPOR SAMPLE RESULTS:

SDG 0806072	SDG 0806099
GP-12-A-060308	GP-13-A-060408
GP-12-B-060308	GP-13-B-060408
GP-12-C-060308	GP-13-C-060408
GP-12-D-060308	GP-13-D-060408
GP-11-A-060308	GP-9-A-060408
GP-11-B-060308	GP-9-B-060408
GP-11-B-060308-DUP	GP-9-C-060408
GP-11-C-060308	GP-9-C-060408-DUP
GP-11-D-060308	GP-9-D-060408

GROUNDWATER SAMPLE RESULTS:

SDG 305672	SDG 305871
P58-060908	B1-061208
P58-060908D	B2-061208
P56-060908	B2-061208D
P73-061008	B3-061208
P75-061008	B4-061208
P66-061008	B5-061308
P54-061008	B6-061308
P57-061108	**SDG 308728**
	P54072508

REFERENCE: ATC Associates Inc., 2007; *Subsurface Investigation Report on #1 and #4 Dock Lines Report*; Prepared for ConocoPhillips – Wood River Refinery; dated April 24, 2007.

ConocoPhillips – Wood River Refinery
Subsurface Investigation Report
On #1 and #4 Dock Lines
Illinois Route 111 and Rand Avenue
Roxana, Illinois
ATC Project Number 30.75233.0710 T-1

Prepared for:

Mr. Eric Petersen
ConocoPhillips Company
P.O. Box 76
Roxana, Illinois 62084

April 24, 2007

TABLE 1

SOIL ANALYTICAL RESULTS (ug/Kg)
CONOCOPHILLIPS
WOOD RIVER REFINERY
ILLINOIS ROUTE 111 AND RAND AVENUE
ROXANA, ILLINOIS

Sample Name	Date Sampled	Depth Interval (ft)	EPA Method 8260B (ug/Kg)					EPA Method 8270 (ug/Kg)															
			Benzene	Ethylbenzene	MTBE	Toluene	Total Xylene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
B-1	03/07/07	12'-14'	1.7	<6.3	<2.5	<6.3	<6.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
		22'-24'	<1.1	<5.4	<2.1	<5.4	<5.4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
B-3	03/01/07	14'-16'	287	548	<56.4	<141	<141	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	9	<4	<4
		22'-24'	21,900	8,220	<389	<972	7,890	87	19	21	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	173	166	12
		34'-36'	3,710	<138	<55.2	<138	420	7	<3	7	8	<3	4	<3	<3	11	<3	13	11	<3	28	40	19
B-5	02/28/07	14'-16'	1.0	<5.0	<2.0	<5.0	<5.0	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
		38'-40'	165,000	1,500	<64.7	1,260	4,170	735	10	44	31	13	20	4	8	27	<4	202	317	5	11,000	400	122
B-6	03/01/07	12'-14'	16.8	<4.9	<2.0	<4.9	<4.9	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
		34'-36'	1,220	<138	<55.2	<138	154	17	4	17	28	27	32	19	17	31	11	54	26	16	49	71	56
B-6 (D)	03/01/07	34'-36'	1,400	821	<51.0	481	4,370	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Industrial/ Commercial		Inhalation (ug/Kg)	1,600	400,000	883,000	650,000	200,000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	200,000	NS	NS
		Ingestion (ug/Kg)	100,000	2.0×10^8	2.0×10^7	4.1×10^8	1.0×10^9	1.2×10^8	6.1×10^7	6.1×10^8	8,000	800	8,000	6.1×10^7	78,000	780,000	800	8.2×10^7	8.2×10^7	8,000	4.1×10^7	6.1×10^7	6.1×10^7
Construction Worker		Inhalation (ug/Kg)	2,200	5.8×10^4	1.4×10^5	4.2×10^4	3.2×10^5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.8×10^3	NS	NS
		Ingestion (ug/Kg)	2.3×10^6	2.0×10^7	2.0×10^6	4.1×10^8	4.1×10^8	1.2×10^8	6.1×10^7	6.1×10^8	1.7×10^5	1.7×10^4	1.7×10^5	6.1×10^7	1.7×10^6	1.7×10^7	1.7×10^4	8.2×10^7	8.2×10^7	1.7×10^5	4.1×10^6	6.1×10^7	6.1×10^7
Soil component of the Groundwater Ingestion Exposure Route		Class I (ug/Kg)	30	13,000	320	12,000	150,000	570,000	24,000	1.2×10^7	2,000	8,000	5,000	3.2×10^7	49,000	160,000	2,000	4.3×10^6	560,000	14,000	12,000	220,000	4.2×10^6
		Class II (ug/Kg)	170	19,000	320	29,000	150,000	2.9×10^6	120,000	5.9×10^7	8,000	82,000	25,000	1.6×10^8	250,000	800,000	7,600	2.1×10^7	2.8×10^6	69,000	18,000	1.1×10^6	2.1×10^7

Notes:

Results reported in ug/Kg

<: Analyte was not detected at or above the reporting limit, as shown.

NS: No standard; soil remediation objective not defined for listed compound.

NA: Not analyzed for this parameter; insufficient volume of sample recovered to collect moisture or PNA jar of duplicate sample.

Shaded values indicate exceedance of TACO Tier 1 soil remediation objective (SRO) for the inhalation pathway for the industrial/commercial worker on industrial/commercial property.

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
CONOCOPHILLIPS (ug/L)
WOOD RIVER REFINERY
ILLINOIS ROUTE 111 AND RAND AVENUE
ROXANA, ILLINOIS

Well ID:	Collection Date:	VOLATILES -8260B (ug/L)					PNAs - 8270 (ug/L)														
		Benzene	Ethylbenzene	Methyl t-butyl ether (MTBE)	Toluene	Xylenes, Total	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
B-1	03/07/07	41040	<250	<100	<250	<250	**0.29**	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	**0.34**	<0.26	<0.26
B-3	03/02/07	65300	<5,000	<2,000	<5,000	**8,100**	**1.76**	**0.32**	**0.17**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**1.59**	<0.10	402	**0.92**	<0.10
B-3 (D)[1]	03/02/07	NA	NA	NA	NA	NA	**2.15**	**0.44**	**0.23**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**1.78**	<0.10	475	**1.33**	<0.10
B-5	03/01/07	27300	<1,000	<400	<1,000	<1,000	**26.8**	**0.6**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**3.12**	<0.10	1910	**0.2**	<0.10
B-5 (D)[1]	03/01/07	23200	<1,000	<400	<1,000	<1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TACO Tier 1 GROs	Class I	5	700	70	1,000	10,000	420	210	2,100	0.13	0.2	0.18	210	0.17	1.5	0.3	280	280	0.43	140	210	210
	Class II	25	1,000	70	2,500	10,000	2,100	1,050	10,500	0.65	2	0.9	1,050	0.85	7.5	1.5	1,400	1,400	2.15	220	1,050	1,050

Notes:
Results reported in ug/L.
<: Analyte was not detected at or above the reporting limit, as shown.
NA: Not analyzed for this parameter.
Shaded values indicate exceedance of TACO Tier 1 groundwater remediation objective (GRO) for Class I.
[1] B-5 duplicate PNA bottle broke in transit to laboratory. Therefore, Volatiles (8260B) duplicate was collected from B-5, while PNA (8270) duplicate was collected from B-3.

APPENDIX H-1
SUMMARY OF 2006 GROUNDWATER ANALYTICAL DETECTIONS AND SCREENING

EXCEEDANCES HIGHLIGHTED IN YELLOW

Analyte (Results in mg/L)			Benzene	Ethylbenzene	Toluene	Xylenes (total)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Acetone	Bromomethane	Carbon disulfide
Ingestion Screening Values (mg/L)			0 005	0.7	1 0	10	0 35*	0.35*	0.7	130**	0.7
Location	Sample ID	Date									
COP WELLS											
P-57	P5703030601	3/3/2006	**177**	**1.12**	<1.0	<3.0	<1 0	<1.0	<50.0	<1.0	<1 0
P-58	P5803020601	3/2/2006	**409 RL5**	<5 0	<5.0	<15 0	<5 0	<5.0	<250	<5.0	<5 0
	P5803020602	3/2/2006	**464 RL5**	<5 0	<5.0	<15 0	<5 0	<5.0	<250	<5.0	<5 0
P-66	P6603020601	3/2/2006	**0.0116 U**	<0 001	**0.00199**	<0.003	**0.00125**	<0.001	<0.050	<0.001	<0 001
P-73	P7303020601	3/2/2006	**22.4**	**1.74**	**8.5**	**4.53**	**0.928**	**0.155**	<0.050	<0.001	<0 001
P-75	P7503030601	3/3/2006	**2.78**	**0.0296**	**0.0169**	**0.0393**	**0.0664**	**0.0146**	<0.050	<0.001	<0 001
P-93A	P93A03030601	3/3/2006	**506**	<5 0	<5.0	<15 0	<5 0	<5.0	<250	<5.0	<5 0
P-93B	P93B03030601	3/3/2006	**370**	<5 0	<5.0	<15 0	<5 0	<5.0	<250	<5.0	<5 0
GROUNDWATER PROFILE SAMPLING											
P-93-02	P9302GWP43	4/5/2006	**1,310 RL1**	**6.2 RL1,J**	**29.5 RL1**	**26.4 RL1,J**	**9.8 RL1,J**	<10 0	<500	<10 0	<10.0
	P9302GWP59	4/5/2006	**264 RL1**	**10.9 RL1**	**56.5 RL1**	**48.9 RL1**	**16.6 RL1**	**4.6 RL1,J**	<500	<10 0	<10.0
P-93-03	P9303GWP40	4/6/2006	**348**	**0.534**	**0.123 J**	**1.61**	**0.129 J**	<0.001	<0.050	<0.001	<0 001
	P9303GWP59	4/7/2006	**3.65**	**0.153**	**0.00463**	**0.262**	**0.167**	**0.0482**	<0.050	<0.001	**0.00108**
P-93-05	P9305GWP45	4/7/2006	**1,460**	**0.0058 J**	**0.0147 J**	**0.0147 J**	**0.00537 J**	**0.00352 J**	<0.050	<0.001	<0 001
	P9305GWP58	4/7/2006	**52.2**	**0.203**	**0.233**	**0.488 J**	**0.103 J**	**0.0408 J**	<0.050	<0.001	<0 001
P-93-06	P9306GWP50	4/7/2006	**1,310**	<1 0	<1.0	<3.0	**0.00431 J**	**0.00305 J**	<0.050	<0.001	<0 001
	P9306GWP62 5	4/10/2006	**827**	**0.401 E J**	**491 E**	**0.791 E J**	**0.164 J**	**0.0563 J**	**0.325 J**	**0.00432 J**	<0 001
P-93-09	P9309GWP52	4/11/2006	**250**	**1.26**	**0.0685**	**2.34**	**1.77**	**0.485**	<0.50	<0.010	<0 010
	P9309GWP66	4/11/2006	**629 E1**	**0.74**	**0.156 J**	**0.502 J**	**0.137 J**	**0.035 J**	<0.050	<0.001	<0 001
	P9309GWP66D	4/11/2006	**569**	**0.698**	**0.13**	**0.548**	**0.131**	**0.0342**	<0.50	<0.010	<0 010
P-93-11	P9311GWP41	4/5/2006	**1,060 RL1**	<10.0	**17.5 RL1**	**16.5 RL1,J**	**6.4 RL1,J**	<10 0	<500	<10 0	<10.0
	P9311GWP59	4/6/2006	**11.8**	**0.0926**	**0.182**	**0.295**	**0.0526**	**0.0172**	<0.050	<0.001	<0 001
	P9311GWP59D	4/6/2006	**13.1**	**0.0876**	**0.183**	**0.278**	**0.0507**	**0.0169**	<0.050	<0.001	<0 001

Analyte (Results in mg/L)			Dibromomethane	Isopropyl benzene	Methyl tert-Butyl Ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene
Ingestion Screening Values (mg/L)			0.07*	5,200**	0.07	0.14	0.24***	0 24***		0.24***	0 24***
Location	Sample ID	Date									
COP WELLS											
P-57	P5703030601	3/3/2006	<1 0	<1.0	<1.0	<5.0	<1 0	<1 0	<1.0	<1 0	<1.0
P-58	P5803020601	3/2/2006	<5 0	<5.0	<5.0	<25.0	<5 0	<5 0	<5.0	<5 0	<5.0
	P5803020602	3/2/2006	<5.0	<5 0	<5.0	<25.0	<5 0	<5 0	<5.0	<5 0	<5.0
P-66	P6603020601	3/2/2006	<0.001	**0.125**	**0.107**	<0.005	**0.0131**	**0.142**	<0.001	**0.0181**	<0.001
P-73	P7303020601	3/2/2006	<0.001	**0.088**	**0.04**	**0.25**	<0 001	**0.149**	**0.0131**	**0.0237**	**0.056**
P-75	P7503030601	3/3/2006	<0.001	**0.103**	**0.191**	**0.0286**	**0.03**	**0.156**	<0.001	<0.020	<0.020
P-93A	P93A03030601	3/3/2006	<5 0	<5 0	<5.0	<25.0	<5 0	<5 0	<5.0	<5.0	<5.0
P-93B	P93B03030601	3/3/2006	<5 0	<5 0	<5.0	<25.0	<5 0	<5 0	<5.0	<5.0	<5.0
GROUNDWATER PROFILE SAMPLING											
P-93-02	P9302GWP43	4/5/2006	<10.0	<10.0	<10 0	<50.0	<10.0	<10.0	<10 0	<10.0	<10 0
	P9302GWP59	4/5/2006	<10.0	<10.0	<10 0	<50.0	<10.0	<10.0	<10 0	<10.0	<10 0
P-93-03	P9303GWP40	4/6/2006	<0.001	**0.0154 J**	**0.036 J**	**0.0702 J**	<0 001	**0.0261 J**	<0.001	<0.001	<0.001
	P9303GWP59	4/7/2006	<0.001	**0.016**	<0.001	**0.0214**	<0 001	**0.0406**	<0.001	<0.001	**0.00621**
P-93-05	P9305GWP45	4/7/2006	<0.001	**0.00376 J**	R	**0.00489 J**	<0 001	**0.00271 J**	<0.001	<0.001	<0.001
	P9305GWP58	4/7/2006	<0.001	**0.026 J**	<0.001	**0.0242 J**	<0 001	**0.0596 J**	<0.001	**0.00587 J**	**0.00632 J**
P-93-06	P9306GWP50	4/7/2006	**0.00143 J**	<0 001	R	0.00343 J	<0 001	<0 001	<0.001	<0.001	<0.001
	P9306GWP62 5	4/10/2006	<0.001	**0.0454 J**	**18.6**	**0.104 J**	**0.00405 J**	**0.118 J**	<0.001	<0.001	<0.001
P-93-09	P9309GWP52	4/11/2006	<0.010	**0.123**	**10.1**	**0.215**	<0 010	**0.31**	**0.0696**	**0.117**	**0.0328**
	P9309GWP66	4/11/2006	<0.001	**0.0154 J**	**8.57**	**0.0531 J**	<0 001	**0.0262 J**	**0.00439 J**	**0.00454 J**	**0.00059 J**
	P9309GWP66D	4/11/2006	<0.010	<0 010	**8.73**	**0.0362**	<0 010	**0.0213**	<0.010	**0.0052**	<0.010
P-93-11	P9311GWP41	4/5/2006	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10 0	<10.0	<10 0
	P9311GWP59	4/6/2006	<0.001	**0.00618**	**0.00449**	**0.0208**	<0 001	**0.0116**	<0.001	<0.001	**0.00418**
	P9311GWP59D	4/6/2006	<0.001	**0.00608**	**0.00464**	**0.0214**	<0 001	**0.0112**	<0.001	<0.001	**0.0042**

NOTES

1) Screening values shown above are the Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Ingestion Route.
2) <# ## Denotes the result was not detected below the indicated reporting limit.
3) **BOLD** indicates the analytical detection of the analyte.
4) Well sample ID explanation --> PXXDDDDDD --> PXX is the well location at which the sample was collected; DDDDDD is the sample date.
5) Profile sample ID explanation --> P93XXGWPZZZ --> P93XX is the profile location at which the sample was collected; GWP stands for groundwater profiling; ZZZ is the depth at which the sample was collected.

REFERENCES

Illinois Environmental Protection Agency (IEPA); Tiered Approach to Corrective Action Objectives (TACO); Title 35 of the Illinois Administrative Code, Part 742, Appendix B, Table E.

* IEPA; Tiered Approach to Corrective Action Objectives (TACO); Groundwater Remediation Objectives for Chemicals not listed in TACO; May 1, 2007.

** U.S. Environmental Protection Agency (USEPA); Region 6 Human Health Medium-Specific Screening Levels; December 2007.

*** U.S. Environmental Protection Agency (USEPA), Region 9; Preliminary Remediation Goals (PRGs) Table; October 2004.

LAB QUALIFIERS

B = A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
D = The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
E = Concentration exceeds the calibration range and therefore result is semi-quantitative.
E1 = Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
J = The target analyte was positively identified below the RL and above the MDL.
RL1 = Reporting limit raised due to sample matrix effects.
RL5 = Reporting limit raised due to high single peak analyte.

URS QUALIFIERS

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
R = Data rejected during validation efforts.

Appendix B

2013 Public Works Yard Soil Sampling Report

URS

March 13, 2013

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

RE: 1191150002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43R-CA-1; CA-3, CA-5, CA-6, CA-7, CA-8, CA-10, CA-11, and PS11-032
Public Work Yard Soil Sampling
Roxana, Illinois

Dear Mr. Nightingale:

Shell Oil Products US (SOPUS) recently conducted soil investigation activities at the Public Works Yard in the Village of Roxana, Illinois (Village). This work was performed according to the *Supplemental Information to the Meeting on August 1, 2011 Scope of Work for Additional Soil Investigation*, which was submitted to the Illinois Environmental Protection Agency (IEPA) with the *Response to Agency Comments Provided in June 16, 2011 Letter* dated September 1, 2011.

Presented below is a discussion of the investigation activities and results.

The former benzene line trended east-west in the railroad right-of-way just south of the Public Works Yard. As such, five soil borings were advanced at approximately 100-foot intervals from Route 111 to the eastern edge of the Public Works Yard (GP-14 through GP-18 on **Figure 1**). These locations are on the north side of the former benzene line.

INVESTIGATION ACTIVITIES

This soil sampling investigation was performed in general accordance with the investigative procedures contained in the *Response to Agency Comments Provided in June 16, 2011 Letter* dated September 1, 2011. The field activities were conducted during December 2012 and January 2013. The following subsections provide a brief description of the data collection activities that were performed.

PRE-FIELD ACTIVITIES AND BOREHOLE CLEARANCE

Field activities for this investigation were conducted on the Village of Roxana Public Works property, and on Illinois Department of Transportation (IDOT) right-of-way (**Figure 1**). The work in the Village was performed according to an access agreement between SOPUS and the Village, signed October 5, 2012. The work on IDOT property (location GP-14) was performed under an IDOT permit issued October 15, 2012.

Prior to the start of work, investigation locations were marked in the field and reviewed with Village representatives. A utility locate was performed using Illinois' Joint Utility Locating Information for Excavators (JULIE) service. Private utility locating services were also performed using ground penetrating radar (GPR) at each location.

Borehole clearance via an air-vacuum system (air-knife) was used to clear each location with respect to underground utility lines or other obstructions. The specific target depth for borehole clearance was determined to be 10 feet below ground surface (bgs) based upon a review of the subsurface utilities in the area.

Subsurface material observations were made during borehole clearance activities by advancing a hand auger prior to air-knifing to collect and classify the soil. These observations were noted on the soil boring logs.

SOIL SAMPLING

Soil sampling was performed by Roberts Environmental Drilling, Inc. (REDI) with an 8040DT Geoprobe® rig at five locations (GP-14 through GP-18) along the southern portion of the Public Works Yard from Route 111 to the eastern edge of the Public Works Yard (**Figure 1**).

Soil sampling was conducted via direct push, using a dual-tube sampling system. The dual-tube system consisted of a 5-foot long by 1.85-inch diameter clear acetate liner attached to 1-inch diameter inner rods. The acetate liner and inner rods were advanced simultaneously with the 3.5-inch diameter outer casing. Once a sample was collected within the acetate liner, the inner rods and acetate liner were retrieved while the outer casing remained in place. The acetate liner was replaced and inner rod returned to the

sampling depth, at which point the process was repeated. The soil borings were advanced to depths ranging between 48 and 93 feet bgs.

The subsurface stratigraphy was continuously logged by a qualified field scientist in accordance with applicable ASTM standards and the Unified Soil Classification System (USCS). The field scientist noted soil attributes such as color, particle size, consistency, moisture content, structure, plasticity, odor (if noted/present), and organic content (if visible). Soil samples were screened in the field using a photoionization detector (PID) and observations were noted on the soil boring logs. Additional field screening was also conducted on selected soil samples in each boring using Oil-in-Soil Sudan IV® test kits[1] to provide additional information on residual hydrocarbons in the soil. The Sudan IV® test kits utilized a dye which stains residual hydrocarbons at concentrations greater than or equal to 500 parts per million (ppm). The observations of the Sudan IV® tests are also presented on the soil boring logs. The soil boring logs are included in **Attachment A**.

Four to seven discrete soil samples per boring were collected for analysis of volatile organic compounds (VOCs) based on field headspace readings and/or Sudan IV® field screening results. The soil samples for laboratory analysis were separate from those used for field screening and were not composited prior to placing the soil samples into laboratory supplied containers.

Upon completion of these soil borings, the boreholes were backfilled with bentonite grout through the outer casing and the ground surface was returned to its original condition.

HEALTH & SAFETY, DECONTAMINATION, & INVESTIGATION DERIVED WASTE

Field personnel (URS and subcontractors) primarily wore U.S. Environmental Protection Agency (USEPA) Level D personal protective equipment (PPE). Modified Level D PPE (e.g., including Tyvek and face shields) were used during decontamination efforts.

A PID with a 10.6 electron volt (eV) probe and combustible gas indicator (CGI) were used during the field activities to monitor air quality for health and safety purposes. An UltraRae 3000 gas monitor was used to specifically monitor for benzene. Field

[1] The Sudan IV® kits are a qualitative test for the presence of residual hydrocarbons and may not be a direct correlation to laboratory VOC results.

instruments were calibrated prior to each use each day in accordance with the manufacturer's specifications. Health and safety related information was recorded in the field logbook and on appropriate field paperwork.

Prior to beginning site work, and at the start of each day, a daily safety meeting was held. The purpose of this meeting was to discuss the day's planned activities and to address any potential health and safety concerns. URS and subcontract employees attended these daily meetings.

Field personnel and equipment underwent decontamination procedures to ensure the health and safety of those present, to maintain sample integrity, and to minimize cross contamination between sampling locations.

Non-disposable/reusable sampling equipment (e.g., drilling sampling rod and shoe) was decontaminated between sample runs by washing with LiquiNox or similar and a distilled water rinse. Drilling equipment (e.g., drilling rods and casing) was decontaminated between sampling locations with a high-pressure hot water wash at a temporary decontamination pad at the Public Works Yard.

Investigation derived waste (IDW), including soil cuttings, PPE and expendable materials, and decontamination water were collected and disposed of properly. Expendable materials (e.g. disposal sampling equipment such as gloves) having a low probability of impact were collected in trash bags and disposed of as municipal waste. Soil cuttings from these borings and several other drilling locations performed concurrently in the Village were collected and placed directly in a labeled and covered roll-off container and managed by URS on behalf of SOPUS. Decontamination fluids generated were collected and staged at the Public Works Yard in 55-gallon steel drums prior to disposal.

Soil IDW was disposed at the Waste Management, Inc. Milam Recycling and Disposal Facility (Milam) in Fairmont City, Illinois. Decontamination fluids were disposed at the Heritage Environmental Services Facility in Indianapolis, Indiana.

SAMPLE HANDLING, LABORATORY TESTING, DATA QUALITY REVIEW, AND DATA MANAGEMENT, ANALYSIS AND REPORTING

Sample containers were labeled with a sample ID number, site name, sampler initials, sample date and time, sample preservative, and the parameters that were to be analyzed. After samples were collected, the samples were logged on a Chain-of-Custody (COC) form, packed to prevent damage during shipment, and cooled to 4°C. The samples were then delivered, under the proper COC documentation, to Accutest Laboratories in Marlborough, Massachusetts. The soil samples collected were analyzed for VOCs via USEPA Methods 8260B and 8011.

Laboratory data were provided in electronic form. Analytical data were subjected to a Level III review for quality and completeness, in accordance with procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory result pages.

Soil results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on matrix spike/matrix spike duplicate (MS/MSD), laboratory control sample (LCS), surrogate and field duplicate data were achieved for these sample delivery groups (SDGs) to meet the project objectives.

Field data and documentation collected as part of this supplemental scope of work became part of the project file. URS maintains the project file for the site, including relevant records, logs, field logbooks, subcontractor reports, data reviews, and the database management system.

INVESTIGATION RESULTS

The results of the investigation activities are described below.

Stratigraphy

The surface topography across the southern portion of the Public Works Yard generally slopes downward to the west with a total drop in elevation of approximately 4 feet from GP-18 to GP-14. The cross-section location can be viewed in **Figure 2** and a subsurface

cross-section for the southern portion of the Public Works Yard is shown in **Figure 3**. This cross section was primarily developed based on information collected during this soil investigation and supplemented with previously logged borings in the vicinity.

The stratigraphy beneath the investigation area consists of the following materials from top down:

- Fill – Primarily sand, gravel and silt; the fill typically extends to depths ranging from 1 to 2 feet bgs[2]. The fill observed at GP-14 primarily consists of asphalt rubble with sand and gravel, and extends to a depth of about 14.5 feet bgs. This may be related to construction of the adjacent Route 111.
- Clay/Silt – Primarily silty clay and/or clayey silt; the clay/silt, where encountered, extends below the fill material to depths of about 3 to 8 feet bgs. Underlying the fill at GP-14 is low plastic clay to sandy clay extending to a depth of about 25.5 feet bgs.
- Sand –Typically coarsens with depth
    - Primarily fine to medium grained sand extends below the fill and/or clay/silt to depths of about 18 to 58 feet bgs. At GP-14, this material extends below the clay to the bottom of the borehole (about 48 feet bgs);
    - Primarily medium to coarse grained sand, where present, extends below the fine to medium grained sand to depths of about 63 to 81 feet bgs;
    - Primarily coarse grained sand with coarse gravel extends below the medium grained sands to the depths explored (about 68 to 93 feet bgs).

Discontinuous finer grained lenses of clay to sandy clay are present in borings GP-15, GP-16, GP-17 and GP-18. At GP-15, -16, and -17 this interval begins at depth of about 12 to 13 feet bgs. It is less than 1-foot thick. At GP-18, a thin clayey seam is present at a depth of approximately 22 feet bgs.

Groundwater was observed in the borings during drilling at depths between 30 to 35 feet bgs.

[2] As shown on Figure 3, the fill extends deeper at some locations, e.g., SVE-27.

Sudan IV® Results

A "white" screening result indicates that residual hydrocarbons are not present within the soil or may be present at concentrations less than 500 ppm. A "pink" or "red" screening result indicates that residual hydrocarbons may be present within the soil at greater than 500 ppm. In general, the Sudan IV® field screening results correlated with the PID headspace screening and the laboratory analytical results for soils (e.g., positive correlation between Sudan test results and laboratory data in 16 of 21 samples).

Table 1 presents a comparison of field screening methods and laboratory results. The results of the Sudan IV® field screening are presented on the boring logs in **Attachment A**.

Soil Analytical Results

A tabular summary of the analytical detections for the soil samples collected during this investigation is presented in **Table 2.** Laboratory reports for these sample results are provided in **Attachment B**. Benzene, toluene, ethylbenzene and xylenes (BTEX) results are depicted on **Figure 4**.

In general, these VOC constituents are similar to those detected during previous investigation activities at the Public Works Yard. Benzene concentrations are depicted vertically on **Figure 3**. The highest concentrations were observed between depths of approximately 35 to 55 feet bgs (concentrations >100 mg/kg), coincident with the upper portion of the groundwater table. Concentrations decrease with depth below this. Notably, concentrations were much less at location GP-14, west of the Public Works yard (concentrations <5 mg/kg).

CONCLUSIONS

URS conducted a soil sampling investigation on behalf of SOPUS at the Public Works Yard in the Village of Roxana. The results of this soil investigation generally indicate the highest BTEX concentrations are located in the upper portion of the groundwater table, and decrease with depth. Concentrations also appear to decrease to the west of the Public Works yard (GP-14).

If there are any questions on the information contained in this report please do not hesitate to contact us (314-429-0100) or Kevin Dyer (SOPUS) (618-288-7237).

Sincerely,
URS Corporation, on behalf of Shell Oil Products US

Wendy Pennington
Staff Engineer

Robert B. Billman
Senior Project Manager

Enclosures:
Table 1 Field Screening Methods Comparison Table
Table 2 Summary of Soil Analytical Results for Detected Constituents
Figure 1 Public Works Yard Soil Sampling Locations
Figure 2 Cross Section Key Map
Figure 3 Cross Section A-A' Public Works
Figure 4 Summary of BTEX Analytical Results

Attachment A Soil Boring Logs
Attachment B Data Review Sheets and Analytical Reports

cc: Jim Moore, IEPA
Kevin Dyer, SOPUS
Marty Reynolds, Village of Roxana
Shannon Haney, Greensfelder, Hemker & Gale (2 copies)

SEE LAST PAGE OF TABLE FOR NOTES.

TABLE 1
Field Screening Methods Comparison Table
Publics Works Yard, Roxana, Illinois

	GP-14			GP-15			GP-16			GP-17			GP-18		
Depth (ft bgs)	Sudan (color)	PID (ppm)	VOC Results (mg/kg)	Sudan (color)	PID (ppm)	VOC Results (mg/kg)	Sudan (color)	PID (ppm)	VOC Results (mg/kg)	Sudan (color)	PID (ppm)	VOC Results (mg/kg)	Sudan (color)	PID (ppm)	VOC Results (mg/kg)
1											4.4			0.7	
2											0.5			0.6	
3											0.6			0.7	
4											0.4			1	
5											0.8			0 2	
6											0.3			0 2	
7											0.7			0.1	
8											0.5			0.1	
9		55.9									0.3			0.7	
10											2.3			1 2	
11		4.5			677			0.4			1			2.1	
12															
13		7.5	0.00049	red	2,232			0.7			413.3			1 5	
14															
15		0.5			2,881			0.8		red	13,261	233 508		2 3	
16															
17		0.6			1,647			0.9			9457			2 8	
18															
19		0.3		red	8,027	80.6		6.1			570.2			2	
20															
21		0.2		red	4,622			6.3		pink	1,570		white	5.4	9.94
22															
23		0.2		white	245			11.6	0 0508		95.5			2 8	
24															
25		142.8		red	2,561			7.3			41.8			68.6	
26															
27	white	133.5			102.9			35 8			10.1			364	
28															
29	white	154.2		white	56	0.130		38.7			5.9			421.3	
30															
31		576			1,360			58 3		white	6.9			611.7	
32															
33	pink	1,157	3.66		1,192			69 3			4.9		red	15,000+	
34															
35	white	891			1,051			12.7			29.3			15,000+	
36															
37		617		red	15,000+	1,011 / 1,210	white	822.1			85.2		red	15,000+	467
38															
39	pink	846	8.00		15,000+			6,421			252.7			15,000+	
40															
41		100.3			7,661		white	15,000+			713.7			15,000+	
42									478						
43		20.7			10,691		white	15,000+		red	12,610		red	15,000+	
44															
45	white	24	0.212		15,000+			1,232		white	15,000+	1562		15,000+	
46															
47		23.7		white	15,000+	298		3,054			7,620			15,000+	
48															
49	Bottom of Boring				1,654			1,002			323.4			52 3	
50															
51					4,220		white	5,146	28.3		322.9			523.7	
52															
53					337.7			1,023			67.1		white	5,474	670
54															
55				red	1,124	934		892.3			504.6			1,971	
56															
57					398.3		red	1,299	1,013 / 1,146	white	5,086	180		4,317	
58															
59					3,658			1,098			90.5			340.4	
60															
61					1,994			1,150		white	582.2			414.3	
62															
63					1,593			413.2			537.7		white	463.5	74.0
64															
65					1,275		white	1,037			264.4	18.1		65 8	
66															
67					19.6			751			209.5			17 3	
68															
69				white	233.1			1,288		Bottom of Boring			Bottom of Boring		

SEE LAST PAGE OF TABLE FOR NOTES.

TABLE 1
Field Screening Methods Comparison Table
Publics Works Yard, Roxana, Illinois

	GP-14			GP-15			GP-16			GP-17			GP-18		
Depth (ft bgs)	**Sudan (color)**	**PID (ppm)**	**VOC Results (mg/kg)**	**Sudan (color)**	**PID (ppm)**	**VOC Results (mg/kg)**	**Sudan (color)**	**PID (ppm)**	**VOC Results (mg/kg)**	**Sudan (color)**	**PID (ppm)**	**VOC Results (mg/kg)**	**Sudan (color)**	**PID (ppm)**	**VOC Results (mg/kg)**
70															
71					78			602							
72															
73					132.6			561.4							
74				white		4 97									
75					132.6			927.2							
76															
77					46.3		white	1,574	11.0						
78															
79					82										
80															
81					143.6		white	15							
82															
83					48			10 8							
84															
85					4.1			6.2							
86															
87					3.8			12							
88															
89				white	18	0.483									
90															
91					4.1			15 3	0 0799						
92															
93					3.3			13							
94				Bottom of Boring			Bottom of Boring								
95															
96															
97															
98															

NOTES:
1) **Sudan** - White < 500 ppm; pink/red > 500 ppm
2) **PID** - Organic vapor headspace measurements recorded using a MiniRae 3000 PID with a 10.6 eV lamp.
3) **VOC results** - Value shown is the summation of the detected analytical VOC constituents for that particular sample.
Yellow highlighting indicates a correlation between Sudan IV® field screening results and PID screening and/or VOC analytical results.
Heavy blue line indicates the dep h of groundwater at the time of drilling.

SEE LAST PAGE OF TABLE FOR NOTES.

TABLE 2
Summary of Soil Analytical Results for Detected Constitutents
Publics Works Yard, Roxana, Illinois

Location	Sample ID	Depth	Sample Date	Benzene			Ethylbenzene			Toluene			m,p-Xylenes			o-Xylenes			Acrylonitrile			n-Butylbenzene			sec-Butylbenzene			tert-Butylbenzene			Carbon disulfide			Chloroform			Cymene (p-Isopropyltoluene)		
				Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals
GP-14	GP-14-13	13 ft	12/18/2012	0 00049	J		< 0.0023	U		< 0.0058	U		< 0 0023	U		< 0.0023	U		< 0.029	U		< 0.0058	U		< 0 0058	U		< 0.0058	U		< 0.0058	U		< 0.0023	U		< 0 0058	U	
	GP-14-33	33 ft	12/18/2012	3.57			< 0.24	U		< 0.61	U		< 0.24	U		< 0.24	U		< 3	U		0 0877	J		< 0.61	U		< 0.61	U		< 0 61	U		< 0.24	U		< 0.61	U	
	GP-14-39	39 ft	12/18/2012	3.75			0.111	J		< 0.61	U		0.441			< 0.24	U		< 3	U		0.754			0 205	J		0.143	J		< 0 61	U		< 0.24	U		0.101	J	
	GP-14-45	45 ft	12/18/2012	0.16			0 0032			0.0111			0 008			0.0026			< 0.024	U		0 0024	J		0.0016	J		0.0011	J		0.0011	J		< 0.002	U		0.00049	J	
GP-15	GP-15-19	19 ft	12/18/2012	63.7			0.669			0.283	J		1.36			0.294	J		< 6.2	U		1.58			1.41			< 1.2	U		< 1.2	U		< 0 5	U		1.79		
	GP-15-29	29 ft	12/18/2012	0.126			0.00064	J		0.00099	J		0.0012	J		0.00039	J		< 0.028	U		< 0.0055	U		< 0 0055	U		< 0.0055	U		< 0.0055	U		< 0.0022	U		< 0 0055	U	
	GP-15-37	37 ft	12/18/2012	974			4.56	J		5.53	J		12.3			4.6	J		< 61	U		1.12	J		< 12	U		< 12	U		< 12	U		< 4 9	U		< 12	U	
	GP-15-37-DUP	37 ft	12/18/2012	1,150			5.28			6.76			15.7			6 08			< 2.8	U		0.864			0 228	J		< 0.55	U		< 0 55	U		< 0.22	U		0.154	J	
	GP-15-47	47 ft	12/18/2012	283			1.71			1.69	J		4 81			1 62			< 15	U		0.347	J		1.86	J		< 3	U		< 3	U		< 1 2	U		0 301	J	
	GP-15-55	55 ft	12/18/2012	184			111			12.5			290			63			< 25	U		13.9			3.12	J		2 29	J		< 5	U		< 2	U		2.31	J	
	GP-15-74	74 ft	12/21/2012	3.97			0.151	J		< 0.57	U		0.403			0.0966	J		< 2.8	U		0 0387	J		< 0.57	U		< 0.57	U		< 0 57	U		< 0.23	U		< 0.57	U	
	GP-15-89	89 ft	12/21/2012	0.483			< 0.21	U		< 0.52	U		< 0.21	U		< 0 21	U		< 2.6	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0 52	U		< 0.21	U		< 0.52	U	
GP-16	GP-16-23	23 ft	1/3/2013	0.0458			0 0022	J		0.0028	J		< 0 0026	U		< 0.0026	U		< 0.032	U		< 0 0065	U		< 0 0065	U		< 0.0065	U		< 0.0065	U		< 0.0026	U		< 0 0065	U	
	GP-16-42	42 ft	1/3/2013	476			0.177	J		0 999			0 509			0.226	J		< 2.9	U		< 0.57	U		< 0.57	U		< 0 57	U		< 0 57	U		< 0.23	U		< 0.57	U	
	GP-16-51	51 ft	1/3/2013	25			0.298			0.141	J		0.706			0.189	J		< 2.6	U		0.141	J		0.0308	J		< 0 52	U		< 0 52	U		< 0.21	U		< 0.52	U	
	GP-16-57	57 ft	1/3/2013	431			33.1		J	76.8			62.1		J	11.4		J	24 5			27.9			4 96			1 69			< 0 52	U		< 0.21	U		3 09		
	GP-16-57-DUP	57 ft	1/3/2013	473			21 5		J	94.3			40		J	7 63		J	27 6			32.8			5 87			2 25			< 0 59	U		< 0.24	U		3.7		
	GP-16-77	77 ft	1/3/2013	2.18			0.814			0 608			1.72			0.297			< 2.4	U		0.4	J		0.0725	J		< 0.49	U		< 0.49	U		< 0.19	U		0.0518	J	
	GP-16-91	91 ft	1/7/2013	0.0488			0 0045			0 004	J		0.0099			0.0029			< 0.024	U		< 0 0048	U		< 0 0048	U		< 0.0048	U		0 00095	J	J	0.00075	J		< 0 0048	U	
GP-17	GP-17-15	15 ft	1/7/2013	154		J	1.69			< 2.7	U		4.44			2 84			< 14	U		3.01			0 323	J		< 2.7	U		< 2.7	U		< 1.1	U		0.415	J	
	GP-17-15-DUP	15 ft	1/7/2013	391		J	3.04			< 7	U		7.57			4.76			< 35	U		4.67	J		< 7	U		< 7	U		< 7	U		< 2 8	U		< 7	U	
	GP-17-45	45 ft	1/7/2013	1,550			1.45	J		3.09	J		2.73			0.945	J		< 21	U		< 4.1	U		< 4.1	U		< 4.1	U		< 4.1	U		< 1 6	U		< 4.1	U	
	GP-17-57	57 ft	1/7/2013	178			0.569	J		< 5 9	U		< 2.4	U		< 2.4	U		< 30	U		< 5 9	U		< 5.9	U		< 5.9	U		< 5.9	U		< 2.4	U		< 5.9	U	
	GP-17-65	65 ft	1/7/2013	15.4			0.41			< 0.39	U		0 934			0 23			< 2	U		0 0559	J		< 0.39	U		< 0.39	U		< 0 39	U		< 0.16	U		< 0.39	U	
GP-18	GP-18-21	21 ft	1/8/2013	9.94			< 0.72	U		< 1 8	U		< 0.72	U		< 0.72	U		< 9	U		< 1 8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 0.72	U		< 1.8	U	
	GP-18-37	37 ft	1/8/2013	453			1.13	J		< 5.1	U		2.52			0.798	J		< 25	U		< 5.1	U		< 5.1	U		< 5.1	U		< 5.1	U		< 2	U		< 5.1	U	
	GP-18-53	53 ft	1/8/2013	668			< 2.7	U		< 6.7	U		< 2.7	U		< 2.7	U		< 34	U		< 6.7	U		< 6.7	U		< 6.7	U		< 6.7	U		< 2.7	U		< 6.7	U	
	GP-18-63	63 ft	1/8/2013	67.8			0.243	J		< 2 6	U		1.41			< 1.1	U		< 13	U		< 2 6	U		< 2.6	U		< 2.6	U		< 2.6	U		< 1.1	U		< 2.6	U	

SEE LAST PAGE OF TABLE FOR NOTES.

TABLE 2
Summary of Soil Analytical Results for Detected Constitutents
Publics Works Yard, Roxana, Illinois

Location	Sample ID	Depth	Sample Date	1,1-Dichloroethane			1,2-Dichloroethane			2-Hexanone (Methyl N-Butyl Ketone)			Isopropylbenzene (Cumene)			Methyl tert-Butyl Ether (MTBE)			Naphthalene			n-Propylbenzene			1,2,4-Trimethylbenzene			1,3,5-Trimethylbenzene			Vinyl acetate		
				Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals	Result (mg/kg)	Lab Quals	URS Quals
GP-14	GP-14-13	13 ft	12/18/2012	< 0.0023	U		< 0.0023	U		< 0.0058	U		< 0 0058	U		< 0.0023	U		< 0.0058	U		< 0.0058	U		< 0 0058	U		< 0.0058	U		< 0.0058	U	
	GP-14-33	33 ft	12/18/2012	< 0 24	U		< 0 24	U		< 0.61	U		< 0.61	U		< 0.24	U		< 0 61	U		< 0.61	U		< 0.61	U		< 0.61	U		< 0 61	U	
	GP-14-39	39 ft	12/18/2012	< 0 24	U		< 0 24	U		< 0.61	U		0 395	J		< 0.24	U		< 0 61	U		1.29			0.114	J		0.0692	J		0.629		
	GP-14-45	45 ft	12/18/2012	0 00036	J		< 0.002	U		< 0 0049	U		0.0061			< 0 002	U		< 0.0049	U		0 0136			0.00048	J		< 0.0049	U		< 0.0049	U	
GP-15	GP-15-19	19 ft	12/18/2012	< 0.5	U		< 0.5	U		< 1 2	U		1.13	J		< 0.5	U		0.823	J		0.548	J		4.28			2.73			< 1.2	U	
	GP-15-29	29 ft	12/18/2012	< 0.0022	U		< 0.0022	U		< 0.0055	U		< 0 0055	U		< 0.0022	U		< 0.0055	U		< 0.0055	U		0.00065	J		< 0.0055	U		< 0.0055	U	
	GP-15-37	37 ft	12/18/2012	< 4.9	U		< 4.9	U		< 12	U	UJ	< 12	U		< 4.9	U		< 12	U		< 12	U		7.32	J		2.2	J		< 12	U	
	GP-15-37-DUP	37 ft	12/18/2012	< 0.22	U		< 0.22	U		9.73			0.438	J		0.653			1.25			1.73			8.43			2 59			0.236	J	
	GP-15-47	47 ft	12/18/2012	< 1.2	U		< 1.2	U		< 3	U		< 3	U		< 1.2	U		< 3	U		< 3	U		2.21	J		0.721	J		< 3	U	
	GP-15-55	55 ft	12/18/2012	< 2	U		< 2	U		< 5	U		6.99			< 2	U		19 3			28.3			136			44.3			17.1		
	GP-15-74	74 ft	12/21/2012	< 0 23	U		< 0.23	U		< 0.57	U	UJ	< 0.57	U		< 0.23	U		< 0 57	U		< 0.57	U		0 232	J		0.0828	J		< 0 57	U	
	GP-15-89	89 ft	12/21/2012	< 0 21	U		< 0.21	U		< 0.52	U	UJ	< 0.52	U		< 0.21	U		< 0 52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0 52	U	
GP-16	GP-16-23	23 ft	1/3/2013	< 0.0026	U		< 0.0026	U		< 0 0065	U		< 0 0065	U		< 0.0026	U		< 0.0065	U		< 0.0065	U		< 0 0065	U		< 0.0065	U		< 0.0065	U	
	GP-16-42	42 ft	1/3/2013	< 0 23	U		< 0.23	U		< 0.57	U	UJ	< 0.57	U		< 0.23	U		< 0 57	U		< 0.57	U		0 292	J		< 0.57	U		< 0 57	U	
	GP-16-51	51 ft	1/3/2013	< 0 21	U		< 0.21	U		< 0.52	U	UJ	0.0508	J		< 0.21	U		0.23	J		0.214	J		0 975			0.293	J		< 0 52	U	
	GP-16-57	57 ft	1/3/2013	< 0 21	U		11 2		J	< 0.52	U	UJ	10.4		J	< 0 21	U		19 9			41.2			192			62			< 0 52	U	
	GP-16-57-DUP	57 ft	1/3/2013	< 0 24	U		< 0.24	U	UJ	19.1		J	12.7		J	< 0 24	U		24 8			58.8			244			77.7			< 0 59	U	
	GP-16-77	77 ft	1/3/2013	< 0.19	U		< 0.19	U		< 0.49	U	UJ	0.128	J		< 0.19	U		0.938			0.506			2 53			0.74			< 0.49	U	
	GP-16-91	91 ft	1/7/2013	< 0.0019	U		< 0.0019	U		< 0 0048	U		0.00039	J		< 0.0019	U		< 0.0048	U		0 0013	J		0.0047	J		0.0017	J		< 0.0048	U	
GP-17	GP-17-15	15 ft	1/7/2013	< 1.1	U		< 1.1	U		< 2.7	U	UJ	0 269	J		< 1.1	U		45 3			1.74	J		16.3			3			< 2.7	U	
	GP-17-15-DUP	15 ft	1/7/2013	< 2.8	U		< 2.8	U		< 7	U	UJ	< 7	U		< 2.8	U		64 5			2.69	J		25			4 96	J		< 7	U	
	GP-17-45	45 ft	1/7/2013	< 1.6	U		< 1.6	U		< 4.1	U	UJ	< 4.1	U		< 1.6	U		< 4.1	U		< 4.1	U		2.67	J		0.755	J		< 4.1	U	
	GP-17-57	57 ft	1/7/2013	< 2.4	U		< 2.4	U		< 5 9	U	UJ	< 5.9	U		< 2.4	U		< 5.9	U		< 5.9	U		1.06	J		< 5.9	U		< 5.9	U	
	GP-17-65	65 ft	1/7/2013	< 0.16	U		< 0.16	U		< 0.39	U	UJ	0.0402	J		< 0.16	U		< 0 39	U		0.173	J		0 675			0.19	J		< 0 39	U	
GP-18	GP-18-21	21 ft	1/8/2013	< 0.72	U		< 0.72	U		< 1 8	U	UJ	< 1.8	U		< 0.72	U		< 1.8	U		< 1 8	U		< 1.8	U		< 1.8	U		< 1.8	U	
	GP-18-37	37 ft	1/8/2013	< 2	U		< 2	U		< 5.1	U	UJ	0 368	J		< 2	U		< 5.1	U		< 5.1	U		6.98			1.78	J		< 5.1	U	
	GP-18-53	53 ft	1/8/2013	< 2.7	U		< 2.7	U		< 6.7	U	UJ	< 6.7	U		< 2.7	U		< 6.7	U		< 6.7	U		1.75	J		0 51	J		< 6.7	U	
	GP-18-63	63 ft	1/8/2013	< 1.1	U		< 1.1	U		< 2 6	U	UJ	0 296	J		< 1.1	U		< 2.6	U		0.785	J		2.69			0.731	J		< 2.6	U	

NOTES

1) Results shown as < #.## indicate that the analyte was not detected.

LAB QUALIFIERS

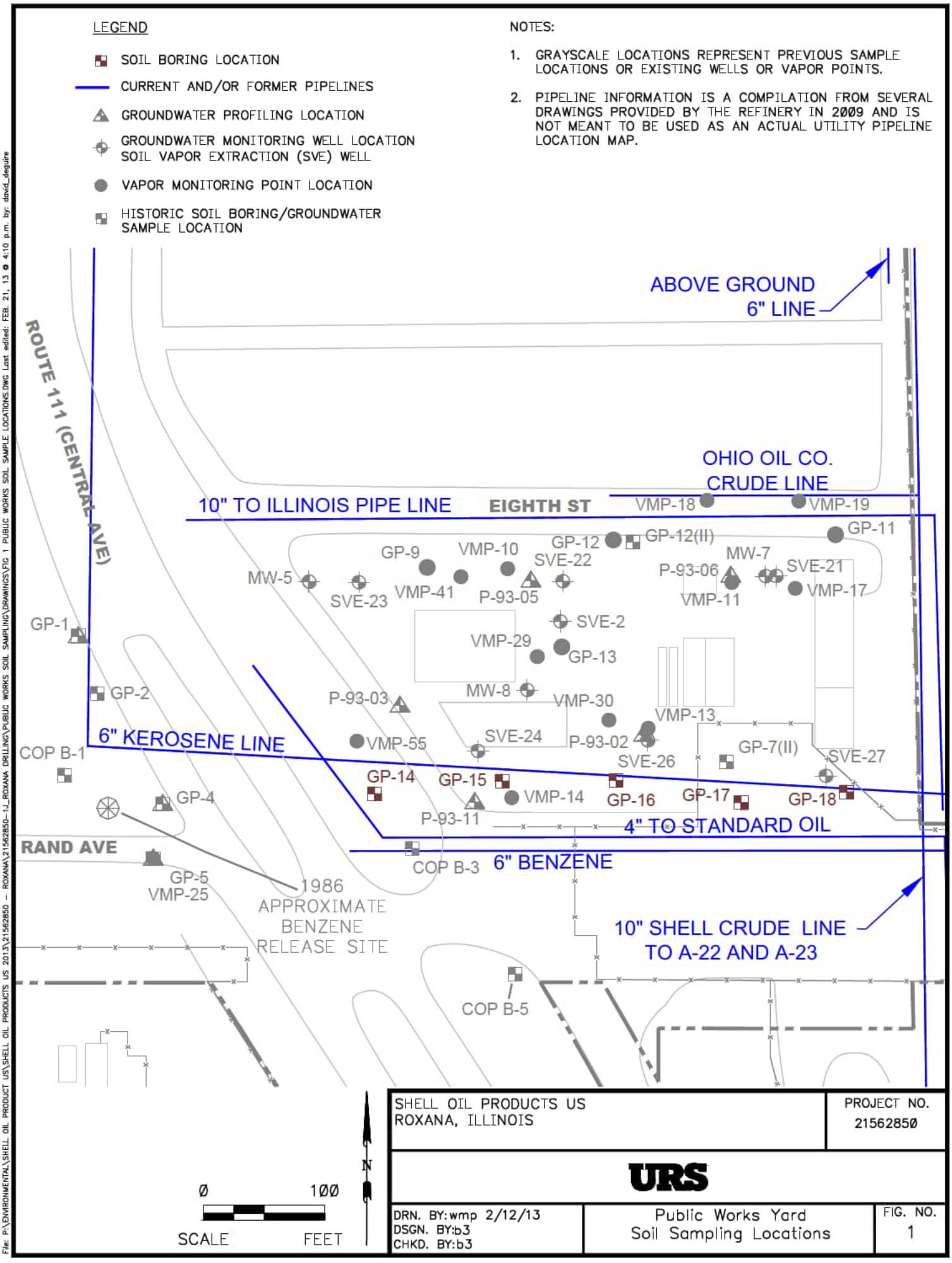
J = The analyte was positively identified below the RL and above the MDL. Concentration given is estimated.

U = The analyte was not detected.

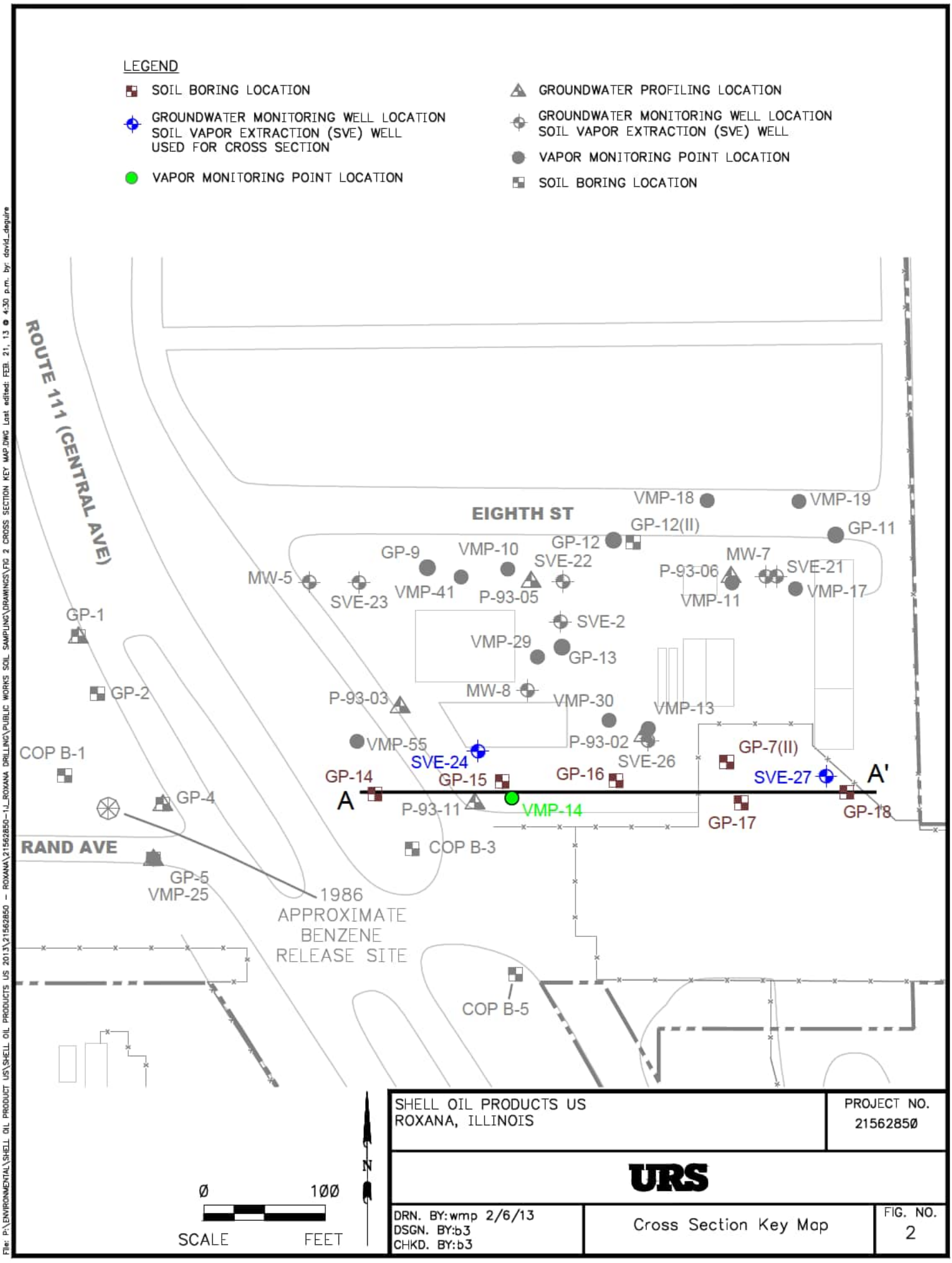
URS QUALIFIERS

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

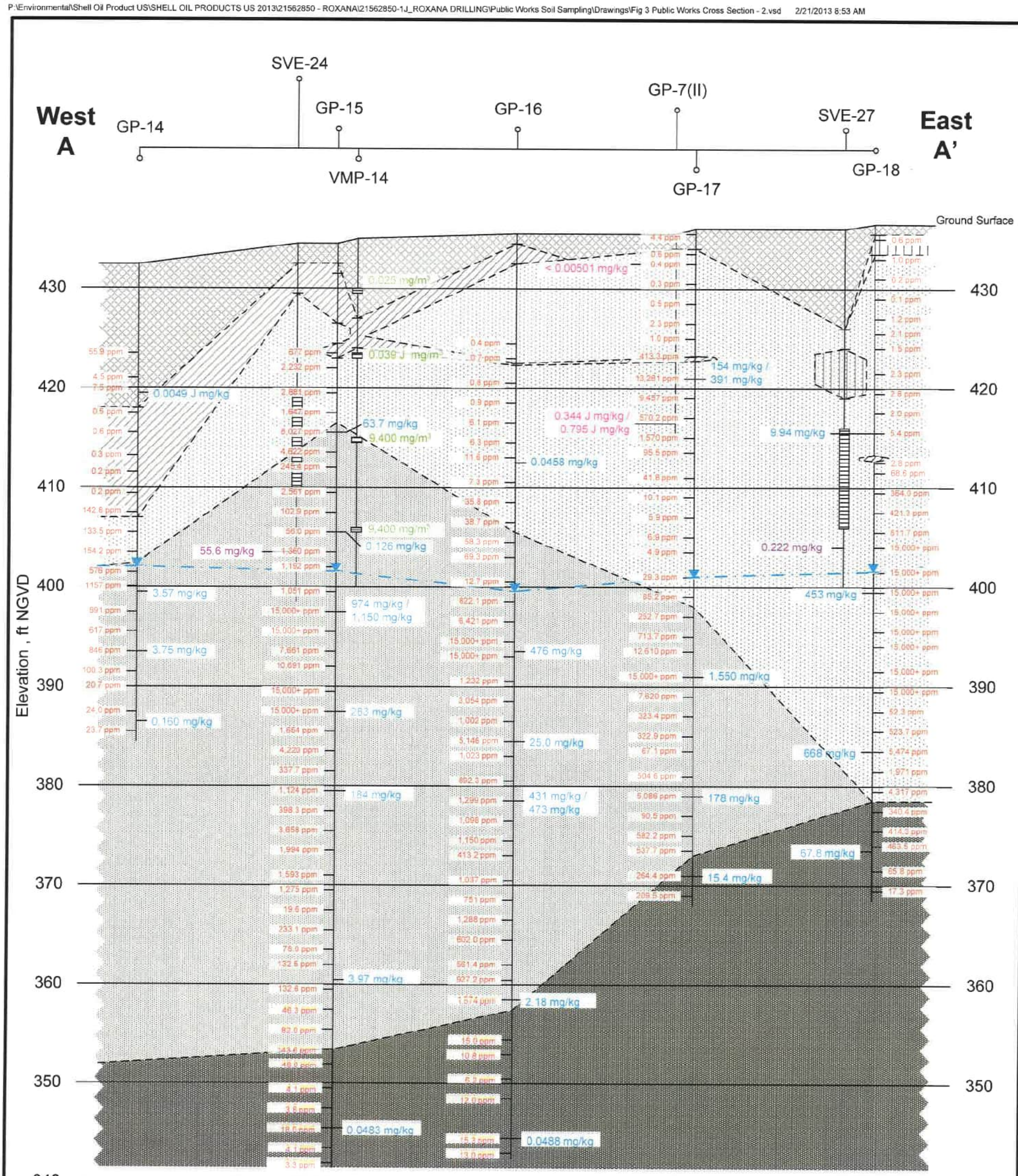
UJ = The analyte was not detected above the given quantitation limit. However, the sample quantitation limit is approximate.



File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 - ROXANA\21562850-1J_ROXANA DRILLING\PUBLIC WORKS SOIL SAMPLING\DRAWINGS\FIG 1 PUBLIC WORKS SOIL SAMPLE LOCATIONS.DWG Last edited: FEB. 21, 13 @ 4:10 p.m. by: david_deguire



File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 - ROXANA\21562850-1J_ROXANA DRILLING\PUBLIC WORKS SOIL SAMPLING\DRAWINGS\FIG 2 CROSS SECTION KEY MAP.DWG Last edited: FEB. 21, 13 @ 4:30 p.m. by: david_deguire



Legend:

- Fill projected between borings
- Clay projected between borings
- Silt projected between borings
- Fine to Medium Sand projected between borings
- Medium to Coarse Sand projected between borings
- Coarse Sand with coarse gravel projected between borings
- Stratum boundary - estimated
- Well Screen
- 9,400 mg/m³ — Soil Vapor Sampling Benzene Result (4Q12)
- 55.6 mg/kg — SVE Well Installation Soil Sampling Benzene Result (3Q11)
- 178 mg/kg — GP Soil Sampling Benzene Result ((4Q12/1Q13)
- 0.795 mg/kg — GP Soil Sampling Benzene Result (2Q08)
- 132.6 ppm — GP Soil Sampling Headspace Result (4Q12/1Q13)
- Potentiometric Surface – At Time of Drilling ((4Q12/1Q13)

Vertical Scale: 0 10

Plan View and Horizontal Scale: 0 50

Notes:
This cross section is generally based on interpretation of borings generated by URS during investigative activities between 2008 through 2013.

Actual geologic conditions may vary between the boring locations depicted.

Cross section trace line shows distance and direction each point was projected to construct this cross section.

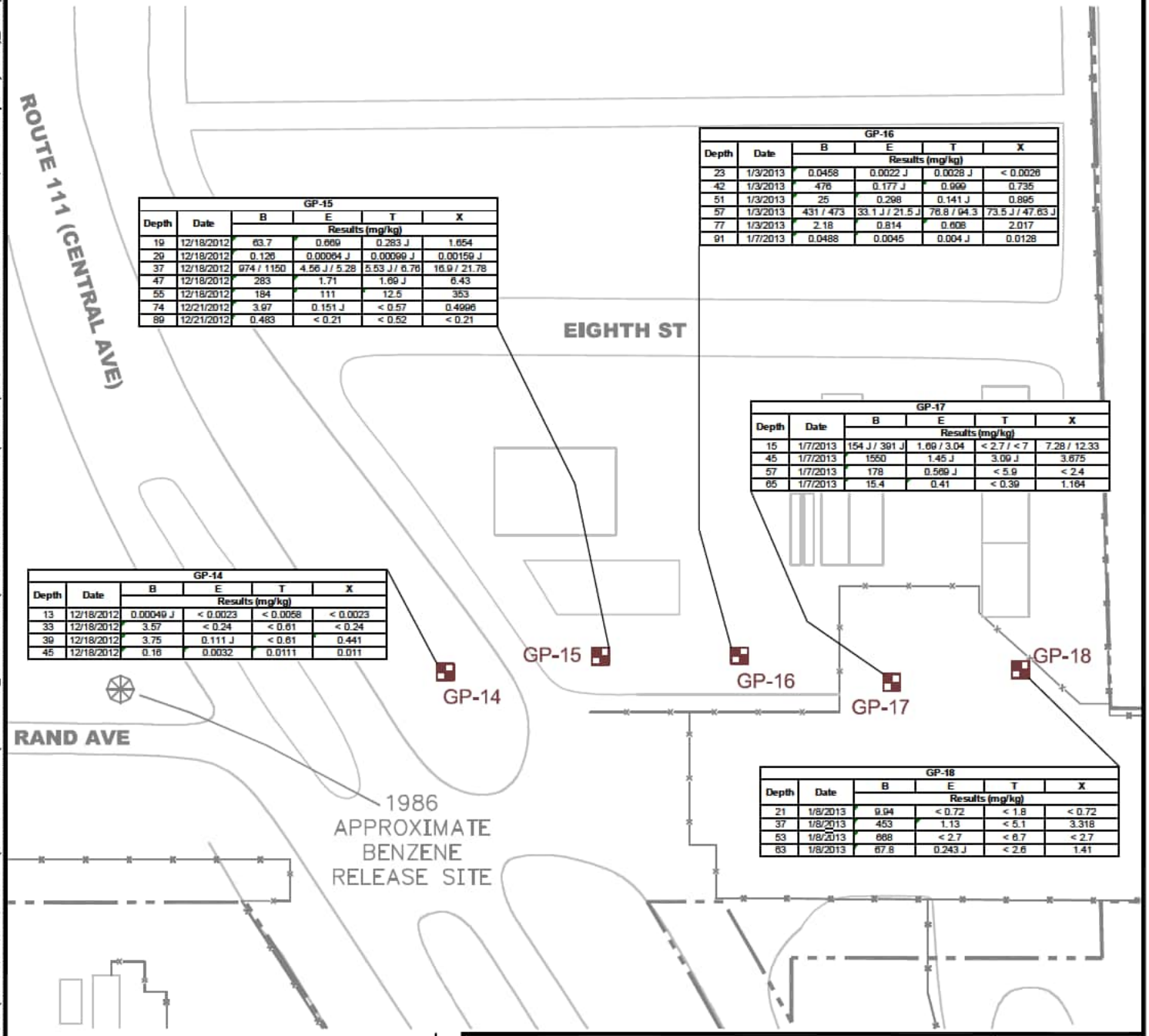
SHELL OIL PRODUCTS US ROXANA, ILLINOIS	PROJECT NO. 21562850
URS	
DRN. BY: mpm 02/21/13 DSGN. BY: wmp CHKD. BY: b3	Cross Section A - A' Public Works
	FIG. NO. 3

LEGEND

SOIL BORING LOCATION

NOTES:

1. B = BENZENE; E = ETHYLBENZENE; T = TOLUENE; X = XYLENES (TOTAL).
2. QUALIFIER DEFINITION:
   J = RESULT IS ESTIMATED.



GP-15

Depth	Date	B	E	T	X
		Results (mg/kg)			
19	12/18/2012	63.7	0.669	0.283 J	1.654
29	12/18/2012	0.126	0.00064 J	0.00099 J	0.00159 J
37	12/18/2012	974 / 1150	4.56 J / 5.28	5.53 J / 6.76	16.9 / 21.78
47	12/18/2012	283	1.71	1.69 J	6.43
55	12/18/2012	184	111	12.5	353
74	12/21/2012	3.97	0.151 J	< 0.57	0.4996
89	12/21/2012	0.483	< 0.21	< 0.52	< 0.21

GP-16

Depth	Date	B	E	T	X
		Results (mg/kg)			
23	1/3/2013	0.0458	0.0022 J	0.0028 J	< 0.0026
42	1/3/2013	476	0.177 J	0.909	0.735
51	1/3/2013	25	0.298	0.141 J	0.895
57	1/3/2013	431 / 473	33.1 J / 21.5 J	76.8 / 94.3	73.5 J / 47.63 J
77	1/3/2013	2.18	0.814	0.608	2.017
91	1/7/2013	0.0488	0.0045	0.004 J	0.0128

GP-17

Depth	Date	B	E	T	X
		Results (mg/kg)			
15	1/7/2013	154 J / 391 J	1.69 / 3.04	< 2.7 / < 7	7.28 / 12.33
45	1/7/2013	1550	1.45 J	3.09 J	3.675
57	1/7/2013	178	0.569 J	< 5.9	< 2.4
65	1/7/2013	15.4	0.41	< 0.39	1.164

GP-14

Depth	Date	B	E	T	X
		Results (mg/kg)			
13	12/18/2012	0.00049 J	< 0.0023	< 0.0058	< 0.0023
33	12/18/2012	3.57	< 0.24	< 0.61	< 0.24
39	12/18/2012	3.75	0.111 J	< 0.61	0.441
45	12/18/2012	0.16	0.0032	0.0111	0.011

GP-18

Depth	Date	B	E	T	X
		Results (mg/kg)			
21	1/8/2013	9.94	< 0.72	< 1.8	< 0.72
37	1/8/2013	453	1.13	< 5.1	3.318
53	1/8/2013	668	< 2.7	< 6.7	< 2.7
63	1/8/2013	67.8	0.243 J	< 2.6	1.41

0 100

SCALE FEET

SHELL OIL PRODUCTS US
ROXANA, ILLINOIS

PROJECT NO.
21562850

URS

DRN. BY: wmp 2/12/13
DSGN. BY: b3
CHKD. BY: b3

Summary of BTEX Analytical Resutls

FIG. NO.
4

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 - ROXANA\21562850-I_ROXANA DRILLING\PUBLIC WORKS SOIL SAMPLING\DRAWINGS\RG 4 BTEX SUMMARY.DWG Last edited: FEB. 12, 13 @ 3:45 p.m. by: Wendy_Pennington

LOG OF BORING
GP-14

Start ng Date: 2/ 8/ 2
Comp et on Date: 2/ 8/ 2
Cas ng E evat on: Not Insta ed
Ground E evat on: 432 60

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 845 34
E: (Y):232 859 6

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
0							TOPSOIL	Topsoil	Air knifed to 11' bgs to clear utilities.
							FILL	Asphalt rubble (FILL)	
5								With sand and gravel	
				55.9					
10	24	24		4.5 7.5				Stiff, moist, dark gray CLAY (FILL)	Sampled GP-14-13 for VOC at 0935
15	60	58		0.5 0.6			CL	Stiff, moist, gray, low plastic CLAY (CL), with brown mottles	
20	60	55		0.3 0.2 0.2				Becomes dark brown, mottles grade out	
								Becomes sandy	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **E. Arthur, W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 30.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-14

Start ng Date: 2/ 8/ 2
Comp et on Date: 2/ 8/ 2
Cas ng E evat on: Not Insta ed
Ground E evat on: 432 60

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 845 34
E: (Y):232 859 6

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	48		142.8				Same: Stiff, moist, dark brown, low plastic, Sandy CLAY (CL)	
				133.5				Medium dense, moist, brown and gray, fine to medium grained SAND (SP)	
								2.5" gray clay seam	Sudan field screening at 27 ft (white)
				154.2				Becomes brown	
30	60	50		576				Becomes wet, medium to coarse grained	Sudan field screening at 29 ft (white)
				1,157					Sudan field screening at 33 ft (pink) Sampled GP 14-33 for VOC at 0940
35	60	58		891			SP		Sudan field screening at 35 ft (white)
				617					
				846				Becomes gray brown	Sudan field screening at 39 ft (pink)
40	60	51		100.3					Sample GP 14-39 for VOC at 1005
				20.7					
45	60	59		24.0					Sudan field screening at 45 ft (white) Sampled GP-14-45 for VOC at 0945
				23.7					
								Bottom of boring at 48 ft. bgs	

Completion Depth: 48.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 30.5 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-15

Start ng Date: 2/ 8/ 2
Comp et on Date: 2/2 / 2
Cas ng E evat on: Not Insta ed
Ground E evat on: 434 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 855 66
E: (Y):232 964 39

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
							FILL	Sand and gravel (FILL) Clayey SAND (FILL)	Air knifed to 10' bgs to clear utilities.
							CL	Soft, moist, brown Silty CLAY (CL)	
5							ML	Moist, dark gray Clayey SILT (ML)	Hydrocarbon odor 3-10 ft.
							SP	Moist, dark gray, fine grained SAND (SP)	
10	36	36		677 2,232			CL	Soft to medium stiff, moist, dark gray with brown, low plastic CLAY (CL), with sand Becomes sandy	
								Medium dense, moist, gray, fine to medium grained SAND (SP)	Sudan field screening at 13 ft (red)
15	60	42		2,881 1,647					
							SP	Becomes brown, medium to coarse grained	
20	60	48		8,027 4,622 245.4					Sudan field screening at 19 ft (red) Sampled GP-15-19 for VOC at 1235 Sudan field screening at 21 ft (red) Sudan field screening at 23 ft (white)

Completion Depth: **93.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **E. Arthur, W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 33 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-15

Start ng Date: 2/ 8/ 2
Comp et on Date: 2/2 / 2
Cas ng E evat on: Not Insta ed
Ground E evat on: 434 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 855 66
E: (Y):232 964 39

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	48		2,561				Same: Medium dense, moist, brown, medium to coarse grained SAND (SP)	Sudan field screening at 25 ft (red)
				102.9					
				56.0					Sudan field screening at 29 ft (white)
30	60	48		1,360					Sampled GP-15-29 for VOC at 1240
				1,192				▽ Becomes wet	
35	60	52		1,051					
				15,000+			SP		Sudan field screening at 37 ft (red) Sampled GP-15-37 for VOC at 1230
				15,000+				Becomes medium dense to dense	
40	60	60		7,661					
				10,691					
45	60	52		15,000+					
				15,000+					Sudan field screening at 47 ft (white) Sampled GP-15-47 for VOC at 1410
				1,654					

Completion Depth: 93.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 33 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-15

Start ng Date: 2/ 8/ 2
Comp et on Date: 2/2 / 2
Cas ng E evat on: Not Insta ed
Ground E evat on: 434 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 855 66
E: (Y):232 964 39

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	54		4,220 337.7				Same: Medium dense to dense, wet, brown, medium to coarse grained SAND (SP)	
55	60	50		1,124 398.3					Sudan field screening at 55 ft (red) Sampled GP-15-55 for VOC at 1415
60	60	42		3,658 1,994			SP		
65	60	46		1,593 1,275 19.6					Sampling to 68 ft bgs performed on 12/18/12. Sampling below 68 ft bgs performed on 12/21/12. Sudan field screening at 69 ft (white)
70	60	50		233.1 78.0 132.6					Sudan field screening at 74 ft (white) Sampled GP-15-74 for VOC at 0950

Completion Depth: 93.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 33 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-15

Start ng Date: 2/ 8/ 2
Comp et on Date: 2/2 / 2
Cas ng E evat on: Not Insta ed
Ground E evat on: 434 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 855 66
E: (Y):232 964 39

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	54		132.6				Same: Medium dense to dense, wet, brown, medium to coarse grained SAND (SP)	
				46.3					
				82.0					
80	60	48		143.6				Becomes coarse grained, trace coarse gravel	
				48.0					
							SP		
85	60	50		4.1					
				3.8					
				18.0					Sudan field screening at 89 ft (white)
90	60	50		4.1					Sampled GP-15-89 for VOC at 1055
				3.3					
								Bottom of boring at 93 ft bgs	
95									

Completion Depth: **93.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **E. Arthur, W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 33 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-16

Start ng Date: /3/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 435 60

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 856 28
E: (Y):2322057 92

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
							FILL	Sand and gravel (FILL	Air knifed to 10' bgs to clear utilities.
							CL	Soft, dry to moist, light brown to brown, Silty CLAY (CL)	
5							SP	Loose to medium dense, moist, light brown, SAND (SP)	
10	36	36		0.4 0.7				Becomes moist, brown	
15	60	48		0.8 0.9				2" gray, low plastic clay seam	
20	60	50		6.1 6.3 11.6				Becomes medium grained	Sampled GP-16-23 for VOC at 1035

Completion Depth: 93.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-16

Start ng Date: /3/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 435 60

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 856 28
E: (Y):2322057 92

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	54		7.3				Same: Loose to medium dense, moist, brown, medium grained SAND (SP)	
				35.8					
				38.7					
30	60	56		58.3				Becomes medium to coarse grained	
				69.3					
				12.7					
35	60	50						▽ Becomes wet	
				822.1			SP		Sudan field screening at 37 ft (white)
				6,421					
40	60	58		15,000+					Sudan field screening at 41 ft (white)
				15,000+					Sampled GP-16-42 for VOC at 1255
									Sudan field screening at 43 ft (white)
45	60	42		1,232					
				3,054					
				1,002					

Completion Depth: 93.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-16

Start ng Date: /3/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 435 60

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 856 28
E: (Y):2322057 92

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	60		5,146				Same: Loose to medium dense, wet, brown, medium to coarse grained SAND (SP)	Sudan field screening at 51 ft (white) Sample GP-16-51 for VOC at 1430
				1,023					
55	60	36		892.3					
				1,299					Sudan field screening at 57 ft (white) Sampled GP-16-57 for VOC at 1530
				1,098					
60	60	48		1,150					
				413.2			SP		
				1,037					Sudan field screening at 65 ft (white)
65	60	52		751					
				1,288					
70	60	36		602.0					
				561.4					

Completion Depth: 93.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-16

Start ng Date: /3/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 435 60

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 856 28
E: (Y):2322057 92

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	39		927.2				Same: Loose to medium dense, wet, brown, medium to coarse grained SAND (SP)	
				1,574					Sampling to 78 ft bgs performed on 1/3/13. Sampling below 78 ft bgs performed on 1/7/13. Sudan field screening at 77 ft (white) Sample GP-16-77 for VOC at 1605
80	60	30		15.0				Becomes loose, coarse grained, with coarse gravel	Large piece of gravel in sample liner
				10.8					Sudan field screening at 81 ft (white)
85	60	30		6.2			SP		
				12.0					
90	60	48		15.3					Sampled GP-16-91 for VOc at 1015
				13.0					
95								Bottom of boring at 93 ft bgs	

Completion Depth: 93.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: E. Arthur, W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-17

Start ng Date: /7/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 436 00

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 838 03
E: (Y):2322 6 08

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				4.4			FILL	Dark brown Sand and Gravel with asphalt [FILL]	Air knifed to 10' bgs to clear utilities.
				0.5					
				0.6			SP	Loose to medium dense, moist, brown, fine to medium grained SAND (SP)	
				0.4					
				0.8					
5				0.3					
				0.7					
				0.5					
				0.3					
				2.3					
10	36	36		1.0					
				413.3			CL	Soft, moist, gray, low plastic, Sandy CLAY (CL)	Yellow/green staining of acetate sample liners, zipper bags and nitrile gloves observed (13 to 17 ft bgs).
							SP	Medium dense, moist, brownish gray, fine to medium grained SAND (SP)	
15	60	54		13,261					Sudan field screening at 15 ft (red) Sampled GP-17-15 for VOC at 1325 (Dup)
				9,457					
				570.2					
20	60	48		1,570				Becomes gray	Sudan field screening at 21 ft (pink)
				95.5					

Completion Depth: **68.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 35 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.

▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-17

Start ng Date: /7/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 436 00

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 838 03
E: (Y):2322 6 08

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	54		41.8				Same: Medium dense, moist, grayish brown, fine to medium grained SAND (SP)	
				10.1					
				5.9					
30	60	54		6.9					Sudan field screening at 31 ft (white)
				4.9					
								Becomes medium grained	
35	60	48		29.3				Becomes wet ▽	
				85.2			SP		
				252.7				Becomes brown, medium to coarse grained	
40	60	60		713.7					
				12,610					Sudan field screening at 43 ft (red)
45	60	60		15,000+					Sudan field screening at 45 ft (white) Sampled GP-17-45 for VOC at 1355
				7,620					
				323.4					

Completion Depth: **68.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-17

Start ng Date: /7/ 3
Comp et on Date: /7/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 436 00

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 838 03
E: (Y):2322 6 08

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	54		322.9 67.1				Same: Medium dense, wet, brown, medium to coarse grained SAND (SP)	
55	60	57		504.6 5,086					Sudan field screening at 57 ft (white) Sampled GP-17-57 for VOC at 1420
60	60	52		90.5 582.2 537.7			SP		Sudan field screening at 61 ft (white)
65	60	48		264.4 209.5				Becomes coarse grained, trace coarse gravel	Sampled GP-17-65 for VOC at 1435
70								Bottom of boring at 68 ft bgs	

Completion Depth: **68.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-18

Start ng Date: /8/ 3
Comp et on Date: /8/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 436 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 846 8
E: (Y):2322247 67

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.7			FILL	Sand, Gravel, and Silt [FILL]	Air knifed to 10' bgs to clear utilities.
				0.6			ML	Soft, moist, brown SILT (ML), some clay, with organics	
				0.7					
				1.0				Loose to medium dense, moist, brown, fine to medium grained SAND (SP)	
				0.2					
5				0.2					
				0.1					
				0.1					
				0.7					
				1.2					
10									
	36	36		2.1					
				1.5			SP		
15				2.3					
	60	42							
				2.8					
				2.0					
20									
	60	42		5.4					Sudan field screening at 21 ft (white) Sampled GP-18-21 for VOC at 0930
							CL	Soft, moist, gray, low plastic CLAY (CL)	
				2.8			SP	Loose to medium dense, moist, gray, medium grained SAND (SP)	

Completion Depth: **68.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-18

Start ng Date: /8/ 3
Comp et on Date: /8/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 436 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 846 8
E: (Y):2322247 67

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	48		68.6				Same: Loose to medium dense, moist, gray, medium grained SAND (SP) 2" black banding	
				364.0					
				421.3					
30	60	45		611.7					
				15,000+				Becomes dense, grayish brown	
									Sudan field screening at 33 ft (red)
35	60	51		15,000+				Becomes wet ▽	
				15,000+			SP		Yellow/green staining of acetate sample liners, zipper bags and nitrile gloves observed (37 to 43 ft bgs)
				15,000+				Becomes fine to medium grained	Sudan field screening at 37 ft (red) Sampled GP-18-37 for VOC at 1010
40	60	58		15,000+					
				15,000+					
				15,000+				Becomes medium dense	Sudan field screening at 43 ft (red)
45	60	44		15,000+					
				15,000+					
				52.3					

Completion Depth: **68.0 Ft bgs**
Project No.: **21562850.15000**
Project Name: **Public Works Soil Sampling**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **P. Seymour**
Drilling Method: **Direct Push**
Drill Rig Type: **8040 DT**
Logged by: **W. Pennington**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD080012305**

Water Depth: 35 ft., After ATD hrs.
Water Depth: ____ ft., After ____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

LOG OF BORING
GP-18

Start ng Date: /8/ 3
Comp et on Date: /8/ 3
Cas ng E evat on: Not Insta ed
Ground E evat on: 436 80

Quadrangle
Sec:34 (SE /4 of NE /4)
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):79 846 8
E: (Y):2322247 67

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	60	54		523.7 5,474				Same: Medium dense, wet, grayish brown, fine to medium grained SAND (SP)	Sudan field screening at 53 ft (white) Sampled GP-18-53 for VOC at 1325
55	60	48		1,971 4,317					
				340.4			SP	Becomes coarse grained	
60	60	44		414.3 463.5				Becomes with coarse gravel	
65	60	30		65.8 17.3					Sudan field screening at (white) Sampled GP-18-63 for VOC at 1405
								Bottom of boring at 68 ft bgs	
70									

Completion Depth: 68.0 Ft bgs
Project No.: 21562850.15000
Project Name: Public Works Soil Sampling
Drilling Contractor: Roberts Environmental Drilling Inc.
Driller Name: P. Seymour
Drilling Method: Direct Push
Drill Rig Type: 8040 DT
Logged by: W. Pennington
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD At time of drilling
NE None Encountered
NA Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562850.15000 (ROXANA GP 2013).GPJ URSSTLEV.GDT 2/15/13

NOTE - Laboratory reports not included herein due to size. Available upon request.

Appendix C

2019 Public Works Yard Predesign Investigation Report

Confidential Settlement Communication

AECOM Imagine it. Delivered

Public Works Yard
Predesign Investigation Report
Roxana, Illinois

Prepared for:
Equilon Enterprises LLC dba Shell Oil Products US
Roxana, IL

Project reference:60592794
October 2019

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1. Introduction and Objectives

On behalf of Equilon Enterprises LLC, dba Shell Oil Products US (SOPUS), AECOM Technical Services, Inc. (AECOM) prepared this Predesign Investigation Report (Report) for the Village of Roxana (Village) Public Works Yard (PWY) site. The Predesign Investigation focused on collection of data to refine the Conceptual Site Model (CSM) for the PWY. Additionally, data collected will be used to evaluate the use of thermal treatment as a potential remedial technology at the site. This report includes supporting tables, figures and appendices that follow the text. The report also contains embedded images, charts and tables that are not numbered.

The PWY is bounded on the west and north by Illinois Route 111/Old Edwardsville Road and East Eighth Street, respectively. There is a railroad corridor along the southern boundary and the Phillips 66 Wood River Refinery (WRR) forms the eastern boundary (**Figure 1**). The property occupies approximately 2.4 acres, approximately 0.4 acres of which is covered or obstructed by buildings or structures. Topographically, the western and southern portions of the PWY are at a lower elevation relative to the northeastern portion of the PWY. This relief across the PWY is approximately 13 feet. The PWY is infrequently used by the Village for vehicle maintenance and storage. The PWY is also the location of the Village's former wastewater treatment plant (WWTP). In-ground concrete tanks associated with the WWTP continue to be used to help manage stormwater. Most of the PWY is enclosed by a chain link fence. The aerial image below shows the location of the PWY with respect to surrounding features.

SOPUS has conducted several subsurface investigations at the PWY beginning in 2006 (URS, 2007), and quarterly groundwater monitoring began in 2010. These investigations indicate dissolved phase groundwater benzene concentrations on the order of hundreds to thousands of milligrams per liter (mg/L). In 2011, SOPUS constructed a soil vapor extraction (SVE) system on the adjoining Phillips 66 refinery which includes a header-line connecting to six extraction wells at the PWY. There are also eight vapor monitoring points (VMPs) at the PWY. The SVE system has operated at the PWY since late 2012. Soil vapor data for the PWY demonstrates the shallow and intermediate zones have been remediated. Soil gas concentrations at deeper depths have also decreased over time but may remain at depth in certain areas partly due to fluctuating groundwater conditions and submerged impact.

.

2. Investigation Approach

SOPUS evaluated several potential remedial alternatives to address petroleum impacts in groundwater at the PWY and of these, in-situ thermal treatment, and in particular Steam Enhanced Extraction (SEE), appears most promising at this time. The following site attributes affect SEE and served to focus the predesign investigation:

- Constituents of Potential Concern (COPCs), including Mass
- Debris, Obstructions and Preferential Pathways
- Hydraulic Conductivity
- Anisotropy
- Hydraulic Gradient/Depth to Groundwater
- Depth of Impact Relative to Groundwater Potentiometric Surface
- Stratigraphy
- Water Quality (for reinjection)

The investigative approach used four exploratory techniques:

1. Laser Induced Fluorescence (LIF), enhanced by an injected dye (dyeLIF), which causes solvent-like non-aqueous phase liquids (NAPL) like benzene to fluoresce differently than other hydrocarbons. This allowed for real-time identification of NAPL in the subsurface pore space.

2. Cone Penetration Testing (CPT), utilizing direct-push technologies, allowed for real-time identification of lithology and other soil properties that were used to help determine where to collect soil and groundwater samples.

3. Collection and analysis of soil samples using conventional drilling techniques for comparison with the dyeLIF results, provided quantification of analytical concentrations and determined certain physical soil properties.

4. Groundwater profiling using CPT for collection of depth-discrete groundwater samples for dissolved phase characterization vertically and horizontally across the PWY.

The approach allowed for information to be interpreted in the field and for additional locations to be added based on those results. The planned work was described in the *Predesign Investigation Workplan* (Workplan) dated May 2019.

The PWY is Village property, and the site work was performed under the access agreement between SOPUS and the Village dated September 17, 2012.

3. Field Investigation Activities

Field activities were conducted in June and July 2019 by AECOM, supported by the following site subcontractors:

- Roberts Environmental Drilling, Inc. (REDI) – Utility locate, utility clearance, and soil borings
- Walker-Hill Environmental (WHE) – CPT and groundwater profiling
- Dakota Technologies – DyeLIF, in conjunction with WHE's CPT rig.
- Juneau Associates – Surveying
- Environmental Management Alternatives (EMA) and Heritage Environmental Services – Waste management and disposal

Investigation locations were surveyed for horizontal and vertical control and added to the base map for the area after the completion of field activities **(Figure 2).**

The following sections describe the investigation activities as completed.

3.1 Pre-field Activities

The investigative locations were initially presented in the Workplan and refined based on available information on underground and aboveground utilities. Locations were distributed across the PWY with a spacing of approximately 40 to 60 feet. The investigation locations are shown on **Figure 2**. These locations were marked in the field with marking paint and pin flags. The locations were also reviewed with Village of Roxana representatives and Illinois' Joint Utility Locating Information for Excavators (JULIE) (SOP 5 – *Utility Clearance Procedures*).

A 3rd party private locate was performed for locations PD-01 to PD-11 on June 3, 2019 and locations PD-12 through PD-19[1] on June 17, 2019. This was conducted to identify potential obstructions and included the use of Ground Penetrating Radar, and Electro-Magnetic locating. The locator checked a 10-foot by 10-foot square area centered on each proposed location. Locations proposed on the east side of the PWY (PD-3 and PD-7) were relocated due to a subsurface underground pipeline and the minimum 25 foot set back distance requirement regarding that pipeline. Additionally, borings PD-01 and PD-05 were relocated based on underground piping for the SVE system, underground power lines and water transfer lines, that were more accurately identified after initial boring placement.

3.2 Intrusive Activities

3.2.1 Air-Knifing

An air-vacuum system was used to advance air-knife holes to assess the presence of utility lines or other obstructions at each planned investigative location (SOP-5 *Utility Clearance Procedures*). Air knife holes were cleared to depths of 10 feet below ground surface (bgs) and approximately 12 inches diameter for locations planned for soil drilling. Locations planned for CPT probing were air-knifed to 10 feet in depth and approximately 10 inches in diameter.

Three holes were air-knifed at each of the first planned locations (PD-01 through PD-11), for the CPT/DyeLIF, groundwater profiling, and soil borings. Locations PD-12 through PD-19 were added during the field program and each had two air knife holes, based on projected further investigation using only CPT methods. One location (PD-01) had an additional hole air-knifed due to refusal during CPT drilling and one location (PD-12) also had an additional hole air-knifed due to re-sampling being required[2].

AECOM collected grab samples at approximately two-foot intervals using a hand auger through the borehole clearance depth of 10 feet. Following hand auger sampling, each borehole was cleared using an air knife to a depth of 10 feet and width of approximately 10 to 12 inches (SOP-13 *Hand Auger Sampling*). A Photoionization Detector (PID) was

[1] PD-18 was proposed during the work but was not performed due to underground and overhead utilities.
[2] The sample shipment to the laboratory was delayed in transit; samples were recollected.

used for field screening and visual classification for soil logging (SOP-14 *Soil Headspace Screening* and SOP-17 *Soil Logging*). Air-knife holes were back-filled with sand when completed.

3.2.2 CPT/DyeLIF

CPT equipped with dyeLIF was performed by WHE and Dakota Technologies between June 10 and 20, 2019 at the locations shown on **Figure 2** (PD-01 – PD-19).

CPT technology, mounted on a tracked vehicle, hydraulically pushes a cone tip into the subsurface soil at a controlled rate of 1.5 to 2.5 cm/s. Total penetration resistance, friction, and pore water pressure are measured and integrated using software within the CPT unit. The CPT process follows the ASTM Standard D-3441 and includes correlating the soil properties to soil type; this information is included on CPT logs. Certain properties and information are also used to estimate hydraulic conductivity (K) and this information is discussed in Section 4.1.

DyeLIF technology utilizes the injection of water-insoluble dye which fluoresces very weakly and with short lifetimes while in the crystalline phase. When the dye comes in to contact with non-aqueous phase liquids it rapidly solvates into the NAPL, where it fluoresces intensely with a color shift and prolonged lifetimes. This change in solvation is monitored with laser-induced fluorescence sensing through a sapphire window attached to the side of the CPT rod near the rod's tip. The fluorescence collected from outside the sapphire window is brought to the surface where it is converted into a waveform (a combined measurement of intensity, color, and lifetime) by the LIF hardware. Dakota's software program ultimately calculates a response percentage. An increase in fluorescence strength and color shift ("blue shift") are indicative of a target response (benzene and/or other NAPLs are encountered). The more dramatic increases in the response intensity and blue-shifts, the higher the confidence that an effective dye-solvating NAPL like benzene has been encountered by the probe. The response to benzene-like NAPLs is faster and higher than other petroleum NAPLs such as gasoline, diesel, etc., which provide a less intense response (typically by an order of magnitude in lab testing). LIF logs were produced in the field and used to help guide subsequent locations.

Additional locations PD-12 through PD-19 were added to further refine the extent of impact. The process at these locations followed the same utility clearance/air-knife process as described previously.

CPT/DyeLIF borings (PD-01 through PD-19) extended to depths ranging from approximately 40 to 74 feet bgs, which is approximately 10 feet below the lower limit of dyeLIF response or to refusal as determined by the pressure generated on the cone tip prior to causing damage to equipment. DyeLIF logs are included in **Appendix A.**

Refusal was encountered in seven of the CPT/dyeLIF borings (PD-4, PD-6, PD-7, PD-11, PD-14, PD-17, and PD-19). In most borings, this refusal was consistent with dense sands which, when encountered, could not be penetrated by the equipment used.

Upon completion, borings were grouted with Type I cement grout placed via tremie pipe (SOP-12 *Grouting Procedures*). CPT logs are included in **Appendix B.**

3.2.3 Soil Borings

Soil borings were advanced at locations adjacent to the dyeLIF borings with observed NAPL response to collect samples for laboratory analysis and physical properties testing. Drilling occurred between June 11 and 23, 2019 and included 13 borings. Borings were advanced using 4-1/4-inch inside diameter (ID) hollow stem auger (HSA) and mud rotary advancement techniques using a 3-7/8-inch tricone bit. Borings were typically advanced with augers to depths ranging from 30 to 40 feet bgs then continued using mud rotary drilling. These depths were determined based on the observed groundwater depth during drilling and subsurface material types. The mud rotary process uses a bentonite and water mixture to keep the borehole open. Boreholes were started with projected depths based on results from previously advanced dyeLIF locations. A majority of the borings were terminated when soil samples did not display visual evidence of impact or odors and field screening (PID) results were less than approximately 25 ppm for a distance of approximately 5 to 10 feet. Final borehole depths ranged from 62 to 72 feet bgs.

The borings were continuously sampled using 24-inch-long split-spoon samplers, sampled back to back the length of the boring, starting at 10 feet bgs. Sampling was performed using a 140-pound hammer dropped from 30 inches to push the sampler into the formation. The number of hammer strikes required to achieve six inches of soil penetration

are recorded as blow counts. Blow counts are used to determine density of soils during sampling; this information is included on the boring logs. Soils in the sampler were logged by a qualified field scientist in accordance with the Unified Soil Classification System (USCS), visually evaluated for evidence of impact and screened in the field using a PID (SOP-14 *Soil Headspace Screening*). The field scientist noted soil attributes such as color, particle size, consistency, moisture content, structure, plasticity, odor (if obvious), and organic content (if visible) (SOP-17 *Soil Logging*). Soil boring logs are included in **Appendix C.**

Selected samples (based on visual observations and PID readings) were field tested using Sudan IV soil test kits which qualitatively identify hydrocarbons as a rough indicator of potential NAPL presence (Sudan results are included on the boring logs).

Selected soil samples were collected for analytical testing. Samples retained for testing were biased to focus on intervals with evidence of impact, based on dyeLIF response, PID, Sudan results and visual indicators. Samples were also collected from above and below these zones to provide information on changes in composition. Commonly, 3 to 5 samples per boring were retained for analysis. Samples were analyzed for volatile and semivolatile organic compounds (VOCs and SVOCs), including polynuclear aromatic hydrocarbons (PAHs); refer to Section 3.6 for additional information.

Based on the Sudan IV soil test kits results, eleven[3] (11) soil samples suspected to contain NAPL were sent to the SOPUS Westhollow laboratory in Houston, TX for testing. The results are presented Section 4.2.1.

Soil samples for physical properties testing, including grain size and permeability, were collected from six borings. These samples were collected from locations across the PWY, and the following inset table indicates the location and sample depth. The samples represented a range from 33 to 60 feet bgs, which includes the interval of greatest dyeLIF response. Physical property samples were collected using a large diameter split-spoon sampler with acetate liners[4]. See Section 4.1 for additional information.

Boring ID	Sample Date	Sample Depth (ft)
PD-1	6/18/2019	51
PD-4	6/21/2019	33
	6/24/2019	60
PD-5	6/14/2019	45
	6/14/2019	57
PD-6	7/12/2019	41
PD-7	7/18/2019	43
	7/18/2019	53
PD-10	6/13/2019	44

Borings were grouted upon completion with Type I cement grout placed via tremie methods (SOP-12 *Grouting Procedures*).

3.3 Groundwater Profiling

Depth-discrete groundwater sampling was performed between June 25 and July 23, 2019. Samples were collected from separate CPT borings adjacent to the dyeLIF borings. Groundwater samples were collected at approximately 10-foot intervals or as dyeLIF results suggested concentrations may be indicative of NAPL.

[3] Nine (9) of these samples were collected from the same interval as samples sent to Test America for analytical testing.
[4] This resulted in a sample approximately 3-inches in diameter by 24-inches in length.

Samples were collected through the rods with a lead rod which retracted to expose a stainless-steel screen. Samples were obtained via low-flow techniques using tubing and an inertial pump or hand pump using a foot valve (SOP-42 *Groundwater Profiling*). Due to the small diameter rod and screen, groundwater levels could only be measured prior to and after purging and sampling. Samples were collected when the following parameters had stabilized[5]: pH, oxidation-reduction potential (ORP), dissolved oxygen (DO), temperature and specific conductivity. Most groundwater borings extended to a depth of approximately 70 feet bgs or CPT refusal based on subsurface conditions. Low flow groundwater sampling data sheets are included in **Appendix D**.

Groundwater samples were collected for analysis of VOCs and SVOCs, including PAHs. Six additional samples were collected from six locations distributed across the PWY for analysis of general water quality parameters: alkalinity, hardness, calcium, manganese, sodium, potassium, phosphate, chloride, nitrate, chlorine, ferrous iron, sulfate and total dissolved solids. These samples were collected from depths ranging from 35 to 70 feet bgs. Refer to Section 3.6 for additional groundwater sampling details.

Nineteen[6] (19) groundwater samples suspected to contain NAPL based on visual observations were sent to the SOPUS Westhollow laboratory in Houston, TX for testing. The results are presented in Section 4.2.2.

Borings were grouted upon completion with Type I cement grout placed via tremie methods (SOP-12 *Grouting Procedures*).

3.4 Health and Safety

Health and Safety during these investigation activities was governed by a site-specific Health and Safety Plan *(*HASP). Personal protective equipment (PPE) and monitoring equipment used are described in the HASP.

The 12 Life-Saving Rules (LSRs) are mandatory rules for working on any SOPUS property or site and they aim to help employees and contractors comply with company-wide rules covering the activities of highest safety risks. Additionally, for all work done for involving soil and groundwater the Safe System of Work (SSoW) was followed. Employees and subcontractors working on soil and groundwater projects for SOPUS completed LSR and SSoW Training and carry a copy of the training certificate with them when working on SOPUS sites.

Task hazard assessments (THA) were discussed and completed before starting work activities each day. The THA requires the worker to describe steps to reduce the risk, including specific hazards and mitigations to be addressed, protective equipment to be used, and controls to be implemented. If the hazard(s) cannot be successfully mitigated, the work is not allowed to proceed. Employees and visitors signed the THAs daily. Tasks performed were discussed, including driving to the site, parking, and walking as well as the hazards, associated risk, and appropriate controls for each step. THAs were reviewed in advance by AECOM project safety personnel for SOPUS Safety C.A.S.E. review.

Prior to beginning work, the management team conducted a pre-field meeting or call with subcontractors where last-minute scope of work and safety concerns were discussed.

During the drilling of boring PD-11, and in particular the interval from approximately 38 to 44 feet bgs, elevated PID readings were detected in the breathing zone. Work was stopped to assess the change in conditions. Work resumed using engineering controls. Air movers in the form of a vacuum fan was positioned at the boring hole with discharge lines situated 20 feet down-wind of the workers. Additionally, normal “push” fans were directed at the workers breathing zone to provide fresh air from up-wind sources. This allowed fresh air to be brought into the work zone and ensure vacuumed air could not return in case of wind direction change.

3.5 Decontamination

Field personnel and equipment underwent decontamination procedures for the health and safety of those present, to maintain sample integrity, and to minimize the potential for cross-contamination. A temporary decontamination area

[5] Stabilized readings are 3 consecutive readings (per specified parameter) at a constant calculated flow rate, after 3 calculated flow through cell volumes have been purged.
[6] Seventeen (17) of these samples were collected from the same interval as samples sent to Test America for analytical testing Data are included in Table 3 and 4.

was established in the southeast corner of the PWY. Non-dedicated or non-expendable equipment (e.g., soil samplers) were decontaminated prior to the collection of each analytical sample by spraying with Liquinox® and distilled water (SOP-4 *Decontamination*). Decontamination fluids were collected and containerized for proper management and disposal. Large equipment (e.g., drill rig augers) was cleaned with a high-pressure cold-water wash at the decontamination pad. A rinsate sample was collected for analysis to assess the adequacy of cold-water pressure wash cleaning. The results indicated the decontamination procedures were satisfactory. Additional decontamination details are further described in the HASP.

3.6 Investigation Derived Waste

Investigation derived waste (IDW) included investigation spoils (e.g., soil from air knife and auger borings, drilling mud), decontamination water, purge water, groundwater tubing, PPE and expendable materials (e.g., gloves, tubing, etc.).

Soils generated from borehole clearing (air knife) and hollow stem auger drilling, zero to approximately 30 feet in depth, were containerized for disposal using 15-cubic yard covered and lined roll-off containers. A composite sample was collected from the containerized soils and sent to Teklab of Collinsville, IL. (Teklab) for characterization and to facilitate proper disposal. Soils were characterized as non-hazardous and were disposed at the Waste Management Milam RDF facility in East St. Louis, Illinois.

Drilling mud was containerized for disposal using 55-gallon steel drums. A composite sample was sent to Heritage to confirm characterization and facilitate proper disposal. Drilling mud was characterized as hazardous and disposed at the Heritage Environmental incinerator in East Liverpool, Ohio.

Decontamination water was containerized for disposal using 55-gallon steel drums. A composite sample of the decontamination water was collected and sent to Teklab to confirm characterization and facilitate proper disposal. Decontamination water was characterized as non-hazardous and was disposed at the Heritage Environmental facility in Indianapolis, Indiana.

Purge water was containerized for disposal using 55-gallon steel drums. Generator knowledge was used for characterization and to facilitate proper disposal. Purge water was characterized as hazardous and was disposed at the Heritage Environmental facility in Indianapolis, Indiana.

Tubing used during groundwater profiling to collect groundwater samples was containerized for disposal using 55-gallon steel drums. Generator knowledge was used for characterization and to facilitate proper disposal. Tubing was characterized as hazardous and was disposed at the Heritage Environmental facility in Indianapolis, Indiana.

The PPE and expendable materials having a low probability of impact were collected in trash bags and disposed with municipal waste. The PPE and expendable materials potentially impacted were containerized with the groundwater tubing for disposal.

Containers were staged on the PWY to meet storage requirements of SOPUS' Residual Management Program (RMP). Wastes were managed in accordance with SOPUS' RMP guidance as well as state and federal regulations.

3.7 QA/QC, Sample Control and Laboratory Testing and Data Review and Management

Quality assurance samples in the form of duplicates (DUP), equipment blanks (EB), trip blanks, and matrix spike and matrix spike duplicates (MS/MSD) were collected for soil and groundwater samples. Duplicates of selected samples were collected and analyzed from 10 percent of the investigative samples to check for sampling and analytical reproducibility. MS/MSD samples were collected and analyzed from 5 percent of the investigative samples to evaluate the effect of the sample matrix on the accuracy of the analysis. Trip blanks were collected and analyzed daily to assess the potential for VOC cross-contamination of samples during shipment to the laboratory. The trip blank consisted of one or more VOA vials prepared by the laboratory, transported to the field, and shipped with the other samples to the laboratory. The trip blanks were not opened in the field. Equipment blanks were collected and analyzed from 10 percent of the investigative samples where non-dedicated or non-expendable equipment was used. In total 5

MS/MSDs, 9 EBs, and 9 DUPs were collected for groundwater sampling QA/QC. Additionally, 3 MS/MSDs 5 EBs and 5 DUPs were collected for soil sampling QA/QC. Refer to SOP-23 *QA Samples* for additional information.

Personnel conducting the sampling wore clean, disposable protective gloves. Sample containers were labeled with a sample ID number, site name, sampler initials, sample date and time, sample preservative, and the parameters to be analyzed. After sample collection, the samples were logged on a chain-of-custody (COC) form, packaged to prevent damage during shipment, and cooled to ≤4°C (except soil physical property samples, which were not shipped on ice). The samples were then delivered, under the proper COC documentation, to the appropriate laboratory via delivery or courier service. Samples sent to the SOPUS Westhollow laboratory were shipped as Department of Transportation (DOT) hazardous materials following applicable packing and shipping procedures. Refer to SOP 24-*Sample Classification, Packaging, and Shipping (DOT)*, SOP 25-*Sample Containers, Preservation, and Holding Times* and SOP 26-*Sample Control and Custody Procedures.*

Soil and groundwater samples were analyzed for USEPA Method 8260B Volatile Organic Compounds (VOCs) and Method 8270D Semivolatile Organic Compounds (SVOCs), including Polynuclear Aromatic Hydrocarbons (PAHs) that are included in the reporting lists for the Roxana Interim Groundwater Monitoring Program, plus tentatively identified compounds (TICs). The primary testing laboratory was TestAmerica of Pensacola FL. Soil and groundwater samples from an initial group of locations (PD-1, -5, -10) were analyzed on an expedited basis (24 hour) by Teklab to provide results for comparison with the dyeLIF results. Water quality samples were sent to TestAmerica of Chicago.

Soil samples for physical properties testing were sent to TerraSense Inc. in Totowa NJ for grain size (ASTM D-422) and permeability (ASTM D-5084).

Laboratory data were provided in electronic form, and analytical data were independently reviewed and qualified by AECOM, consistent with other analytical data collected for the Roxana project. One hundred percent of the data were subjected to a data quality review. Evaluation of the data followed procedures outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017). Specific criteria reviewed included sample receipt condition and holding times, method blanks, surrogate spike recoveries, laboratory control samples, results reported from dilutions, and field duplicate results. The laboratory assigned data qualifiers on the basis of their quality control or to indicate sample analysis information (e.g., dilutions). Data qualifiers were also added by AECOM, as appropriate, and included on the data tables and laboratory result pages. Based on laboratory control sample (LCS), MS/MSD, surrogate, holding time, and field duplicate criteria, the analytical results reported were accepted for their intended use. Laboratory data reviews and reports are included in **Appendix E.**

Field data and documentation collected as part of this scope of work became part of the project file. AECOM maintains the files for the PWY and the database management system.

The following documentation was completed and supplements the COC records:

- Field logbooks.
- Air knife and soil boring logs.
- Field sample collection data (either forms and/or via electronic Toughpad®).
- Safety documentation.
- Air monitoring and calibration records.

Field and analytical data, (e.g., lithology, dyeLIF, concentration), were compiled and loaded into an Environmental Visualization Systems (EVS) model to facilitate interpretation.

4. Conceptual Site Model Data Assessment

This update to the existing conceptual site model includes information from the Predesign Investigation integrated with historical site data.

4.1 Site Specific Geology

The subsurface conditions in the PWY area generally consist of the following materials from the ground surface down:

- Fill – The fill consists mainly of clay with varying amounts of gravel, cinders, etc., and ranges in thickness from 0 to approximately 5 feet thick and is located in sporadic locations across the site.
- Silty Clay – A silty clay interval is thickest and underlies portions of the southwest area of the site. This interval's thickness ranges from approximately 3 to 15 feet. In the eastern portion of the PWY it is typically less than 5 feet thick.
- Sand – The sand underlies the silty clay, is primarily fine to medium grained to a depth of approximately 60 feet below ground surface [bgs]) then becomes medium to coarse grained. The sand extends to the depths explored (93 feet)[7]. There are occasional silty zones in the sand, but these appear to be relatively thin (inches thick) and are not laterally continuous.

Subsurface cross-sections were developed for five views through the PWY and are shown on **Figures 3A**, **4A**, **5A**, **6A** and **7A**.

Sand grain size across the PWY varies; a majority of subsurface material to a depth of approximately 70 feet is described as fine to medium grained sand with some silty sand. Approximately half of the borings noted occasional coarse-grained sand at varying depths.

Grain size analysis was performed on the soil samples sent for physical properties testing and the percent by size is shown in the inset table below.

Boring	PD-01	PD-04		PD-05		PD-06	PD-07		PD-10
Depth (bgs)	51	33	60	45	57	41	43	53	44
% SAND	93.0	98.2	98.6	95.7	96.2	98.4	97.3	96.0	96.3
% Coarse SAND	0.0	0.1	0.1	0.1	1.9	0.1	0.1	0.2	0.7
% Medium SAND	8.5	43.8	85.3	15.3	54.1	41.1	29.3	9.6	19.9
% Fine SAND	84.5	54.3	13.2	80.3	40.2	57.2	67.9	86.2	75.7
% FINES (Silts and Clays)	7.0	1.5	1.4	4.3	3.7	1.6	2.7	4.0	3.7

[7] Soil sampling performed in December 2012 (URS, 2013).

Horizontal and vertical permeability tests were conducted on nine samples from 6 borings distributed across the PWY at depths between 33 and 60 feet bgs. The results are presented below.

Well ID	Sample Depths (bgs)	Lithology	Vertical Hydraulic Conductivity (K, cm/s)	Horizontal Hydraulic Conductivity (K, cm/s)	Estimated K-value from DyeLIF (cm/s)
PD-1	51	F.-M. Grained Sand	3.0×10^{-5}	2.9×10^{-5}	4×10^{-7} to 3.5×10^{-4}
PD-4	33	F.-C. Grained Sand	1.0×10^{-2}	1.0×10^{-2}	1.0×10^{-2} to 1.4×10^{-2}
	60	F.-C. Grained Sand	2.9×10^{-3}	2.4×10^{-2}	NA*
PD-5	45	F.-M. Grained Sand	6.5×10^{-5}	1.0×10^{-2}	4×10^{-7} to 1.0×10^{-3}
	57	F.-M. Grained Sand	2.1×10^{-4}	5.2×10^{-3}	4×10^{-7} to 4.5×10^{-3}
PD-6	40	F. Grained Sand	2.8×10^{-2}	2.3×10^{-2}	1.0×10^{-2} to 1.4×10^{-2}
PD-7	43	F. Grained Sand	1.9×10^{-3}	1.5×10^{-2}	1.4×10^{-3} to 1.0×10^{-2}
	53	F. Grained Sand	4.6×10^{-5}	2.0×10^{-3}	4×10^{-7} to 1.0×10^{-2}
PD-10	44	F.-M. Grained Sand	1.6×10^{-3}	2.2×10^{-2}	1.5×10^{-2} to 1.9×10^{-2}

The average horizontal hydraulic conductivity is 1.2×10^{-2} cm/sec and the average vertical hydraulic conductivity is 5.0×10^{-3} cm/sec. This represents an anisotropy ratio (horizontal to vertical) of 2.4. The horizontal laboratory hydraulic conductivities are within the range of conductivities estimated by the dyeLIF calculation.

Refer to **Appendix F** for the physical properties test results.

4.2 Presentation of Analytical Results

4.2.1 Soil

The soil samples from this investigation (41 investigative samples) were analyzed for compounds in the Roxana Interim Groundwater Monitoring Program. The results are included in **Table 1** (VOC detections) and **Table 2** (SVOC detections). A total of 142 VOCs and SVOCs were analyzed, of those, 44 different analytes were detected (refer to table below). Of these, benzene is the major component, being detected in 95% of the samples (39 of 41) at an average concentration of 1,298 mg/kg. As mentioned previously, the soil samples retained for analysis were generally biased to more impacted intervals. The next most commonly detected compound is 1-methylnaphthalene and it was detected in 85% of the samples with an average concentration of 1.73 mg/kg.

Chemical	% Detected	Average Concentration (mg/kg)
Benzene	95%	1,298
1-Methylnaphthalene	85%	1.73
2-Methylnaphthalene	83%	2.71
Phenanthrene	73%	2.32
Ethylbenzene	66%	14.1
Pyrene	66%	0.857
1,2,4-Trimethylbenzene	61%	29.6
Fluoranthene	54%	0.119
m,p-Xylenes	51%	28.8
Phenol	51%	0.197
Benzo(a)pyrene	49%	0.215
Fluorene	49%	0.218
Toluene	49%	2.14
Xylenes (total)	49%	35.2
n-Propy benzene	46%	4.98
Benzo(g,h,i)perylene	41%	0.031
1,3,5-Trimethylbenzene	39%	7.73
Benzo(a)anthracene	39%	0.186
Anthracene	37%	0.163
Indeno(1,2,3-cd)pyrene	37%	0.016
Acenaphthene	34%	0.128
Benzo(b)fluoranthene	34%	0.091
Naphthalene	34%	3.60

Chemical	% Detected	Average Concentration (mg/kg)
o-Xylenes	34%	5.94
Chrysene	32%	0.262
Isopropy benzene (Cumene)	27%	1.36
D benzo(a,h)anthracene	22%	0.018
sec-Butylbenzene	20%	0.458
bis(2-Ethylhexyl)phthalate	17%	0.013
Benzo(k)fluoranthene	15%	0.011
n-Butylbenzene	15%	1.56
Cymene (p-Isopropyltoluene)	12%	0.267
Acenaphthylene	7%	0.013
Acetone	7%	0.002
Chloroform	7%	0.079
Indene	6%	0.044
Dichloromethane (Methylene chloride)	5%	2.06
1,1,2,2-Tetrachloroethane	2%	0.003
4-Chlorotoluene	2%	0.211
Benzyl alcohol	2%	0.004
Butyl benzyl phthalate	2%	0.001
D benzofuran	2%	0.001
Di-n-butyl phthalate	2%	0.002
Methyl tert-Butyl Ether (MTBE)	2%	0.000

Notes: 1) % Detected represents the number of samples with detections divided by the total number of samples. 2) Concentrations noted as 0.000 indicates a rounded average concentration.

The modeled benzene results for soil samples are shown in cross section view in **Figures 3B**, **4B**, **5B**, **6B**, and **7B. Figure 8** shows the distribution of soil benzene results in plan view. For a complete list of soil detections refer to **Table 1**(VOCs) and **Table 2**(SVOCs). Refer to **Appendix G** for soil VOC TICs and SVOC TICs. Several compounds were tentatively identified during the TIC search. Of these, the vast majority were only detected in a small percentage of samples and at relatively lower concentrations.

The SOPUS Westhollow laboratory performed additional analytical testing on soil samples which had positive Sudan tests; results were non-detect for NAPL in the samples. SOPUS Westhollow soil analysis results can be found in **Appendix I.**

4.2.2 Groundwater

The groundwater samples from this investigation (81 investigative samples) were analyzed for compounds in the Roxana Interim Groundwater Monitoring Program. The results are included in **Table 3** (VOC results) and **Table 4** (SVOC results). A total of 142 VOCs and SVOCs were analyzed, of those, 49 different analytes were detected (refer to table below). Of these, benzene is the major component, being detected in 98% of the samples (79 of 81), at an average concentration of 420 mg/L. Note that, in contrast to soil samples, groundwater samples were collected from throughout the length of the borings. As such, the average concentrations shown in the table also include lower concentration results. The next most commonly detected compound is 1-methylnaphthalene, and it was detected in 88% of the samples, at an average concentration of 0.025 mg/L.

Chemical	% Detected	Average Concentration (mg/L)
Benzene	98%	420
1-Methylnaphthalene	88%	0.025
2-Methylnaphthalene	86%	0.034
Toluene	59%	0.269
Phenol	54%	0.064
Ethylbenzene	53%	0.265
Xylenes (total)	49%	0.664
1,2,4-Trimethylbenzene	48%	0.122
m,p-Xylenes	47%	0.505
Phenanthrene	43%	0.003
o-Xylenes	42%	0.151
1,3,5-Trimethylbenzene	41%	0.023
Methyl tert-Butyl Ether (MTBE)	40%	0.009
Acenaphthene	36%	0.001
Naphthalene	36%	0.017
Fluorene	33%	0.001
Pyrene	31%	0.002
n-Propy benzene	30%	0.011
Isopropylbenzene (Cumene)	25%	0.006
Anthracene	23%	0.000
Fluoranthene	20%	0.000
sec-Butylbenzene	19%	0.001
Acenaphthylene	16%	0.000
Benzoic Acid	16%	0.002

Chemical	% Detected	Average Concentration (mg/L)
3 & 4-Methylphenol (m & p-Cresol)	15%	0.001
Chrysene	14%	0.001
n-Butylbenzene	14%	0.001
tert-Butylbenzene	14%	0.000
Acetone	12%	0.003
Benzo(a)anthracene	12%	0.000
Dibenzofuran	12%	0.000
Benzo(a)pyrene	11%	0.001
Indene	13%	0.002
Benzo(b)fluoranthene	10%	0.000
Benzo(g,h,i)perylene	7%	0.000
bis(2-Ethylhexyl)phthalate	7%	0.001
Dibenzo(a,h)anthracene	7%	0.000
Indeno(1,2,3-cd)pyrene	7%	0.000
Cymene (p-Isopropyltoluene)	6%	0.000
1,4-Dioxane	5%	0.000
2,4-Dimethylphenol	5%	0.001
2-Butanone	4%	0.001
2-Methylphenol (o-Cresol)	4%	0.000
Chloromethane	4%	0.000
Pentachlorophenol	4%	0.000
Trichloroethene	2%	0.000
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	1%	0.633
Benzyl alcohol	1%	0.000
Di-n-octyl phthalate	1%	0.000

Notes: 1) % Detected represents the number of samples with detections divided by the total number of samples. 2) Concentrations noted as 0.000 indicates a rounded average concentration.

The modeled benzene results for groundwater samples are shown in cross section view in **Figures 3C**, **4C**, **5C**, **6C**, and **7C. Figure 9** shows the distribution of groundwater benzene results in plan view. For a complete list of soil detections refer to **Table 3** (VOCs) and **Table 4** (SVOCs). Refer to **Appendix H** for groundwater VOC TICs and SVOC TICs. Several compounds were tentatively identified during the TIC search. Of these, the vast majority were only detected in a small percentage of samples and at relatively low concentrations.

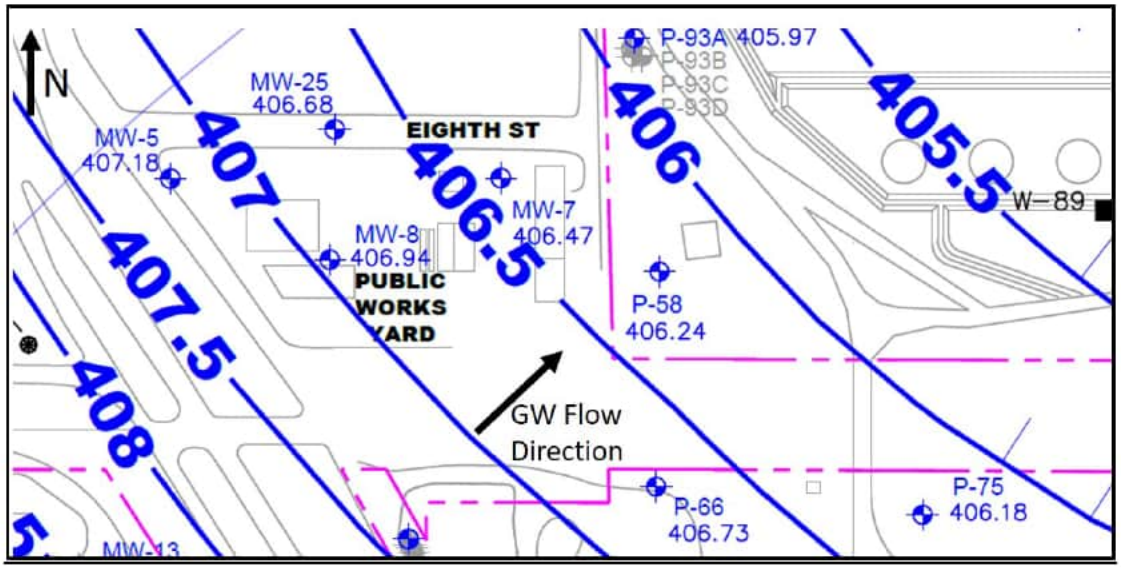
The results of the water quality testing are presented in **Table 5**. Water quality will be evaluated for the possibility of reinjection as part of SEE but will likely require pretreatment.

The SOPUS Westhollow laboratory performed additional analytical testing on groundwater samples suspected to contain NAPL; results were non-detect. SOPUS Westhollow groundwater analysis results can be found in **Appendix I.**

4.3 Assessment of Findings

Groundwater in the area is the primary source for large volume water production (e.g., industrial). Prior to development in the area, the natural movement of groundwater was toward the west (toward the Mississippi River). Since development in the area, groundwater pumping has altered the groundwater flow direction toward nearby industrial pumping wells. Regional pumping has decreased over the past several decades coupled with wetter than average rainfalls and elevated river stages have contributed to higher on-site groundwater levels than in the past.

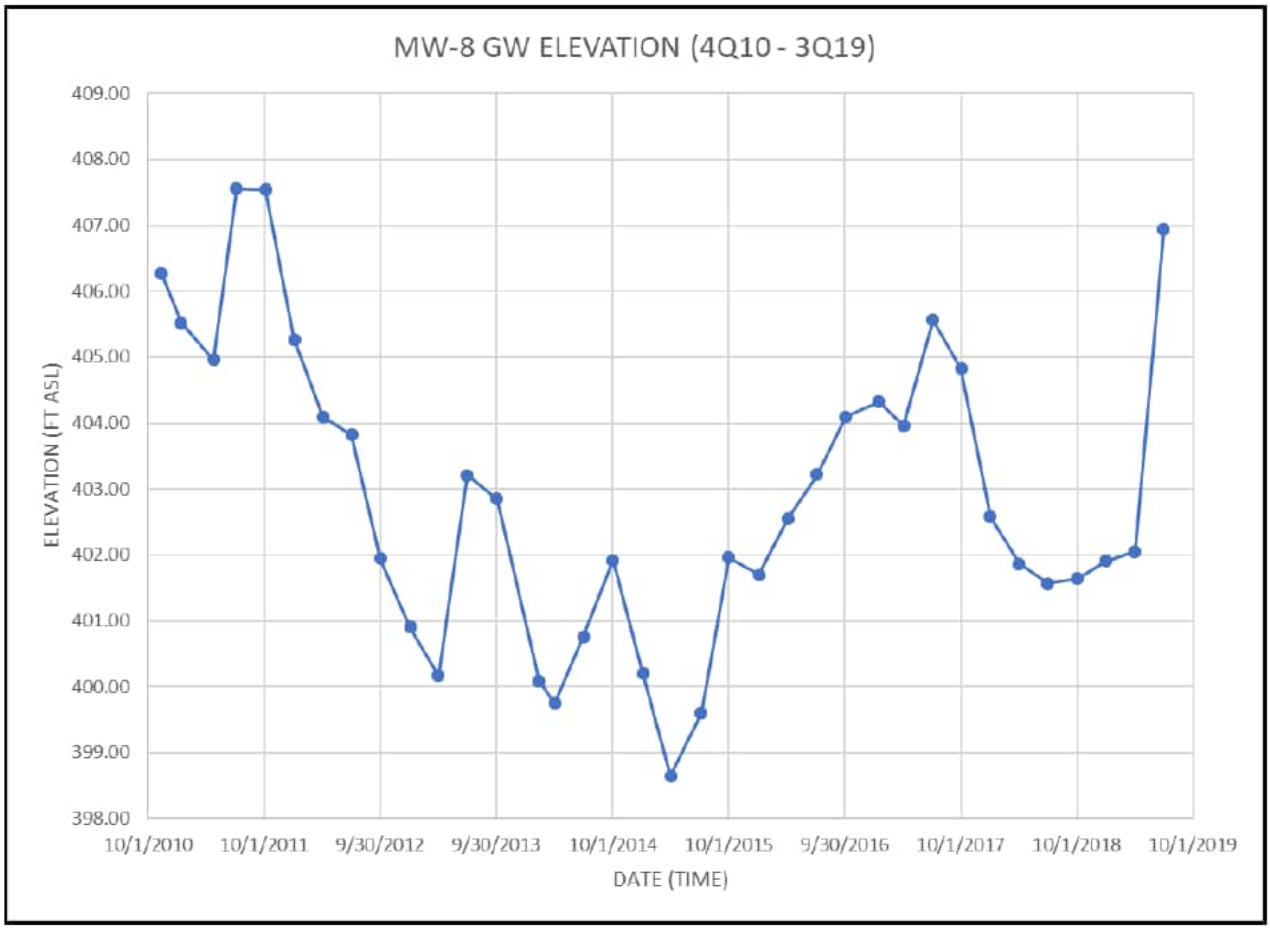
Groundwater occurs at a depth of approximately 28 feet bgs or elevation 407 North American Vertical Datum (NAVD 88), based on the 3rd quarter 2019 measurement in well MW-8 in the western portion of the PWY. Groundwater in this area is controlled by the high-volume pumping at the Wood River Refinery (WRR) which creates an aggregate cone of depression and resultant hydraulic gradients directed toward the pumping centers. The following figure, excerpted from Figure 3b in the 3rd quarter 2019 quarterly report (AECOM 2019), shows typical groundwater flow directions, with flow inward toward the refinery pumping wells (e.g., W-89).



Using the average horizontal hydraulic conductivity, hydraulic gradient of 0.00296 ft/ft (from 3Q19 data) and porosity[8] of 36% results in an estimated groundwater velocity of approximately 0.27 feet/day. In comparison, using the gradient from 1Q19 data (0.001 ft/ft) results in an estimated groundwater velocity of 0.09 ft/day.

The groundwater elevations observed in 3Q19 were unusually high, influenced in part by above-average precipitation in the first half of 2019 (year to date: 45 inches, historical average: 30 inches) and flood conditions in the Mississippi River. Between 2010 and present the groundwater elevation has ranged from approximately 399 to 407 feet NAVD 88. The chart below shows the elevation for well MW-8 for the past 10 years. The average elevation over this period is 403 feet.

[8] Porosity value represents an average of the literature-based values for fine to coarse sand.



Figures 10 and 11 are EVS images for soil and groundwater, respectively, each showing the approximate footprint (plan view) of benzene concentrations greater than 100 mg/kg or mg/L. The figures also show a 1,000 mg/kg or mg/L contour; this represents the greatest impact (benzene concentrations in the hundreds to thousands of mg/kg or mg/L). The images below the plan view map show oblique "3-D like" perspectives from the southwest part of the PWY, looking northeast. This 3-dimensional footprint of benzene in soil and groundwater, occupies an area in the PWY of approximately 1.9 acres, generally between 37 and 54 feet bgs[9] (388-398 feet). This suggests the greatest impact is submerged beneath current and longer-term average groundwater conditions.

Multiple lines of evidence, including dyeLIF response, visual identification of sheen, Sudan test results, PID readings, and analytical results were used to identify the zone of greatest impact. This information is included in **Table 6**. When grouping these multiple lines of evidence, it appears that the greatest impact occurs between approximately 37 and 54[9] feet bgs but is inconclusive for LNAPL.

A majority of the PWY facility has been vertically delineated for groundwater. The highest benzene concentrations occur from the groundwater surface to a depth of approximately 54 feet; concentrations averaged 672 mg/L within this interval. Below the 54-foot depth, concentrations were predominantly below 1 mg/L. There are exceptions to this in the northeastern part of the PWY (e.g., PD-3, and -7) where, as a result of the WRR pumping, concentrations up to 1,200 mg/L were detected to the depth sampled (71 feet bgs). Based on soil and groundwater analytical data, in situ concentrations are lowest in the western portion of the site.

Additionally, in soil samples collected in the highest zone of impact (37 to 54 feet bgs) benzene concentrations averaged 1,526 mg/kg. Below this depth the highest detection was 38 mg/kg.

[9] Depth range listed accounts for the difference in ground-surface elevation across the PWY.

5. Conclusions

AECOM conducted this Predesign Investigation on behalf of SOPUS on the Village of Roxana's Public Works Yard. Site and subsurface conditions have been assessed at the PWY over the past approximately 13 years and the historical data combined with the predesign data result in the following conclusions:

- The PWY comprises approximately 2.4 acres; approximately 20% of this is covered with buildings or structures.
- The uppermost 10 to 15 feet beneath the PWY is comprised of combinations of fill, silty clay and sand. Soils beneath this are almost entirely sands to the depths explored. The sands are primarily fine to medium grain with silt/clay content averaging approximately 3% in the samples tested. No laterally extensive silt or clay zones were identified within the sands.
- The average groundwater depth over the past 10 years is approximately 35.5 feet bgs across the PWY. This depth corresponds to an elevation of approximately 403 feet NAVD 88. The groundwater elevation during the Predesign Investigation was approximately 407 feet NAVD 88.
- The dyeLIF, Sudan, and soil benzene concentrations ranging from 120 to 23,000 mg/kg and groundwater benzene concentrations ranging from 180 to 2,900 mg/L, depict the most significant impact (primarily benzene) is in a zone between elevations of approximately 388 and 398 feet (37 to 54 feet bgs)[9] and occupying a footprint of approximately 1.9 acres. The highest detections are at depths below the water table (current and recent past).
- The vertical extent of dissolved phase impact has been further characterized at the PWY. The highest concentrations occur from the groundwater surface to a depth of approximately 54 feet bgs, where benzene concentrations range from 290 mg/L to 1,400 mg/L; concentrations are generally less than 1 mg/L below this depth. There are exceptions to this in the northeastern part of the PWY where, as a result of the WRR pumping, concentrations up to 1,200 mg/L were detected to the depth sampled (71 feet bgs).
- The data collected and evaluated in the Predesign Investigation continue to support that SEE is an applicable technology.
  - SEE is effective for treating the site COPCs, primarily benzene, as its boiling point is below the boiling point of water that the steam will reach.
  - SEE is most effective at depths greater than approximately 11 feet and with hydraulic conductivity greater than 10^{-5} cm/sec. PWY site impacts are focused in the saturated zone from 37 to 54 feet in depth and hydraulic conductivities average approximately 10^{-2} cm/sec to 10^{-3} cm/sec.
  - No optimal anisotropy exists when considering SEE, however significant differences in conductivities with direction (secondary porosity, etc.) can be controlling. Based on the horizontal and vertical hydraulic conductivity at this site, anisotropy should not be a limiting factor.
  - SEE can be a preferred method of remediation at sites with relatively homogenous stratigraphy, and higher groundwater flow rates as long as the hydraulic gradient is not too large. As a result of the relatively homogenous sands at the site, the hydraulic conductivity is relatively high and the hydraulic gradient is relatively low, which results in flow rates within the effective range for SEE.
  - The SEE process can potentially utilize water reinjection but may require pretreatment.

6. Limitations

SOPUS shall have the right to make and retain copies of and use all Work Product provided. However, such use shall be limited to the particular Site and project for which the Work Product is provided. SOPUS and its agents may release the Work Product to third parties at its sole risk and discretion. This report is based on data, site conditions, and other information that is generally applicable as of the date of this report, and the conclusions and recommendations herein are therefore applicable only to that time frame and to the report in its entirety.

Data may have been provided to AECOM by SOPUS or a third party and used in preparing this report. AECOM has relied on this information as furnished, and is neither responsible for, nor has confirmed the accuracy of this information.

7. References

AECOM, 2019 (AECOM, 2019); Interim Groundwater Monitoring Program – 3rd Quarter 2019 – Roxana, Illinois; Prepared for Shell Oil Products US (SOPUS); dated September 2019.
URS Corporation (URS), 2007; West Fenceline P-93 Dissolved Phase Benzene Investigation Report-Roxana, Illinois; Prepared for Shell Oil Products US (SOPUS); dated September 2007.

URS Corporation (URS), 2013; Public Works Yard Soil Sampling Report-Roxana, Illinois; Prepared for Shell Oil Products US (SOPUS); dated March 2013.

US Environmental Protection Agency (USEPA), January 2017; (USEPA, 2017); Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review.

SOP-4 Decontamination Procedures

SOP-5 Utility Clearance Procedures

SOP-12 Grouting Procedures

SOP-13 Hand Auger Sampling

SOP-14 Soil Headspace Screening Procedures

SOP-17 Soil Logging Procedures

SOP-23 QA Samples

SOP-24 Sample Classification, Packaging and Shipping Procedures

SOP-25 Sample Containers, Preservation and Holding Times

SOP-26 Sample Control and Custody Procedures

SOP-42 Groundwater Profiling Procedures

Tables

TABLE 1
SUMMARY OF SOIL VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1,1,1,2-Tetrachloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Chlorotoluene	Acetone	Benzene	Chloroform	Cymene (p-Isopropyltoluene)	Dichloromethane (Methylene chloride)	Ethanol
				Analytical Results (mg/kg)									
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019	<0.0461	0.128	0.044 J	<0.0461	<0.576	2.31	<0.0461	<0.0461	<0.23	
	PD-1-SB-55-061819	55 ft	6/18/2019	<0.0298	0.0937	0.0313	<0.0298	<0.373	1.58	<0.0298	<0.0298	<0.149	
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019	<4.4	<4.4	<4.4	<4.4	<22	120	<4.4	<4.4	<13	
	PD-2-SB-52-070919	52 ft	7/9/2019	<6	<6	<6	<6	<30	150	<6	<6	<18	
	PD-2-SB-60-070919	60 ft	7/9/2019	<1.2	<1.2	<1.2	<1.2	<6	38	<1.2	<1.2	<3.6	
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019	<1.2	<1.2	<1.2	<1.2	<5.9	23	<1.2	<1.2	<3.5	
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019	<0.0021	<0.0021	<0.0021	<0.0021	0.013 J	0.005	<0.0021	<0.0021	<0.0106	
	PD-4-SB-41-062419	41 ft	6/24/2019	<0.005	<0.005	<0.005	<0.005	<0.025	0.092	<0.005	<0.005	<0.015	
	PD-4-SB-53-062419	53 ft	6/24/2019	<5.8	160	55	<5.8	<29	320	3.6 J	2 J	<17	
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019	<0.002	0.0009 J	<0.002	<0.002	<0.0256	0.001 J	<0.002	<0.002	<0.0102	
	PD-5-SB-43-061419	43 ft	6/14/2019	<17.9	<17.9	<17.9	<17.9	<224	7380	<17.9	<17.9	94.4	
	PD-5-SB-53-061419	53 ft	6/14/2019	<15.2	252	<15.2	9.7 J	<191	982	<15.2	<15.2	<76.2	
	PD-5-SB-62-061419	62 ft	6/14/2019	<0.0481	0.206	<0.0481	<0.0481	<0.601	4.15	<0.0481	<0.0481	0.282	
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019	<0.66	<0.66	<0.66	<0.66	<3.3	19	<0.66	<0.66	<2	11 J
	PD-6-SB-46-071119	46 ft	7/11/2019	<5.2	23	6.2	<5.2	<26	120	<5.2	<5.2	<15	
	PD-6-SB-51-071119	51 ft	7/11/2019	<2.7	12	3.1	<2.7	<13	70	<2.7	<2.7	<8	
	PD-6-SB-54-071119	54 ft	7/11/2019	<0.28	0.072 J	<0.28	<0.28	<1.4	8.1	<0.28	<0.28	<0.83	
	PD-6-SB-63-071219	63 ft	7/12/2019	<0.25	0.11 J	<0.25	<0.25	<1.3	2.3	<0.25	<0.25	<0.76	5.7
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019	<0.0071	<0.0071	<0.0071	<0.0071	0.025 J	0.0022 J	<0.0071	<0.0071	<0.021	
	PD-7-SB-43-071819	43 ft	7/18/2019	<0.31	2.2	0.6	<0.31	<1.6	0.054 J	<0.31	0.1 J	<0.94	
	PD-7-SB-51-071819	51 ft	7/18/2019	<67	56 J	19 J	<67	<340	5200	<67	<67	<200	
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	<60	49 J	15 J	<60	<300	5000	<60	<60	<180	
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	<3.2	3.9	1.4 J	<3.2	<16	110	<3.2	<3.2	<9.6	
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	<3.2	0.93 J	<3.2	<3.2	<16	86	<3.2	<3.2	<9.5	
	PD-8-SB-40-062519	40 ft	6/25/2019	<15	28	8.8 J	<15	<75	2300	<15	<15	<45	
	PD-8-SB-51-062619	51 ft	6/26/2019	<5.4	410	140	<5.4	<27	<5.4	<5.4	5.3 J	<16	
	PD-8-SB-62-062619	62 ft	6/26/2019	<0.0049	0.05	0.016	<0.0049	<0.025	0.14	<0.0049	0.0012 J	<0.015	

TABLE 1
SUMMARY OF SOIL VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1,1,1,2-Tetrachloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Chlorotoluene	Acetone	Benzene	Chloroform	Cymene (p-Isopropyltoluene)	Dichloromethane (Methylene chloride)	Ethanol
				Analytical Results (mg/kg)									
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019	<0.0048	0.0012 J	<0.0048	<0.0048	<0.024	0.036	<0.0048	<0.0048	<0.014	
	PD-9-SB-43-062819	43 ft	6/28/2019	<1.5	<1.5	<1.5	<1.5	<7.6	43	<1.5	<1.5	<4.5	
	PD-9-SB-54-062819	54 ft	6/28/2019	<5.7	51	17	<5.7	<28	240	<5.7	<5.7	<17	
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	<5.6	47	16	<5.6	<28	260	<5.6	<5.6	<17	
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	<0.0507	<0.0507	<0.0507	<0.0507	<0.634	<0.0254	0.013 J	<0.0507	<0.254	
	PD-10-SB-46-061219	46 ft	6/12/2019	<0.002	0.0045	<0.002	<0.002	0.0297	0.0118	0.0009 J	<0.002	<0.0102	
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	<5.3	260	71	<5.3	<27	740	<5.3	4.9 J	<16	
	PD-11-SB-45-070219	45 ft	7/2/2019	<1	0.31 J	<1	<1	<5.2	29	<1	<1	<3.1	
	PD-11-SB-57-070219	57 ft	7/2/2019	<0.65	<0.65	<0.65	<0.65	<3.3	15	<0.65	<0.65	<2	
	PD-11-SB-61-070219	61 ft	7/2/2019	<0.27	<0.27	<0.27	<0.27	<1.3	8.9	<0.27	<0.27	<0.81	7.1
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019	<0.37	<0.37	<0.37	<0.37	<1.9	11 F1 J	<0.37	<0.37	<1.1	5.5 J
	PD-12-SB-55-070819	55 ft	7/8/2019	<1.9	6.4	2.3	<1.9	<9.5	79	<1.9	<1.9	<5.7	
	PD-12-SB-59-070819	59 ft	7/8/2019	<0.26	0.078 J	<0.26	<0.26	<1.3	0.51	<0.26	<0.26	<0.79	
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019	<11	<11	<11	<11	<54	290	<11	<11	<33	
	PD-14-SB-49-072219	49 ft	7/22/2019	<49	<49	<49	<49	<240	23000	<49	<49	<150	
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019	<56	<56	<56	<56	<280	13000	<56	<56	<170	
	PD-14-SB-55-072219	55 ft	7/22/2019	<0.26	0.15 J	0.05 J	<0.26	<1.3	10	<0.26	<0.26	<0.79	
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019	<0.26	<0.26	<0.26	<0.26	<1.3	6.5	<0.26	<0.26	<0.78	
	PD-17-SB-55-071519	55 ft	7/15/2019	<1.1	1.1	0.26 J	<1.1	<5.3	32	<1.1	<1.1	<3.2	

TABLE 1
SUMMARY OF SOIL VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Ethylbenzene	Isopropylbenzene (Cumene)	m,p-Xylenes	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylenes	sec-Butylbenzene	Toluene	Xylenes (total)
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019	0.0793	<0.0461	0.206	<0.0461	<0.115	<0.0461	0.027 J	0.064 J	<0.0461	0.042 J	0.271
	PD-1-SB-55-061819	55 ft	6/18/2019	0.0898	<0.0298	0.215	<0.0298	0.033 J	<0.0298	0.023 J	0.06 J	<0.0298	0.0486	0.274
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.8
	PD-2-SB-52-070919	52 ft	7/9/2019	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<12
	PD-2-SB-60-070919	60 ft	7/9/2019	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<2.4
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<2.4
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019	0.0011 J	<0.0021	<0.0042	0.0127	<0.0053	<0.0021	<0.0021	<0.0042	<0.0021	0.0013 J	<0.0084
	PD-4-SB-41-062419	41 ft	6/24/2019	0.001 J	0.0039 J	<0.005	<0.005	<0.005	<0.005	0.0072	<0.005	0.0044 J	0.0011 J	<0.01
	PD-4-SB-53-062419	53 ft	6/24/2019	42	9.5	65	<5.8	21	15	35	5 J	3.3 J	<5.8	70
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019	0.0011 J	<0.002	<0.0041	<0.002	<0.0051	<0.002	<0.002	<0.0041	<0.002	0.0012 J	<0.0082
	PD-5-SB-43-061419	43 ft	6/14/2019	<17.9	<17.9	<35.9	<17.9	<44.8	<17.9	<17.9	<35.9	<17.9	3.8 J	<71.7
	PD-5-SB-53-061419	53 ft	6/14/2019	186	14 J	470	<15.2	24 J	<15.2	54.6	166	<15.2	52.3	636
	PD-5-SB-62-061419	62 ft	6/14/2019	0.148	<0.0481	0.373	<0.0481	0.033 J	<0.0481	0.043 J	0.084 J	<0.0481	0.043 J	0.457
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019	0.15 J	<0.66	<0.66	<0.66	0.045 J	<0.66	<0.66	<0.66	<0.66	<0.66	<1.3
	PD-6-SB-46-071119	46 ft	7/11/2019	1.3 J	1 J	1.6 J	<5.2	<5.2	<5.2	2.2 J	<5.2	<5.2	<5.2	<10
	PD-6-SB-51-071119	51 ft	7/11/2019	1.1 J	0.57 J	2.3 J	<2.7	1.2 J	<2.7	1.2 J	0.79 J	<2.7	1.1 J	3.1 J
	PD-6-SB-54-071119	54 ft	7/11/2019	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	0.12 J	<0.55
	PD-6-SB-63-071219	63 ft	7/12/2019	0.033 J	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.51
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019	0.0014 J	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	0.0022 J	<0.014
	PD-7-SB-43-071819	43 ft	7/18/2019	0.23 J	0.15 J	0.51	<0.31	0.28 J	0.26 J	0.3 J	<0.31	0.15 J	<0.31	0.56 J
	PD-7-SB-51-071819	51 ft	7/18/2019	22 J	<67	51 J	<67	<67	<67	<67	<67	<67	<67	60 J
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	20 J	<60	47 J	<60	<60	<60	<60	<60	<60	<60	55 J
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	1.8 J	<3.2	5.2	<3.2	0.093 J	<3.2	0.7 J	1.7 J	<3.2	1.3 J	6.9
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	0.44 J	<3.2	1.2 J	<3.2	0.24 J	<3.2	<3.2	<3.2	<3.2	<3.2	1.5 J
	PD-8-SB-40-062519	40 ft	6/25/2019	15	<15	40	<15	7.4 J	<15	5 J	14 J	<15	13 J	55
	PD-8-SB-51-062619	51 ft	6/26/2019	250	20	410	<5.4	58	36	82	11	8	4.2 J	430
	PD-8-SB-62-062619	62 ft	6/26/2019	0.063	0.0043 J	0.1	<0.0049	0.0091	0.0052	0.014	<0.0049	0.0023 J	0.0037 J	0.1

TABLE 1
SUMMARY OF SOIL VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Ethylbenzene	Isopropylbenzene (Cumene)	m,p-Xylenes	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylenes	sec-Butylbenzene	Toluene	Xylenes (total)
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019	0.0016 J	<0.0048	0.0023 J	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	0.0017 J	0.0031 J
	PD-9-SB-43-062819	43 ft	6/28/2019	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<3
	PD-9-SB-54-062819	54 ft	6/28/2019	32	2.6 J	75	<5.7	10 E	4.9 J	10	26	1.3 J	9.4	100
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	32	2.4 J	77	<5.6	8.2 E	4.6 J	9.5	28	1.1 J	9.7	100
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	<0.0507	<0.0507	<0.101	<0.0507	3.22	<0.0507	<0.0507	<0.101	<0.0507	<0.0507	<0.203
	PD-10-SB-46-061219	46 ft	6/12/2019	0.0025	<0.002	0.0024 J	<0.002	<0.0051	<0.002	0.001 J	0.0012 J	<0.002	0.0008 J	0.0036 J
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	37	12	65	<5.3	32	11	27	16	7.1	2.1 J	81
	PD-11-SB-45-070219	45 ft	7/2/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2.1
	PD-11-SB-57-070219	57 ft	7/2/2019	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<1.3
	PD-11-SB-61-070219	61 ft	7/2/2019	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.079 J	<0.27	<0.27	<0.27	<0.54
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.74
	PD-12-SB-55-070819	55 ft	7/8/2019	5.1	0.29 J	14	<1.9	<1.9	<1.9	1.3 J	4.6	<1.9	1.5 J	18
	PD-12-SB-59-070819	59 ft	7/8/2019	0.058 J	<0.26	0.18 J	<0.26	<0.26	<0.26	0.052 J	<0.26	<0.26	<0.26	0.22 J
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<22
	PD-14-SB-49-072219	49 ft	7/22/2019	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<98
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019	<56	<56	<56	<56	<56	<56	<56	<56	<56	<56	<110
	PD-14-SB-55-072219	55 ft	7/22/2019	0.09 J	<0.26	0.2 J	<0.26	<0.26	<0.26	<0.26	0.061 J	<0.26	<0.26	0.26 J
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	0.13 J	<0.26	<0.52
	PD-17-SB-55-071519	55 ft	7/15/2019	0.47 J	<1.1	0.48 J	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	0.57 J

Notes:

Table does not include analytes that were non-detect in all samples.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

F1 = Indicates MS and/or MSD recovery is outside acceptance limit.

<#.## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

TABLE 2
SUMMARY OF SOIL SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl alcohol	bis(2-Ethylhexyl)phthalate
				Analytical Results (mg/kg)											
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019	1.5	2.66				<0.0716	<0.0244	<0.0244				<2.51
	PD-1-SB-55-061819	55 ft	6/18/2019		0.0047 J	<0.0238	<0.0238		<0.0699		0.007 J	0.0047 J			
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019	0.49	0.75	0.066	<0.0076	0.075	0.12	0.11	0.055	0.029	<0.0076	<0.38	<0.046 U
	PD-2-SB-52-070919	52 ft	7/9/2019	0.0051 J	0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0 0078	<0.0078	<0.39	<0.072 U
	PD-2-SB-60-070919	60 ft	7/9/2019	0.013	0.021	0.0018 J	<0.008	0.0021 J	<0.008	<0 008	<0.008	<0.008	<0.008	<0.4 UJ	<0.061 U
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019	0.017	0.026	0.0026 J	<0.0077	<0.0077	<0.0077	0.0049 J	<0.0077	<0 0077	<0.0077	<0.38	<0.06 U
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019	<0.0121	<0.0121	<0.0121	<0.0121	<0.0121	<0.0357	<0.0121	<0.0121	<0 0121	<0.0121	<1.79	<1.25
	PD-4-SB-41-062419	41 ft	6/24/2019	0.0082 J	<0.0061 J B U	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	0.0035 J	0.0044 J	<0.0083	<0.42	<0.42
	PD-4-SB-53-062419	53 ft	6/24/2019	0.022	0.044 B	<0.008	<0.008	<0.008	<0.008	0.003 J	0.0023 J	<0.008	<0.008	<0.4	<0.4
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019	<0.0071										<1.05	
	PD-5-SB-43-061419	43 ft	6/14/2019	0.0035 J	0.0035 J	<0.0119			0.0082 J	0.0023 J		<0 0119			<1.22
	PD-5-SB-53-061419	53 ft	6/14/2019		7.09			0.0311					<0.0122	<1.8	<1.26
	PD-5-SB-62-061419	62 ft	6/14/2019				<0.0122	<0.0122	<0.0358	<0.0122		<0 0122	<0.0122		
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019	0.28	0.35	0.028	<0.0076	0.012	0.013	0 014	<0.0076	<0 0076	<0.0076	<0.38	<0.11 U
	PD-6-SB-46-071119	46 ft	7/11/2019	1	1.5	0.11	<0.0074	0.093	0.15	0.15	0.082	0.037	<0.0074	<0.37	<0.11 U
	PD-6-SB-51-071119	51 ft	7/11/2019	0.24	0.36	0.024	<0.0075	0.027	0.038	0 041	0.021	0.011	<0.0075	<0.38	<0.1 U
	PD-6-SB-54-071119	54 ft	7/11/2019	0.0061 J	0.0079	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0 0076	<0.0076	<0.38	<0.084 U
	PD-6-SB-63-071219	63 ft	7/12/2019	0.006 J	0.0072 J	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0 0074	<0.0074	<0.37	0.11 J B U
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	<0 0085	<0.0085	<0.42 UJ	<0.42
	PD-7-SB-43-071819	43 ft	7/18/2019	4	5.6	0.15	<0.0085	0.13	0.13	0.15	<0.0085	0.04	<0.0085	<0.42	0.063 J B
	PD-7-SB-51-071819	51 ft	7/18/2019	2 J	2.7 J	0.11 J	<0.0088	0.055 J	0.06 J	0.074 J	0.04	0.019	<0.0088	<0.44	<0.067 U
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	6.2 J	9 J	0.21 J	<0.0082	0.12 J	0.12 J	0.14 J	0.066	0.031	<0.0082	<0.41	<0.056 U
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	0.089 J	0.15 B J	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0 0081	<0.0081	<0.4	<0.067 U
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	0.24 J	0.4 B J	<0.0083	<0.0083	<0.0083	<0.0083	0.0053 J	<0.0083	0.0039 J	<0.0083	<0.41	<0.06 U
	PD-8-SB-40-062519	40 ft	6/25/2019	1.4	2.3 B	<0.0077	<0.0077	<0.0077	0.013	<0.0077	<0.0077	0 0085	<0.0077	<0.38	<0.069 U
	PD-8-SB-51-062619	51 ft	6/26/2019	16	30 B	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<1.9	<1.9
	PD-8-SB-62-062619	62 ft	6/26/2019	0.01	0.016 B	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0 0082	<0.0082	<0.41	<0.41

TABLE 2
SUMMARY OF SOIL SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl alcohol	bis(2-Ethylhexyl)phthalate
				Analytical Results (mg/kg)											
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019	0.0033 J	<0.0027 U	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0 0082	<0.0082	<0.41	<0.07 J B U
	PD-9-SB-43-062819	43 ft	6/28/2019	0.022	<0.0083 U	<0.0081	<0.0081	0.007 J	0.0042 J	0.005 J	<0.0081	<0 0081	<0.0081	<0.4	<0.062 U
	PD-9-SB-54-062819	54 ft	6/28/2019	4.2	11 B	<0 0078 UJ	<0.0078	<0.0078	0.0028 J	0.0052 J	0.0062 J	<0 0078	<0.0078	<0.39	<0.062 J B U
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	3.3	8.1 B	0.076 J	<0.0077	<0.0077	0.003 J	0.0049 J	<0.0077	0.0046 J	<0.0077	<0.38	<0.072 J B U
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019		8.45		0.551	6.75	7.56	8.57	3.65	1.07		<51.6	<36.1
	PD-10-SB-46-061219	46 ft	6/12/2019				<0.0083		<0.0244	0.0016 J			<0.0083	<1.22	<0.855
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	20 B	31 B	0.11	<0.0077	<0.0077	<0.0077	0.25	0.092	0.054	<0.0077	<0.38	<0.38
	PD-11-SB-45-070219	45 ft	7/2/2019	1.1 B	1.5 B	<0.076	<0.076	0.12	0.26	0.28	0.094	0.071 J	0.017 J	0 2 J	<0.07 U
	PD-11-SB-57-070219	57 ft	7/2/2019	<0.0042 U	0.0079 J B	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0 0082	<0.0082	<0.41	<0.068 U
	PD-11-SB-61-070219	61 ft	7/2/2019	<0.02 B U	<0 016 B U	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077	0.0035 J	<0.0077	<0.39	<0.065 U
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019	0.075	0.069	<0.0084	<0.0084	<0.0084	0.0034 J	0.0034 J	0.0048 J	0.005 J	0.004 J	<0.42	0.078 J
	PD-12-SB-55-070819	55 ft	7/8/2019	0.73	1.4	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.48	0.07 J
	PD-12-SB-59-070819	59 ft	7/8/2019	0.037	0.045	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0 0078	<0.0078	<0.39	0.059 J
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019	0.0034 J	0.003 J	<0.0078	<0.0078	<0.0078	<0.0021 U	<0.0012 U	<0 0015 U	<0 0078	<0.0078	<0.39 UJ	<0 078 UJ
	PD-14-SB-49-072219	49 ft	7/22/2019	0.022	0.026	0.0058 J	<0.0075	0.0096	0.015 B	0.011 B	0.018 B	0.0057 J	0.0065 J	<0.37	<0.074 U
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019	0.02	0.024	0.0058 J	<0.0078	0.0087	0.01 B	<0.0059 U	0.0086 B	<0 0078	0.0029 J	<0.39	<0.058 U
	PD-14-SB-55-072219	55 ft	7/22/2019	0.011	0.026	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0 0078	<0.0078	<0.39	<0.067 U
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019	0.071	0.039	0.022	<0.0076	0.015	0.049	0 064	0.031	0.02	0.011	<0.38	<0.38
	PD-17-SB-55-071519	55 ft	7/15/2019	0.008	0.012	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0 0078	<0.0078	<0.39 UJ	<0.39

TABLE 2
SUMMARY OF SOIL SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	Di-n-butyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Phenol	Pyrene
				Analytical Results (mg/kg)											
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019	<2.51			<2.51	<2.51		0.193		<0 0244			0.0382
	PD-1-SB-55-061819	55 ft	6/18/2019		<0.0238										<0.0238
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019	<0.38	0.23	0.027	<0.38	<0.048 U	0.045	0.08	<0.38	0.015	0.52	0.71	0.33
	PD-2-SB-52-070919	52 ft	7/9/2019	<0.39	<0.0078	<0.0078	<0.39	<0.057 U	0.0025 J	<0.0078	<0.39	<0 0078	0.0062 J	0.57	0.01
	PD-2-SB-60-070919	60 ft	7/9/2019	<0.4	<0.008	<0.008	<0.4	<0.059 U	0.002 J	0.0014 J	<0.4	<0.008	0.017	0 048 J	0.0064 J
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019	<0.38	0.0072 J	<0.0077	<0.38	<0.052 U	0.0023 J	0.0025 J	<0.38	<0 0077	0.021	0 094 J	0.011
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019	<1.25	<0.0121	<0.0121	<1.25	<1.25	<0.0121	<0.0121		<0 0121	<0.0121	<1.25	<0.0121
	PD-4-SB-41-062419	41 ft	6/24/2019	<0.42	<0.0083	0.0043 J	<0.42	<0.42	<0.0083	<0.0083	<0.42	0.0045 J	0.0056 J	0 053 J	<0.0047 J B U
	PD-4-SB-53-062419	53 ft	6/24/2019	<0.4	<0.008	<0.008	<0.4	<0.4	<0.008	<0.008	<0.4	0.003 J	0.0023 J	0 065 J	<0.0014 J B U
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019	<0.732	<0.0071			<0.732		<0.0071			<0.0071	<0.732	<0.0071
	PD-5-SB-43-061419	43 ft	6/14/2019	<1.22	<0.0119	<0.0119		<1.22				<0 0119			
	PD-5-SB-53-061419	53 ft	6/14/2019		<0.0122		<1.26	<1.26					0.17		
	PD-5-SB-62-061419	62 ft	6/14/2019		<0.0122	<0.0122	<1.25					<0 0122	<0.0122		
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019	<0.38	0.027	<0.0076	<0.38	<0.068 U	0.0079	0.03	<0.38	<0 0076	0.12	<0.38	0.06
	PD-6-SB-46-071119	46 ft	7/11/2019	<0.37	0.28	0.032	0.062 J	<0.088 U	0.059	0.13	<0.37	0.016	0.74	0.43	0.45
	PD-6-SB-51-071119	51 ft	7/11/2019	<0.38	0.075	<0.0075	<0.38	<0.088 U	0.015	0 029	<0.38	<0 0075	0.18	0.46	0.11
	PD-6-SB-54-071119	54 ft	7/11/2019	<0.38	<0.0076	<0.0076	<0.38	<0.062 U	<0.0076	<0.0076	<0.38	<0 0076	<0.0076	0.15 J	<0.0076
	PD-6-SB-63-071219	63 ft	7/12/2019	<0.37	<0.0074	<0.0074	<0.37	0.088 J B	<0.0074	<0.0074	<0.37	<0 0074	0.0012 J	<0.37	<0.0074
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019	<0.42 UJ	<0.0085	<0.0085	<0.42	<0.42	<0.0085	<0.0085	<0.42 UJ	<0 0085	<0.0085	<0.42	<0.0085
	PD-7-SB-43-071819	43 ft	7/18/2019	<0.42	0.26	<0.0085	<0.42	<0.42	0.062 B	0 3	<0.42	0.015	1.1	<0.42	0.45
	PD-7-SB-51-071819	51 ft	7/18/2019	<0.44	0.12	<0.0088	<0.44	<0.44	0.031 B	0.15 J	0.12 J	0 0091	0.42	0.64	0.19
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	<0.41	0.19	<0.0082	<0.41	<0.41	0.06 B	0.3 J	<0.41	0.018	1.1	<0.41	0.41
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	<0.4	<0.0081	<0.0081	<0.4	<0.4	<0.0081	<0.0081	<0.4	<0 0081	0.016	0.47	<0.0039 U
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	<0.41	<0.0083	<0.0083	<0.41	<0.41	<0.0073 U	<0.0083	<0.41	0.004 J	0.038	0.51	<0.0082 U
	PD-8-SB-40-062519	40 ft	6/25/2019	<0.38	0.022	<0.0077	<0.38	<0.38	0.033 B	0 099	<0.38	<0 0077	0.21	0.72	0.043 B
	PD-8-SB-51-062619	51 ft	6/26/2019	<1.9	<0.15	<0.15	<1.9	<1.9	<0.15	<0.15	<1.9	<0.15	0.89	<1.9 UJ	<0.15
	PD-8-SB-62-062619	62 ft	6/26/2019	<0.41	<0.0082	<0.0082	<0.41	<0.41	<0.0082	<0.0082	<0.41	<0 0082	<0.0082	<0.41	<0.0082

TABLE 2
SUMMARY OF SOIL SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	Di-n-butyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Phenol	Pyrene
				Analytical Results (mg/kg)											
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019	<0.41	<0.0082	<0.0082	<0.41	<0.41	<0.0082	<0.0082	<0.41	<0 0082	<0.0082	<0.41	<0.0082
	PD-9-SB-43-062819	43 ft	6/28/2019	<0.4	<0.0081	<0.0081	<0.4	<0.4	0.033 B	0.0045 J	<0.4	<0 0081	0.025	0.11 J	0.02 B J
	PD-9-SB-54-062819	54 ft	6/28/2019	<0.39	<0.0078	<0.0078	<0.39	<0.39	<0.012 U	<0.0078	<0.39	<0 0078	0.15	<0.39	0.016 B J
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	<0.38	<0.0077	0.0033 J	<0.38	<0.38	<0.013 U	0 094	<0.38	0.0044 J	0.13	<0.38	0.015 B J
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	<36.1	10.2	0.688	<36.1	<36.1	4.83			0.551	97.9	<36.1	35.3
	PD-10-SB-46-061219	46 ft	6/12/2019		<0.0083				<0.0083	<0.0083		<0 0083		<0.855	0.0057 J
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	<0.38	<0.0077	<0.0077	<0.38	<0.38	0.076	0.18	1.5	0.025	1.2	<0.38	0.67
	PD-11-SB-45-070219	45 ft	7/2/2019	<0.38	0.53	0.071 J	<0.38	<0.38	0.088	0.18	<0.38	0.04 J	1	0.67	0.99
	PD-11-SB-57-070219	57 ft	7/2/2019	<0.41	<0.0082	<0.0082	<0.41	<0.41	0.0037 J	<0.0082	<0.41	<0 0082	0.011	0.19 J	0.013
	PD-11-SB-61-070219	61 ft	7/2/2019	<0.39	<0.0077	<0.0077	<0.39	<0.39	<0.0077	<0.0077	<0.39	<0 0077	0.01	0 21 J	0.01
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019	0.062 J	0.0025 J	0.0044 J	<0.42	<0.42	0.0022 J	0.0041 J	<0.42	0.0046 J	<0.0084	0.16 J	0.0024 J
	PD-12-SB-55-070819	55 ft	7/8/2019	<0.48	<0.0095	<0.0095	<0.48	<0.48	0.0032 J	0.03	<0.48	<0 0095	0.052	<0.48	0.0058 J
	PD-12-SB-59-070819	59 ft	7/8/2019	<0.39	<0.0078	<0.0078	<0.39	<0.39	<0.0078	<0.0078	<0.39	<0 0078	<0.0078	0 045 J	<0.0078
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019	<0.39 UJ	<0.0078	<0.0078	<0.39 UJ	<0.39 UJ	0.0028 J	<0.0078	<0.39 UJ	<0 0078	0.0021 J	0.12 J F1 F2	0.0018 J
	PD-14-SB-49-072219	49 ft	7/22/2019	<0.37	0.014	<0.0075	<0.37	<0.37	0.035	0.0085	<0.37	0.0048 J	0.043	1.1	0.027
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019	<0.39	0.0089	<0.0078	<0.39	<0.39	0.027	0.0074 J	<0.39	0.0028 J	0.034	0.52	0.019
	PD-14-SB-55-072219	55 ft	7/22/2019	<0.39	<0.0078	<0.0078	<0.39	<0.39	<0.0078	<0.0078	<0.39	<0 0078	<0.0078	0 095 J	<0.0078
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019	<0.38	0.1	0.012	<0.38	<0.38	0.023	0.03	<0.38	0.01	0.14	<0.38	0.16 *
	PD-17-SB-55-071519	55 ft	7/15/2019	<0.39	<0.0078	<0.0078	<0.39	<0.39	<0.0078	<0.0078	<0.39	<0 0078	0.0087	<0.39	<0.0078

Notes:

Table does not include analytes that were non-detect in all samples.

[ ] Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

B = Target analyte was identified in the method blank, indicating possible lab contamination.

J = The analyte was detected below the reporting limit. Result is estimated.

F1 = Indicates MS and/or MSD recovery is outside acceptance limit.

F2 = MS/MSD RPD exceeds control limits.

<#.## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Es imated non-detect.

U = Result is non-detect.

TABLE 3

SUMMARY OF GROUNDWATER VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,4-Dioxane	2-Butanone	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Acetone	Benzene	Chloromethane	Cymene (p-Isopropyltoluene)	Ethylbenzene	Hexane	Isobutanol (Isobutyl alcohol)
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-34-062519	34 ft	6/25/2019	<0.002	<0.002	<0.002	<0.01	<0.01	0.0067 J	0.0022	<0.005	<0.002	0.0002 J		
	PD-1-GWP-44-062519	44 ft	6/25/2019	0.0034	0.0006 J	<0.002	0.0038 J	<0.01	<0.01	1.08	<0.005	<0.002	0.0059		
	PD-1-GWP-53-062519	53 ft	6/25/2019	0.568	0.18	<0.002	<0.5	<0.5	0.15 J	114	<0.25	<0.1	2.09		
	PD-1-GWP-60-062619	60 ft	6/26/2019	0.0053	0.0016 J	0.00038 J	0.0013 J	<0.01	0.009 J	0.856	0.0005 J	<0.002	0.0106		
	PD-1-GWP-69-062619	69 ft	6/26/2019	0.0005 J	0.0001 J	0.00038 J	<0.01	<0.01	0.0116	0.0013	<0.005	<0.002	0.0003 J		
	PD-1-GWP-75-062619	75 ft	6/26/2019	0.0011 J	0.0003 J	0.00038 J	<0.01	<0.01	0.0063 J	0.0025	0.0006 J	<0.002	0.0003 J		
	PD-1-GWP-80-062719	80 ft	6/27/2019	0.0009 J	0.0003 J	<0.002	<0.01	<0.01	0.0042 J	0.0091	<0.005	<0.002	0.0002 J		
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019	<2	<2	<0.0097	<50	<50	<50	340	<2	<2	<2		
	PD-2-GWP-50-071819	50 ft	7/18/2019	<10	<10	<0.0098 UJ	<250	57 J	<250	2500 J	<10	<10	<10		
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	<10	<10	<0.0096	<250	<250	<250	1500 J	<10	<10	<10		
	PD-2-GWP-59-071819	59 ft	7/18/2019	<0.1	<0.1	<0.01	<2.5	<2.5	<2.5	12	<0.1	<0.1	<0.1		
	PD-2-GWP-65-071919	65 ft	7/19/2019	<0.05	<0.05	<0.01	<1.3	<1.3	<1.3	10	<0.05	<0.05	<0.05		
	PD-2-GWP-70-071919	70 ft	7/19/2019	<0.001	<0.001	<0.0099	<0.025	<0.025	<0.025	0.013	<0.001	<0.001	<0.001		
	PD-2-GWP-74.5-071919	74.5 ft	7/19/2019	<0.001	<0.001	<0.0098	<0.025	<0.025	<0.025	0.054	<0.001	<0.001	<0.001		
PD-03	PD-3-GWP-45-072319	45 ft	7/23/2019	<0.02	<0.02	<0.0097	<0.5	<0.5	<0.5	2.5	<0.02	<0.02	<0.02		
	PD-3-GWP-50-072319	50 ft	7/23/2019	<5	<5	<0.0098	<130	<130	<130	1200	<5	<5	<5		
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	<5	<5	<0.0097	<130	<130	<130	1200	<5	<5	<5		
	PD-3-GWP-55-072319	55 ft	7/23/2019	<5	<5	<0.0098	<130	<130	<130	680	<5	<5	<5		
	PD-3-GWP-60-072319	60 ft	7/23/2019	<5	<5	<0.0097	<130	<130	<130	650	<5	<5	<5		
	PD-3-GWP-65-072319	65 ft	7/23/2019	<5	<5	<0.0096	<130	<130	<130	880	<5	<5	<5		
	PD-3-GWP-71-072319	71 ft	7/23/2019	<5	<5	<0.0097	<130	<130	<130	1200	<5	<5	<5		
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	0.001	<0.001	<0.01	<0.025	<0.025	<0.025	0.0063	<0.001	<0.001	0.00072 J		
	PD-4-GWP-41-071519	41 ft	7/15/2019	<0.2	<0.2	<0.0098	<5	<5	<5	67	<0.2	<0.2	0.51		
	PD-4-GWP-43-071519	43 ft	7/15/2019	0.099	0.03	<0.01	<0.025	<0.025	<0.025	0.3	<0.001	0.0018	0.15	0.17	
	PD-4-GWP-50-071519	50 ft	7/15/2019	0.017	0.01	<0.0097	<0.25	<0.25	<0.25	2.3	<0.01	<0.01	0.029	0.12	
	PD-4-GWP-53-071619	53 ft	7/16/2019	1	<1	<0.0097 UJ	<25	<25	<25	290	<1	<1	0.64 J	1	
	PD-4-GWP-60-071619	60 ft	7/16/2019	0.0033	0.00086 J	<0.0097	<0.025	<0.025	<0.025	0.039	<0.001	<0.001	0.002	0.0058	
	PD-4-GWP-70-071619	70 ft	7/16/2019	0.0064	0.0018	<0.0097	<0.025	<0.025	<0.025	0.0076	<0.001	<0.001	0.0016	0.0016	
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019	0.006	0.0017	<0.0097	<0.025	<0.025	<0.025	0.0078	0.0015	<0.001	0.0014	0.0014	
	PD-4-GWP-80-071619	80 ft	7/16/2019	<0.001	<0.001	<0.0097	<0.025	<0.025	<0.025	0.0036	<0.001	<0.001	0.00053 J	0.001	
PD-05	PD-5-GWP-42-062719	42 ft	6/27/2019	<1	0.011 J J	<0.002	<0.1 UJ	<0.1 UJ	<0.1 UJ	1990 J	<0.05 UJ	<0.02 UJ	0.074 J		
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019	0.0358 J	0.01 J J	<0.002	<0.2 UJ	<0.2 UJ	<0.2 UJ	1910 S J	<0.1 UJ	<0.04 UJ	0.0678 J		
	PD-5-GWP-48-062719	48 ft	6/27/2019	0.034 J J	0.12 J	0.00044 J	<0.2 UJ	<0.2 UJ	<0.2 UJ	226 J	<0.1 UJ	0.0022 J J	1.67 J		
	PD-5-GWP-54-062719	54 ft	6/27/2019	0.456 J	0.021 J	<0.002	<0.2	<0.2	<0.2	0.455	<0.1	<0.04	0.0442		
	PD-5-GWP-62-062719	62 ft	6/27/2019	0.0708	0.0002 J	<0.002	<0.01	<0.01	0.0061 J	0.195	<0.005	<0.002	0.0005 J		
	PD-5-GWP-70-062719	70 ft	6/27/2019	0.0005 J	0.0007 J	<0.002	<0.01	<0.01	0.0065 J	0.184	<0.005	<0.002	0.0022		
	PD-5-GWP-80-062819	80 ft	6/28/2019	0.0026	0.00063 J	<0.0099	<0.025	<0.025	<0.025	0.18	<0.001	<0.001	0.0018	0.0023	

TABLE 3

SUMMARY OF GROUNDWATER VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,4-Dioxane	2-Butanone	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Acetone	Benzene	Chloromethane	Cymene (p-Isopropyltoluene)	Ethylbenzene	Hexane	Isobutanol (Isobutyl alcohol)
				Analytical Results (mg/L)											
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0.0015	0.026	<0.01	<0.05	<0.05	<0.05	0.4	<0.002	0.007	0.015	0.0027	
	PD-7-GWP-50-072219	50 ft	7/22/2019	0.11	<1	<0.05	<25	<25	<25	500	<1	<1	1.4		
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0.97 J	<1	<0.01	<25	<25	<25	380	<1	<1	1.5		
	PD-7-GWP-55-072319	55 ft	7/23/2019	1.1	<10	<0.01	<250	<250	<250	1400	<10	<10	<10		
PD-08	PD-8-GWP-35-062819	35 ft	6/28/2019	<10	<1	<0.0096	<25	<25	<25	810	<1	<1	<1		
	PD-8-GWP-41-062819	41 ft	6/28/2019	0.33	0.11 J	<0.0097 UJ	<0.63 UJ	<0.63 UJ	<0.63 UJ	4.9 J	<0.025 UJ	<0.025 UJ	1.4 J	0.25 J	
	PD-8-GWP-46-062819	46 ft	6/28/2019	0.0082	0.0065	<0.0098	0.037 J	<0.05	0.042 J	0.086	<0.002	<0.002	0.054		
	PD-8-GWP-52-062819	52 ft	6/28/2019	<0.001	<0.001 UJ	<0.0097 UJ	<0.025 UJ	<0.025 UJ	<0.025 UJ	0.014 J	<0.001 UJ	<0.001 UJ	<0.001 UJ		
	PD-8-GWP-57-070119	57 ft	7/1/2019	<0.001	<0.001	<0.0098	<0.025	<0.025	<0.025	0.011	<0.001	<0.001	<0.001		
	PD-8-GWP-62-070119	62 ft	7/1/2019	0.0012	<0.001	<0.0097	<0.025	<0.025	<0.025	0.02	<0.001	<0.001	0.00082 J		
	PD-8-GWP-70-070119	70 ft	7/1/2019	0.11	0.032	<0.01	<0.025	<0.025	<0.025	0.12	<0.001	0.00074 J	0.059	0.0016	
	PD-8-GWP-80-070119	80 ft	7/1/2019	0.0021	<0.002	<0.0098	<0.05	<0.05	<0.05	0.27	<0.002	<0.002	0.0014 J		
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019	<0.01	<0.01	<0.01	<0.25	<0.25	<0.25	1.4	<0.01	<0.01	<0.01		
	PD-9-GWP-40-070919	40 ft	7/9/2019	<1	<1	<0.0098	<25	<25	<25	1100	<1	<1	0.68 J		
	PD-9-GWP-45-070919	45 ft	7/9/2019	<1	<1	<0.0097	<25	<25	<25	340	<1	<1	1.3		
	PD-9-GWP-54-071019	54 ft	7/10/2019	1.7	0.48	<0.049 UJ	<2.5	<2.5	<2.5	20	<0.1	<0.1	3.5	1.4	
	PD-9-GWP-60-071019	60 ft	7/10/2019	0.011	0.0035 J	<0.0097	<0.13	<0.13	<0.13	0.89	<0.005	<0.005	0.0096	0.0069	
	PD-9-GWP-70-071019	70 ft	7/10/2019	0.088	0.026	<0.01	<0.5	<0.5	<0.5	3.1 J	<0.02	<0.02	0.098	0.094	
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	0.094 J	<0.1	<0.01	<2.5	<2.5	<2.5	13 J	<0.1	<0.1	0.13		
	PD-9-GWP-80-071019	80 ft	7/10/2019	<0.001	<0.001	<0.01	<0.025	<0.025	<0.025	0.025	<0.001	<0.001	<0.001		
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019	<0.001	0.00083 J	<0.01	<0.025	<0.025	<0.025	0.018	<0.001	<0.001	0.0018		
	PD-11-GWP-37-071119	37 ft	7/11/2019	0.61	0.1	<0.01	<0.25	<0.25	<0.25	1.4	<0.01	0.0077 J	0.29		
	PD-11-GWP-43-071119	43 ft	7/11/2019	<2.5	<2.5	<0.01	<63	<63	<63	2500	<2.5	<2.5	<2.5		
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	<2.5	<2.5	<0.01	<63	<63	<63	2400	<2.5	<2.5	<2.5		
	PD-11-GWP-50-071119	50 ft	7/11/2019	0.016	<0.01	<0.01	<0.25	<0.25	<0.25	1.9	<0.01	<0.01	<0.01		
	PD-11-GWP-56-071119	56 ft	7/11/2019	0.025	0.007	<0.01	<0.13	<0.13	<0.13	1.2	<0.005	<0.005	0.0049 J		
	PD-11-GWP-60-071119	60 ft	7/11/2019	<0.5	<0.5	<0.0098 UJ	<13	<13	<13	200	<0.5	<0.5	<0.5		
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019	0.0016	<0.001	<0.0098 UJ	<0.025	<0.025	<0.025	0.29	<0.001	<0.001	0.00071 J		
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019	0.0037	0.0012	<0.0099	<0.025	<0.025	<0.025	0.027	<0.001	<0.001	0.0024		
	PD-12-GWP-45-071219	45 ft	7/12/2019	<0.5	<0.5	<0.0099 UJ	<13	<13	<13	460	<0.5	<0.5	<0.5		
	PD-12-GWP-50-071219	50 ft	7/12/2019	<0.05	<0.05	<0.0099 UJ	<1.3	<1.3	<1.3	25	<0.05	<0.05	<0.05		
	PD-12-GWP-55-071219	55 ft	7/12/2019	1.2	0.44 J	<0.01 UJ	<13	<13	<13	330	<0.5	<0.5	3		
	PD-12-GWP-60-071219	60 ft	7/12/2019	0.018	0.0096	<0.0098	<0.025	<0.025	<0.025	0.15	<0.001	<0.001	0.012		
	PD-12-GWP-70-071519	70 ft	7/15/2019	<0.001	<0.001	<0.0098	<0.025	<0.025	<0.025	0.0052	<0.001	<0.001	<0.001		
	PD-12-GWP-73-071519	73 ft	7/15/2019	<0.001	<0.001	<0.0098	<0.025	<0.025	<0.025	0.0012	<0.001	<0.001	<0.001		

TABLE 3

SUMMARY OF GROUNDWATER VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,4-Dioxane	2-Butanone	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Acetone	Benzene	Chloromethane	Cymene (p-Isopropyltoluene)	Ethylbenzene	Hexane	Isobutanol (Isobutyl alcohol)
				Analytical Results (mg/L)											
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019	<0.001	<0.001	<0.0096	<0.025	<0.025	<0.025	0.00043 J	<0.001	<0.001	<0.001		
	PD-13-GWP-46-070819	46 ft	7/8/2019	0.0017	0.003	<0.0098	<0.025	<0.025	<0.025	0.0021	<0.001	<0.001	<0.001	0.0011	
	PD-13-GWP-50-070819	50 ft	7/8/2019	<0.001	<0.001	<0.0097	<0.025	<0.025	<0.025	0.00093 J	<0.001	<0.001	<0.001		
	PD-13-GWP-59-070819	59 ft	7/8/2019	<0.001	<0.001	<0.0097	<0.025	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001		
	PD-13-GWP-65-070919	65 ft	7/9/2019	<0.001	0.00072 J	<0.0096	<0.025 UJ	<0.025	<0.025	0.0026	<0.001	<0.001	<0.001		
	PD-13-GWP-70-070919	70 ft	7/9/2019	<0.001	<0.001	<0.0097	<0.025	<0.025	<0.025	0.00047 J	<0.001	<0.001	<0.001		
	PD-13-GWP-80-070919	80 ft	7/9/2019	<0.001	<0.001	<0.0098	<0.025	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001		
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	0.94 J	<1	<0.0097	<25	<25	<25	230	<1	<1	0.92 J	1.7	50
	PD-14-GWP-45-071719	45 ft	7/17/2019	<2.5	<2.5	<0.0098	<63	<63	<63	2000	<2.5	<2.5	<2.5		
	PD-14-GWP-50-071719	50 ft	7/17/2019	<5	<5	<0.0098	<130	<130	<130	2300	<5	<5	<5		
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019	<5	<5	<0.01	<130	<130	<130	2900	<5	<5	<5		
	PD-14-GWP-53-071719	53 ft	7/17/2019	<2	<2	<0.0099	<50	<50	<50	970	<2	<2	<2		
	PD-14-GWP-60-071719	60 ft	7/17/2019	1.3	0.43 J	<0.0099	<13	<13	<13	140	<0.5	<0.5	4.2	0.9	21
	PD-14-GWP-70-071719	70 ft	7/17/2019	<0.001	<0.001	<0.049	<0.025	<0.025	0.01 J	0.13	<0.001	<0.001	<0.001		
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019	0.0019	0.00079 J	<0.0099	<0.025	<0.025	<0.025	0.31	<0.001	<0.001	0.003	0.0012	0.032
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019	<0.25	<0.25	<0.0097	<6.3	<6.3	<6.3	180	<0.25	<0.25	<0.25		
	PD-17-GWP-50-072219	50 ft	7/22/2019	<2.5	<2.5	<0.01	<63	<63	<63	1600 J	<2.5	<2.5	<2.5		
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	<2.5	<2.5	<0.052	<63	<63	<63	2200 J	<2.5	<2.5	<2.5		

TABLE 3

SUMMARY OF GROUNDWATER VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Isopropylbenzene (Cumene)	m,p-Xylenes	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylenes	sec-Butylbenzene	tert-Butylbenzene	Toluene	Trichloroethene	Xylenes (total)
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-34-062519	34 ft	6/25/2019	<0.002	<0.002	0.0078	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	0.0002 J	<0.002	<0.004
	PD-1-GWP-44-062519	44 ft	6/25/2019	0.0047	0.0137	0.0084	0.0021 J	0.0003 J	0.0034	0.0052	0.0003 J	0.0003 J	0.0016 J	0.0007 J	0.0188
	PD-1-GWP-53-062519	53 ft	6/25/2019	0.046 J	3.65	<0.1	0.19 J	0.023 J	0.128	0.444	0.0065 J	0.0065 J	0.508	<0.1	4.1
	PD-1-GWP-60-062619	60 ft	6/26/2019	0.0004 J	0.0222	0.0091	0.0012 J	<0.002	0.0011 J	0.0051	0.0001 J	<0.002	0.0038	<0.002	0.0273
	PD-1-GWP-69-062619	69 ft	6/26/2019	<0.002	0.0006 J	0.0042	<0.005	<0.002	<0.002	0.0001 J	<0.002	<0.002	0.0002 J	<0.002	0.0007 J
	PD-1-GWP-75-062619	75 ft	6/26/2019	<0.002	0.0007 J	0.0012 J	0.0006 J	0.0001 J	0.0001 J	0.0002 J	<0.002	<0.002	0.0001 J	<0.002	0.0009 J
	PD-1-GWP-80-062719	80 ft	6/27/2019	<0.002	0.0006 J	0.0012 J	0.0004 J	<0.002	0.0001 J	0.0002 J	<0.002	<0.002	0.0002 J	<0.002	0.0008 J
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019	<2	<10	<2	<2	<2	<2	<10	<2	<2	<2	<2	<20
	PD-2-GWP-50-071819	50 ft	7/18/2019	<10	<50	<10	<10	<10	<10	<50	<10	<10	<10	<10	<100
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	<10	<50	<10	<10	<10	<10	<50	<10	<10	<10	<10	<100
	PD-2-GWP-59-071819	59 ft	7/18/2019	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<1
	PD-2-GWP-65-071919	65 ft	7/19/2019	<0.05	<0.25	<0.05	<0.05	<0.05	<0.05	<0.25	<0.05	<0.05	<0.05	<0.05	<0.5
	PD-2-GWP-70-071919	70 ft	7/19/2019	<0.001	<0.005	0.0049	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.00055 J	<0.001	<0.01
	PD-2-GWP-74.5-071919	74.5 ft	7/19/2019	<0.001	<0.005	0.0044	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.00044 J	<0.001	<0.01
PD-03	PD-3-GWP-45-072319	45 ft	7/23/2019	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.2
	PD-3-GWP-50-072319	50 ft	7/23/2019	<5	<25	<5	0.039	<5	<5	<25	<5	<5	2.4 J	<5	<50
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	<5	<25	<5	0.046	<5	<5	<25	<5	<5	<5	<5	<50
	PD-3-GWP-55-072319	55 ft	7/23/2019	<5	<25	<5	0.014	<5	<5	<25	<5	<5	<5	<5	<50
	PD-3-GWP-60-072319	60 ft	7/23/2019	<5	<25	<5	<5	<5	<5	<25	<5	<5	<5	<5	<50
	PD-3-GWP-65-072319	65 ft	7/23/2019	<5	<25	<5	<5	<5	<5	<25	<5	<5	<5	<5	<50
	PD-3-GWP-71-072319	71 ft	7/23/2019	<5	<25	<5	<5	<5	<5	<25	<5	<5	<5	<5	<50
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	<0.001	<0.005	0.0062	<0.001	<0.001	<0.001	0.00062 J	<0.001	0.001	0.00072 J	<0.001	0.002 J
	PD-4-GWP-41-071519	41 ft	7/15/2019	<0.2	0.79 J	<0.2	0.22	<0.2	<0.2	0.3 J	<0.2	<0.2	0.45	<0.2	1.1 J
	PD-4-GWP-43-071519	43 ft	7/15/2019	0.031	0.25	0.0052	0.048	<0.001	0.031	0.11	0.0024	<0.001	0.058	<0.001	0.36
	PD-4-GWP-50-071519	50 ft	7/15/2019	0.04	0.093	<0.01	0.017	0.015	0.069	0.026 J	0.01	<0.01	0.018	<0.01	0.12
	PD-4-GWP-53-071619	53 ft	7/16/2019	<1	<5	<1	<1	<1	<1	<5	<1	<1	<1	<1	<10
	PD-4-GWP-60-071619	60 ft	7/16/2019	0.0019	0.0022 J	0.0075	<0.001	<0.001	0.0011	<0.005	<0.001	0.0016	0.00046 J	<0.001	0.0025 J
	PD-4-GWP-70-071619	70 ft	7/16/2019	<0.001	0.002 J	0.0064	0.0011	<0.001	0.0017	<0.005	<0.001	<0.001	<0.001	<0.001	0.0023 J
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019	<0.001	0.0018 J	0.0065	0.0011	<0.001	0.0016	<0.005	<0.001	<0.001	<0.001	<0.001	0.0021 J
	PD-4-GWP-80-071619	80 ft	7/16/2019	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
PD-05	PD-5-GWP-42-062719	42 ft	6/27/2019	0.0024 J J	0.189 J	0.314 J	0.0081 J J	0.0017 J J	0.006 J J	0.0736 J	<0.02 UJ	<0.02 UJ	0.292 J	0.0035 J J	0.262 J
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019	<0.04 UJ	0.172 J	0.326 J	0.0082 J J	<0.04 UJ	0.006 J J	0.0648 J	<0.04 UJ	<0.04 UJ	0.275 J	<0.04 UJ	0.237 J
	PD-5-GWP-48-062719	48 ft	6/27/2019	0.03 J J	3.12 J	0.0066 J J	0.141 J	0.0058 J J	0.077 J	0.81 J	0.0034 J J	0.0034 J J	0.813 J	<0.04 UJ	3.93 J
	PD-5-GWP-54-062719	54 ft	6/27/2019	0.0054 J	0.075	0.006 J	0.0082 J	<0.04	0.019 J	0.0074 J	0.0028 J	0.0024 J	0.003 J	<0.04	0.0824
	PD-5-GWP-62-062719	62 ft	6/27/2019	<0.002	0.001 J	0.002 J	<0.005	<0.002	<0.002	0.0002 J	<0.002	<0.002	0.0004 J	<0.002	0.0012 J
	PD-5-GWP-70-062719	70 ft	6/27/2019	0.0002 J	0.0045	0.0031	0.0005 J	0.0002 J	0.0004 J	0.001 J	<0.002	<0.002	0.0009 J	<0.002	0.0055
	PD-5-GWP-80-062819	80 ft	6/28/2019	<0.001	0.0038 J	<0.001	<0.001	<0.001	<0.001	0.0011 J	<0.001	<0.001	0.00061 J	<0.001	0.0049 J

TABLE 3

SUMMARY OF GROUNDWATER VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Isopropylbenzene (Cumene)	m,p-Xylenes	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylenes	sec-Butylbenzene	tert-Butylbenzene	Toluene	Trichloroethene	Xylenes (total)
				Analytical Results (mg/L)											
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0.011	0.027	<0.002	0.013	<0.002	0.017	<0.01	0.012	<0.002	<0.002	<0.002	0.027
	PD-7-GWP-50-072219	50 ft	7/22/2019	<1	2.7 J	<1	<1	<1	<1	0.71 J	<1	<1	1.1	<1	3.5 J
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	<1	2.8 J	<1	<1	<1	<1	0.75 J	<1	<1	1.1	<1	3.6 J
	PD-7-GWP-55-072319	55 ft	7/23/2019	<10	<50	<10	<10	<10	<10	<50	<10	<10	<10	<10	<100
PD-08	PD-8-GWP-35-062819	35 ft	6/28/2019	<1	<5	<1	<1	<1	<1	<5	<1	<1	1.5	<1	<10
	PD-8-GWP-41-062819	41 ft	6/28/2019	0.029 J	2.2 J	<0.025 UJ	0.12 J	<0.025 UJ	0.061 J	0.28 J	<0.025 UJ	<0.025 UJ	0.15 J	<0.025 UJ	2.5 J
	PD-8-GWP-46-062819	46 ft	6/28/2019	0.032	0.097	<0.002	0.0049	0.0034	0.083	0.012	0.0025	0.0019 J	0.028	<0.002	0.11
	PD-8-GWP-52-062819	52 ft	6/28/2019	<0.001	<0.005	0.0049 J	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
	PD-8-GWP-57-070119	57 ft	7/1/2019	<0.001	<0.005	0.0049	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
	PD-8-GWP-62-070119	62 ft	7/1/2019	<0.001	0.0016 J	0.0049	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	0.0016 J
	PD-8-GWP-70-070119	70 ft	7/1/2019	0.0044	0.13	0.0013	0.022	<0.001	0.014	0.016	0.00096 J	0.0011	0.0024	<0.001	0.15
	PD-8-GWP-80-070119	80 ft	7/1/2019	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	0.00095 J	<0.002	<0.02
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019	<0.01	<0.05	0.0075 J	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1
	PD-9-GWP-40-070919	40 ft	7/9/2019	<1	<5	<1	0.081	<1	<1	<5	<1	<1	2.8	<1	<10
	PD-9-GWP-45-070919	45 ft	7/9/2019	<1	1.6 J	<1	0.21 E	<1	<1	<5	<1	<1	2.1	<1	2 J
	PD-9-GWP-54-071019	54 ft	7/10/2019	0.11	7.2	<0.1	0.24	<0.1	0.27	2.2	<0.1	<0.1	2.2	<0.1	9.5
	PD-9-GWP-60-071019	60 ft	7/10/2019	<0.005	0.021 J	<0.005	<0.005	<0.005	<0.005	0.0076 J	<0.005	<0.005	0.011	<0.005	0.028 J
	PD-9-GWP-70-071019	70 ft	7/10/2019	<0.02	0.19	<0.02	0.014	<0.02	0.018 J	0.077 J	<0.02	<0.02	0.068	<0.02	0.27
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	<0.1	0.24 J	<0.1	0.0098 J	<0.1	<0.1	0.09 J	<0.1	<0.1	0.1	<0.1	0.33 J
	PD-9-GWP-80-071019	80 ft	7/10/2019	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019	0.031	0.0036 J	<0.001	0.001	<0.001	0.0055	0.0018 J	0.01	0.008	0.00093 J	<0.001	0.0054 J
	PD-11-GWP-37-071119	37 ft	7/11/2019	0.1	0.24	<0.01	0.09	0.017	0.14	0.11	0.019	<0.01	0.0063 J	<0.01	0.35
	PD-11-GWP-43-071119	43 ft	7/11/2019	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<25
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<25
	PD-11-GWP-50-071119	50 ft	7/11/2019	<0.01	<0.05	<0.01	0.0011 J	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1
	PD-11-GWP-56-071119	56 ft	7/11/2019	<0.005	0.01 J	<0.005	<0.005	<0.005	<0.005	0.0033 J	<0.005	<0.005	<0.005	<0.005	0.013 J
	PD-11-GWP-60-071119	60 ft	7/11/2019	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<5
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019	<0.001	<0.005	0.00079 J	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.00066 J	<0.001	0.0017 J
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019	<0.001	0.0049 J	0.0023	0.0011	<0.001	<0.001	0.00072 J	<0.001	<0.001	0.00047 J	<0.001	0.0056 J
	PD-12-GWP-45-071219	45 ft	7/12/2019	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	0.26 J	<0.5	<5
	PD-12-GWP-50-071219	50 ft	7/12/2019	<0.05	<0.25	<0.05	<0.05	<0.05	<0.05	<0.25	<0.05	<0.05	<0.05	<0.05	<0.5
	PD-12-GWP-55-071219	55 ft	7/12/2019	<0.5	7.3	<0.5	<0.5	<0.5	<0.5	2.7	<0.5	<0.5	2.3	<0.5	10
	PD-12-GWP-60-071219	60 ft	7/12/2019	0.022	0.076	<0.001	0.013	0.0023	0.037	0.01	0.0014	<0.001	0.0054	<0.001	0.086
	PD-12-GWP-70-071519	70 ft	7/15/2019	<0.001	<0.005	0.0076	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
	PD-12-GWP-73-071519	73 ft	7/15/2019	<0.001	<0.005	0.0052	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01

TABLE 3

SUMMARY OF GROUNDWATER VOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	Isopropylbenzene (Cumene)	m,p-Xylenes	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylenes	sec-Butylbenzene	tert-Butylbenzene	Toluene	Trichloroethene	Xylenes (total)
				Analytical Results (mg/L)											
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019	<0.001	<0.005	0.0058	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.0014	<0.001	<0.01
	PD-13-GWP-46-070819	46 ft	7/8/2019	0.004	0.0019 J	<0.001	0.0017	0.0009 J	0.0013	0.0019 J	0.0016	0.0029	0.0011	<0.001	0.0038 J
	PD-13-GWP-50-070819	50 ft	7/8/2019	0.0086	0.0034 J	<0.001	<0.001	<0.001	0.0028	0.00099 J	0.0015	0.0023	0.0017	<0.001	0.0044 J
	PD-13-GWP-59-070819	59 ft	7/8/2019	<0.001	<0.005	0.0017	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.0012	<0.001	<0.01
	PD-13-GWP-65-070919	65 ft	7/9/2019	<0.001	<0.005	0.0039	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
	PD-13-GWP-70-070919	70 ft	7/9/2019	<0.001	<0.005	0.0038	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
	PD-13-GWP-80-070919	80 ft	7/9/2019	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.01
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	<1	2.9 J	<1	<1	<1	<1	1.2 J	<1	<1	4.4	<1	4 J
	PD-14-GWP-45-071719	45 ft	7/17/2019	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<25
	PD-14-GWP-50-071719	50 ft	7/17/2019	<5	<25	<5	<5	<5	<5	<25	<5	<5	<5	<5	<50
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019	<5	<25	<5	<5	<5	<5	<25	<5	<5	<5	<5	<50
	PD-14-GWP-53-071719	53 ft	7/17/2019	<2	<10	<2	<2	<2	<2	<10	<2	<2	<2	<2	<20
	PD-14-GWP-60-071719	60 ft	7/17/2019	<0.5	9.3	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5	1.1	<0.5	13
	PD-14-GWP-70-071719	70 ft	7/17/2019	<0.001	<0.005	0.0047	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.00044 J	<0.001	<0.01
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019	<0.001	0.0063	0.0026	<0.001	<0.001	<0.001	0.0025 J	<0.001	<0.001	0.0006 J	<0.001	0.0088 J
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019	<0.25	<1.3	<0.25	<0.25	<0.25	<0.25	<1.3	<0.25	<0.25	0.1 J	<0.25	<2.5
	PD-17-GWP-50-072219	50 ft	7/22/2019	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<25
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<25

Notes:

Table does not include analytes that were non-detect in all samples.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

<#.## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

TABLE 4

SUMMARY OF GROUNDWATER SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1-Methylnaphthalene	2,4-Dimethylphenol	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl alcohol
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-34-062519	34 ft	6/25/2019	<0.0002	<0.02	<0.0002	<0.02	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.015 J	<0.04
	PD-1-GWP-44-062519	44 ft	6/25/2019	0.00058	<0.02	0.00026	<0.02	<0.02	0.00004 J	0.00006 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.015 J	<0.04
	PD-1-GWP-53-062519	53 ft	6/25/2019	0.0242	<0.02	0.0445	<0.02	<0.02	0.00048	0.00014 J	0.00008 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.1	<0.04
	PD-1-GWP-60-062619	60 ft	6/26/2019	0.00022	<0.02	0.00034	<0.02	<0.02	0.0001 J	0.00016 J	<0.0002	<0.0002	<0.0002	0.00004 J	<0.0002	0.015 J	<0.04
	PD-1-GWP-69-062619	69 ft	6/26/2019	0.00006 J	<0.02	0.0001 J	<0.02	<0.02	0.00012 J	0.00008 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.015 J	<0.04
	PD-1-GWP-75-062619	75 ft	6/26/2019	0.00018 J	<0.02	0.0003	<0.02	<0.02	0.00008 J	0.00008 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.014 J	<0.04
	PD-1-GWP-80-062719	80 ft	6/27/2019	0.00008 J	<0.02	0.00012 J	<0.02	<0.02	0.00006 J	0.00008 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.1	<0.04
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019	0.00038	<0.0097	0.00066	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029 UJ	<0.0097
	PD-2-GWP-50-071819	50 ft	7/18/2019	0.0024	0.01 H J	0.0031	0.0019 J H J	0.0039 J H J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.013 J H J	<0.0098 UJ
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	0.0021	0.0075 J	0.0033	<0.0096	0.0024 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.015 J * J	<0.0096
	PD-2-GWP-59-071819	59 ft	7/18/2019	0.0011	<0.01	0.0014	<0.01	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03 UJ	<0.01
	PD-2-GWP-65-071919	65 ft	7/19/2019	0.00025	<0.01	0.00013 J	<0.01	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-2-GWP-70-071919	70 ft	7/19/2019	<0.0002	<0.0099	<0.0002	<0.0099	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099
	PD-2-GWP-74.5-071919	74.5 ft	7/19/2019	<0.0002	<0.0098	<0.0002	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
PD-03	PD-3-GWP-45-072319	45 ft	7/23/2019	0.000021 J	<0.0097	0.000029 J	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-3-GWP-50-072319	50 ft	7/23/2019	0.013	<0.0098	0.017	<0.0098	0.0035 J	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	0.016	<0.0097	0.021	<0.0097	<0.019	0.0003	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-3-GWP-55-072319	55 ft	7/23/2019	0.0033	<0.0098	0.0044	<0.0098	0.0013 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0074 J	<0.0098
	PD-3-GWP-60-072319	60 ft	7/23/2019	0.0012	<0.0097	0.00099	<0.0097	0.0015 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.012 J	<0.0097
	PD-3-GWP-65-072319	65 ft	7/23/2019	0.00048	<0.0096	0.00055	<0.0096	0.0028 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.016 J	0.0033 J
	PD-3-GWP-71-072319	71 ft	7/23/2019	0.0012	<0.0097	0.00078	<0.0097	0.0025 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.0083 J	<0.0097
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	0.00037	<0.01	0.00053	<0.01	<0.02	<0.0002	<0.0002	0.00013 J	<0.001	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-4-GWP-41-071519	41 ft	7/15/2019	0.024	<0.0098	0.0091	<0.0098	<0.02	<0.00098	<0.00098	0.00024 J	<0.00098	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-4-GWP-43-071519	43 ft	7/15/2019	0.021	<0.01	0.02	<0.01	<0.02	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-4-GWP-50-071519	50 ft	7/15/2019	0.034	<0.0097	0.023	<0.0097	<0.019	<0.00097	<0.00097	<0.00097	<0.00097	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-4-GWP-53-071619	53 ft	7/16/2019	0.11	<0.0097 UJ	0.17	<0.0097 UJ	<0.019 UJ	0.00069 J	<0.00097	0.00031 J	<0.00097	<0.00097	<0.00097	<0.00097	<0.029 UJ	<0.0097 UJ
	PD-4-GWP-60-071619	60 ft	7/16/2019	0.00076 J	<0.0097	0.0016 J	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-4-GWP-70-071619	70 ft	7/16/2019	0.0017 J	<0.0097	0.0026 J	<0.0097	<0.019	<0.00019 UJ	<0.00019 UJ	<0.00019 UJ	<0.00019 UJ	<0.00019 UJ	<0.00019 UJ	<0.00019 UJ	<0.029	<0.0097
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019	0.0011 J	<0.0097	0.0018 J	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-4-GWP-80-071619	80 ft	7/16/2019	0.000032 J	<0.0097	0.000059 J	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019	0.0027	0.022	0.0018 B	0.018	0.011 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.042	<0.0096
	PD-5-GWP-42-062719	42 ft	6/27/2019	0.00216	<0.02	0.0034	<0.02	0.003 J	0.00026	0.00014 J	0.00012 J	0.00012 J	0.00004 J	0.00006 J	<0.0002	0.004 J	<0.04
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019	0.00288	<0.02	0.00418	<0.02	0.003 J	<0.0002	<0.0002	0.00022	0.00014 J	0.00004 J	0.00006 J	<0.0002	0.004 J	<0.04
	PD-5-GWP-48-062719	48 ft	6/27/2019	0.0147	<0.02	0.0275	<0.02	0.004 J	0.00028	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.005 J	<0.04
	PD-5-GWP-54-062719	54 ft	6/27/2019	0.00206	<0.02	0.00332	<0.02	<0.02	0.00014 J	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.1	<0.04
	PD-5-GWP-62-062719	62 ft	6/27/2019	0.0001 J	<0.02	0.00016 J	<0.02	<0.02	0.00008 J	0.0001 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.1	<0.04
	PD-5-GWP-70-062719	70 ft	6/27/2019	0.00008 J	<0.02	0.00014 J	<0.02	<0.02	0.00012 J	0.00012 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.1	<0.04
	PD-5-GWP-80-062819	80 ft	6/28/2019	0.00012 J	<0.0099	<0.00023 U	<0.0099	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099

TABLE 4

SUMMARY OF GROUNDWATER SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1-Methylnaphthalene	2,4-Dimethylphenol	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl alcohol
				Analytical Results (mg/L)													
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0.0044 B	<0.01	0.0022 B	<0.01	<0.02	0.002	<0.0002	0.00015 J	<0.0002	<0.0002	<0.0002	<0.0002 UJ	<0.03	<0.01
	PD-7-GWP-50-072219	50 ft	7/22/2019	0.27 B	<0.05	0.36 B	<0.05	<0.1	<0.001	<0.001	0.008	0.01	0.009	0.0048	0.0021	<0.15	<0.05
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0.076 B	<0.01	0.1 B	<0.01	<0.02	0.0029	<0.0002	0.003	0.0039	0.0038	0.002	0.0012 J	<0.031	<0.01
	PD-7-GWP-55-072319	55 ft	7/23/2019	0.015	<0.01	0.02	<0.01	<0.02	0.00064	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	0.047	<0.0097	0.056 B	<0.0097	<0.019	0.0006	<0.00019	<0.00019	0.00004 J	<0.00019	0.000061 J	<0.00019	<0.029	<0.0097
	PD-8-GWP-46-062819	46 ft	6/28/2019	0.046	<0.0098	0.063 B	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-8-GWP-52-062819	52 ft	6/28/2019	<0.00019	<0.0097	<0.00019	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-8-GWP-57-070119	57 ft	7/1/2019	0.000068 J	<0.0098	<0.0002	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-8-GWP-62-070119	62 ft	7/1/2019	0.00016 J	<0.0097	0.00027 B	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-8-GWP-70-070119	70 ft	7/1/2019	0.014	<0.01	0.023 B	<0.01	<0.02	0.00021	<0.0002	0.000071 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-8-GWP-80-070119	80 ft	7/1/2019	0.00082	<0.0098	0.0011 B	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019	0.00016 J	<0.01	<0.0002	<0.01	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-9-GWP-40-070919	40 ft	7/9/2019	0.028	0.0056 J	0.0018	0.0046 J	0.0085 J	0.00043	<0.0002	0.000099 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-9-GWP-45-070919	45 ft	7/9/2019	0.018	<0.0097	0.031	<0.0097	<0.019	0.0021	<0.00019	0.00023	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-9-GWP-54-071019	54 ft	7/10/2019	0.24	<0.049 UJ	0.52	<0.049 UJ	<0.097 UJ	<0.00097	<0.00097	<0.00019	0.00014 J	<0.00019	<0.00019	<0.00019	<0.15 UJ	<0.049 UJ
	PD-9-GWP-60-071019	60 ft	7/10/2019	0.00056	<0.0097	0.001	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-9-GWP-70-071019	70 ft	7/10/2019	0.0048	<0.01	0.0088	<0.01	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	0.0028	<0.01	0.0046	<0.01	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
	PD-9-GWP-80-071019	80 ft	7/10/2019	<0.0002	<0.01	0.000063 J	<0.01	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019	0.018	<0.01	0.00095	<0.01	<0.02	0.0082	<0.0002	0.003	0.0023	0.0027	0.0011	0.00056	<0.031	<0.01
	PD-11-GWP-37-071119	37 ft	7/11/2019	0.17	<0.01	0.066	<0.01	<0.02	0.0065	<0.0002	<0.0002	<0.0002	0.0038	<0.0002	0.0011	<0.03	<0.01
	PD-11-GWP-43-071119	43 ft	7/11/2019	0.029 J	<0.01	0.039 J	<0.01	<0.02	0.0019 J	<0.0002	<0.0002	<0.0002	0.0013	<0.0002	0.00053	<0.03	<0.01
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	0.12 J	<0.01	0.17 J	<0.01	<0.021	0.0073 J	0.0012	0.0062	0.0077	0.012	0.0052	<0.0052	<0.031	<0.01
	PD-11-GWP-50-071119	50 ft	7/11/2019	0.0018	<0.01	0.0018	<0.01	<0.021	0.0025	<0.00021	0.00016 J	0.00011 J	0.000097 J	<0.00021	<0.00021	<0.031	<0.01
	PD-11-GWP-56-071119	56 ft	7/11/2019	0.0025	<0.01	0.0025	<0.01	<0.02	0.00036	0.000048 J	0.00031	0.00029	0.00032	0.00016 J	0.00012 J	<0.03	<0.01
	PD-11-GWP-60-071119	60 ft	7/11/2019	0.00085	<0.0098 UJ	0.00081	<0.0098 UJ	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029 UJ	<0.0098 UJ
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019	0.0017 H J	<0.0098	0.00056 H J	<0.0098	<0.02	0.0004 H J	<0.0002	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.0002	<0.029	<0.0098
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019	0.00039	<0.0099	0.0007 B	<0.0099	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099
	PD-12-GWP-45-071219	45 ft	7/12/2019	0.019 H J	<0.0099 UJ	0.0031 H J	<0.0099 UJ	<0.02 UJ	J	<0.0012 UJ	<0.0012 UJ	<0.0012 UJ	<0.0012 UJ	<0.0012 UJ	<0.0012 UJ	<0.03 UJ	<0.0099 UJ
	PD-12-GWP-50-071219	50 ft	7/12/2019	0.0011 H J	<0.0099 UJ	J	<0.0099 UJ	<0.02 UJ	<0.00099 UJ	<0.00099 UJ	<0.00099 UJ	<0.00099 UJ	<0.00099 UJ	<0.00099 UJ	<0.00099 UJ	<0.03 UJ	<0.0099 UJ
	PD-12-GWP-55-071219	55 ft	7/12/2019	0.13 H J	<0.01 UJ	0.2 H J	<0.01 UJ	<0.02 UJ	<0.001 UJ	<0.001 UJ	0.0012 H J	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.03 UJ	<0.01 UJ
	PD-12-GWP-60-071219	60 ft	7/12/2019	0.0085 H J	<0.0098	0.01 H J	<0.0098	<0.02	<0.00098 UJ	<0.00098 UJ	<0.00098 UJ	<0.00098 UJ	<0.00098 UJ	<0.00098 UJ	<0.00098 UJ	<0.029	<0.0098
	PD-12-GWP-70-071519	70 ft	7/15/2019	0.00011 J	<0.0098	0.00011 J	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-12-GWP-73-071519	73 ft	7/15/2019	0.000044 J	<0.0098	0.000077 J	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098

SUMMARY OF GROUNDWATER SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	1-Methylnaphthalene	2,4-Dimethylphenol	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl alcohol
				Analytical Results (mg/L)													
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019	<0.00019	<0.0096	<0.00019	<0.0096	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0096
	PD-13-GWP-46-070819	46 ft	7/8/2019	0.015	<0.0098	0.00055	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-13-GWP-50-070819	50 ft	7/8/2019	0.0093	<0.0097	0.00051	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-13-GWP-59-070819	59 ft	7/8/2019	<0.00019	<0.0097	<0.00019	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-13-GWP-65-070919	65 ft	7/9/2019	0.00015 J	<0.0096	0.00019	<0.0096	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0096
	PD-13-GWP-70-070919	70 ft	7/9/2019	<0.00019	<0.0097	<0.00019	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-13-GWP-80-070919	80 ft	7/9/2019	0.00018 J	<0.0098	0.00026	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0098
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	<0.00019	<0.0097	0.0012	<0.0097	<0.019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097
	PD-14-GWP-45-071719	45 ft	7/17/2019	0.0015	0.0075 J	0.0015	<0.0098	0.0012 J	<0.0002	<0.0002	<0.0002	<0.00098	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-14-GWP-50-071719	50 ft	7/17/2019	0.00055	<0.0098	0.00093	<0.0098	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019	0.00055	<0.01	0.00089	<0.01	0.0013 J	<0.00021	<0.00021	0.000033 J	<0.00021	<0.00021	<0.00021	<0.00021	<0.031	<0.01
	PD-14-GWP-53-071719	53 ft	7/17/2019	0.011	<0.0099	0.025	<0.0099	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099
	PD-14-GWP-60-071719	60 ft	7/17/2019	0.082 B	<0.0099	0.15 B	<0.0099	<0.02	<0.00099	<0.00099	0.00012 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099
	PD-14-GWP-70-071719	70 ft	7/17/2019	<0.0002	<0.049	<0.0002	<0.049	<0.098	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.15	<0.049
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019	0.00041	<0.0099	0.00067	<0.0099	<0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03 UJ	<0.0099
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019	0.0047	<0.0097	0.00054	<0.0097	<0.019	0.0032	<0.00019	0.00027	0.000097 J	0.00016 J	<0.00019	<0.00019	<0.029	<0.0097
	PD-17-GWP-50-072219	50 ft	7/22/2019	0.032 B J	<0.01	0.05 B J	<0.01	<0.02	0.0018 J	<0.0002	0.00099 J	0.0012	0.0012 J	0.00063 J	<0.0002	<0.03	<0.01
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	0.57 B J J	<0.052	0.74 B J J	<0.052	<0.1	0.023 J J	<0.01	0.015 J	<0.001	0.018 J	0.0063	0.0035	<0.16	<0.052

TABLE 4

SUMMARY OF GROUNDWATER SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
				Analytical Results (mg/L)												
PD-01	PD-1-GWP-34-062519	34 ft	6/25/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	<0.01	<0.0002
	PD-1-GWP-44-062519	44 ft	6/25/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	0.003 J	<0.0002
	PD-1-GWP-53-062519	53 ft	6/25/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	0.00056		<0.0002	<0.04	0.00064	0.044	0.00004 J
	PD-1-GWP-60-062619	60 ft	6/26/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	0.01	<0.0002
	PD-1-GWP-69-062619	69 ft	6/26/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	<0.01	<0.0002
	PD-1-GWP-75-062619	75 ft	6/26/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	<0.01	<0.0002
	PD-1-GWP-80-062719	80 ft	6/27/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	<0.01	<0.0002
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	0.12 J	<0.00019
	PD-2-GWP-50-071819	50 ft	7/18/2019	<0.0098 UJ	<0.00019	<0.00019	<0.0098 UJ	<0.0098 UJ	<0.00019	<0.00019	<0.0098 UJ	<0.00019	<0.02 UJ	0.00039	0.16 H J	<0.00019
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	<0.0096	<0.00019	<0.00019	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	<0.019	<0.00019	0.1	<0.00019
	PD-2-GWP-59-071819	59 ft	7/18/2019	<0.01	<0.0002	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.02	<0.0002	0.057	<0.0002
	PD-2-GWP-65-071919	65 ft	7/19/2019	<0.01	<0.0002	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.02	<0.0002	0.084	<0.0002
	PD-2-GWP-70-071919	70 ft	7/19/2019	<0.0099	<0.0002	<0.0002	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.02	<0.0002	<0.0099	<0.0002
	PD-2-GWP-74.5-071919	74.5 ft	7/19/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002
PD-03	PD-3-GWP-45-072319	45 ft	7/23/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0025 U	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	0.0046 J	<0.00019
	PD-3-GWP-50-072319	50 ft	7/23/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	0.00038	<0.0098	<0.0002	<0.02	0.00033	0.27	<0.0002
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	0.00038	<0.0097	<0.00019	<0.019	0.00039	0.23	<0.00019
	PD-3-GWP-55-072319	55 ft	7/23/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	0.000095 J	0.17	<0.0002
	PD-3-GWP-60-072319	60 ft	7/23/2019	0.0098	<0.00019	<0.00019	<0.0097	<0.0013 U	<0.00019	<0.00019	0.0059 J	<0.00019	<0.019	<0.00019	0.067	<0.00019
	PD-3-GWP-65-072319	65 ft	7/23/2019	<0.0096	<0.00019	<0.00019	<0.0096	<0.002 U	<0.00019	<0.00019	0.0024 J	<0.00019	<0.019	<0.00019	0.15	<0.00019
	PD-3-GWP-71-072319	71 ft	7/23/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0025 U	<0.00019	<0.00019	0.0031 J	<0.00019	<0.019	<0.00019	0.089	<0.00019
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	<0.01 U	<0.001	<0.0002	<0.01	<0.01	<0.001	<0.0002	<0.01	<0.0002	<0.02	<0.001	<0.01	0.00011 J
	PD-4-GWP-41-071519	41 ft	7/15/2019	<0.013 U	<0.00098	<0.0002	<0.0098	<0.0098	0.00013 J	0.0011	0.0049 J	<0.0002	<0.02	0.0012	0.17	0.00024 J
	PD-4-GWP-43-071519	43 ft	7/15/2019	<0.01	<0.001	<0.0002	<0.01	<0.01	<0.001	0.00077	<0.01	<0.0002	<0.02	0.0012	<0.01	0.00018 J
	PD-4-GWP-50-071519	50 ft	7/15/2019	<0.0097	<0.00097	<0.00019	<0.0097	<0.0097	<0.00097	0.0002 J	<0.0097	<0.00019	<0.019	0.00024 J	0.018	<0.00097
	PD-4-GWP-53-071619	53 ft	7/16/2019	<0.0097 UJ	<0.00097	<0.00097	0.0018 J J	<0.0097 UJ	0.00033 J	0.0016	<0.0097 UJ	<0.00097	0.0025 J J	0.0012	<0.0097 UJ	<0.00097
	PD-4-GWP-60-071619	60 ft	7/16/2019	0.0059 J	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
	PD-4-GWP-70-071619	70 ft	7/16/2019	0.082 J	<0.00019 UJ	<0.00019 UJ	<0.0097	<0.0097	<0.00019 UJ	<0.00019 UJ	<0.0097	<0.00019 UJ	<0.019	0.00004 J J	<0.0097	<0.00019 UJ
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019	<0.0097 UJ	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	0.000045 J	<0.0097	<0.00019
	PD-4-GWP-80-071619	80 ft	7/16/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019	<0.0096	<0.00019	<0.00019	<0.0096	<0.0096	<0.00019	<0.00019	0.0069 J	<0.00019	0.0023 J	<0.00019	0.23	<0.00019
	PD-5-GWP-42-062719	42 ft	6/27/2019	<0.012	0.00006 J	<0.0002	<0.02	<0.02	0.00024	0.00032		<0.0002	<0.04	0.00086	0.055	0.0002
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019	<0.012	0.00008 J	<0.0002	<0.02	<0.02	0.0003	<0.0002		<0.0002	<0.04	0.00104	0.053	0.00022
	PD-5-GWP-48-062719	48 ft	6/27/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	0.00016 J		<0.0002	<0.04	<0.0002	0.03	<0.0002
	PD-5-GWP-54-062719	54 ft	6/27/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	0.00008 J		<0.0002	<0.04	<0.0002	<0.01	<0.0002
	PD-5-GWP-62-062719	62 ft	6/27/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	<0.01	<0.0002
	PD-5-GWP-70-062719	70 ft	6/27/2019	<0.012	<0.0002	<0.0002	<0.02	<0.02	<0.0002	<0.0002		<0.0002	<0.04	<0.0002	<0.01	<0.0002
	PD-5-GWP-80-062819	80 ft	6/28/2019	<0.0099	<0.0002	<0.0002	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.02	<0.0002	0.0043 J	<0.0002

TABLE 4

SUMMARY OF GROUNDWATER SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
				Analytical Results (mg/L)												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	<0.01	<0.0002	<0.0002	0.00063 J	<0.01	0.000053 J	0.0014	<0.01	<0.0002	<0.02	0.00046	<0.01	0.00021
	PD-7-GWP-50-072219	50 ft	7/22/2019	<0.05	0.019	0.0019	<0.05	<0.05	0.004	0.014	<0.05	0.00084 J	<0.1	0.057	0.095	0.033
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	<0.01	0.0068	<0.0002	0.0021 J	<0.01	0.0018	0.0035	<0.01	<0.0002	<0.02	0.021	0.14	0.011
	PD-7-GWP-55-072319	55 ft	7/23/2019	<0.01	<0.0002	<0.0002	<0.01	<0.0023 U	<0.0002	0.00055	<0.01	<0.0002	0.0021 J	0.00077	0.21	0.00015 J
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	<0.0097	0.000074 J	<0.00019	<0.0097	<0.0097	0.00014 J	0.0019	0.013	<0.00019	<0.019	0.0024	<0.0097	0.00013 J J
	PD-8-GWP-46-062819	46 ft	6/28/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	0.00026	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002
	PD-8-GWP-52-062819	52 ft	6/28/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
	PD-8-GWP-57-070119	57 ft	7/1/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002
	PD-8-GWP-62-070119	62 ft	7/1/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
	PD-8-GWP-70-070119	70 ft	7/1/2019	<0.0099 UJ	<0.0002	<0.0002	<0.01	<0.01	<0.0002	0.00029	<0.01	<0.0002	<0.02	0.00029	<0.01	<0.0002
	PD-8-GWP-80-070119	80 ft	7/1/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	0.000045 J	0.0063 J	<0.0002
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019	<0.01	<0.0002	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.02	<0.0002	0.048	<0.0002
	PD-9-GWP-40-070919	40 ft	7/9/2019	<0.0099 U	<0.0002	<0.0002	<0.0098	<0.0098	0.00013 J	0.00048	0.008 J	<0.0002	<0.02	0.00026	0.37	<0.0002
	PD-9-GWP-45-070919	45 ft	7/9/2019	<0.0097	<0.00019	<0.00019	0.0011 J	<0.0097	0.00035	0.001	0.057	<0.00019	<0.019	0.0014	0.16	0.00016 J
	PD-9-GWP-54-071019	54 ft	7/10/2019	<0.049 UJ	0.00011 J	<0.00019	<0.049 UJ	<0.049 UJ	<0.00019	<0.00097	<0.049 UJ	<0.00019	<0.097 UJ	0.0047	<0.049 UJ	0.00053
	PD-9-GWP-60-071019	60 ft	7/10/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	0.013	<0.00019
	PD-9-GWP-70-071019	70 ft	7/10/2019	0.0059 J	<0.0002	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.02	0.000091 J	0.036	<0.0002
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	0.0095 J	<0.0002	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.02	<0.0002	0.065	<0.0002
	PD-9-GWP-80-071019	80 ft	7/10/2019	<0.01	<0.0002	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.02	<0.0002	<0.01	<0.0002
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019	<0.01	0.0047	0.0004	0.0037 J	<0.01	0.0013	0.0097	<0.01	0.00031	<0.02	0.00065	<0.01	0.0094
	PD-11-GWP-37-071119	37 ft	7/11/2019	<0.01	0.0055	0.0011	0.0053 J	<0.01	<0.0002	0.0075	<0.01	0.00064	<0.02	0.018	0.009 J	0.016
	PD-11-GWP-43-071119	43 ft	7/11/2019	<0.01	0.0021 J	0.00048	<0.01	<0.01	0.00068	0.0023 J	<0.01	0.00026	<0.02	0.012	0.37	0.0055
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	<0.01	0.015 J	0.0035 J	0.0068 J	<0.01	0.0035	0.0085 J	<0.01	<0.0052	<0.021	0.029	0.14	0.02
	PD-11-GWP-50-071119	50 ft	7/11/2019	<0.01	0.00019 J	<0.00021	<0.01	<0.01	<0.00021	0.00038	<0.01	<0.00021	<0.021	0.00087	J	0.00045
	PD-11-GWP-56-071119	56 ft	7/11/2019	<0.01	0.00061	0.000076 J	<0.01	<0.01	<0.0002	0.00038	<0.01	0.000058 J	<0.02	0.0018	0.012	0.0011
	PD-11-GWP-60-071119	60 ft	7/11/2019	<0.0098 UJ	<0.0002	<0.0002	<0.0098 UJ	<0.0098 UJ	<0.0002	<0.0002	<0.0098 UJ	<0.0002	<0.02	0.000089 J	<0.0098 UJ	0.000061 J
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019	<0.0098	<0.0002 UJ	<0.0002	<0.0098	<0.0098	J	0.00043 H J	<0.0098	<0.0002	<0.02	0.0012 H J	0.004 J H J	J
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019	<0.0099	<0.0002	<0.0002	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.02	<0.0002	<0.0099	<0.0002
	PD-12-GWP-45-071219	45 ft	7/12/2019	<0.0099 UJ	<0.0012 UJ	<0.0012 UJ	0.001 J H J	<0.0099 UJ	<0.0012 UJ	J	<0.0099 UJ	<0.0012 UJ	<0.02 UJ	J	0.41 H J	J
	PD-12-GWP-50-071219	50 ft	7/12/2019	0.0075 J H J	<0.00099 UJ	<0.00099 UJ	<0.0099 UJ	<0.0099 UJ	<0.00099 UJ	<0.00099 UJ	<0.0099 UJ	<0.00099 UJ	<0.02 UJ	J	0.11 H J	J
	PD-12-GWP-55-071219	55 ft	7/12/2019	<0.01 UJ	<0.001 UJ	<0.001 UJ	<0.01 UJ	<0.01 UJ	J	0.0028 H J	<0.01 UJ	<0.001 UJ	<0.02 UJ	0.0045 H J	0.063 H J	J
	PD-12-GWP-60-071219	60 ft	7/12/2019	<0.0098	<0.00098 UJ	<0.00098 UJ	<0.0098	J	<0.00098 UJ	<0.00098 UJ	<0.0098	<0.00098 UJ	<0.02	J	0.0066 J H J	<0.00098 UJ
	PD-12-GWP-70-071519	70 ft	7/15/2019	<0.033 U	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002
	PD-12-GWP-73-071519	73 ft	7/15/2019	<0.013 U	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002

TABLE 4

SUMMARY OF GROUNDWATER SVOC ANALYTICAL DETECTIONS

Location	Sample ID	Depth	Sample Date	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
				Analytical Results (mg/L)												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019	<0.0096	<0.00019	<0.00019	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	<0.019	<0.00019	<0.0096	<0.00019
	PD-13-GWP-46-070819	46 ft	7/8/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002
	PD-13-GWP-50-070819	50 ft	7/8/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
	PD-13-GWP-59-070819	59 ft	7/8/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
	PD-13-GWP-65-070919	65 ft	7/9/2019	<0.0096	<0.00019	<0.00019	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	<0.019	<0.00019	<0.0096	<0.00019
	PD-13-GWP-70-070919	70 ft	7/9/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	<0.0097	<0.00019
	PD-13-GWP-80-070919	80 ft	7/9/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	<0.0098	<0.0002
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	<0.0097	<0.00019	<0.00019	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.019	<0.00019	0.06	<0.00019
	PD-14-GWP-45-071719	45 ft	7/17/2019	<0.0098	<0.00098	<0.0002	<0.0098	<0.0098	0.000085 J	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	0.16	<0.00098
	PD-14-GWP-50-071719	50 ft	7/17/2019	<0.0098	<0.0002	<0.0002	<0.0098	<0.0098	0.000082 J	<0.0002	<0.0098	<0.0002	<0.02	<0.0002	0.23	0.000038 J
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019	0.0054 J	<0.00021	<0.00021	<0.01	<0.01	0.00015 J	<0.00021	<0.01	<0.00021	<0.021	0.00034	0.17	0.00006 J
	PD-14-GWP-53-071719	53 ft	7/17/2019	<0.0099	<0.0002	<0.0002	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.02	<0.0002	0.31	<0.0002
	PD-14-GWP-60-071719	60 ft	7/17/2019	<0.0099	<0.0002	<0.0002	<0.0099	<0.0099	<0.0002	<0.00099	0.036	<0.0002	<0.02	0.00081	0.036	0.000075 J
	PD-14-GWP-70-071719	70 ft	7/17/2019	<0.049	<0.0002	<0.0002	<0.049	<0.049	<0.0002	<0.0002	<0.049	<0.0002	<0.098	<0.0002	<0.049	<0.0002
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019	<0.0099	<0.0002	<0.0002	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.02	<0.0002	0.014	<0.0002
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019	<0.0097	0.00013 J	<0.00019	0.0007 J	<0.0097	0.00015 J	0.0018	<0.0097	<0.00019	<0.019	0.00067	0.09	0.00055
	PD-17-GWP-50-072219	50 ft	7/22/2019	<0.01	0.0023 J	<0.0002	0.00093 J	<0.01	0.00038 J	0.0018 J	<0.01	<0.0002	<0.02	0.0077 J	0.15	0.0039 J
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	<0.052	0.036 J	0.0028	<0.052	<0.052	0.007 J	0.035 J J	<0.052	0.0014	<0.1	0.11 J	0.12	0.06 J

Notes:

Table does not include analytes that were non-detect in all samples.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

B = Target analyte was identified in the method blank, indicating possible lab contamination.

J = The analyte was detected below the reporting limit. Result is estimated.

H = Analyzed or extracted out of holding time criteria.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

TABLE 5

SUMMARY OF WATER QUALITY ANALYTICAL RESULTS

				Metals					Other Parameters										
Location	Sample ID	Depth	Sample Date	Ferrous Iron	Iron	Iron, Dissolved	Magnesium	Manganese	Alkalinity, Total (CaCO3)	Calcium hardness as CaCO3	Calcium	Chloride	Nitrite	pH	Phosphate	Potassium	Sodium	Sulfate	Total Dissolved Solids (TDS)
				Analytical Results (mg/L)															
PD-02	PD-2-GWP-50-071819	50 ft	7/18/2019	9.5 HF	45	19	56	1.9	480	670	280	130	0.0073 J	7 HF	0.61	8.3	99 B	150	1100
PD-04	PD-4-GWP-60-071619	60 ft	7/16/2019	3.2 HF	74	11	66	4.8	450	900	320 B	130	<0.02	7.2 HF	<0.15	12	74 B	84	940
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	<0.05	27	1.9	45	0.85	320	760	290	32	<0.02	7.8 HF	0.13 J	5.9	48	210	770
PD-08	PD-8-GWP-35-062819	35 ft	6/28/2019	<0.05	100	39	58	1.6	430	260	150	170	<0.02	6.9 HF	6.2	5.4	140	0.25	830
PD-13	PD-13-GWP-46-070819	46 ft	7/8/2019	0.1 HF	23 B	22	250	0.79	440	1900	520	120	<0.02	7 HF	12	690	3100 B	0.41	700
PD-14	PD-14-GWP-70-071719	70 ft	7/17/2019	<0.05	60 B	7.4	57	3.9	330	660	240 B	140	0.0064 J	7.2 HF	0.69	12	99	77	800

LABORATORY QUALIFIERS

B = Target analyte was identified in the method blank, indicating possible lab contamination.

J = The analyte was detected below the reporting limit. Result is estimated.

HF = Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

<#.## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-1	434.73	0	434.73	-	-	-	0.0	NO	-	-	-	-
		2	432.73	-	-	-	0.0	NO	-	-	-	-
		4	430.73	-	-	-	0.0	NO	-	-	-	-
		6	428.73	-	-	-	0.0	NO	-	-	-	-
		8	426.73	-	-	-	0.0	NO	-	-	-	-
		10	424.73	-	-	-	0.0	NO	-	-	-	-
		12	422.73	-	-	-	0.0	NO	-	-	-	-
		14	420.73	-	-	-	0.0	NO	-	-	-	-
		16	418.73	-	-	-	0.0	NO	-	-	-	-
		18	416.73	-	-	-	0.0	NO	-	-	-	-
		20	414.73	-	-	-	0.0	NO	-	-	-	-
		22	412.73	-	-	-	0.0	NO	-	-	-	-
		24	410.73	-	-	-	0.0	NO	-	-	-	-
		26	408.73	-	-	-	0.0	NO	-	-	-	-
		28	406.73	-	-	-	0.0	NO	-	-	-	-
		29	405.73	-	-	Negative	0.0	NO	-	-	-	-
		30	404.73	-	-	-	0.0	NO	-	-	-	-
		32	402.73	-	-	-	0.0	NO	-	-	-	-
		34	400.73	0.00	-	-	0.0	NO	-	-	-	-
		36	398.73	-	-	-	0.0	NO	-	-	-	-
		37	397.73	-	-	Negative	0.4	NO	-	-	-	-
		38	396.73	-	-	-	0.4	NO	-	-	-	-
		40	394.73	-	-	-	131.0	NO	-	-	-	-
		41	393.73	-	-	Negative	>5000	NO	-	-	-	-
		42	392.73	-	-	-	>5000	NO	-	-	-	-
		44	390.73	1.08	-	-	>5000	NO	-	-	-	-
		46	388.73	-	-	Negative	552.0	NO	-	-	-	-
		48	386.73	-	-	-	320.0	NO	-	-	-	-
		50	384.73	-	-	-	166.0	NO	-	-	-	-
		51	383.73	-	-	-	-	NO	-	-	3.0×10^{-5}	2.9×10^{-5}
		52	382.73	-	-	-	-	YES	-	-	-	-
		53	381.73	114.00	2.31	-	2178.0	YES	NO	NO	-	-
		54	380.73	-	-	-	2178.0	YES	-	-	-	-
		55	379.73	-	1.58	Negative	10.3	YES	NO	NO	-	-
		56	378.73	-	-	-	10.3	NO	-	-	-	-
		58	376.73	-	-	-	102.0	NO	-	-	-	-
		60	374.73	0.86	-	-	-	NO	-	-	-	-
		62	372.73	-	-	-	28.0	NO	-	-	-	-
		64	370.73	-	-	-	22.0	NO	-	-	-	-
		66	368.73	-	-	-	-	NO	-	-	-	-
		68	366.73	-	-	-	-	NO	-	-	-	-
		69	365.73	0.00	-	-	-	NO	-	-	-	-
		70	364.73	-	-	-	-	NO	-	-	-	-
		72	362.73	-	-	-	-	NO DATA	-	-	-	-
		74	360.73	-	-	-	-	NO DATA	-	-	-	-
		75	359.73	0.00	-	-	-	NO DATA	-	-	-	-
		76	358.73	-	-	-	-	NO DATA	-	-	-	-
		78	356.73	-	-	-	-	NO DATA	-	-	-	-
		80	354.73	0.01	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-2	443.87	0	443.87	-	-	-	0.0	NO	-	-	-	-
		2	441.87	-	-	-	0.0	NO	-	-	-	-
		4	439.87	-	-	-	0.0	NO	-	-	-	-
		6	437.87	-	-	-	0.0	NO	-	-	-	-
		8	435.87	-	-	-	0.0	NO	-	-	-	-
		10	433.87	-	-	-	0.0	NO	-	-	-	-
		12	431.87	-	-	-	0.7	NO	-	-	-	-
		14	429.87	-	-	-	0.5	NO	-	-	-	-
		16	427.87	-	-	-	0.6	NO	-	-	-	-
		18	425.87	-	-	-	0.1	NO	-	-	-	-
		20	423.87	-	-	-	0.6	NO	-	-	-	-
		22	421.87	-	-	-	1.3	NO	-	-	-	-
		24	419.87	-	-	-	0.5	NO	-	-	-	-
		26	417.87	-	-	-	0.9	NO	-	-	-	-
		28	415.87	-	-	-	0.5	NO	-	-	-	-
		30	413.87	-	-	-	0.5	NO	-	-	-	-
		32	411.87	-	-	-	0.8	NO	-	-	-	-
		34	409.87	-	-	-	0.7	NO	-	-	-	-
		36	407.87	-	-	-	0.3	NO	-	-	-	-
		38	405.87	-	-	-	0.8	NO	-	-	-	-
		40	403.87	-	-	-	1.0	NO	-	-	-	-
		42	401.87	-	-	-	1.3	NO	-	-	-	-
		44	399.87	340	-	-	51.0	NO	-	-	-	-
		46	397.87	-	-	-	185.0	NO	-	-	-	-
		48	395.87	-	-	-	20.0	NO	-	-	-	-
		49	394.87	-	-	Positive	438.0	YES	-	-	-	-
		50	393.87	2500	120	-	438.0	YES	YES	NO	-	-
		50	393.87	1500	-	-	438.0	YES	YES	NO	-	-
		51	392.87	-	-	Negative	341.0	YES	-	-	-	-
		52	391.87	-	150	-	341.0	YES	NO	NO	-	-
		54	389.87	-	-	-	68.0	NO	-	-	-	-
		56	387.87	-	-	-	62.0	NO	-	-	-	-
		58	385.87	-	-	-	18.0	NO	-	-	-	-
		59	384.87	12	-	-	16.0	NO	-	-	-	-
		60	383.87	-	38	Negative	16.0	NO	-	-	-	-
		60	383.87	-	23	Negative	16.0	NO	-	NO	-	-
		62	381.87	-	-	-	18.0	NO	-	-	-	-
		64	379.87	-	-	-	22.0	NO	-	-	-	-
		65	378.87	10	-	-	3.0	NO	-	-	-	-
		66	377.87	-	-	-	3.0	NO	-	-	-	-
		68	375.87	-	-	-	11.0	NO	-	-	-	-
		70	373.87	0.013	-	-	18.0	NO	-	-	-	-
		72	371.87	-	-	-	-	NO DATA	-	-	-	-
		74	369.87	-	-	-	-	NO DATA	-	-	-	-
		74.5	369.37	0.054	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-3	444.62	0	444.62	-	-	-	0.0	NO	-	-	-	-
		2	442.62	-	-	-	0.0	NO	-	-	-	-
		4	440.62	-	-	-	0.0	NO	-	-	-	-
		6	438.62	-	-	-	0.0	NO	-	-	-	-
		8	436.62	-	-	-	0.0	NO	-	-	-	-
		10	434.62	-	-	-	0.0	NO	-	-	-	-
		12	432.62	-	-	-	-	NO	-	-	-	-
		14	430.62	-	-	-	-	NO	-	-	-	-
		16	428.62	-	-	-	-	NO	-	-	-	-
		18	426.62	-	-	-	-	NO	-	-	-	-
		20	424.62	-	-	-	-	NO	-	-	-	-
		22	422.62	-	-	-	-	NO	-	-	-	-
		24	420.62	-	-	-	-	NO	-	-	-	-
		26	418.62	-	-	-	-	NO	-	-	-	-
		28	416.62	-	-	-	-	NO	-	-	-	-
		30	414.62	-	-	-	-	NO	-	-	-	-
		32	412.62	-	-	-	-	NO	-	-	-	-
		34	410.62	-	-	-	-	NO	-	-	-	-
		36	408.62	-	-	-	-	NO	-	-	-	-
		38	406.62	-	-	-	-	NO	-	-	-	-
		40	404.62	-	-	-	-	NO	-	-	-	-
		42	402.62	-	-	-	-	NO	-	-	-	-
		44	400.62	-	-	-	-	NO	-	-	-	-
		45	399.62	2.5	-	-	-	NO	-	-	-	-
		46	398.62	-	-	-	-	NO	-	-	-	-
		48	396.62	-	-	-	-	NO	-	-	-	-
		50	394.62	1200	-	-	-	NO	-	NO	-	-
		50	394.62	1200	-	-	-	NO	-	NO	-	-
		52	392.62	-	-	-	-	NO	-	-	-	-
		54	390.62	-	-	-	-	NO	-	-	-	-
		55	389.62	680	-	-	-	NO	-	-	-	-
		60	384.62	650	-	-	-	NO	-	-	-	-
		62	382.62	-	-	-	-	NO	-	-	-	-
		64	380.62	-	-	-	-	NO	-	-	-	-
		65	379.62	880	-	-	-	NO	-	-	-	-
		66	378.62	-	-	-	-	NO	-	-	-	-
		68	376.62	-	-	-	-	NO	-	-	-	-
		70	374.62	-	-	-	-	NO	-	-	-	-
		71	373.62	1200	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-4	434.51	0	434.51	-	-	-	0.0	NO	-	-	-	-
		2	432.51	-	-	-	1.5	NO	-	-	-	-
		4	430.51	-	-	-	2.3	NO	-	-	-	-
		6	428.51	-	-	-	0.0	NO	-	-	-	-
		8	426.51	-	-	-	0.0	NO	-	-	-	-
		10	424.51	-	-	-	0.0	NO	-	-	-	-
		12	422.51	-	-	-	0.0	NO	-	-	-	-
		14	420.51	-	-	-	0.0	NO	-	-	-	-
		16	418.51	-	-	-	0.0	NO	-	-	-	-
		18	416.51	-	-	-	0.0	NO	-	-	-	-
		20	414.51	-	-	-	0.0	NO	-	-	-	-
		22	412.51	-	-	-	0.0	NO	-	-	-	-
		24	410.51	-	-	-	0.0	NO	-	-	-	-
		26	408.51	-	-	-	0.0	NO	-	-	-	-
		28	406.51	-	-	-	0.0	NO	-	-	-	-
		30	404.51	-	-	-	0.0	NO	-	-	-	-
		32	402.51	-	-	-	0.0	NO	-	-	-	-
		33	401.51	-	-	-	-	NO	-	-	1.0×10^{-2}	1.0×10^{-2}
		34	400.51	-	-	-	-	NO	-	-	-	-
		35	399.51	0.0063	0.005	-	0.7	NO	NO	NO	-	-
		36	398.51	-	-	-	0.7	NO	-	-	-	-
		37	397.51	-	-	Negative	71.0	NO	-	-	-	-
		38	396.51	-	-	-	71.0	NO	-	-	-	-
		40	394.51	-	-	-	1.0	YES	-	-	-	-
		41	393.51	67	0.092	Negative	30.9	YES	YES	NO	-	-
		42	392.51	-	-	-	30.9	YES	-	-	-	-
		43	391.51	0.3	-	-	444.0	YES	-	-	-	-
		44	390.51	-	-	-	444.0	NO	-	-	-	-
		46	388.51	-	-	-	46.1	NO	-	-	-	-
		48	386.51	-	-	-	25.8	NO	-	-	-	-
		50	384.51	2.3	-	-	956.0	NO	-	-	-	-
		52	382.51	-	-	-	960.0	YES	-	-	-	-
		53	381.51	290	320	-	366.0	YES	-	NO	-	-
		54	380.51	-	-	-	366.0	YES	-	-	-	-
		56	378.51	-	-	-	82.0	NO	-	-	-	-
		58	376.51	-	-	-	-	NO	-	-	-	-
		60	374.51	0.039	-	-	18.0	NO DATA	-	-	2.9×10^{-3}	2.4×10^{-2}
		62	372.51	-	-	-	-	NO DATA	-	-	-	-
		64	370.51	-	-	-	-	NO DATA	-	-	-	-
		66	368.51	-	-	-	-	NO DATA	-	-	-	-
		68	366.51	-	-	-	-	NO DATA	-	-	-	-
		70	364.51	0.076	-	-	-	NO DATA	-	-	-	-
		70	364.51	0.0078	-	-	-	NO DATA	-	-	-	-
		72	362.51	-	-	-	-	NO DATA	-	-	-	-
		74	360.51	-	-	-	-	NO DATA	-	-	-	-
		76	358.51	-	-	-	-	NO DATA	-	-	-	-
		78	356.51	-	-	-	-	NO DATA	-	-	-	-
		80	354.51	0.0036	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-5	435.51	0	435.51	-	-	-	0.0	NO	-	-	-	-
		2	433.51	-	-	-	0.0	NO	-	-	-	-
		4	431.51	-	-	-	0.0	NO	-	-	-	-
		6	429.51	-	-	-	0.0	NO	-	-	-	-
		8	427.51	-	-	-	0.0	NO	-	-	-	-
		10	425.51	-	-	-	0.0	NO	-	-	-	-
		12	423.51	-	-	-	0.0	NO	-	-	-	-
		14	421.51	-	-	-	0.0	NO	-	-	-	-
		16	419.51	-	-	-	0.0	NO	-	-	-	-
		17	418.51	-	0.001	Negative	0.0	NO	-	-	-	-
		18	417.51	-	-	-	0.0	NO	-	-	-	-
		20	415.51	-	-	-	0.0	NO	-	-	-	-
		22	413.51	-	-	-	0.0	NO	-	-	-	-
		24	411.51	-	-	-	0.0	NO	-	-	-	-
		26	409.51	-	-	-	0.0	NO	-	-	-	-
		28	407.51	-	-	-	0.0	NO	-	-	-	-
		30	405.51	-	-	-	0.0	NO	-	-	-	-
		32	403.51	-	-	-	0.1	NO	-	-	-	-
		34	401.51	-	-	-	3.7	NO	-	-	-	-
		36	399.51	-	-	-	165.0	NO	-	-	-	-
		37	398.51	-	-	Negative	1109.3	NO	-	-	-	-
		38	397.51	-	-	-	1109.3	NO	-	-	-	-
		40	395.51	-	-	-	509.0	NO	-	-	-	-
		41	394.51	-	-	Positive	509.0	YES	-	-	-	-
		42	393.51	1990	-	-	>5000	YES	-	NO	-	-
		42	393.51	1910	-	-	>5000	YES	-	-	-	-
		43	392.51	-	7380	Positive	>5000	YES	-	-	-	-
		44	391.51	-	-	-	>5000	YES	-	-	-	-
		45	390.51	-	-	-	-	YES	-	-	6.5×10^{-5}	1.0×10^{-2}
		46	389.51	-	-	-	-	NO	-	-	-	-
		48	387.51	226	-	-	353.0	NO	-	NO	-	-
		50	385.51	-	-	-	553.0	NO	-	-	-	-
		51	384.51	-	-	Negative	2555.0	NO	-	-	-	-
		52	383.51	-	-	-	2555.0	YES	-	-	-	-
		53	382.51	-	982	Positive	1612.0	YES	-	-	-	-
		54	381.51	0.455	-	-	1612.0	YES	-	NO	-	-
		56	379.51	-	-	-	-	YES	-	-	-	-
		57	378.51	-	-	-	-	NO	-	-	2.1×10^{-4}	5.2×10^{-3}
		58	377.51	-	-	-	-	NO	-	-	-	-
		60	375.51	-	-	-	3200.0	NO	-	-	-	-
		62	373.51	0.195	4.15	-	98.0	NO	-	-	-	-
		64	371.51	-	-	-	-	NO	-	-	-	-
		66	369.51	-	-	-	-	NO	-	-	-	-
		68	367.51	-	-	-	-	NO	-	-	-	-
		70	365.51	0.184	-	-	-	NO	-	-	-	-
		72	363.51	-	-	-	-	NO DATA	-	-	-	-
		74	361.51	-	-	-	-	NO DATA	-	-	-	-
		76	359.51	-	-	-	-	NO DATA	-	-	-	-
		78	357.51	-	-	-	-	NO DATA	-	-	-	-
		80	355.51	0.18	4.15	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-6	443.78	0	443.78	-	-	-	0.0	NO	-	-	-	-
		2	441.78	-	-	-	0.0	NO	-	-	-	-
		4	439.78	-	-	-	0.0	NO	-	-	-	-
		6	437.78	-	-	-	0.0	NO	-	-	-	-
		8	435.78	-	-	-	0.0	NO	-	-	-	-
		10	433.78	-	-	-	0.0	NO	-	-	-	-
		12	431.78	-	-	-	0.0	NO	-	-	-	-
		14	429.78	-	-	-	0.1	NO	-	-	-	-
		16	427.78	-	-	-	0.4	NO	-	-	-	-
		18	425.78	-	-	-	0.3	NO	-	-	-	-
		20	423.78	-	-	-	0.3	NO	-	-	-	-
		22	421.78	-	-	-	0.4	NO	-	-	-	-
		24	419.78	-	-	-	0.8	NO	-	-	-	-
		26	417.78	-	-	-	0.1	NO	-	-	-	-
		28	415.78	-	-	-	0.1	NO	-	-	-	-
		30	413.78	-	-	-	0.2	NO	-	-	-	-
		32	411.78	-	-	-	0.1	NO	-	-	-	-
		34	409.78	-	-	-	0.0	NO	-	-	-	-
		36	407.78	-	-	-	0.1	NO	-	-	-	-
		38	405.78	-	-	-	0.0	NO	-	-	-	-
		40	403.78	-	-	-	361.0	NO	-	-	-	-
		41	402.78	-	-	-	361.0	NO	-	-	2.8×10^{-2}	2.3×10^{-2}
		42	401.78	-	-	-	19.4	NO	-	-	-	-
		44	399.78	-	-	-	-	NO	-	-	-	-
		45	398.78	-	19	-	37.0	NO	-	-	-	-
		46	397.78	-	120	Positive	37.0	NO	YES	NO	-	-
		48	395.78	-	-	-	531.0	YES	-	-	-	-
		50	393.78	-	-	-	375.0	YES	-	-	-	-
		51	392.78	-	70	Negative	280.0	YES	-	-	-	-
		52	391.78	-	-	-	280.0	NO DATA	-	-	-	-
		54	389.78	-	8.1	-	165.0	NO DATA	-	-	-	-
		56	387.78	-	-	-	161.0	NO DATA	-	-	-	-
		58	385.78	-	-	-	106.0	NO DATA	-	-	-	-
		60	383.78	-	-	-	14.0	NO DATA	-	-	-	-
		62	381.78	-	-	-	0.2	NO DATA	-	-	-	-
		63	380.78	-	2.3	-	0.1	NO DATA	-	-	-	-
		64	379.78	-	-	-	0.1	NO DATA	-	-	-	-
		66	377.78	-	-	-	6.2	NO DATA	-	-	-	-
		68	375.78	-	-	-	1.7	NO DATA	-	-	-	-
		70	373.78	-	-	-	1.3	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-7	443.52	0	443.52	-	-	-	0.0	NO	-	-	-	-
		2	441.52	-	-	-	0.0	NO	-	-	-	-
		4	439.52	-	-	-	0.0	NO	-	-	-	-
		6	437.52	-	-	-	0.0	NO	-	-	-	-
		8	435.52	-	-	-	0.0	NO	-	-	-	-
		10	433.52	-	-	-	0.0	NO	-	-	-	-
		12	431.52	-	-	-	0.0	NO	-	-	-	-
		14	429.52	-	-	-	0.0	NO	-	-	-	-
		16	427.52	-	-	-	0.0	NO	-	-	-	-
		18	425.52	-	-	-	0.4	NO	-	-	-	-
		20	423.52	-	-	-	0.0	NO	-	-	-	-
		22	421.52	-	-	-	0.0	NO	-	-	-	-
		24	419.52	-	-	-	0.0	NO	-	-	-	-
		26	417.52	-	-	-	0.1	NO	-	-	-	-
		27	416.52	-	0.0022	-	0.0	NO	-	-	-	-
		28	415.52	-	-	-	0.0	NO	-	-	-	-
		30	413.52	-	-	-	0.0	NO	-	-	-	-
		32	411.52	-	-	-	0.0	NO	-	-	-	-
		34	409.52	-	-	-	0.0	NO	-	-	-	-
		36	407.52	-	-	-	0.0	NO	-	-	-	-
		38	405.52	-	-	-	0.0	NO	-	-	-	-
		40	403.52	-	-	-	0.0	NO	-	-	-	-
		42	401.52	-	-	-	-	NO	-	-	-	-
		43	400.52	-	0.054	-	-	NO	-	-	1.9×10^{-3}	1.5×10^{-2}
		44	399.52	-	-	-	-	NO	-	-	-	-
		45	398.52	0.4	-	-	-	NO	-	-	-	-
		46	397.52	-	-	-	1.5	YES	-	-	-	-
		47	396.52	-	-	Positive	1.5	YES	-	-	-	-
		48	395.52	-	-	-	1.7	YES	-	-	-	-
		49	394.52	-	-	Positive	1.7	YES	-	-	-	-
		50	393.52	500	-	-	2342.0	YES	-	NO	-	-
		50	393.52	380	-	-	2342.0	YES	-	NO	-	-
		51	392.52	-	5200	Positive	2500.0	YES	-	-	-	-
		51	392.52	-	5000	Positive	2500.0	YES	-	-	-	-
		52	391.52	-	-	-	2500.0	YES	-	-	-	-
		53	390.52	-	-	-	-	YES	-	-	4.6×10^{-5}	2.0×10^{-3}
		54	389.52	-	-	-	-	NO DATA	-	-	-	-
		55	388.52	1400	-	-	542.0	NO DATA	-	-	-	-
		56	387.52	-	-	-	542.0	NO DATA	-	-	-	-
		58	385.52	-	-	-	47.3	NO DATA	-	-	-	-
		60	383.52	-	-	-	62.0	NO DATA	-	-	-	-
		62	381.52	-	-	-	130.0	NO DATA	-	-	-	-
		64	379.52	-	-	-	392.0	NO DATA	-	-	-	-
		66	377.52	-	-	-	646.0	NO DATA	-	-	-	-
		68	375.52	-	-	-	92.0	NO DATA	-	-	-	-
		70	373.52	-	-	-	3.0	NO DATA	-	-	-	-
		72	371.52	-	-	-	0.4	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-8	434.68	0	434.68	-	-	-	0.0	NO	-	-	-	-
		2	432.68	-	-	-	0.0	NO	-	-	-	-
		4	430.68	-	-	-	0.0	NO	-	-	-	-
		6	428.68	-	-	-	0.0	NO	-	-	-	-
		8	426.68	-	-	-	0.0	NO	-	-	-	-
		10	424.68	-	-	-	0.0	NO	-	-	-	-
		12	422.68	-	-	-	0.0	NO	-	-	-	-
		14	420.68	-	-	-	0.1	NO	-	-	-	-
		16	418.68	-	-	-	0.1	NO	-	-	-	-
		18	416.68	-	-	-	0.1	NO	-	-	-	-
		20	414.68	-	-	-	0.1	NO	-	-	-	-
		22	412.68	-	-	-	0.1	NO	-	-	-	-
		24	410.68	-	-	-	0.1	NO	-	-	-	-
		26	408.68	-	-	-	0.1	NO	-	-	-	-
		28	406.68	-	-	-	51.0	NO	-	-	-	-
		30	404.68	-	-	-	157.0	NO	-	-	-	-
		32	402.68	-	-	-	624.0	NO	-	-	-	-
		34	400.68	-	-	-	507.0	NO	-	-	-	-
		35	399.68	810	-	-	507.0	NO	-	-	-	-
		36	398.68	-	-	-	451.0	YES	-	-	-	-
		37	397.68	-	110	Negative	451.0	YES	-	-	-	-
		37	397.68	-	86	Negative	652.0	YES	-	-	-	-
		38	396.68	-	-	-	652.0	YES	-	-	-	-
		39	395.68	-	-	Positive	3214.0	YES	-	-	-	-
		40	394.68	-	2300	-	3214.0	YES	-	-	-	-
		41	393.68	4.9	-	Negative	3214	YES	-	NO	-	-
		42	392.68	-	-	-	>5000	YES	-	-	-	-
		44	390.68	-	-	-	1509	YES	-	-	-	-
		46	388.68	0.086	-	-	488.0	NO	-	NO	-	-
		48	386.68	-	-	-	355.0	NO	-	-	-	-
		50	384.68	-	-	-	173.0	NO	-	-	-	-
		51	383.68	-	<5.4	Positive	173.0	YES	-	-	-	-
		52	382.68	0.014	-	-	763.0	YES	-	NO	-	-
		53	381.68	-	-	Positive	763.0	YES	-	-	-	-
		54	380.68	-	-	-	744.0	YES	-	-	-	-
		56	378.68	-	-	-	93.0	NO	-	-	-	-
		57	377.68	0.011	-	-	93.0	NO	-	-	-	-
		58	376.68	-	-	-	56.0	NO	-	-	-	-
		60	374.68	-	-	-	83.0	NO	-	-	-	-
		62	372.68	0.02	0.14	-	50.0	NO	-	-	-	-
		64	370.68	-	-	-	58.0	NO	-	-	-	-
		66	368.68	-	-	-	35.0	NO	-	-	-	-
		68	366.68	-	-	-	52.0	NO	-	-	-	-
		70	364.68	0.12	-	-	24.0	NO	-	-	-	-
		72	362.68	-	-	-	-	NO DATA	-	-	-	-
		74	360.68	-	-	-	-	NO DATA	-	-	-	-
		76	358.68	-	-	-	-	NO DATA	-	-	-	-
		78	356.68	-	-	-	-	NO DATA	-	-	-	-
		80	354.68	0.27	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-9	435.72	0	435.72	-	-	-	0.0	NO	-	-	-	-
		2	433.72	-	-	-	0.0	NO	-	-	-	-
		4	431.72	-	-	-	0.0	NO	-	-	-	-
		6	429.72	-	-	-	0.0	NO	-	-	-	-
		8	427.72	-	-	-	0.0	NO	-	-	-	-
		10	425.72	-	-	-	0.0	NO	-	-	-	-
		12	423.72	-	-	-	0.0	NO	-	-	-	-
		14	421.72	-	-	-	0.0	NO	-	-	-	-
		16	419.72	-	-	-	0.0	NO	-	-	-	-
		18	417.72	-	-	-	0.0	NO	-	-	-	-
		20	415.72	-	-	-	0.0	NO	-	-	-	-
		22	413.72	-	-	-	0.0	NO	-	-	-	-
		24	411.72	-	-	-	0.0	NO	-	-	-	-
		26	409.72	-	-	-	0.0	NO	-	-	-	-
		28	407.72	-	-	-	0.0	NO	-	-	-	-
		30	405.72	-	-	-	0.0	NO	-	-	-	-
		32	403.72	-	-	-	-	NO	-	-	-	-
		34	401.72	-	-	-	0.0	NO	-	-	-	-
		35	400.72	1.4	-	-	0.0	NO	-	-	-	-
		36	399.72	-	-	-	0.0	NO	-	-	-	-
		38	397.72	-	-	-	9.2	NO	-	-	-	-
		40	395.72	1100	-	-	9.0	NO	-	-	-	-
		41	394.72	-	0.036	Negative	9.0	NO	-	-	-	-
		42	393.72	-	-	-	2.0	NO	-	-	-	-
		43	392.72	-	43	Negative	2.0	NO	-	-	-	-
		44	391.72	-	-	-	503.0	NO	-	-	-	-
		45	390.72	340	-	-	503.0	NO	-	-	-	-
		46	389.72	-	-	-	356.0	NO	-	-	-	-
		48	387.72	-	-	-	965.0	NO	-	-	-	-
		49	386.72	-	-	Positive	965.0	NO	-	-	-	-
		50	385.72	-	-	-	56.0	NO	-	-	-	-
		52	383.72	-	-	-	1477.0	NO	-	-	-	-
		53	382.72	-	-	Positive	1477.0	NO	-	-	-	-
		54	381.72	20	240	-	2148.0	NO	-	-	-	-
		54	381.72	-	260	-	2148.0	NO	-	-	-	-
		55	380.72	-	-	Positive	2148.0	NO	-	-	-	-
		56	379.72	-	-	-	873.0	NO	-	-	-	-
		57	378.72	-	-	Negative	873.0	NO	-	-	-	-
		58	377.72	-	-	-	56.1	NO	-	-	-	-
		60	375.72	0.89	-	-	2.0	NO	-	-	-	-
		62	373.72	-	-	-	10.2	NO	-	-	-	-
		64	371.72	-	-	-	6.7	NO	-	-	-	-
		66	369.72	-	-	-	9.1	NO	-	-	-	-
		68	367.72	-	-	-	3.4	NO	-	-	-	-
		70	365.72	3.1	-	-	2.6	NO	-	-	-	-
		70	365.72	13	-	-	2.6	NO	-	-	-	-
		72	363.72	-	-	-	-	NO DATA	-	-	-	-
		74	361.72	-	-	-	-	NO DATA	-	-	-	-
		76	359.72	-	-	-	-	NO DATA	-	-	-	-
		78	357.72	-	-	-	-	NO DATA	-	-	-	-
		80	355.72	0.25	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-10	435.99	0	435.99	-	-	-	0.0	NO	-	-	-	-
		2	433.99	-	-	-	0.0	NO	-	-	-	-
		4	431.99	-	-	-	0.0	NO	-	-	-	-
		6	429.99	-	-	-	0.0	NO	-	-	-	-
		8	427.99	-	-	-	0.0	NO	-	-	-	-
		10	425.99	-	-	-	0.0	NO	-	-	-	-
		12	423.99	-	-	-	0.0	NO	-	-	-	-
		14	421.99	-	-	-	0.0	NO	-	-	-	-
		16	419.99	-	-	-	0.0	NO	-	-	-	-
		18	417.99	-	-	-	2.6	NO	-	-	-	-
		19	416.99	-	<0.0254	Positive	3.0	NO	-	-	-	-
		20	415.99	-	-	-	3.0	NO	-	-	-	-
		22	413.99	-	-	-	0.0	NO	-	-	-	-
		24	411.99	-	-	-	0.4	NO	-	-	-	-
		26	409.99	-	-	-	0.1	NO	-	-	-	-
		28	407.99	-	-	-	0.1	NO	-	-	-	-
		30	405.99	-	-	-	0.0	NO	-	-	-	-
		32	403.99	-	-	-	0.0	NO	-	-	-	-
		34	401.99	-	-	-	-	NO	-	-	-	-
		36	399.99	-	-	-	0.0	NO	-	-	-	-
		38	397.99	-	-	-	0.0	NO	-	-	-	-
		40	395.99	-	-	-	0.0	NO	-	-	-	-
		42	393.99	-	-	-	-	NO	-	-	-	-
		44	391.99	-	-	-	-	NO	-	-	1.6×10^{-3}	2.2×10^{-2}
		45	390.99	-	0.0118	-	0.0	NO	-	-	-	-
		46	389.99	-	-	-	0.0	NO	-	-	-	-
		48	387.99	-	-	-	0.0	NO	-	-	-	-
		50	385.99	-	-	-	0.0	NO	-	-	-	-
		52	383.99	-	-	-	-	NO	-	-	-	-
		54	381.99	-	-	-	-	NO	-	-	-	-
		56	379.99	-	-	-	-	NO	-	-	-	-
		58	377.99	-	-	-	-	NO	-	-	-	-
		60	375.99	-	-	-	-	NO	-	-	-	-
		62	373.99	-	-	-	-	NO	-	-	-	-
		64	371.99	-	-	-	-	NO	-	-	-	-
		66	369.99	-	-	-	-	NO	-	-	-	-
		68	367.99	-	-	-	-	NO	-	-	-	-
		70	365.99	-	-	-	-	NO	-	-	-	-
		72	363.99	-	-	-	-	NO DATA	-	-	-	-
		74	361.99	-	-	-	-	NO DATA	-	-	-	-
		76	359.99	-	-	-	-	NO DATA	-	-	-	-
		78	357.99	-	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-11	436.54	0	436.54	-	-	-	0.0	NO	-	-	-	-
		2	434.54	-	-	-	0.0	NO	-	-	-	-
		4	432.54	-	-	-	0.0	NO	-	-	-	-
		6	430.54	-	-	-	0.0	NO	-	-	-	-
		8	428.54	-	-	-	0.0	NO	-	-	-	-
		10	426.54	-	-	-	0.0	NO	-	-	-	-
		12	424.54	-	-	-	0.0	NO	-	-	-	-
		14	422.54	-	-	-	12.8	NO	-	-	-	-
		16	420.54	-	-	-	0.2	NO	-	-	-	-
		18	418.54	-	-	-	0.0	NO	-	-	-	-
		20	416.54	-	-	-	1.4	NO	-	-	-	-
		21	415.54	-	-	Negative	1.4	NO	-	-	-	-
		22	414.54	-	-	-	1.4	NO	-	-	-	-
		24	412.54	-	-	-	2.1	NO	-	-	-	-
		26	410.54	-	-	-	0.0	NO	-	-	-	-
		28	408.54	-	-	-	0.8	NO	-	-	-	-
		30	406.54	-	-	-	3.9	NO	-	-	-	-
		32	404.54	-	-	-	11.7	NO	-	-	-	-
		34	402.54	-	-	-	189.0	YES	-	-	-	-
		35	401.54	0.018	-	-	189.0	YES	-	-	-	-
		36	400.54	-	-	-	576.0	YES	-	-	-	-
		37	399.54	1.4	740	Positive	576.0	YES	-	-	-	-
		38	398.54	-	-	-	4551.0	YES	-	-	-	-
		39	397.54	-	-	Positive	4551	YES	YES	NO	-	-
		40	396.54	-	-	-	>5000	NO DATA	-	NO	-	-
		42	394.54	-	-	-	>5000	NO DATA	-	-	-	-
		43	393.54	2500	-	-	>5000	NO DATA	-	-	-	-
		43	393.54	2400	-	-	>5000	NO DATA	-	-	-	-
		44	392.54	-	-	-	>5000	NO DATA	-	-	-	-
		45	391.54	-	29	Positive	>5000	NO DATA	-	-	-	-
		46	390.54	-	-	-	>5000	NO DATA	-	-	-	-
		48	388.54	-	-	-	5	NO DATA	-	-	-	-
		50	386.54	1.9	-	-	25.2	NO DATA	-	-	-	-
		52	384.54	-	-	-	128.0	NO DATA	-	-	-	-
		54	382.54	-	-	-	14.8	NO DATA	-	-	-	-
		56	380.54	1.2	-	-	3.3	NO DATA	-	-	-	-
		57	379.54	-	15	Negative	3.3	NO DATA	-	-	-	-
		58	378.54	-	-	-	129.0	NO DATA	-	-	-	-
		60	376.54	200	-	-	694.0	NO DATA	-	-	-	-
		61	375.54	-	8.9	Negative	694.0	NO DATA	-	-	-	-
		62	374.54	-	-	-	659.0	NO DATA	-	-	-	-
		64	372.54	-	-	-	371.0	NO DATA	-	-	-	-
		66	370.54	-	-	-	60.9	NO DATA	-	-	-	-
		66.7	369.84	0.29	-	-	60.9	NO DATA	-	-	-	-
		68	368.54	-	-	-	-	NO DATA	-	-	-	-
		70	366.54	-	-	-	21.9	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-12	436.03	0	436.03	-	-	-	0.0	NO	-	-	-	-
		2	434.03	-	-	-	0.0	NO	-	-	-	-
		4	432.03	-	-	-	0.0	NO	-	-	-	-
		6	430.03	-	-	-	0.0	NO	-	-	-	-
		8	428.03	-	-	-	0.0	NO	-	-	-	-
		10	426.03	-	-	-	0.0	NO	-	-	-	-
		12	424.03	-	-	-	0.0	NO	-	-	-	-
		14	422.03	-	-	-	0.0	NO	-	-	-	-
		16	420.03	-	-	-	0.0	NO	-	-	-	-
		18	418.03	-	-	-	0.0	NO	-	-	-	-
		20	416.03	-	-	-	0.0	NO	-	-	-	-
		22	414.03	-	-	-	0.0	NO	-	-	-	-
		24	412.03	-	-	-	0.0	NO	-	-	-	-
		26	410.03	-	-	-	0.0	NO	-	-	-	-
		28	408.03	-	-	-	0.0	NO	-	-	-	-
		30	406.03	-	-	-	0.0	NO	-	-	-	-
		32	404.03	-	-	-	0.0	NO	-	-	-	-
		34	402.03	-	-	-	0.0	NO	-	-	-	-
		36	400.03	-	-	-	0.0	NO	-	-	-	-
		38	398.03	-	-	-	-	NO	-	-	-	-
		40	396.03	-	-	-	0.9	NO	-	-	-	-
		42	394.03	-	-	-	2.5	NO	-	-	-	-
		44	392.03	-	-	-	34.1	NO	-	-	-	-
		45	391.03	460	-	-	34.1	NO	-	-	-	-
		46	390.03	-	-	-	14.3	NO	-	-	-	-
		48	388.03	-	-	-	6.6	NO	-	-	-	-
		50	386.03	25	-	-	9.2	NO	-	-	-	-
		52	384.03	-	11	-	342.5	NO	-	-	-	-
		54	382.03	-	-	-	1683.4	YES	-	-	-	-
		55	381.03	330	79	Positive	1683.4	YES	-	-	-	-
		56	380.03	-	-	-	1449.6	YES	-	-	-	-
		58	378.03	-	-	-	63.4	NO	-	-	-	-
		59	377.03	-	0.51	-	63.4	NO	-	-	-	-
		60	376.03	0.15	-	-	71.0	NO	-	-	-	-
		62	374.03	-	-	-	35.6	NO	-	-	-	-
		64	372.03	-	-	-	35.6	NO	-	-	-	-
		66	370.03	-	-	-	44.4	NO	-	-	-	-
		68	368.03	-	-	-	17.9	NO	-	-	-	-
		70	366.03	0.0052	-	-	21.7	NO	-	-	-	-
		72	364.03	-	-	-	-	NO DATA	-	-	-	-
		73	363.03	0.0012	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-13	433.32	0	433.32	-	-	-	0.0	NO	-	-	-	-
		2	431.32	-	-	-	0.0	NO	-	-	-	-
		4	429.32	-	-	-	0.0	NO	-	-	-	-
		6	427.32	-	-	-	0.0	NO	-	-	-	-
		8	425.32	-	-	-	0.0	NO	-	-	-	-
		10	423.32	-	-	-	0.0	NO	-	-	-	-
		12	421.32	-	-	-	-	NO	-	-	-	-
		14	419.32	-	-	-	-	NO	-	-	-	-
		16	417.32	-	-	-	-	NO	-	-	-	-
		18	415.32	-	-	-	-	NO	-	-	-	-
		20	413.32	-	-	-	-	NO	-	-	-	-
		22	411.32	-	-	-	-	NO	-	-	-	-
		24	409.32	-	-	-	-	NO	-	-	-	-
		26	407.32	-	-	-	-	NO	-	-	-	-
		28	405.32	-	-	-	-	NO	-	-	-	-
		30	403.32	-	-	-	-	NO	-	-	-	-
		32	401.32	-	-	-	-	NO	-	-	-	-
		34	399.32	-	-	-	-	NO	-	-	-	-
		36	397.32	-	-	-	-	NO	-	-	-	-
		38	395.32	-	-	-	-	NO	-	-	-	-
		40	393.32	0.00043	-	-	-	NO	-	-	-	-
		42	391.32	-	-	-	-	NO	-	-	-	-
		44	389.32	-	-	-	-	NO	-	-	-	-
		46	387.32	0.0021	-	-	-	NO	-	-	-	-
		48	385.32	-	-	-	-	NO	-	-	-	-
		50	383.32	0.00093	-	-	-	NO	-	-	-	-
		52	381.32	-	-	-	-	NO	-	-	-	-
		54	379.32	-	-	-	-	NO	-	-	-	-
		56	377.32	-	-	-	-	NO	-	-	-	-
		58	375.32	-	-	-	-	NO	-	-	-	-
		59	374.32	ND	-	-	-	NO	-	-	-	-
		60	373.32	-	-	-	-	NO	-	-	-	-
		62	371.32	-	-	-	-	NO	-	-	-	-
		64	369.32	-	-	-	-	NO	-	-	-	-
		65	368.32	0.0026	-	-	-	NO	-	-	-	-
		66	367.32	-	-	-	-	NO	-	-	-	-
		68	365.32	-	-	-	-	NO	-	-	-	-
		70	363.32	0.00047	-	-	-	NO	-	-	-	-
		72	361.32	-	-	-	-	NO DATA	-	-	-	-
		74	359.32	-	-	-	-	NO DATA	-	-	-	-
		76	357.32	-	-	-	-	NO DATA	-	-	-	-
		78	355.32	-	-	-	-	NO DATA	-	-	-	-
		80	353.32	ND	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-14	443.05	0	443.05	-	-	-	0.0	NO	-	-	-	-
		2	441.05	-	-	-	0.0	NO	-	-	-	-
		4	439.05	-	-	-	0.0	NO	-	-	-	-
		6	437.05	-	-	-	0.0	NO	-	-	-	-
		8	435.05	-	-	-	0.0	NO	-	-	-	-
		10	433.05	-	-	-	0.0	NO	-	-	-	-
		12	431.05	-	-	-	0.0	NO	-	-	-	-
		14	429.05	-	-	-	0.0	NO	-	-	-	-
		16	427.05	-	-	-	0.0	NO	-	-	-	-
		18	425.05	-	-	-	0.0	NO	-	-	-	-
		20	423.05	-	-	-	0.0	NO	-	-	-	-
		22	421.05	-	-	-	0.0	NO	-	-	-	-
		24	419.05	-	-	-	0.0	NO	-	-	-	-
		26	417.05	-	-	-	0.0	NO	-	-	-	-
		28	415.05	-	-	-	0.0	NO	-	-	-	-
		30	413.05	-	-	-	0.0	NO	-	-	-	-
		32	411.05	-	-	-	0.0	NO	-	-	-	-
		34	409.05	-	-	-	0.0	NO	-	-	-	-
		36	407.05	-	-	-	0.0	NO	-	-	-	-
		38	405.05	-	-	-	0.0	NO	-	-	-	-
		40	403.05	230	-	-	0.0	NO	-	-	-	-
		42	401.05	-	-	-	0.0	NO	-	-	-	-
		44	399.05	-	-	-	0.0	NO	-	-	-	-
		45	398.05	2000	290	-	0.0	NO	-	-	-	-
		46	397.05	-	-	-	84.5	NO	-	-	-	-
		48	395.05	-	-	-	>5000	YES	-	-	-	-
		49	394.05	-	23000	Negative	>5000	YES	-	-	-	-
		49	394.05	-	13000	Negative	>5000	YES	-	-	-	-
		50	393.05	2300	-	-	>5000	YES	-	-	-	-
		50	393.05	2900	-	-	>5000	YES	-	-	-	-
		51	392.05	-	-	Negative	>5000	YES	-	-	-	-
		52	391.05	-	-	-	255.0	NO	-	-	-	-
		53	390.05	970	-	-	255.0	NO	-	-	-	-
		54	389.05	-	-	-	19.0	NO	-	NO	-	-
		55	388.05	-	10	-	19.0	NO	-	-	-	-
		56	387.05	-	-	-	41.5	NO	-	-	-	-
		58	385.05	-	-	-	216.8	NO DATA	-	-	-	-
		59	384.05	-	-	Positive	216.8	NO DATA	NO	NO	-	-
		60	383.05	140	-	-	1221.1	NO DATA	-	-	-	-
		62	381.05	-	-	-	1062.0	NO DATA	-	-	-	-
		64	379.05	-	-	-	30.6	NO DATA	-	-	-	-
		66	377.05	-	-	-	7.3	NO DATA	-	-	-	-
		68	375.05	-	-	-	3.9	NO DATA	-	-	-	-
		70	373.05	10	-	-	2.8	NO DATA	-	-	-	-
		72	371.05	-	-	-	-	NO DATA	-	-	-	-
		74	369.05	-	-	-	-	NO DATA	-	-	-	-
		76	367.05	-	-	-	-	NO DATA	-	-	-	-
		78	365.05	-	-	-	-	NO DATA	-	-	-	-
		78.5	364.55	0.31	-	-	-	NO DATA	-	-	-	-

Well ID	Ground Elevation (NGVD)	Sample Depths (bgs)	Sample Elevations (NGVD)	Groundwater Benzene Result (mg/L)	Soil Benzene Result (mg/kg)	Sudan Test Results	PID (ppm)	Blue Shift from DyeLIF	Fluorescent NAPL from Dakota	Westhollow NAPL Confirmation	Vertical Conductivity (cm/s)	Horizontal Conductivity (cm/s)
PD-17	443.92	0	443.92	-	-	-	0.0	NO	-	-	-	-
		2	441.92	-	-	-	0.0	NO	-	-	-	-
		4	439.92	-	-	-	0.0	NO	-	-	-	-
		6	437.92	-	-	-	0.0	NO	-	-	-	-
		8	435.92	-	-	-	0.0	NO	-	-	-	-
		10	433.92	-	-	-	0.0	NO	-	-	-	-
		12	431.92	-	-	-	0.0	NO	-	-	-	-
		14	429.92	-	-	-	0.0	NO	-	-	-	-
		16	427.92	-	-	-	0.0	NO	-	-	-	-
		18	425.92	-	-	-	0.0	NO	-	-	-	-
		20	423.92	-	-	-	0.0	NO	-	-	-	-
		22	421.92	-	-	-	0.0	NO	-	-	-	-
		24	419.92	-	-	-	0.0	NO	-	-	-	-
		26	417.92	-	-	-	0.0	NO	-	-	-	-
		28	415.92	-	-	-	0.0	NO	-	-	-	-
		30	413.92	-	-	-	0.0	NO	-	-	-	-
		32	411.92	-	-	-	0.0	NO	-	-	-	-
		34	409.92	-	-	-	0.0	NO	-	-	-	-
		36	407.92	-	-	-	0.0	NO	-	-	-	-
		38	405.92	-	-	-	0.0	NO	-	-	-	-
		40	403.92	-	-	-	0.0	NO	-	-	-	-
		42	401.92	-	-	-	0.0	NO	-	-	-	-
		44	399.92	-	-	-	0.0	NO	-	-	-	-
		45	398.92	180	6.5	-	0.0	NO	YES	NO	-	-
		46	397.92	-	-	-	4.2	NO	-	-	-	-
		47.5	396.42	-	-	Positive	4.5	YES	-	-	-	-
		48	395.92	-	-	-	17.6	YES	-	-	-	-
		50	393.92	1600	-	-	297.4	YES	-	NO	-	-
		50	393.92	2200	-	-	297.4	NO DATA	-	NO	-	-
		52	391.92	-	-	-	300.0	NO DATA	-	-	-	-
		54	389.92	-	-	-	598.6	NO DATA	-	-	-	-
		55	388.92	-	32	-	598.6	NO DATA	-	-	-	-
		56	387.92	-	-	-	158.0	NO DATA	-	-	-	-
		58	385.92	-	-	-	6.2	NO DATA	-	-	-	-
		60	383.92	-	-	-	8.7	NO DATA	-	-	-	-
		62	381.92	-	-	-	12.5	NO DATA	-	-	-	-
		64	379.92	-	-	-	3.9	NO DATA	-	-	-	-
		66	377.92	-	-	-	7.8	NO DATA	-	-	-	-
		68	375.92	-	-	-	0.2	NO DATA	-	-	-	-
		70	373.92	-	-	-	2.4	NO DATA	-	-	-	-

NOTES:

1. Table only includes locations where more that one investigation method was conducted.
2. Fluorescent NAPL from Dakota. Dakota viewed samples under a microscope; sample fluoresced in presence of dye
3. Westhollow NAPL Confirmation: Results from selected samples that were sent for analysis to Shell's Westhollow Laboratory.

\- = Indicates NM
ND = Non-Detect
NA = Indicates Not Applicable since CPT/DyeLIF hit refusal before this depth
* = Indicates the minimum to maximum estimated K-value from the sample interval based on LIF logs

Indicates Zone of Neglible Impact.
Indicates Zone of Lesser Impact based on fewer lines of supporting data.
Indicates Zone of Highest Impact based on multiple lines of supporting data.

Figures

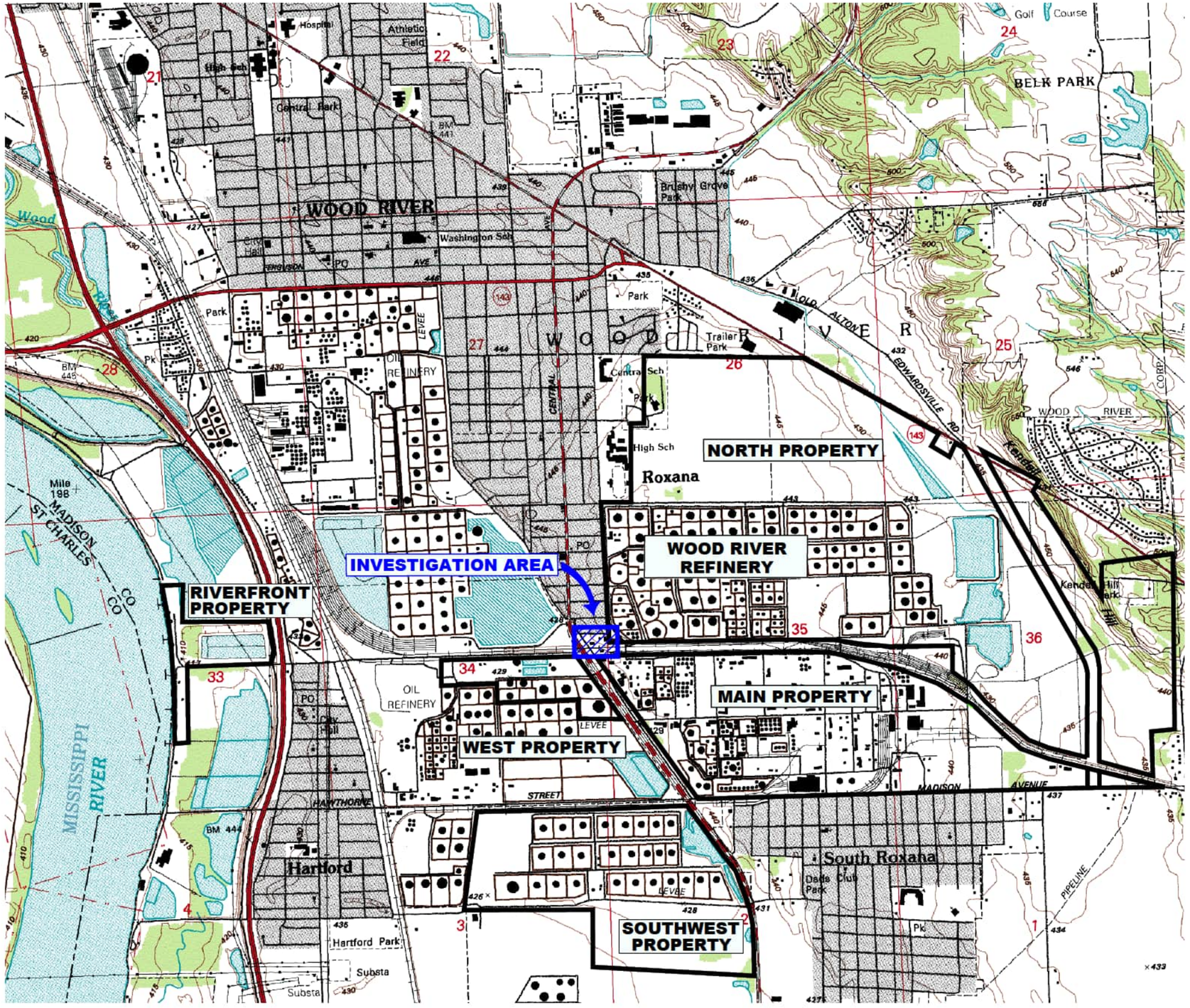
The following EVS Descriptions and Assumptions apply to **Figures 3A-C, 4A-C, 5A-C, 6A-C, 7A-C, 10, and 11**. C Tech Development Corporation's Earth Volumetric Studio, Version 19.2 (EVS 19.2) was used to model the estimated distribution of benzene in the groundwater and soil, as well as lithology derived from cone penetration testing (CPT) data.

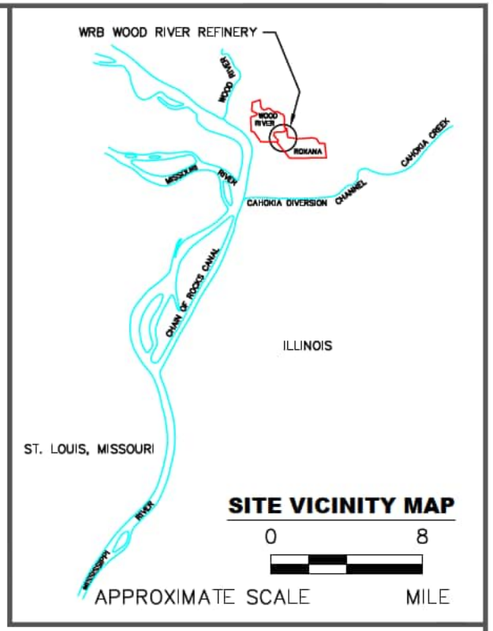
EVS Descriptions and Assumptions:

3D Model Output – The data input for the model was not limited by depth and was modeled in three dimensions (3D) using a 3D interpolation process called kriging.

Duplicate Samples – In locations and depths where duplication samples were collected, the higher concentration was used.

Detection Limits – In cases where the lab reported a non-detect, half the value of the lab reporting limit was used in the model. This conservative method assumes that the sample is likely not free of benzene, but the quantity contained is lower than detectable at the analyzed dilution.





LEGEND

- WOOD RIVER REFINERY PROPERTY BOUNDARY
- INVESTIGATION AREA

SOURCE: ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, IL–MO REVISED 1994.

0 2000
APPROXIMATE SCALE FEET

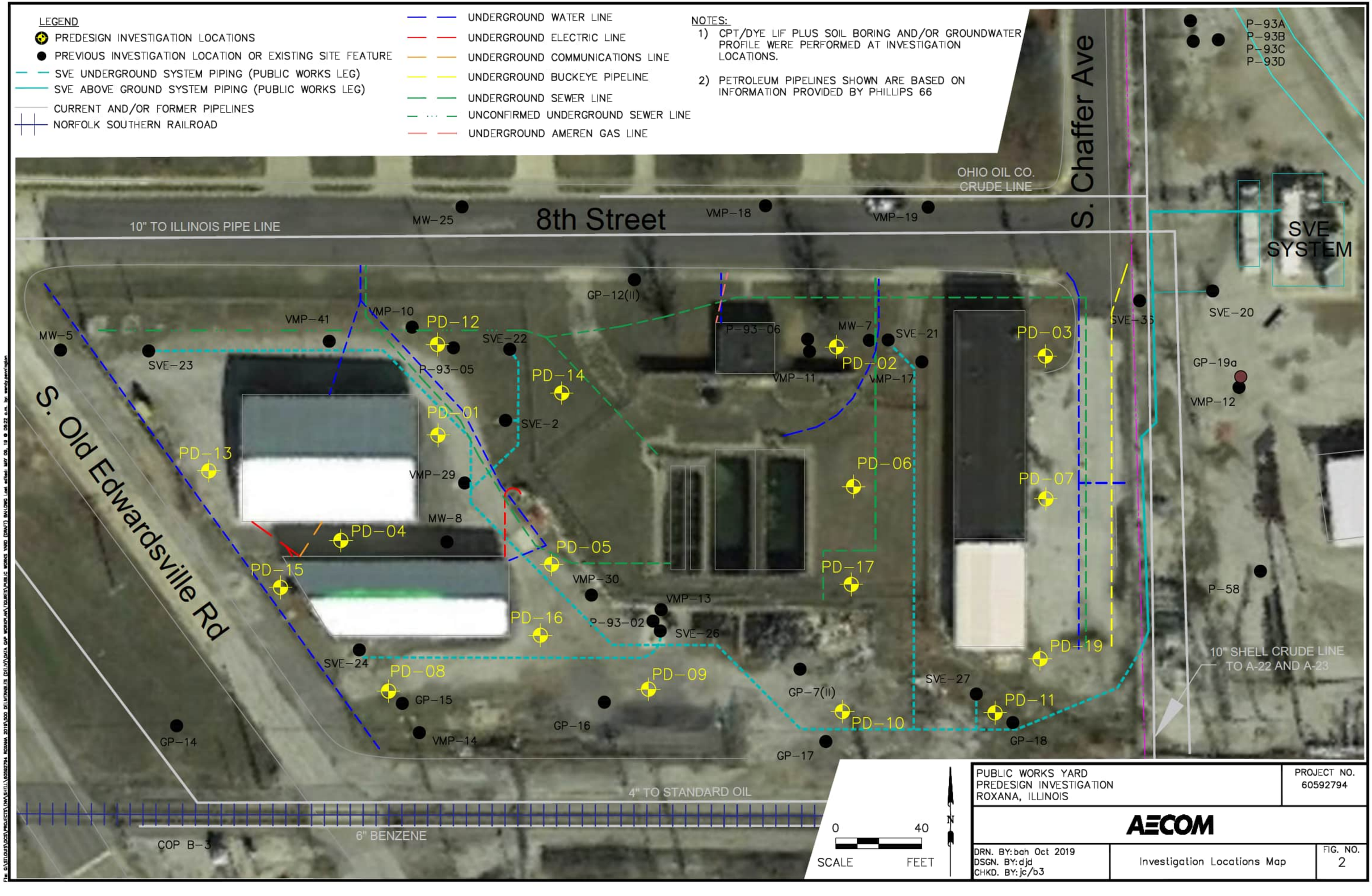
N

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS		PROJECT NO. 60592794
AECOM		
DRN. BY: bah Oct 2019 DSGN. BY: djd CHKD. BY: bj	Investigation Area Location Map	FIG. NO. 1

File: C:\USERS\BRETT.HOWELL\DOCUMENTS\ROXANA 2019 – 60592794\PUBLIC WORKS\FIGURES\PUBLIC WORKS YARD (FIG 1 – FINAL) 101019.DWG Last edited: 10/10/19 ● 7:30 AM ● WIC-ST.LOUIS

LEGEND
- PREDESIGN INVESTIGATION LOCATIONS
- PREVIOUS INVESTIGATION LOCATION OR EXISTING SITE FEATURE
- SVE UNDERGROUND SYSTEM PIPING (PUBLIC WORKS LEG)
- SVE ABOVE GROUND SYSTEM PIPING (PUBLIC WORKS LEG)
- CURRENT AND/OR FORMER PIPELINES
- NORFOLK SOUTHERN RAILROAD
- UNDERGROUND WATER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS LINE
- UNDERGROUND BUCKEYE PIPELINE
- UNDERGROUND SEWER LINE
- UNCONFIRMED UNDERGROUND SEWER LINE
- UNDERGROUND AMEREN GAS LINE

NOTES:
1) CPT/DYE LIF PLUS SOIL BORING AND/OR GROUNDWATER PROFILE WERE PERFORMED AT INVESTIGATION LOCATIONS.
2) PETROLEUM PIPELINES SHOWN ARE BASED ON INFORMATION PROVIDED BY PHILLIPS 66



0 40
SCALE FEET

N

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
DRN. BY: bah Oct 2019 DSGN. BY: djd CHKD. BY: jc/b3	Investigation Locations Map — FIG. NO. 2

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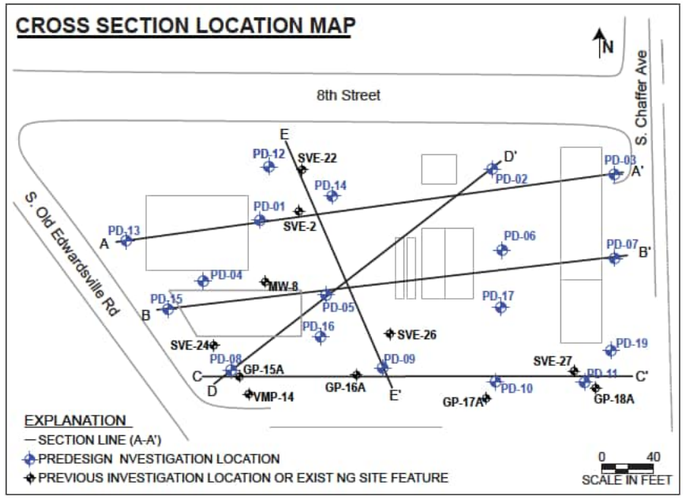
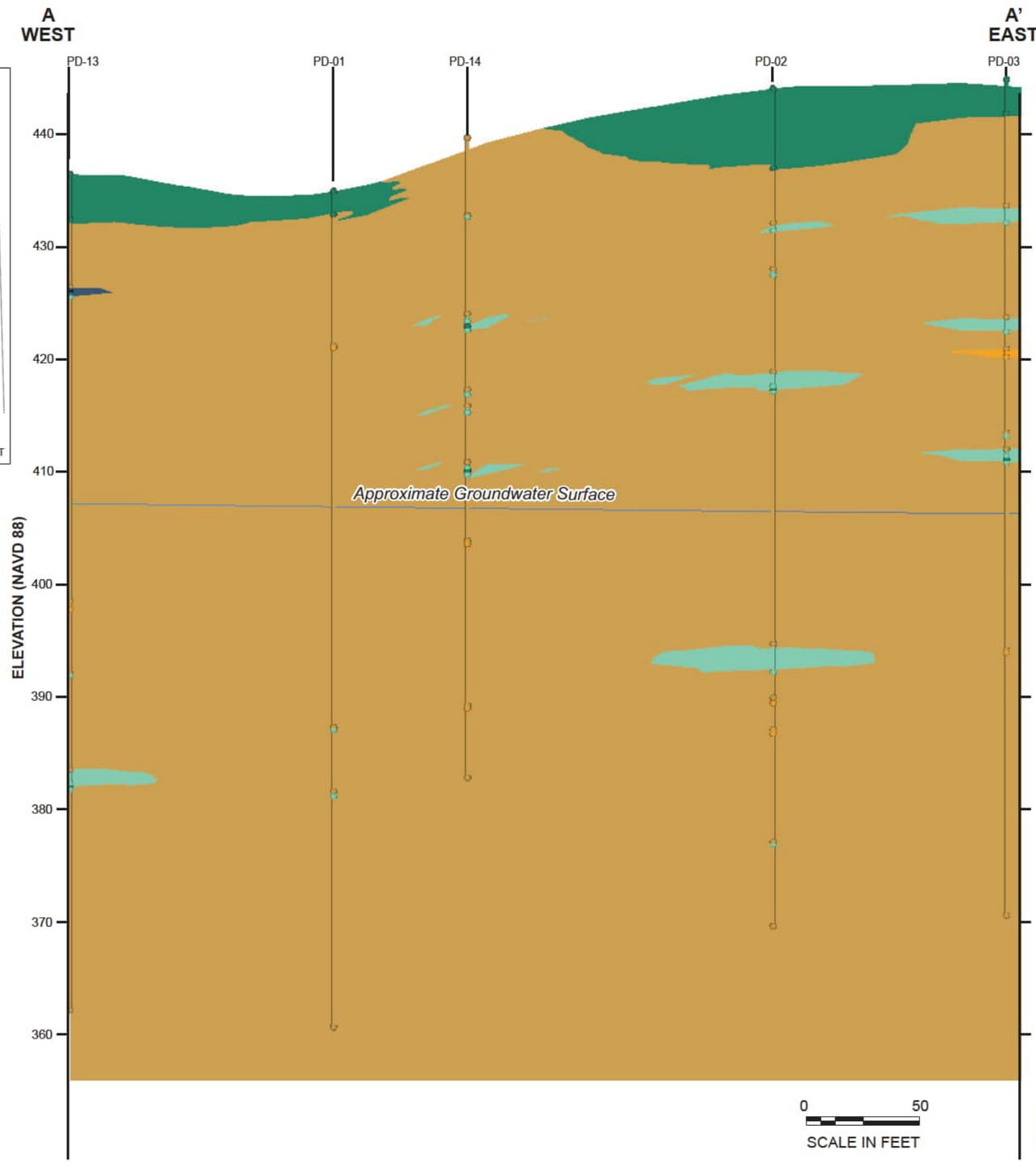
CROSS SECTION LOCATION MAP



EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay
- Clay



NOTES

NAVD 88 North American Vertical Datum

1. Lithology was modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2.
2. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
3. Locations within 15 feet were projected onto the cross section line.
4. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION A-A' LITHOLOGY	FIG. NO. 3A

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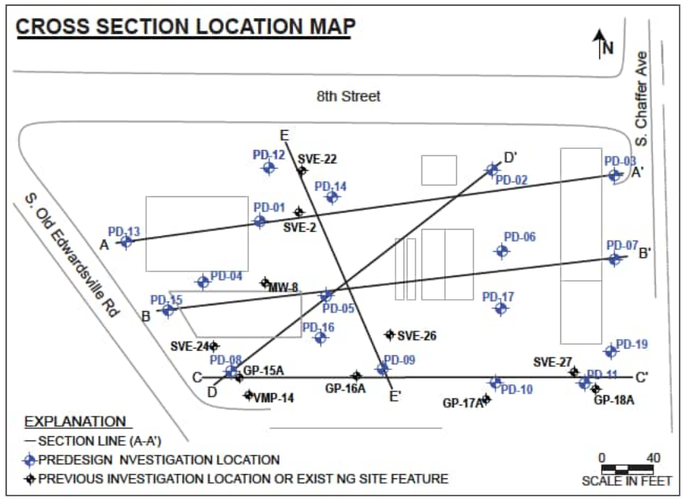
CROSS SECTION LOCATION MAP



EXPLANATION

Lithology

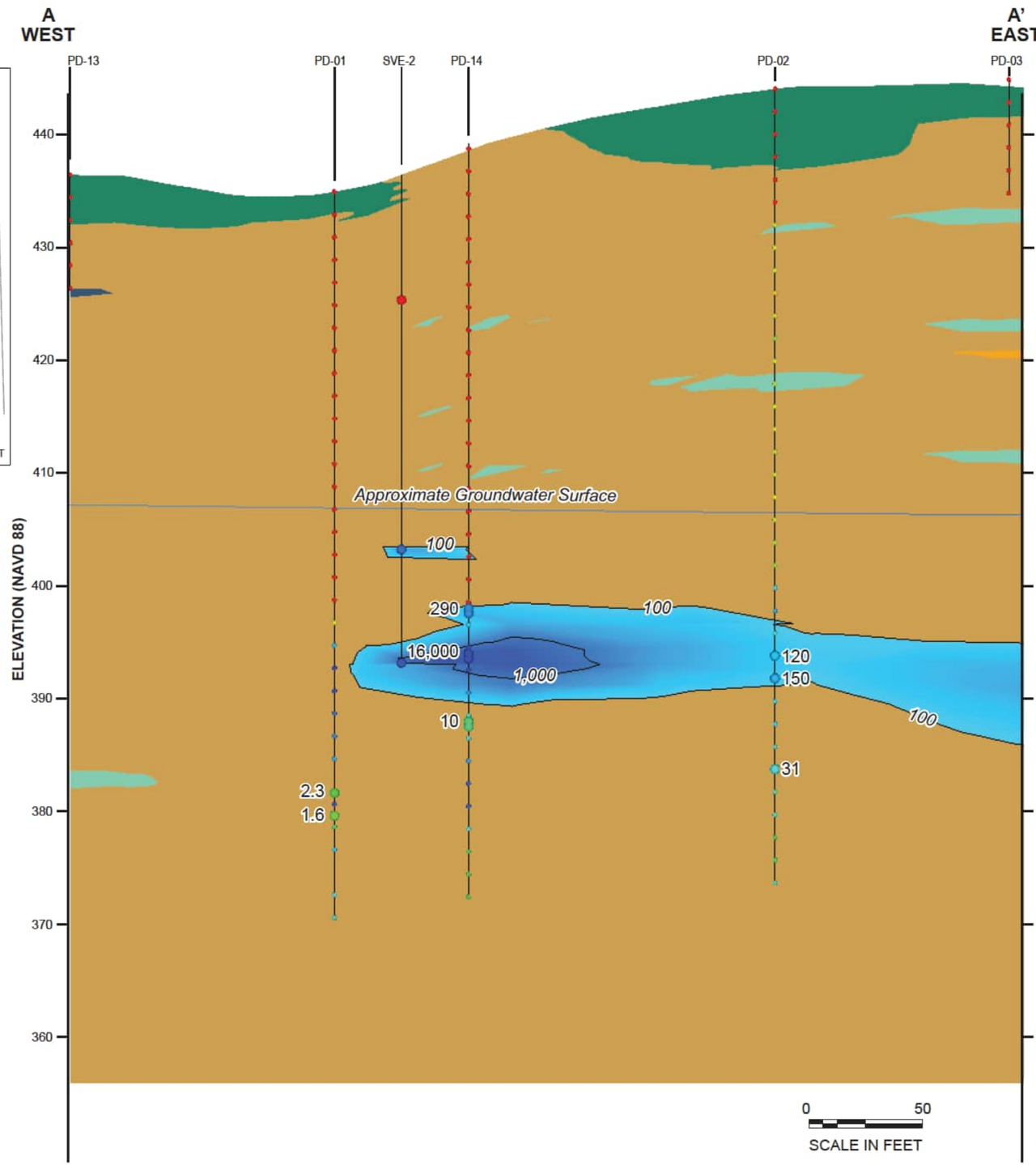
- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay
- Clay

Benzene in Soil (mg/kg)

23,000
10,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01

PID Reading (ppm)

>5,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001



NOTES

NAVD 88	North American Vertical Datum
mg/kg	milligrams per kilogram
PID	photoionization detector
>	greater than
ppm	parts per million

1. Lithology and concentrations of benzene in soil were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/kg.
3. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in soil was modeled using EVS' Krig Statistics method. The dataset includes historical and predesign concentrations of benzene in soil at the site (larger dots represent analytical results).
5. PID data are represented by small, unlabeled dots.
6. Locations within 15 feet were projected onto the cross section line.
7. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION A-A' BENZENE IN SOIL	FIG. NO. 3B

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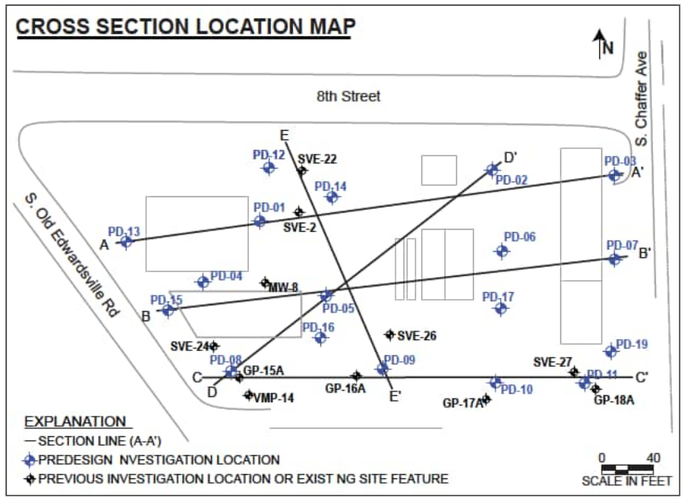
CROSS SECTION LOCATION MAP



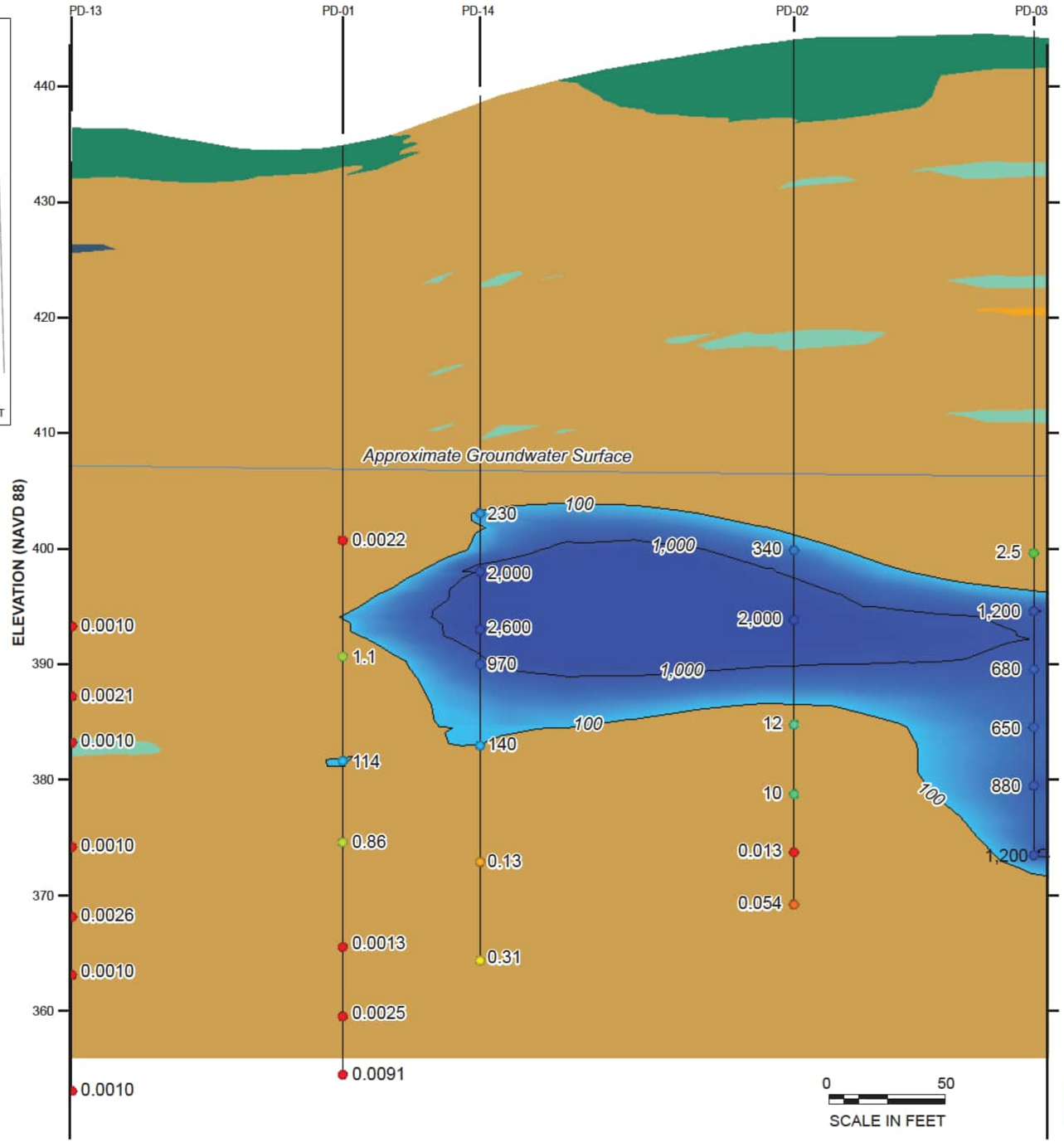
EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay
- Clay

Benzene in Groundwater (mg/L)

2,600 · 1,000 · 300 · 100 · 30 · 10 · 3 · 1 · 0.3 · 0.1 · 0.03 · 0.01 · 0.003 · 0.001



NOTES

NAVD 88 — North American Vertical Datum
mg/L — milligrams per liter

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/L.
3. Modeled lithology was based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in groundwater was modeled using EVS' Krig Statistics method. The dataset includes predesign concentrations of benzene in groundwater at the site, as well as concentrations from the 3Q19 Roxana Interim Groundwater Monitoring Program.
5. Locations within 15 feet were projected onto the cross section line.
6. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION A-A' BENZENE IN GROUNDWATER	FIG. NO. 3C

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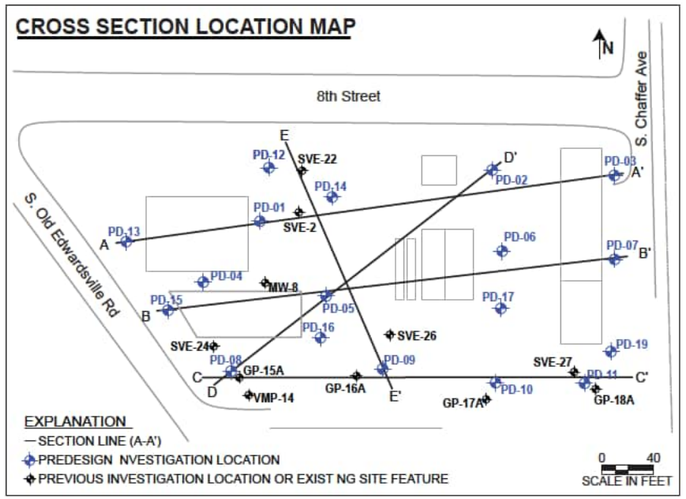
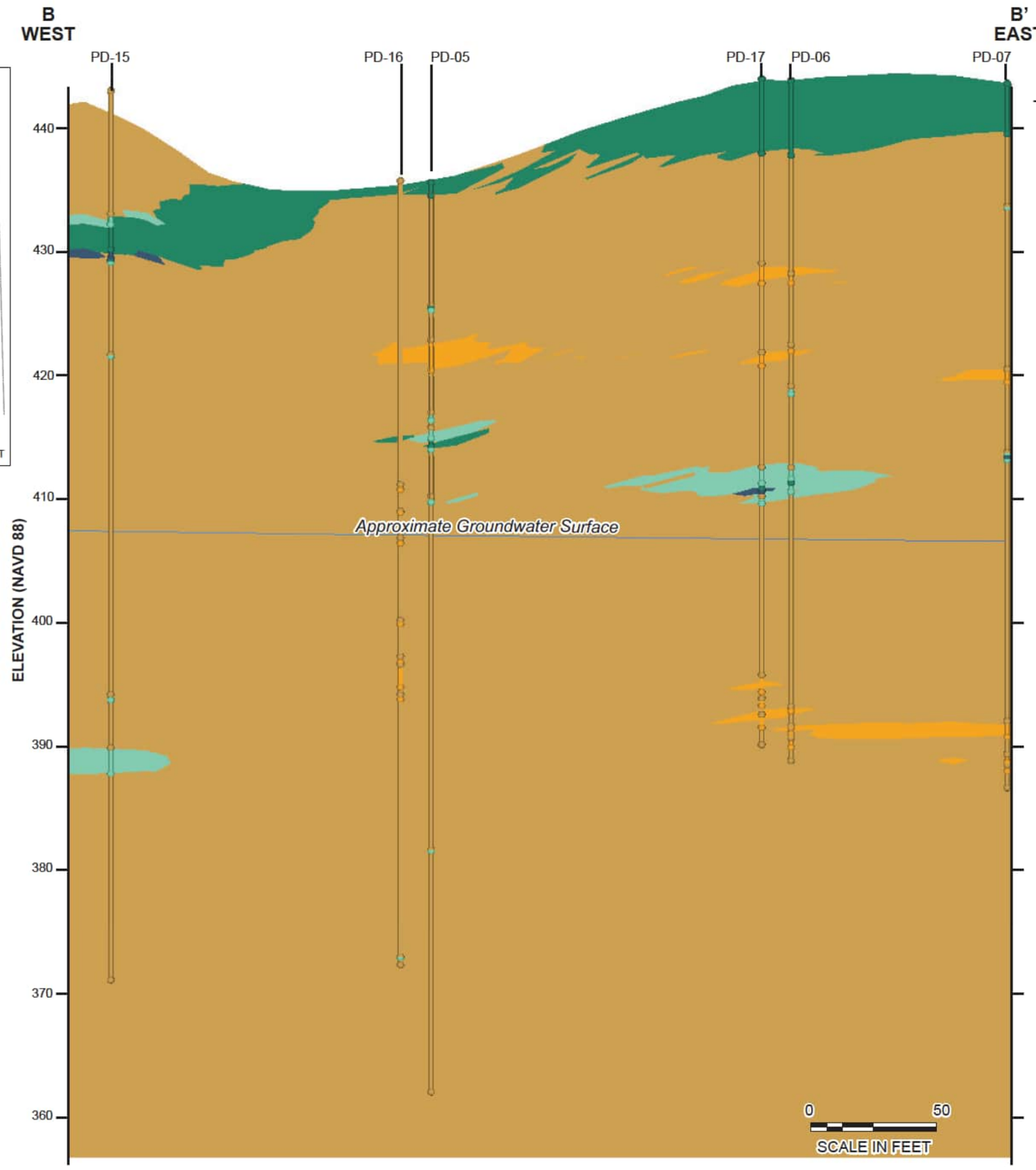
CROSS SECTION LOCATION MAP



EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay
- Clay



NOTES

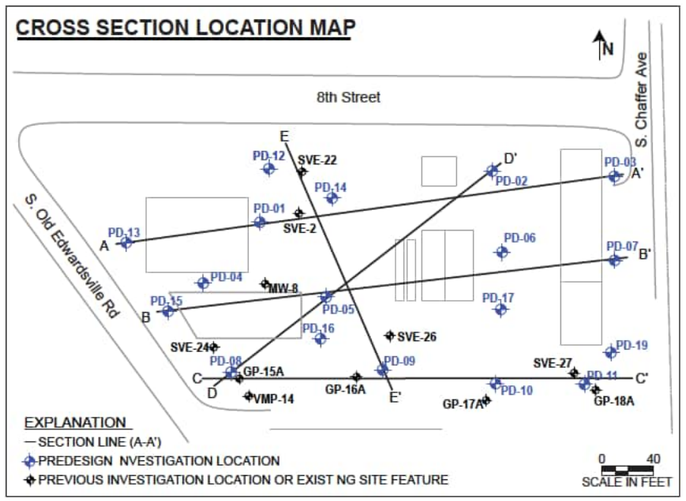
NAVD 88 North American Vertical Datum

1. Lithology was modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2.
2. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
3. Locations within 15 feet were projected onto the cross section line.
4. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION B-B' LITHOLOGY	FIG. NO. 4A

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

CROSS SECTION LOCATION MAP



EXPLANATION

Lithology

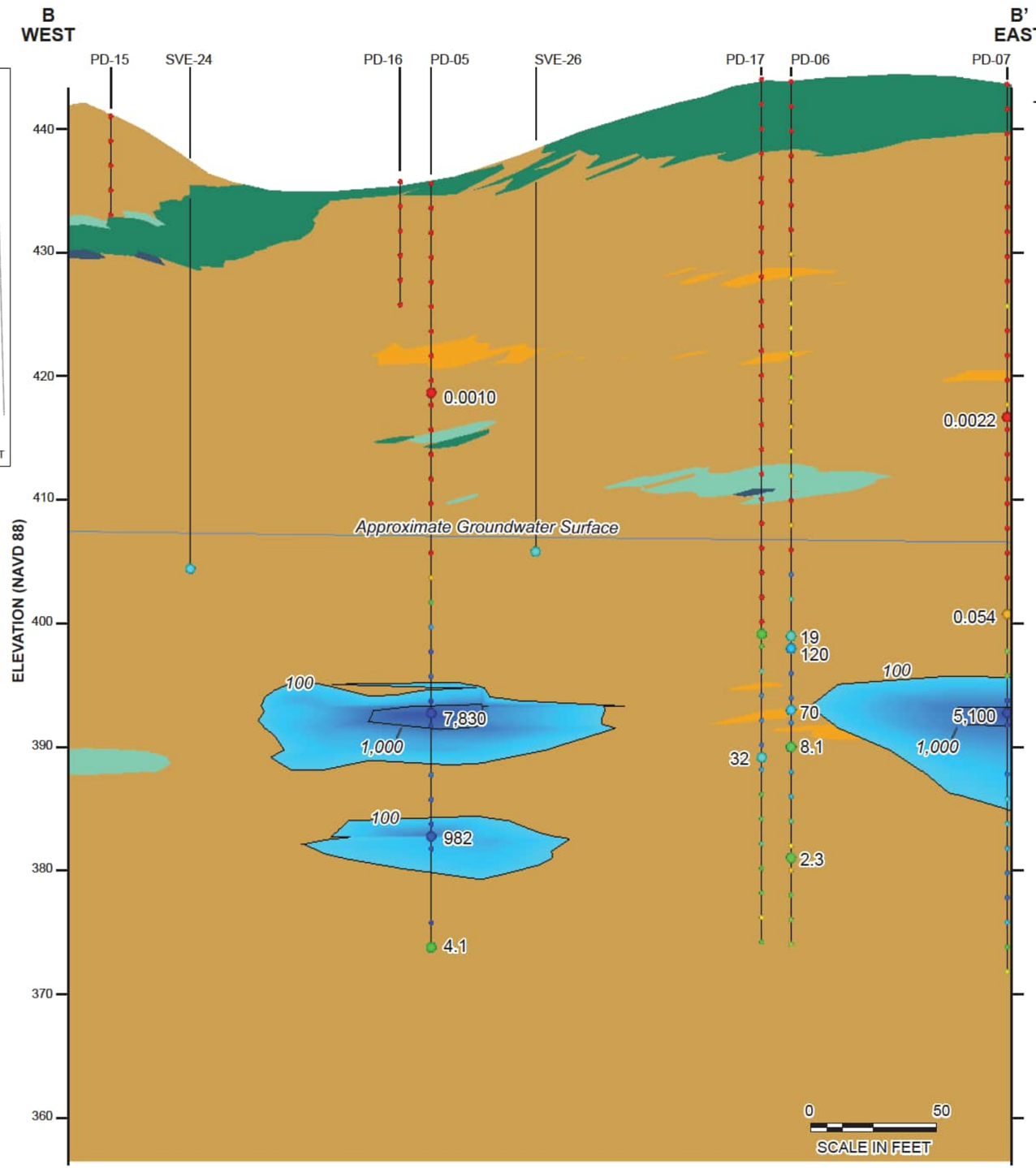
- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay
- Clay

Benzene in Soil (mg/kg)

23,000
10,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01

PID Reading (ppm)

>5,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001



NOTES

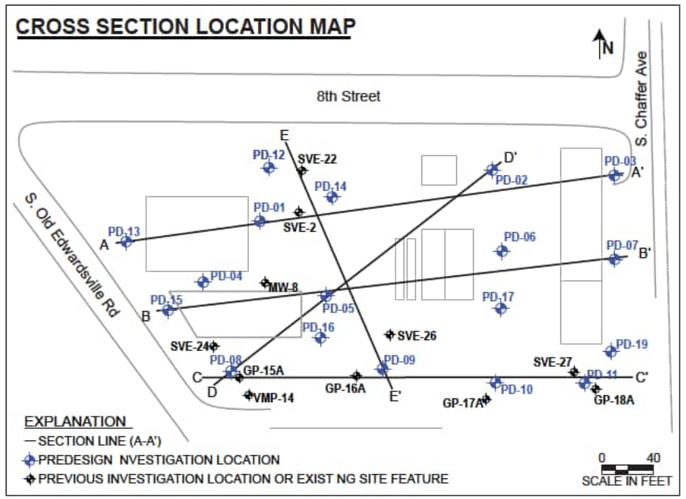
NAVD 88	North American Vertical Datum
mg/kg	milligrams per kilogram
PID	photoionization detector
>	greater than
ppm	parts per million

1. Lithology and concentrations of benzene in soil were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/kg.
3. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in soil was modeled using EVS' Krig Statistics method. The dataset includes historical and predesign concentrations of benzene in soil at the site (larger dots represent analytical results).
5. PID data are represented by small, unlabeled dots.
6. Locations within 15 feet were projected onto the cross section line.
7. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION B-B' BENZENE IN SOIL	FIG. NO. 4B

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

CROSS SECTION LOCATION MAP



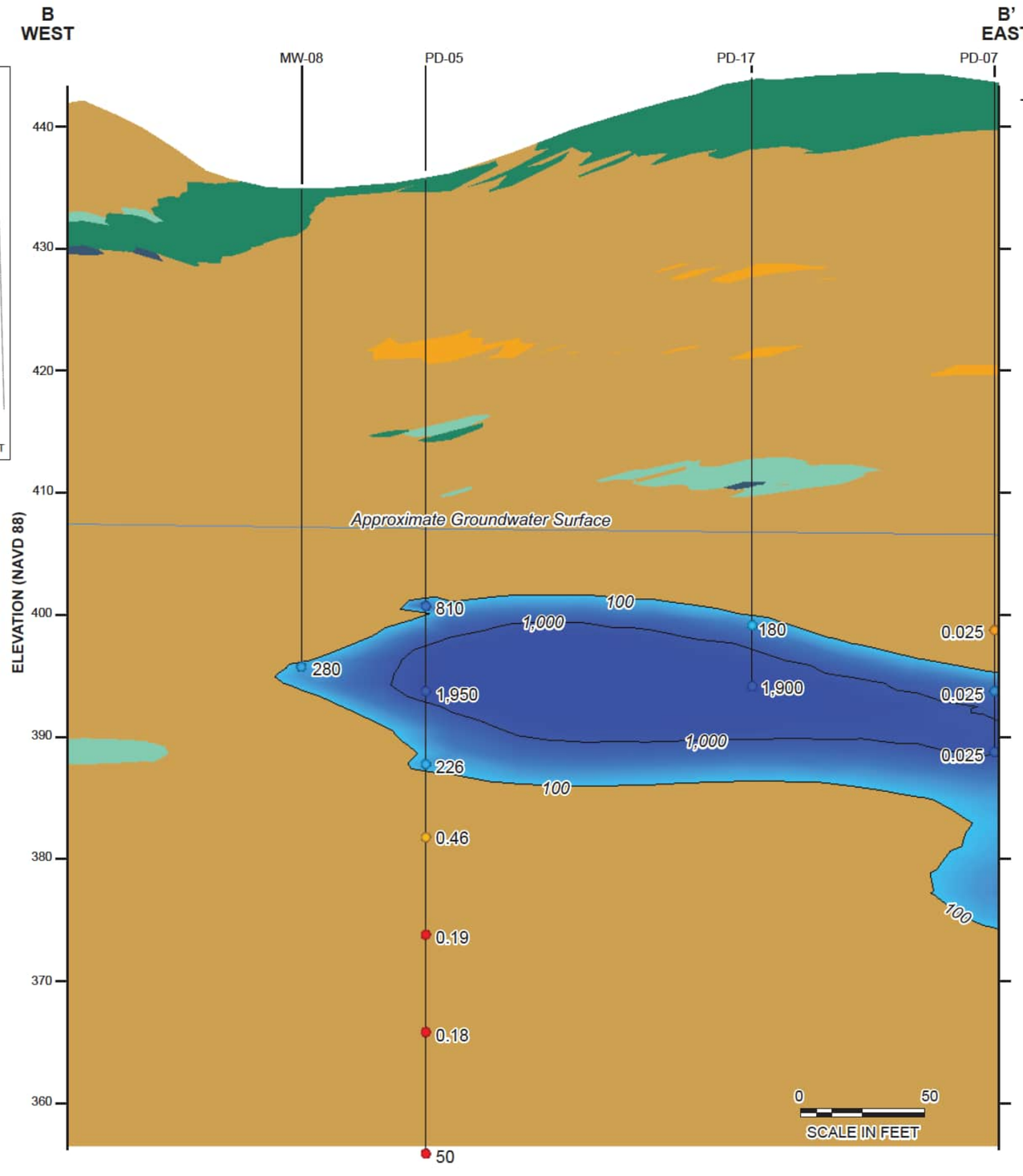
EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay
- Clay

Benzene in Groundwater (mg/L)

2,600
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001



NOTES

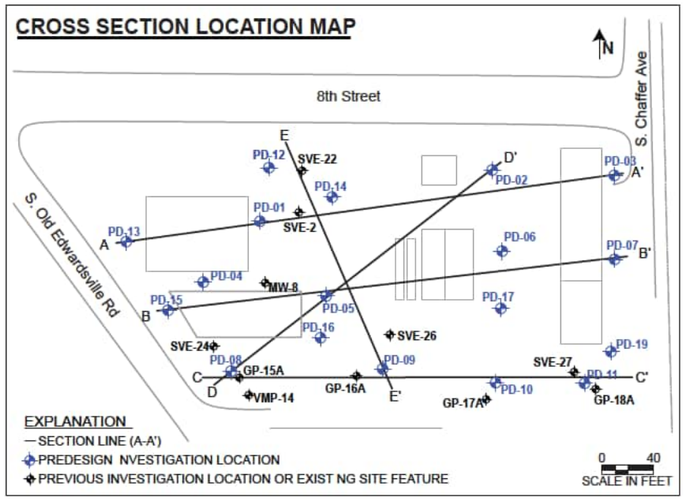
NAVD 88 North American Vertical Datum
mg/L milligrams per liter

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/L.
3. Modeled lithology was based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in groundwater was modeled using EVS' Krig Statistics method. The dataset includes predesign concentrations of benzene in groundwater at the site, as well as concentrations from the 3Q19 Roxana Interim Groundwater Monitoring Program.
5. Locations within 15 feet were projected onto the cross section line.
6. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.
7. Groundwater profiling was not completed at PD-06, PD-15 or PD-16.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION B-B' BENZENE IN GROUNDWATER	FIG. NO. 4C

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

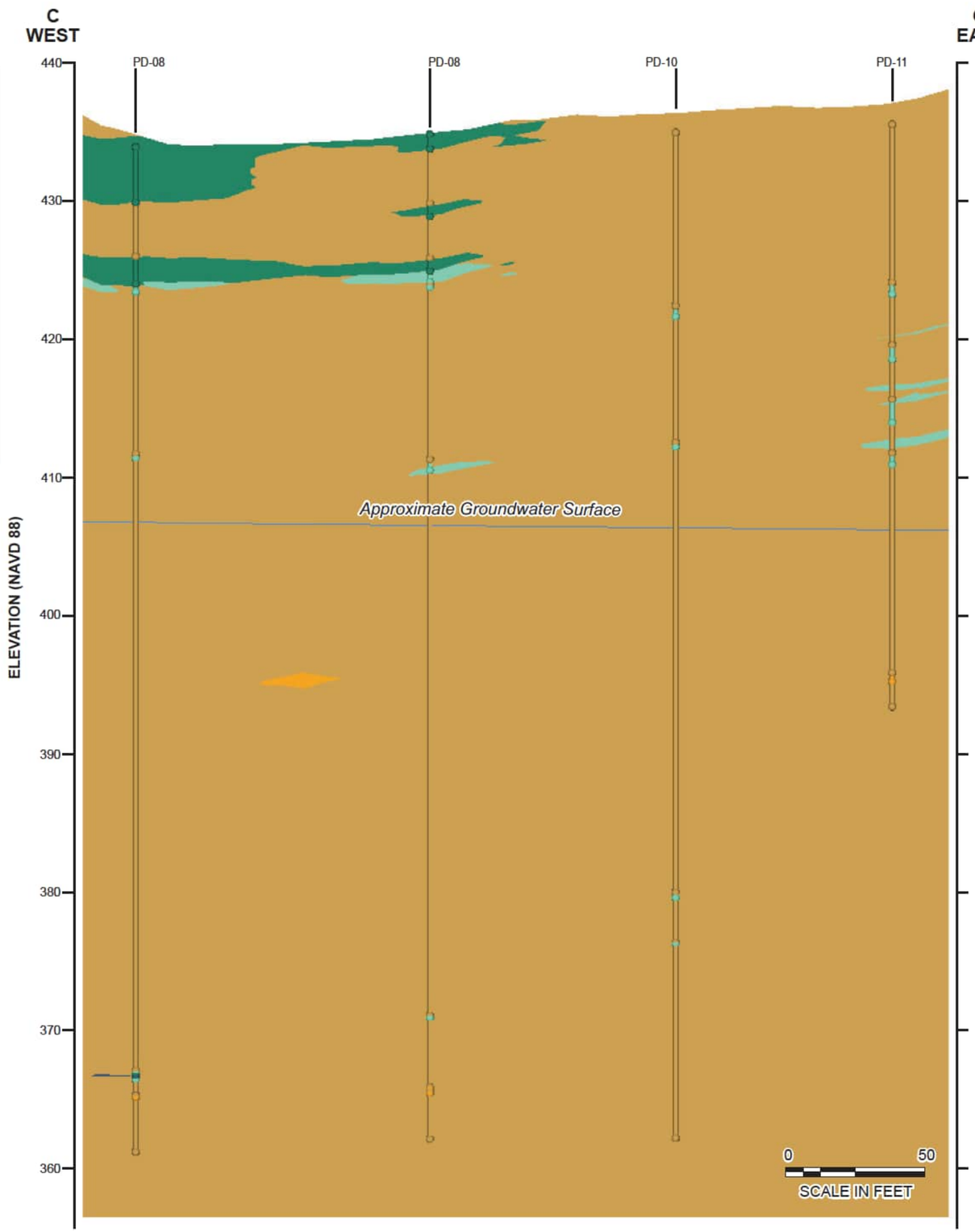
CROSS SECTION LOCATION MAP



EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay



NOTES

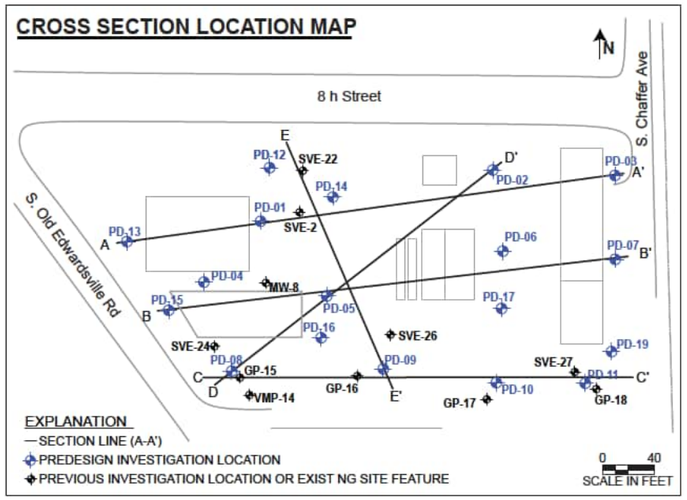
NAVD 88 North American Vertical Datum

1. Lithology was modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2.
2. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
3. Locations within 15 feet were projected onto the cross section line.
4. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION C-C' LITHOLOGY	FIG. NO. 5A

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

CROSS SECTION LOCATION MAP



EXPLANATION

Lithology

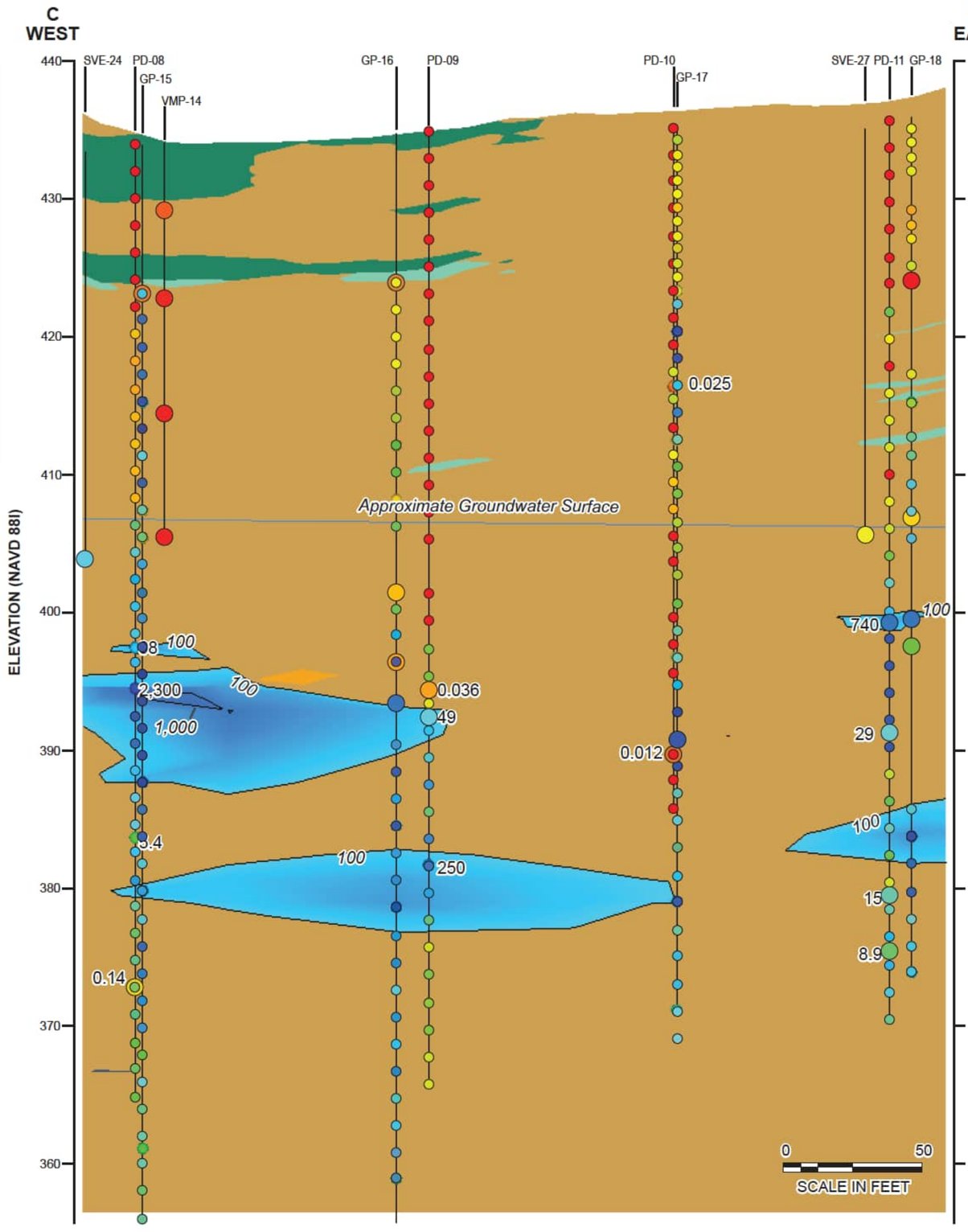
- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

Benzene in Soil (mg/kg)

23,000
10,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01

PID Reading (ppm)

>15,000
10,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001



NOTES

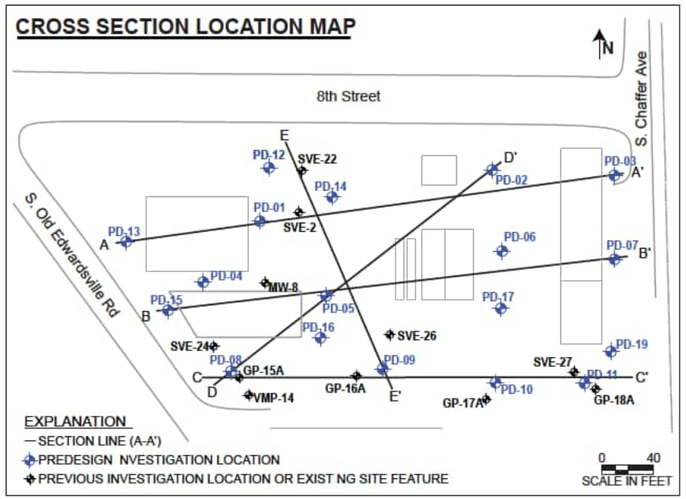
NAVD 88	North American Vertical Datum
mg/kg	milligrams per kilogram
PID	photoionization detector
>	greater than
ppm	parts per million

1. Lithology and concentrations of benzene in soil were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/kg.
3. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in soil was modeled using EVS' Krig Statistics method. The dataset includes historical and predesign concentrations of benzene in soil at the site (larger dots represent analytical results).
5. PID data are represented by small, unlabeled dots.
6. Locations within 15 feet were projected onto the cross section line.
7. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60697537
AECOM	
CROSS SECTION C-C' BENZENE IN SOIL	FIG. NO. 5B (rev1)

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

CROSS SECTION LOCATION MAP



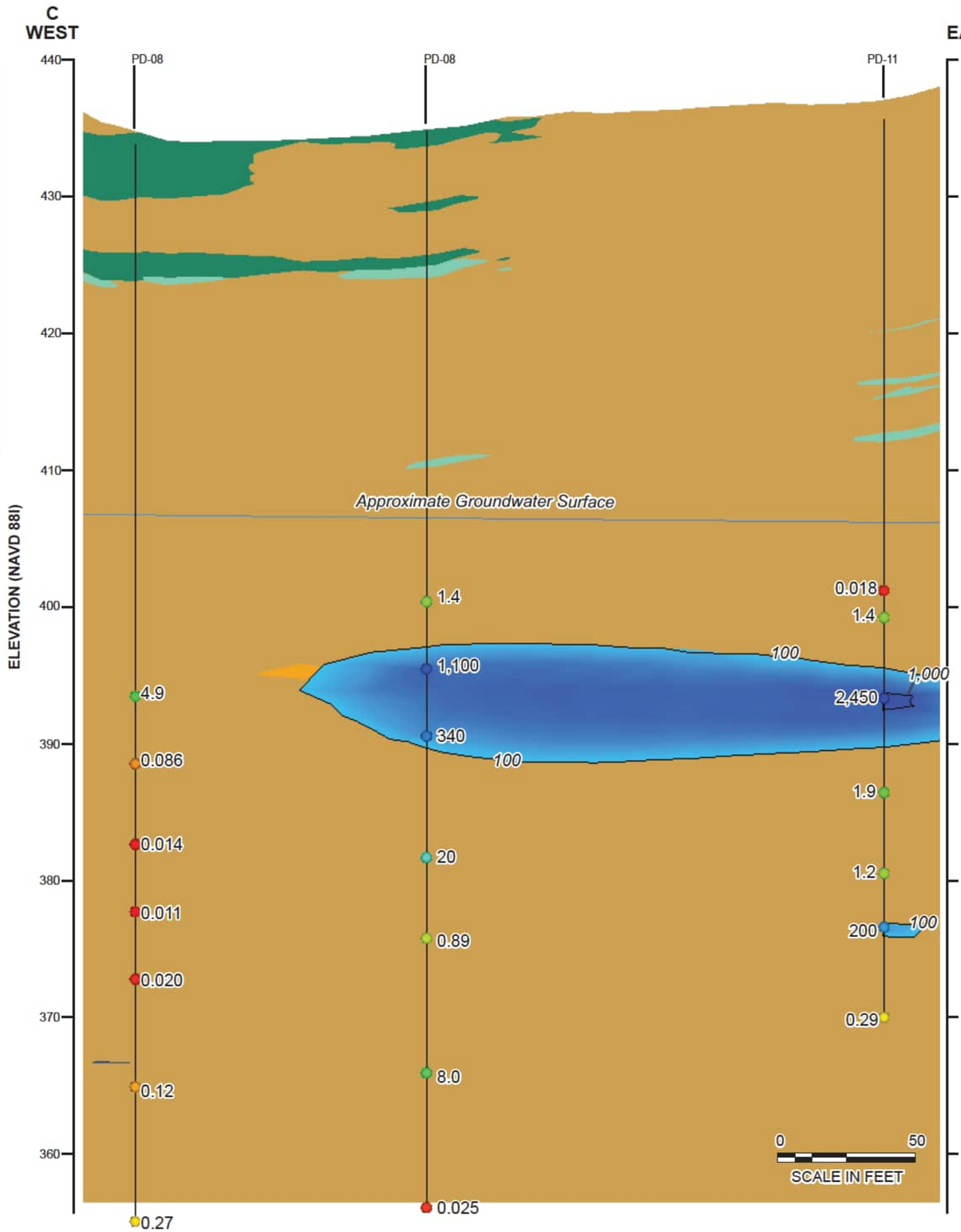
EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

Benzene in Groundwater (mg/L)

- 2,600
- 1,000
- 300
- 100
- 30
- 10
- 3
- 1
- 0.3
- 0.1
- 0.03
- 0.01
- 0.003
- 0.001



NOTES

NAVD 88 — North American Vertical Datum
mg/L — milligrams per liter

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/L.
3. Modeled lithology was based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in groundwater was modeled using EVS' Krig Statistics method. The dataset includes predesign concentrations of benzene in groundwater at the site, as well as concentrations from the 3Q19 Roxana Interim Groundwater Monitoring Program.
5. Locations within 15 feet were projected onto the cross section line.
6. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION C-C' BENZENE IN GROUNDWATER	FIG. NO. 5C

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

D
SOUTHWEST

D'
NORTHEAST

PD-08 PD-16 PD-05 PD-02

ELEVATION (NAVD 88)

440
430
420
410
400
390
380
370
360

Approximate Groundwater Surface

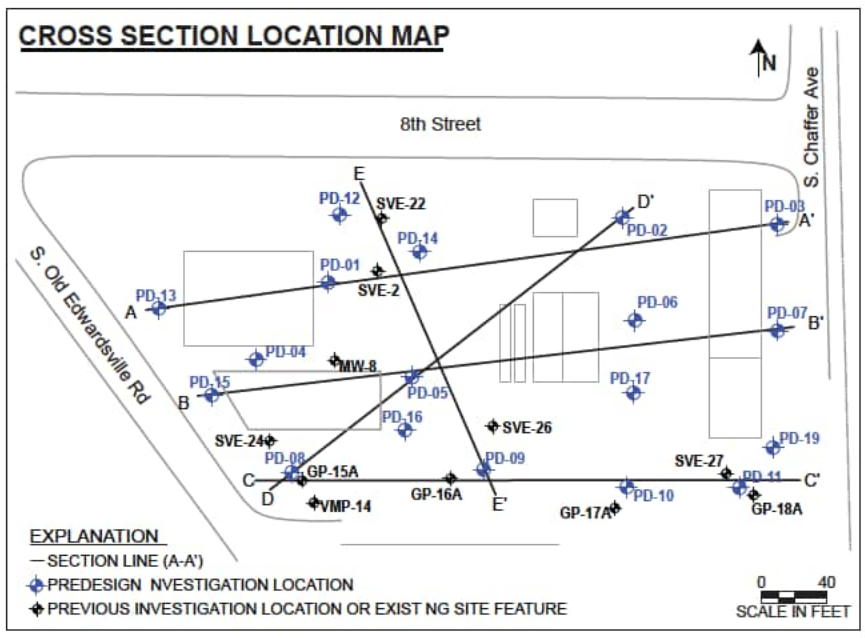
0 50
SCALE IN FEET

EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

CROSS SECTION LOCATION MAP



NOTES

NAVD 88 North American Vertical Datum

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2.
2. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which is based on hand auger logs.
3. Locations within 15 feet were projected on to the cross section line.
4. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION D-D' LITHOLOGY	FIG. NO. 6A

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

D
SOUTHWEST

D'
NORTHEAST

PD-08
VMP-14
SVE-24
GP-15A
PD-16
PD-05
PD-02

ELEVATION (NAVD 88)

440
430
420
410
400
390
380
370
360

Approximate Groundwater Surface

0.0010
98
2,300
100
1,000
7,380
1,000
100
120
150
100
5.4
100
982
31
4.1
0.14

0 50
SCALE IN FEET

EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

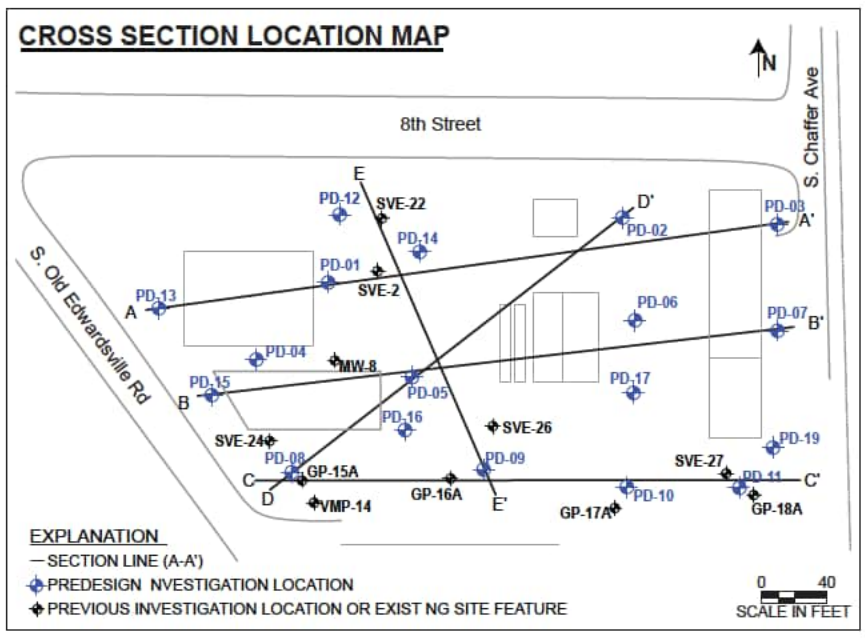
Benzene in Soil (mg/kg)

23,000
10,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01

PID Reading (ppm)

>5,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001

CROSS SECTION LOCATION MAP



NOTES

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/kg.
3. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in soil was modeled using EVS' Krig Statistics method. The dataset includes historical and predesign concentrations of benzene in soil at the site (larger dots represent analytical results).
5. PID data are represented by small, unlabeled dots.
6. Locations within 15 feet were projected on to the cross section line.
7. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

NAVD 88	North American Vertical Datum
mg/kg	milligrams per kilogram
PID	photoionization detector
>	greater than
ppm	parts per million

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION D-D' BENZENE IN SOIL	FIG. NO. 6B

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

D
SOUTHWEST

D'
NORTHEAST

PD-08 PD-05 PD-02

ELEVATION (NAVD 88)

440
430
420
410
400
390
380
370
360

Approximate Groundwater Surface

100
1,000
810
340
1,400
1,950
2,000
1,000
226
100

4.9
0.086
0.014
0.011
0.020
0.12
0.27

0.46
0.19
0.18
0.18

12
10
0.013
0.054

0 50
SCALE IN FEET

EXPLANATION

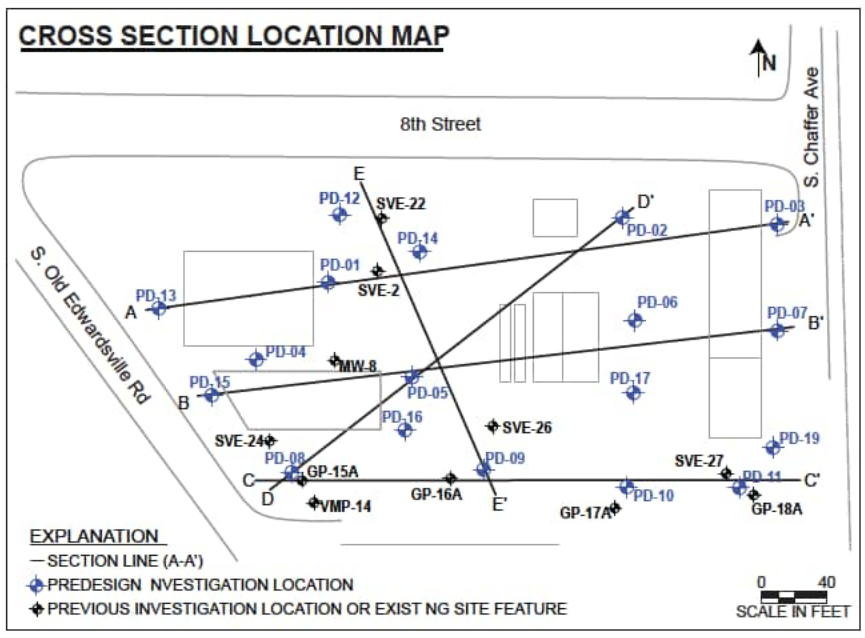
Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

Benzene in Groundwater (mg/L)

2,600
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001

CROSS SECTION LOCATION MAP



NOTES

NAVD 88 North American Vertical Datum
mg/L milligrams per liter

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;

2. Contour lines are in orders of magnitude, starting at 100 mg/L.

3. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.

4. Benzene in groundwater was modeled using EVS' Krig Statistics method. The dataset includes predesign concentrations of benzene in groundwater at the site, as well as concentrations from the 3Q19 Roxana Interim Groundwater Monitoring Program.

5. Locations within 15 feet were projected on to the cross section line.

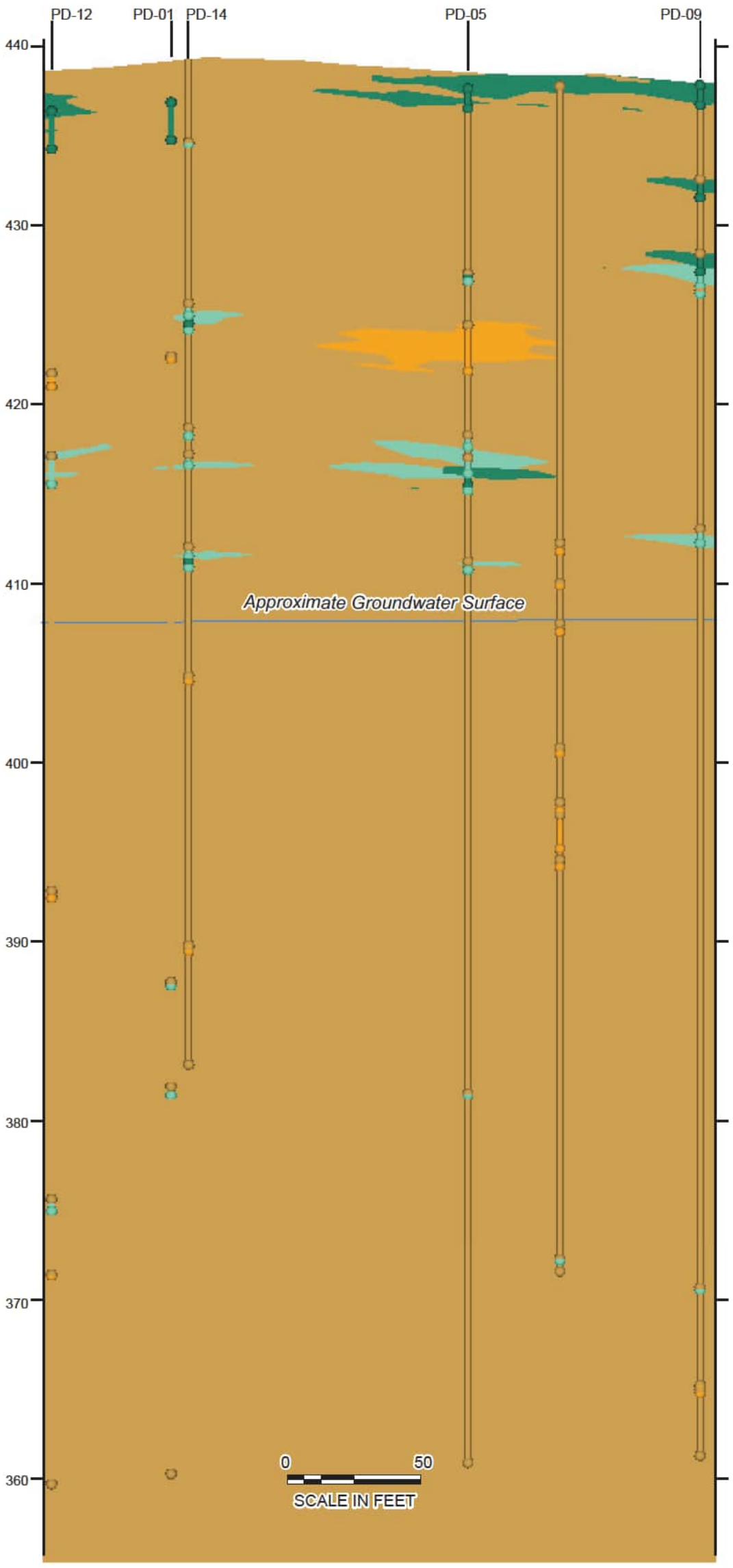
6. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION D-D' BENZENE IN GROUNDWATER	FIG. NO. 6C

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

E
NORTHWEST

E'
SOUTHEAST



EXPLANATION

Lithology

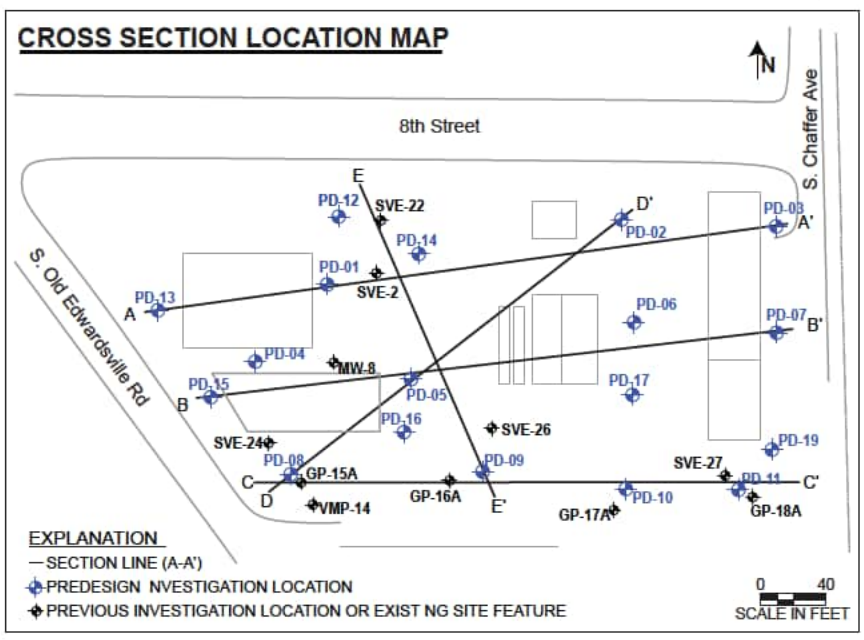
- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

NOTES

NAVD 88 North American Vertical Datum

1. Lithology was modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2.
2. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
3. Locations within 15 feet were projected onto the cross section line.
4. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

CROSS SECTION LOCATION MAP



PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION E-E' LITHOLOGY	FIG. NO. 7A

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

E
NORTHWEST

E'
SOUTHEAST

PD-12 SVE-22 PD-01 PD-14 SVE-2 PD-05 SVE-26 PD-09 GP-16A

ELEVATION (NAVD 88)

440
430
420
410
400
390
380
370
360

Approximate Groundwater Surface

100
810
290
1,000
18,000
7,380
1,000
0.036
43
100
10
226
11
100
982
250
79
0.51
4.1

0 50
SCALE IN FEET

EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

Benzene in Soil (mg/kg)

23,000
10,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01

PID Reading (ppm)

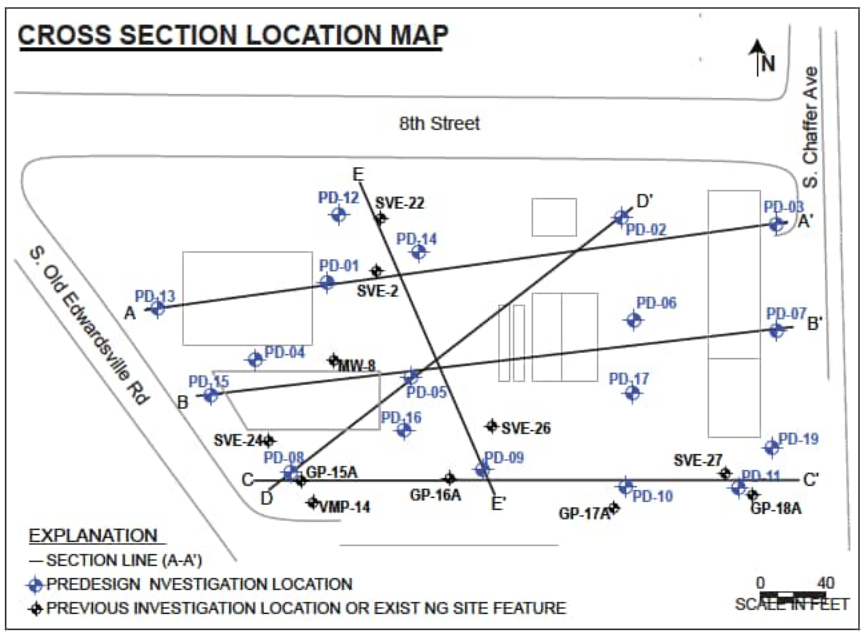
>5,000
3,000
1,000
300
100
30
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001

NOTES

NAVD 88	North American Vertical Datum
mg/kg	milligrams per kilogram
PID	photoionization detector
>	greater than
ppm	parts per million

1. Lithology and concentrations of benzene in soil were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/kg.
3. Modeled lithology is based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in soil was modeled using EVS' Krig Statistics method. The dataset includes historical and predesign concentrations of benzene in soil at the site (larger dots represent analytical results).
5. PID data are represented by small, unlabeled dots.
6. Locations within 15 feet were projected onto the cross section line.
7. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

CROSS SECTION LOCATION MAP

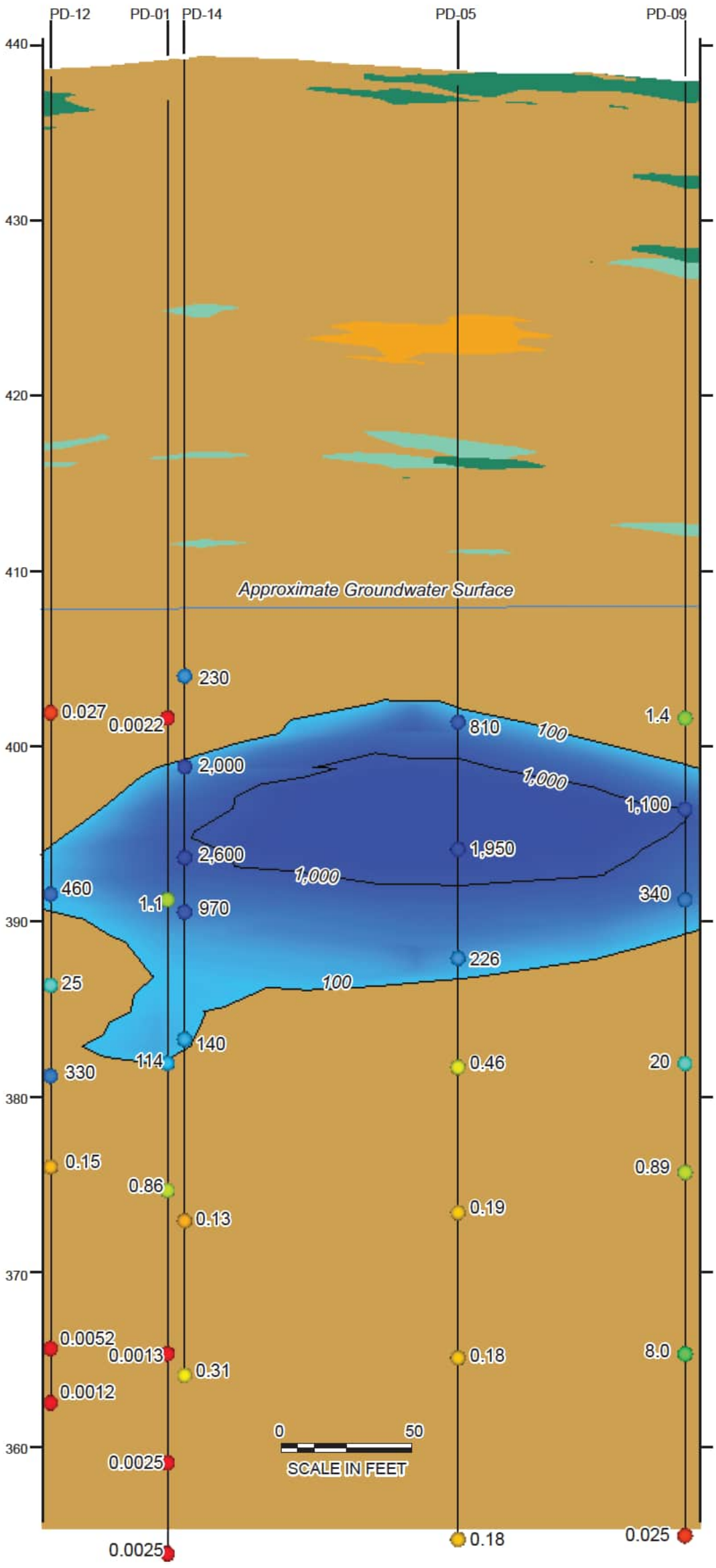


PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION E-E' BENZENE IN SOIL	FIG. NO. 7B

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

E
NORTHWEST

E'
SOUTHEAST



EXPLANATION

Lithology

- Sand and Silty Sand
- Sand
- Silty Sand and Sandy Silt
- Clay and Silty Clay

Benzene in Groundwater (mg/L)

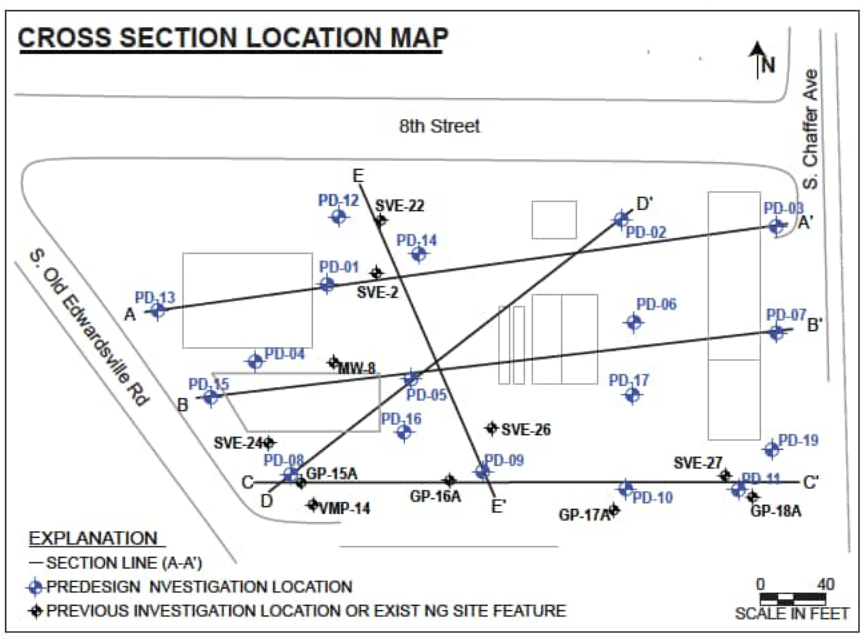
- 2,600
- 1,000
- 300
- 100
- 30
- 10
- 3
- 1
- 0.3
- 0.1
- 0.03
- 0.01
- 0.003
- 0.001

NOTES

NAVD 88	North American Vertical Datum
mg/L	milligrams per liter

1. Lithology and concentrations of benzene in groundwater were modeled using CTECH's Earth Volumetric Studio (EVS), version 2019.2;
2. Contour lines are in orders of magnitude, starting at 100 mg/L.
3. Modeled lithology was based on CPT data collected at 18 locations on June 10 - June 20, 2019, except the upper 10 feet, which was based on hand auger logs.
4. Benzene in groundwater was modeled using EVS' Krig Statistics method. The dataset includes predesign concentrations of benzene in groundwater at the site, as well as concentrations from the 3Q19 Roxana Interim Groundwater Monitoring Program.
5. Locations within 15 feet were projected onto the cross section line.
6. The approximate groundwater surface was modeled using gauging data from the 3Q19 Roxana Interim Groundwater Monitoring Program.

CROSS SECTION LOCATION MAP



PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
CROSS SECTION E-E' BENZENE IN GROUNDWATER	FIG. NO. 7C

LEGEND

- INVESTIGATION LOCATIONS
- INVESTIGATION LOCATIONS WITHOUT SOIL BORING

NOTES:

1) CPT/DYE LIF PLUS SOIL BORING AND/OR GROUNDWATER PROFILE WERE PERFORMED AT INVESTIGATION LOCATIONS.
2) REFER TO TABLE 1 FOR APPLICABLE LABORATORY/AECOM QUALIFIERS
3) * INDICATES A DUPLICATE SAMPLE

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-14	45 ft	290
	49 ft	23000
	*49 ft	*13000
	55 ft	10

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-02	50 ft	120
	52 ft	150
	60 ft	38
	*60 ft	*23

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-12	52 ft	11 F1 J
	55 ft	79
	59 ft	0.51

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-06	45 ft	19
	46 ft	120
	51 ft	70
	54 ft	8.1
	63 ft	2.3

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-01	53 ft	2.31
	55 ft	1.58

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-07	27 ft	0.0022 J
	43 ft	0.054 J
	51 ft	5200
	*51 ft	*5000

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-04	35 ft	0.005
	41 ft	0.092
	53 ft	320

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-17	45 ft	6.5
	55 ft	32

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-10	19 ft	<0.0254
	46 ft	0.0118

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-05	17 ft	0.001 J
	43 ft	7380
	53 ft	982
	62 ft	4.15

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-11	37 ft	740
	45 ft	29
	57 ft	15
	61 ft	8.9

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-08	37 ft	110
	*37 ft	*86
	40 ft	2300
	51 ft	<5.4
	62 ft	0.14

Location	Sample Depth (bgs)	Benzene Result (mg/kg)
PD-09	41 ft	0.036
	43 ft	43
	54 ft	240
	*54 ft	*260

PD-12, PD-14, PD-02, PD-03, PD-01, PD-13, PD-04, PD-15, PD-05, PD-16, PD-08, PD-09, PD-06, PD-07, PD-17, PD-19, PD-10, PD-11

0 40

SCALE FEET

N

PUBLIC WORKS YARD
PREDESIGN INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 60592794

AECOM

DRN. BY: bah Oct 2019
DSGN. BY: djd
CHKD. BY: jc/b3

Benzene Soil Analytical Results

FIG. NO. 8

File: G:\ST\LOUS\DOCS\PROJECTS\DMS\TIER\60592794 ROXANA 2019\500 DELIVERABLES (DELIV)\DATA GAP WORK\MXD\FIGURES\PUBLIC WORKS YARD (DRAFT) BAH.DWG Last edited: MAY 09, 19 @ 08:22 a.m. by: wendy.zennington

LEGEND

- INVESTIGATION LOCATIONS
- INVESTIGATION LOCATIONS WITHOUT GROUNDWATER SAMPLING

NOTES:

1) CPT/DYE LIF PLUS SOIL BORING AND/OR GROUNDWATER PROFILE WERE PERFORMED AT INVESTIGATION LOCATIONS.
2) REFER TO TABLE 3 FOR APPLICABLE LABORATORY/AECOM QUALIFIERS
3) * INDICATES A DUPLICATE SAMPLE

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-12	35 ft	0.027
	45 ft	460
	50 ft	25
	55 ft	330
	60 ft	0.15
	70 ft	0.0052
	73 ft	0.0012

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-01	34 ft	0.0022
	44 ft	1.08
	53 ft	114
	60 ft	0.856
	69 ft	0.0013
	75 ft	0.0025
	80 ft	0.0091

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-14	40 ft	230
	45 ft	2000
	50 ft	2300
	*50 ft	*2900
	53 ft	970
	60 ft	140
	70 ft	0.13
	78.5 ft	0.31

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-02	44 ft	340
	50 ft	2500
	*50 ft	*1500
	59 ft	12
	65 ft	10
	70 ft	0.013
	74.5 ft	0.054

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-03	45 ft	2.5
	50 ft	1200
	*50 ft	*1200
	55 ft	680
	60 ft	650
	65 ft	880
	71 ft	1200

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-07	45 ft	0.4
	50 ft	500
	*50 ft	*380
	55 ft	1400

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-13	40 ft	0.00043 J
	46 ft	0.0021
	50 ft	0.00093 J
	59 ft	<0.001
	65 ft	0.0026
	70 ft	0.00047 J
	80 ft	<0.001

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-09	35 ft	1.4
	40 ft	1100
	45 ft	340
	54 ft	20
	60 ft	0.89
	70 ft	3.1
	*70 ft	*13
	80 ft	0.025

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-04	35 ft	0.0063
	41 ft	67
	43 ft	0.3
	50 ft	2.3
	53 ft	290
	60 ft	0.039
	70 ft	0.0076
	*70 ft	*0.0078
	80 ft	0.0036

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-11	35 ft	0.018
	37 ft	1.4
	43 ft	2500
	*43 ft	*2400
	50 ft	1.9
	56 ft	1.2
	60 ft	200
	66.7 ft	0.29

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-05	42 ft	1990 J
	*42 ft	*1910 S J
	48 ft	226 J
	54 ft	0.455
	62 ft	0.195
	70 ft	0.184
	80 ft	0.18

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-08	35 ft	810
	41 ft	4.9
	46 ft	0.086
	52 ft	0.014
	57 ft	0.011
	62 ft	0.02
	70 ft	0.12
	80 ft	0.27

Location	Sample Depth (bgs)	Benzene Result (mg/L)
PD-17	45 ft	180
	50 ft	1600
	*50 ft	*2200

PD-12, PD-01, PD-14, PD-02, PD-03, PD-13, PD-04, PD-15, PD-05, PD-16, PD-08, PD-09, PD-06, PD-17, PD-07, PD-19, PD-11, PD-10

0 40
SCALE FEET

N

PUBLIC WORKS YARD
PREDESIGN INVESTIGATION
ROXANA, ILLINOIS

PROJECT NO. 60592794

AECOM

DRN. BY: bah Oct 2019
DSGN. BY: djd
CHKD. BY: jc/bs

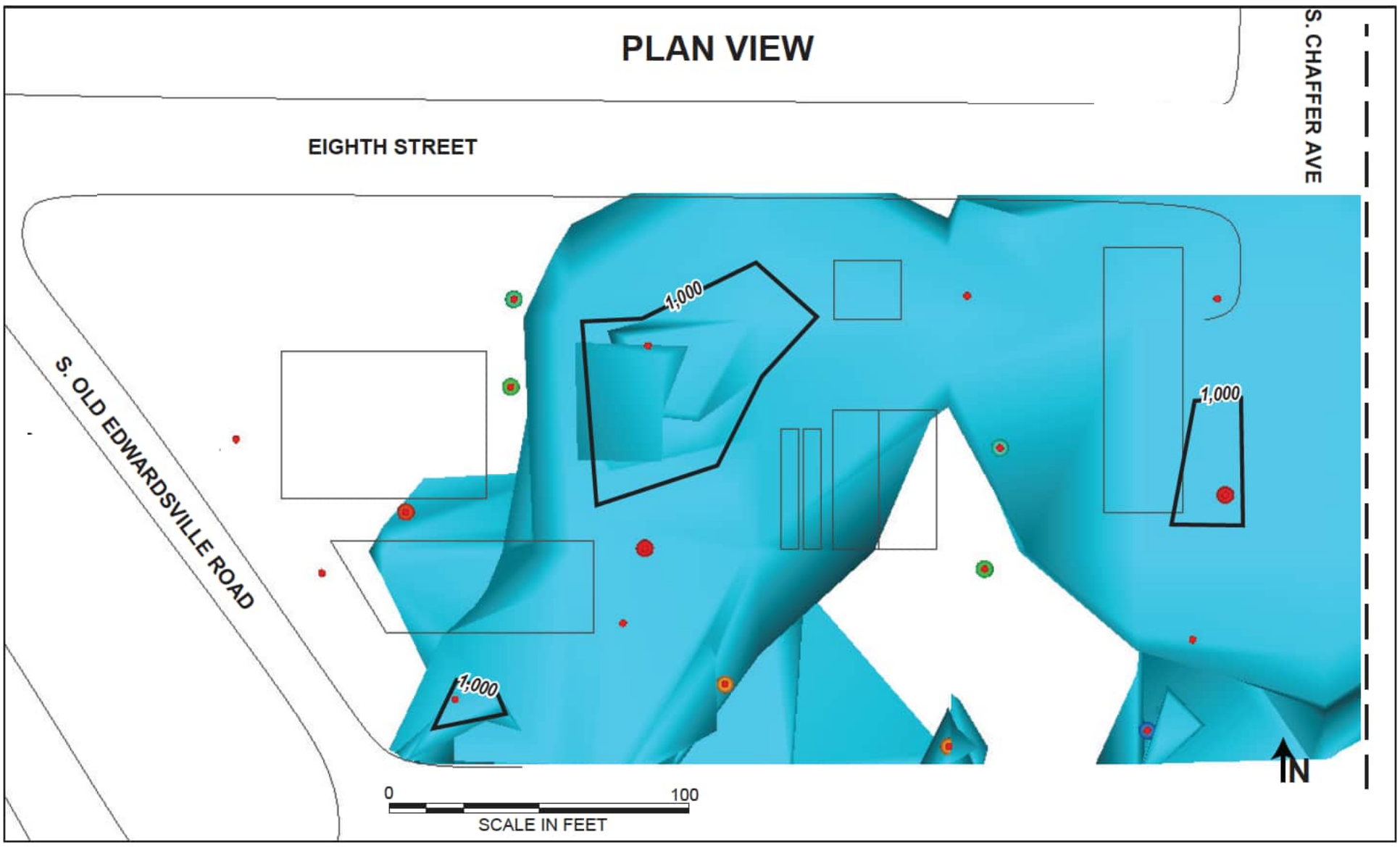
Benzene Groundwater Analytical Results

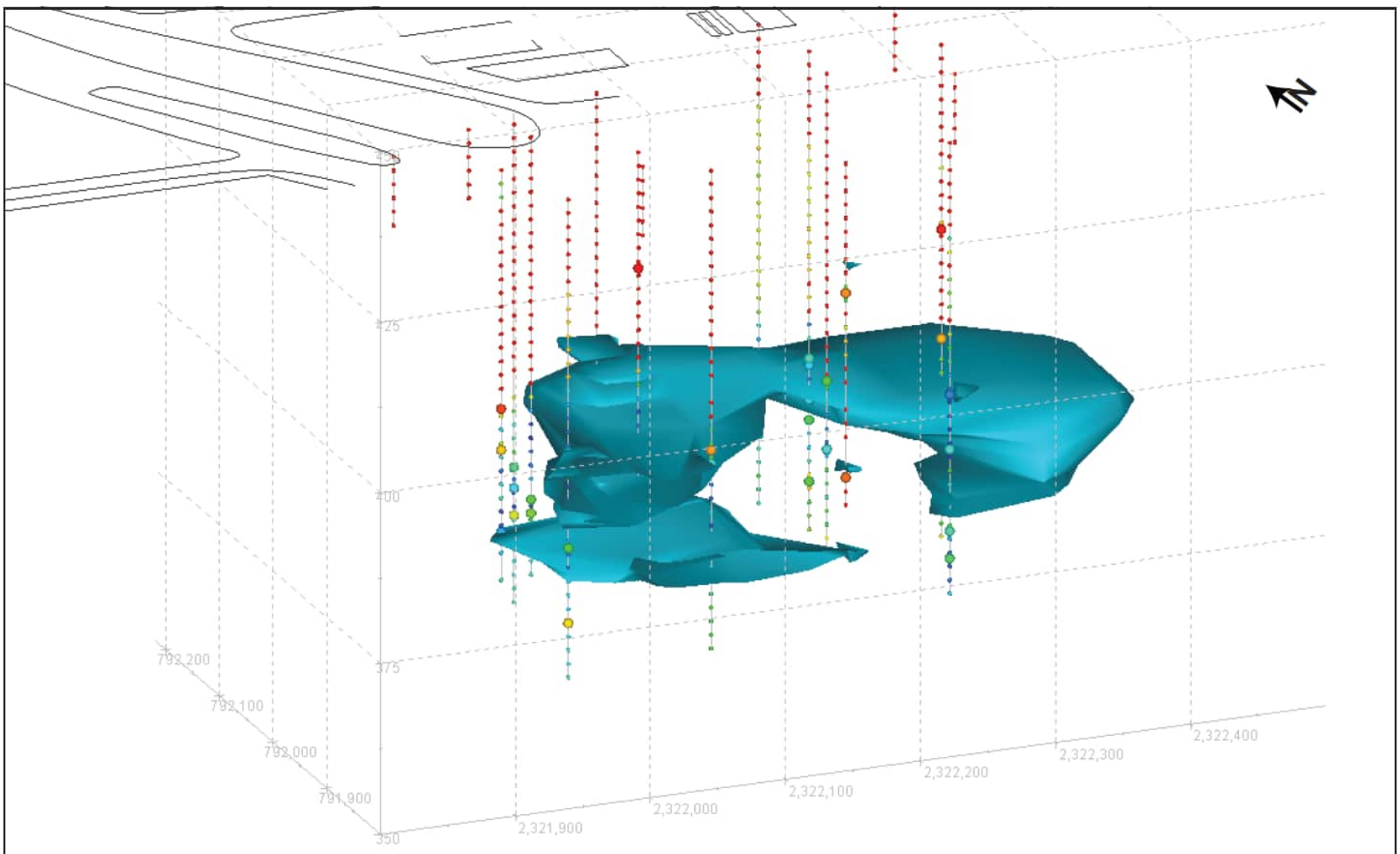
FIG. NO. 9

G:\StLouis\DCS\Projects\ENV\SHELL\60592794 Roxana 2019\500 Deliverables (DELIV)\Data Gap Workplan\Draft Predesign Investigation\Figures\Public Works Yard (Fig 9 - FINAL) 102819.dwg — 10/23/2019

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

PLAN VIEW





OBLIQUE VIEW TOWARDS THE NORTHEAST

EXPLANATION

Benzene in Soil (mg/kg)

- 23,000
- 10,000
- 3,000
- 1,000
- 300
- 100
- 30
- 10
- 3
- 1
- 0.3
- 0.1
- 0.03
- 0.01

NOTES

NAVD 88 North American Vertical Datum
mg/kg milligrams per kilogram

1. Benzene in soil was modeled using the Krig Statistic's method in CTECH's Earth Volumetric Studio (EVS), version 2019.2. The dataset includes historical and predesign concentrations of benzene in soil at the site (larger dots represent analytical results). Historical data are not shown on this figure. The benzene plume is shown at 100 mg/kg. A 1,000 mg/kg contour line is shown on the plan view image.

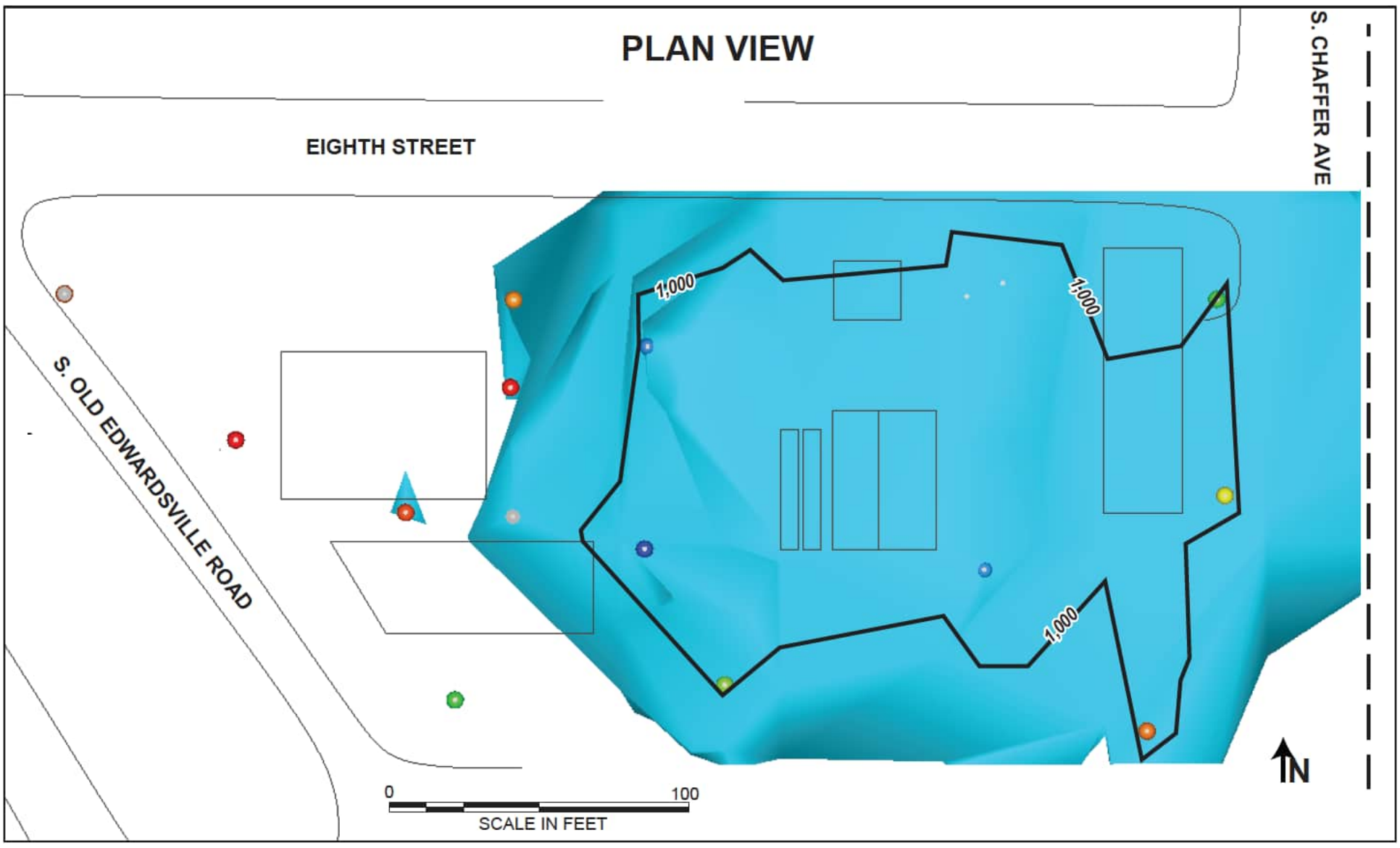
2. For the purposes of this figure, the ground surface is modeled as a plane at elevation 450 NAVD 88.

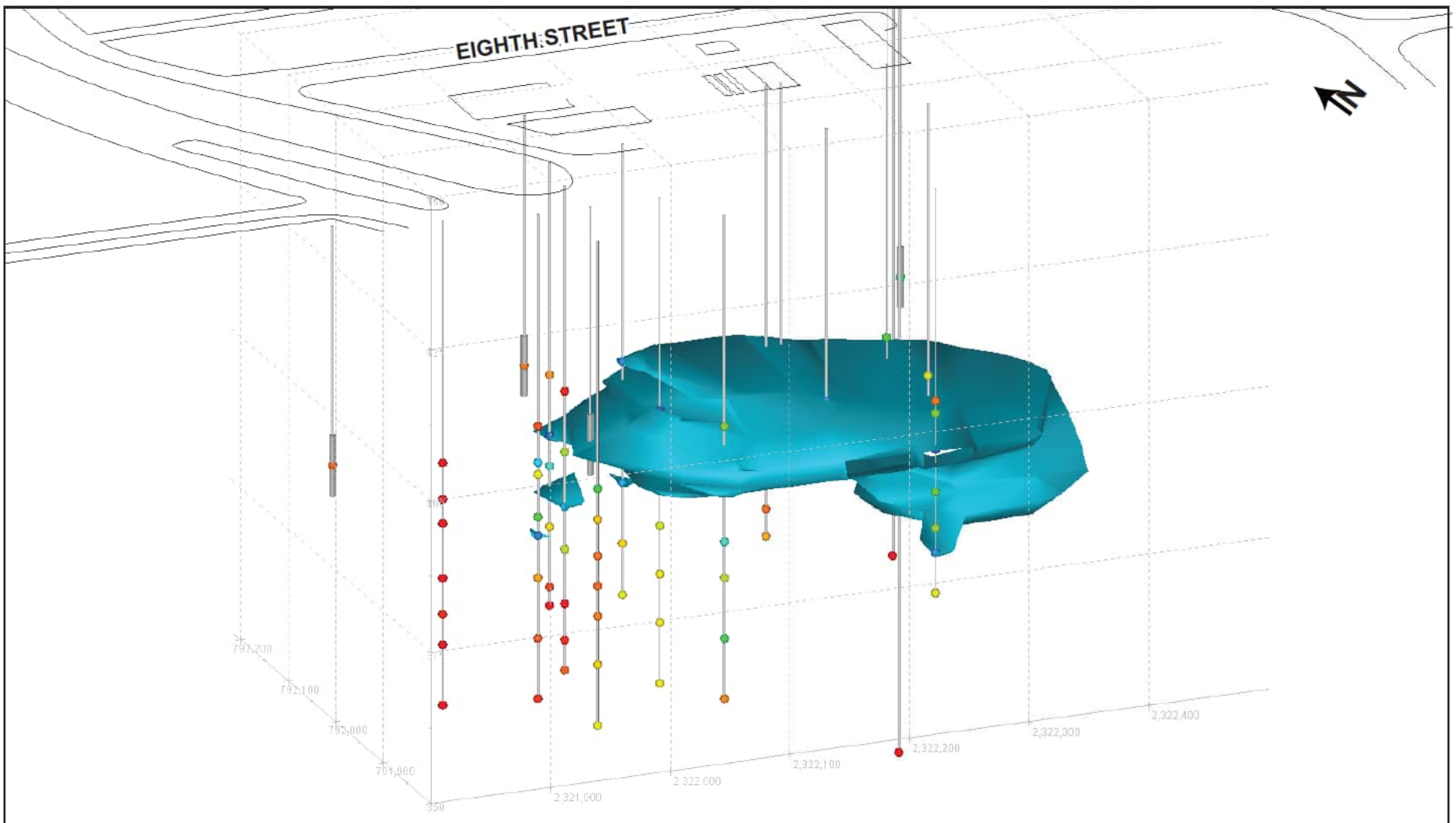
3. The oblique image is at azimuth 202 and 20 degree inclination.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
BENZENE IN SOIL (>100mg/kg),MODEL OUTPUT	FIG. NO. 10

V:\Projects_Proj\Shell\St Louis\EVS\2019_PWY_LIF_Investigation\Output\Illustrator

PLAN VIEW





OBLIQUE VIEW TOWARDS THE NORTHEAST

EXPLANATION

Benzene in Groundwater (mg/L)

- 2,600
- 1,000
- 300
- 100
- 30
- 10
- 3
- 1
- 0.3
- 0.1
- 0.03
- 0.01
- 0.003
- 0.001

NOTES

NAVD 88 North American Vertical Datum
mg/L milligrams per liter

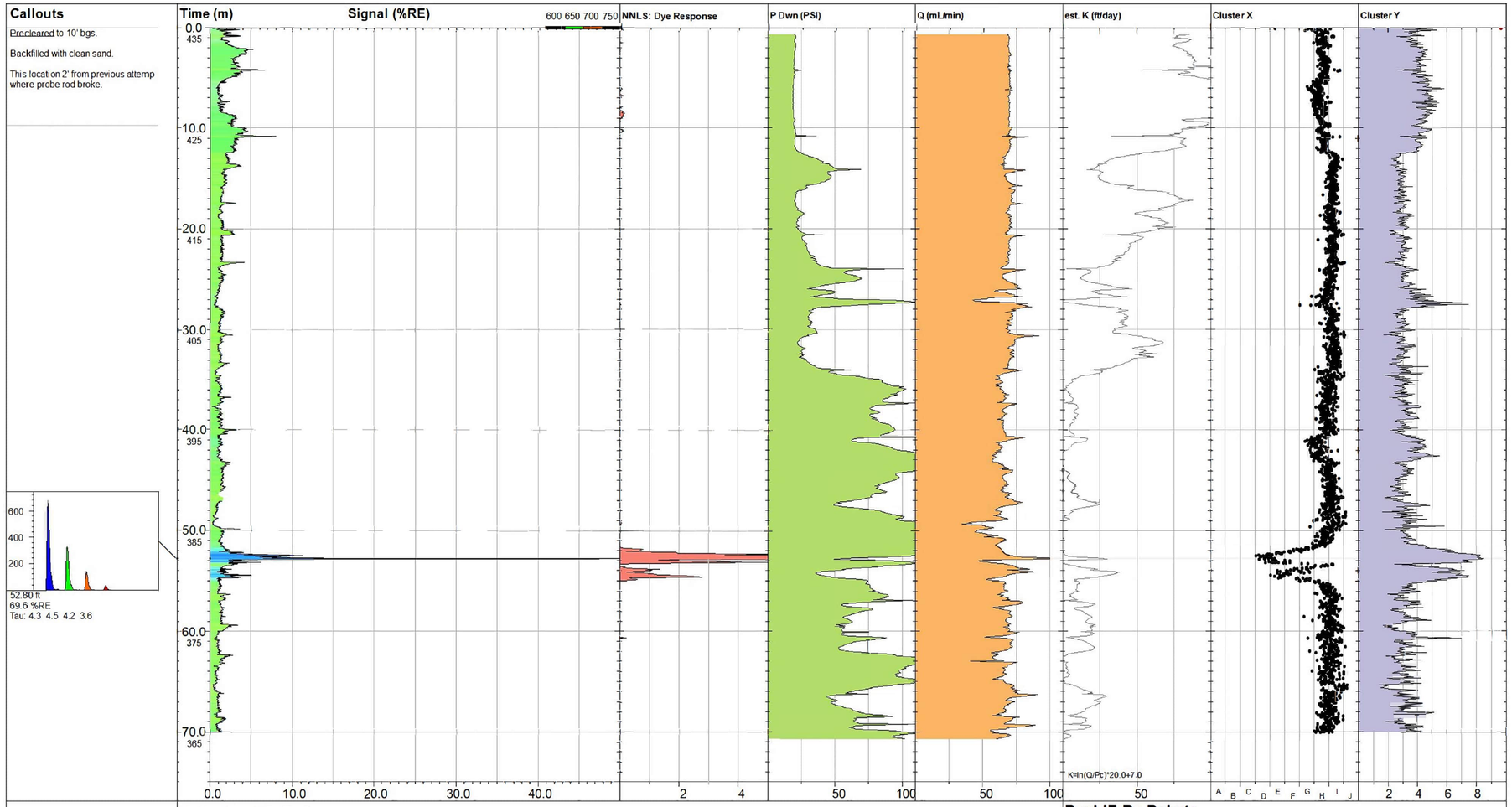
1. Benzene in groundwater was modeled using the Krig Statistic's method in CTECH's Earth Volumetric Studio (EVS), version 2019.2. The dataset includes predesign concentrations of benzene in groundwater at the site, as well as concentrations from the 3Q19 Roxana Interim Groundwater Monitoring Program. The benzene plume is shown at 100 mg/L. A 1,000 mg/L contour line is shown in the plan view image.

2. For the purposes of this figure, the ground surface is modeled as a plane at elevation 450 NAVD 88.

3. The oblique image is at azimuth 202 and 20 degree inclination.

PUBLIC WORKS YARD PREDESIGN INVESTIGATION ROXANA, ILLINOIS	PROJECT NO. 60592794
AECOM	
BENZENE IN GROUNDWATER (>100 mg/L), MODEL OUTPUT	FIG. NO. 11

Appendix A – DyeLIF Logs



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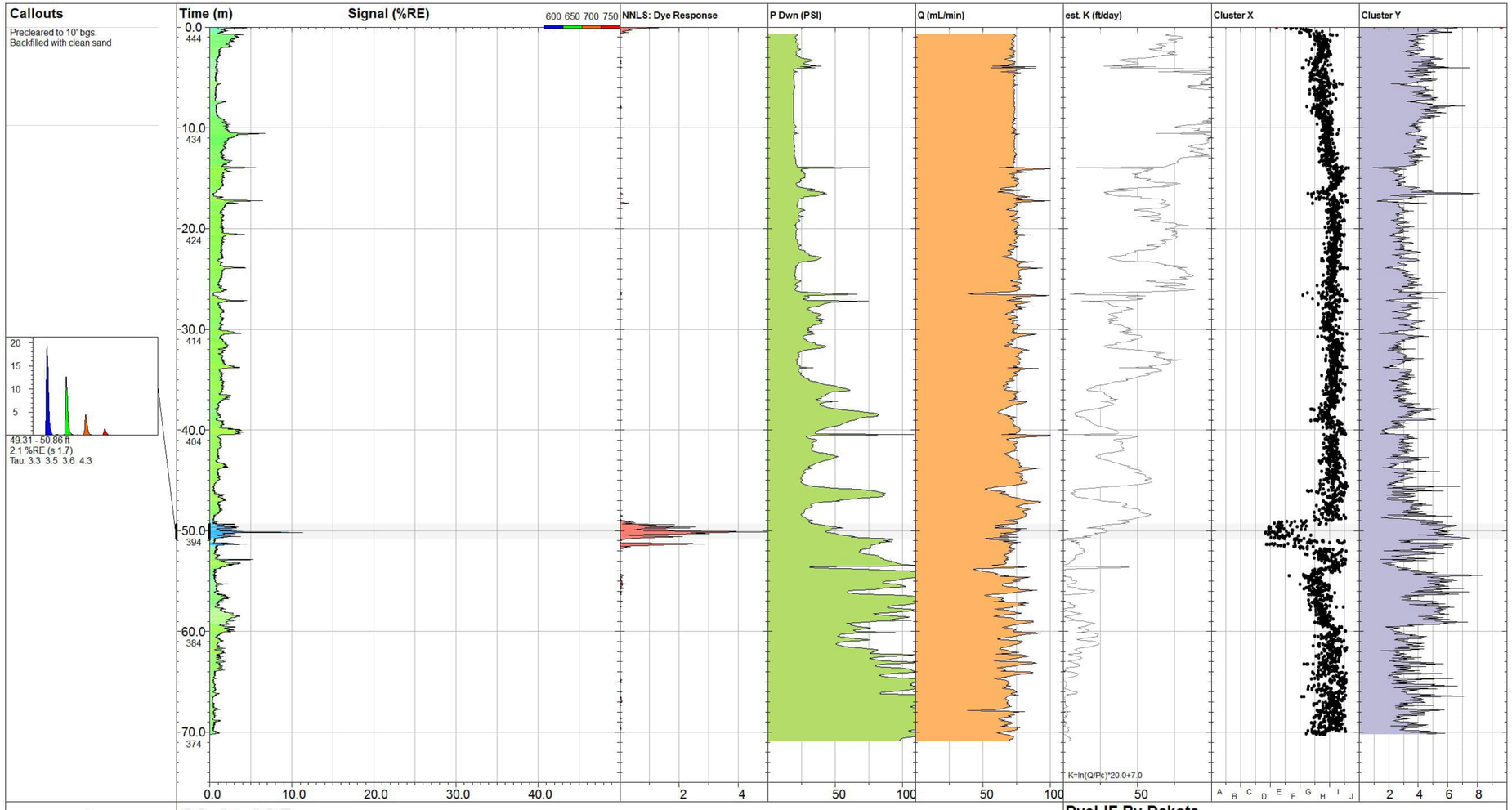
PD-01-CPT		**DyeLIF By Dakota** www.DakotaTechnologies.com
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791982.56 /**	*Final depth:* **70.01 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2321984.10 /**	*Max signal:* **69.6 %RE @ 52.80 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **434.8 ft**	*Date & Time:* **2019-06-14 09:39 CDT**



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PD-02-CPT

DyeLIF By Dakota
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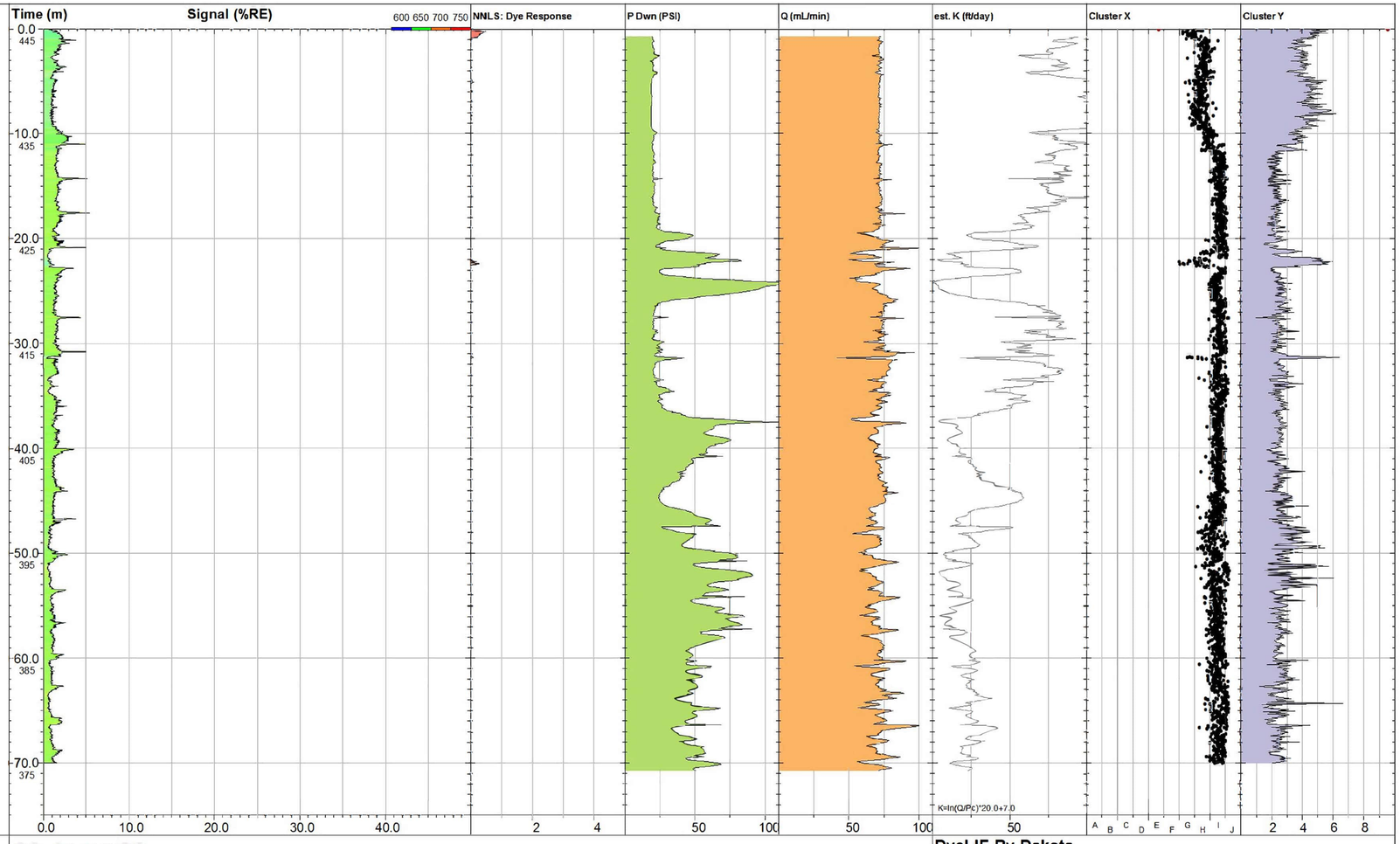
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **792019.06 /**	*Final depth:* **70.19 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322167.16 /**	*Max signal:* **11.7 %RE @ 50.17 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **443.8 ft**	*Date & Time:* **2019-06-18 12:40 CDT**

Callouts

Precleared to 10' bgs.
Backfilled with clean sand.

This location is a re-do of PD-03.
Offset about 2'



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PD-03-CPT

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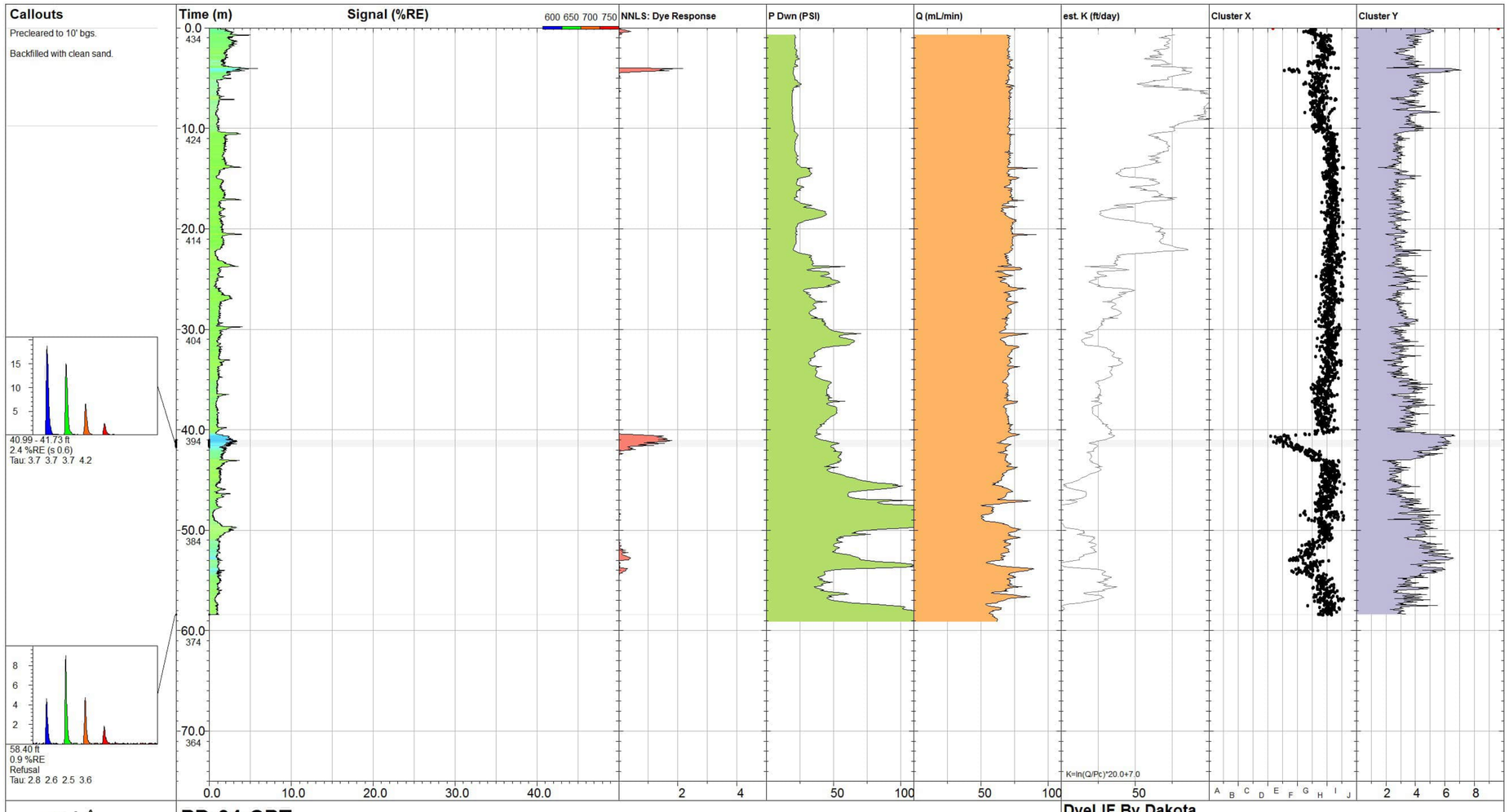
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **792017.91 /**	*Final depth:* **70.01 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322267.45 /**	*Max signal:* **5.4 %RE @ 17.57 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **444.6 ft**	*Date & Time:* **2019-06-19 11:30 CDT**



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PD-04-CPT

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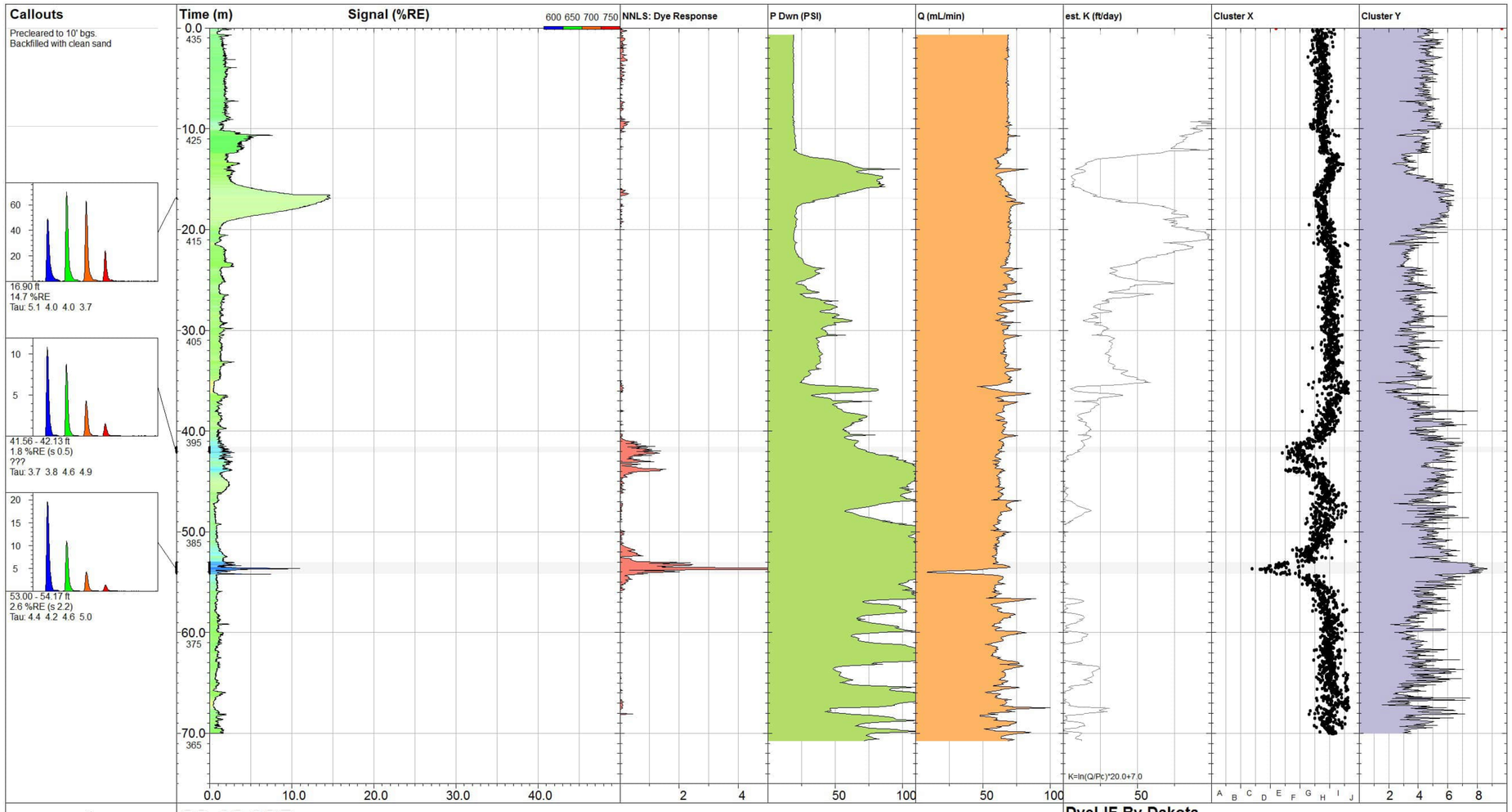
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791932.39 /**	*Final depth:* **58.40 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2321942.06 /**	*Max signal:* **6.1 %RE @ 4.04 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **434.5 ft**	*Date & Time:* **2019-06-14 11:38 CDT**



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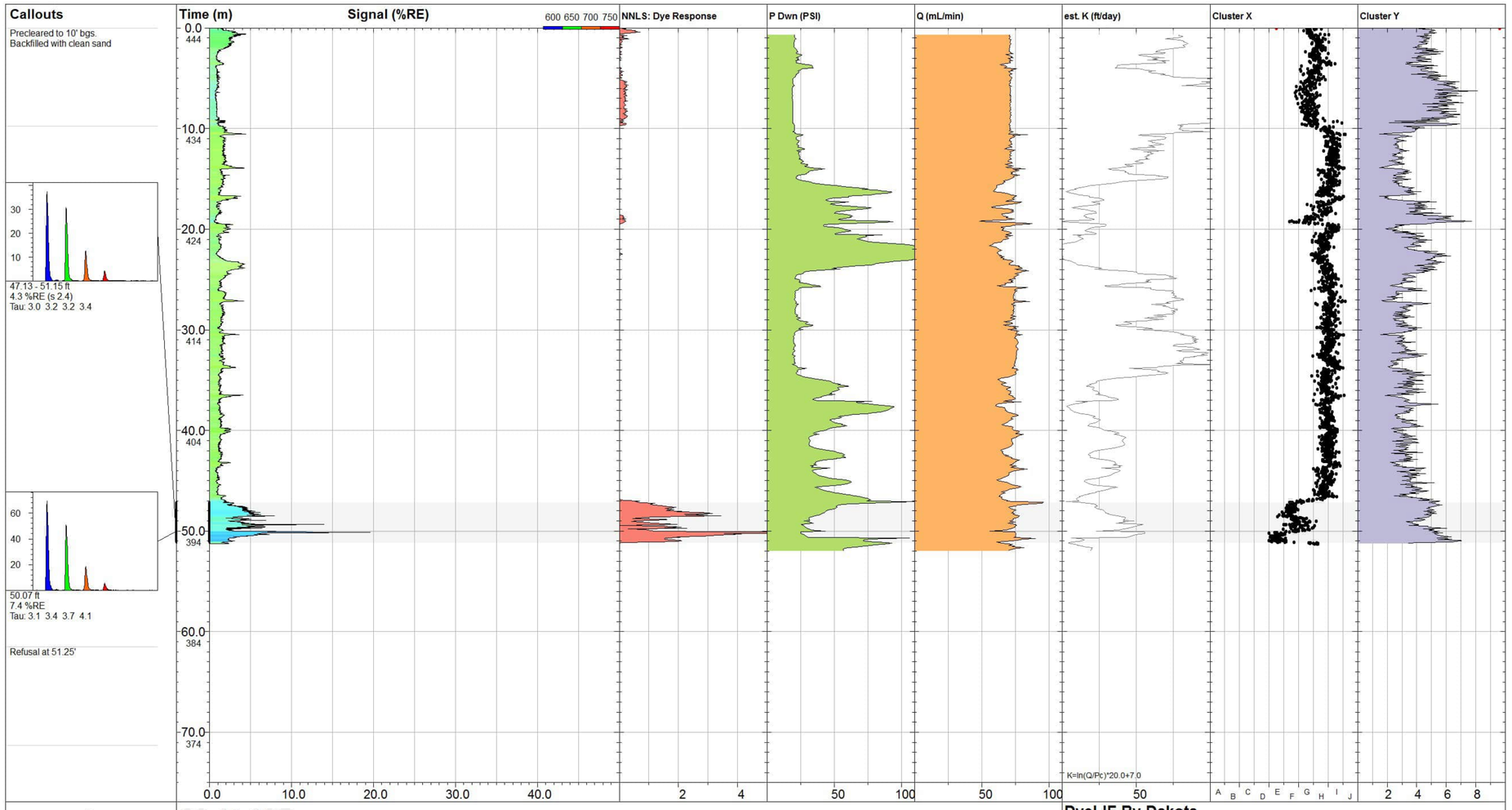
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791917.79 /**	*Final depth:* **70.01 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322037.88 /**	*Max signal:* **14.7 %RE @ 16.90 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **435.5 ft**	*Date & Time:* **2019-06-12 10:41 CDT**



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PD-06-CPT

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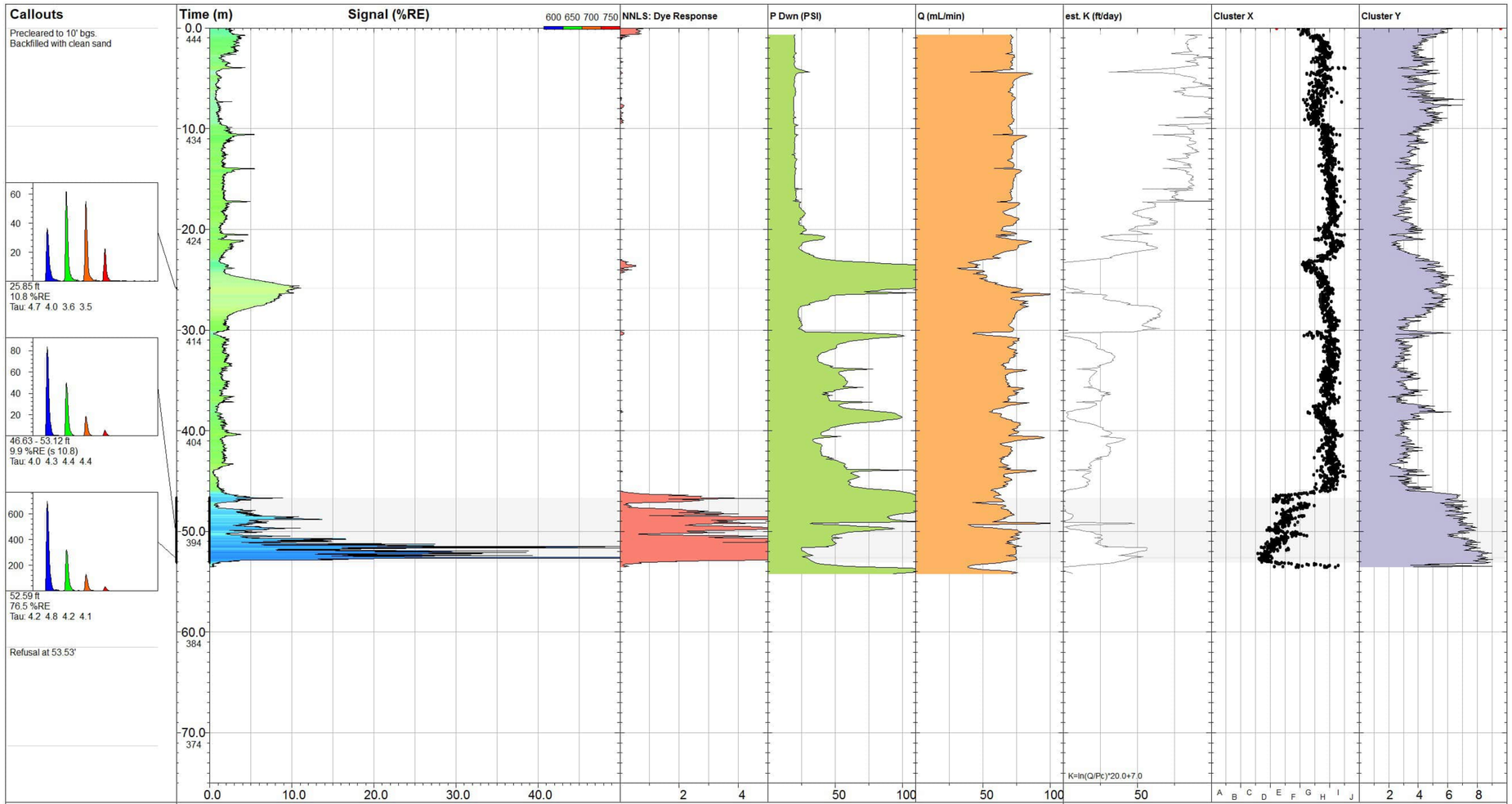
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791958.05 /**	*Final depth:* **51.25 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322180.31 /**	*Max signal:* **20.3 %RE @ 50.13 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **443.7 ft**	*Date & Time:* **2019-06-18 08:30 CDT**



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PD-07-CPT

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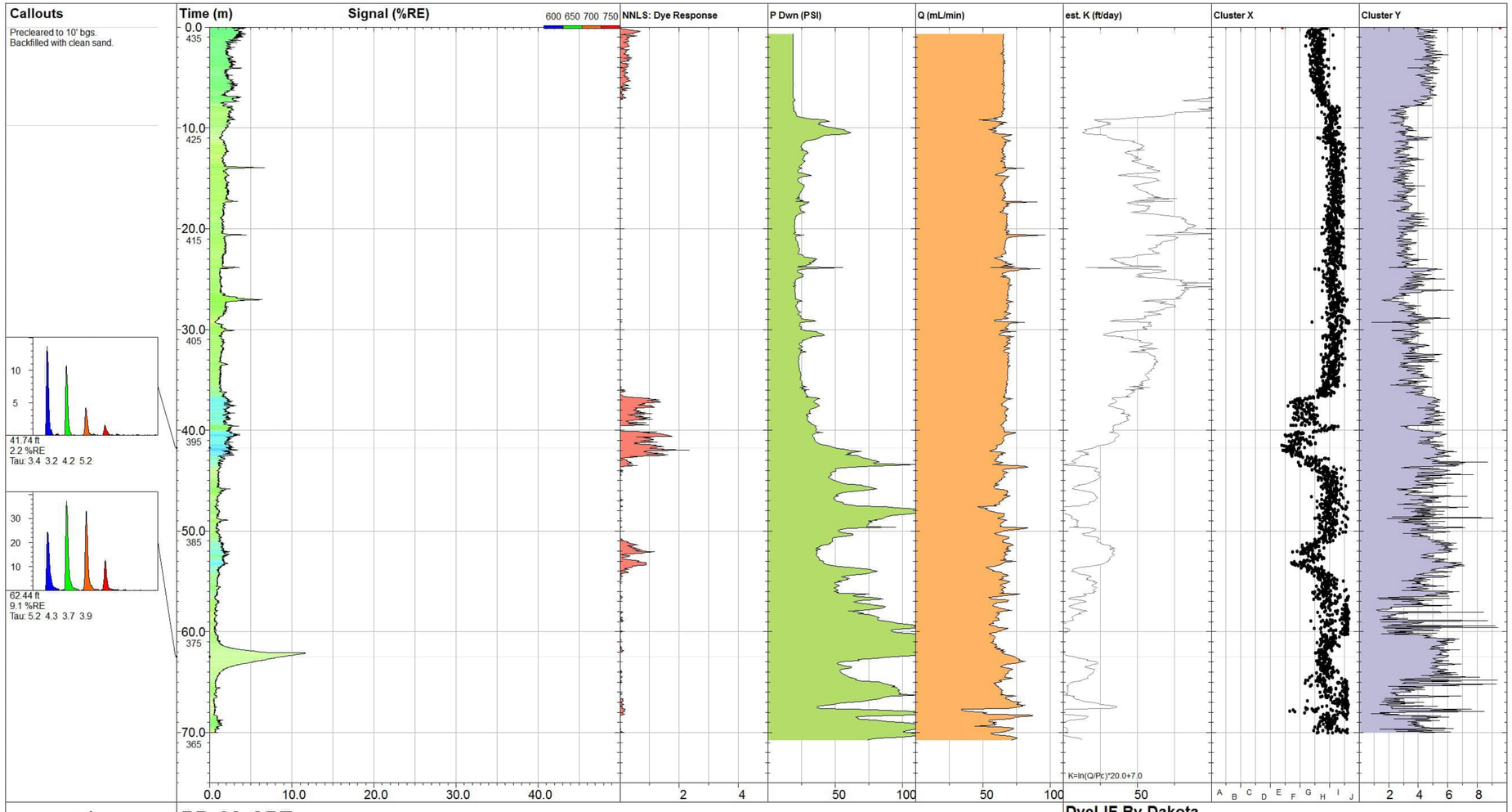
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791939.17 /**	*Final depth:* **53.54 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322270.72 /**	*Max signal:* **76.5 %RE @ 52.59 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **443.5 ft**	*Date & Time:* **2019-06-18 14:34 CDT**



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PD-08-CPT

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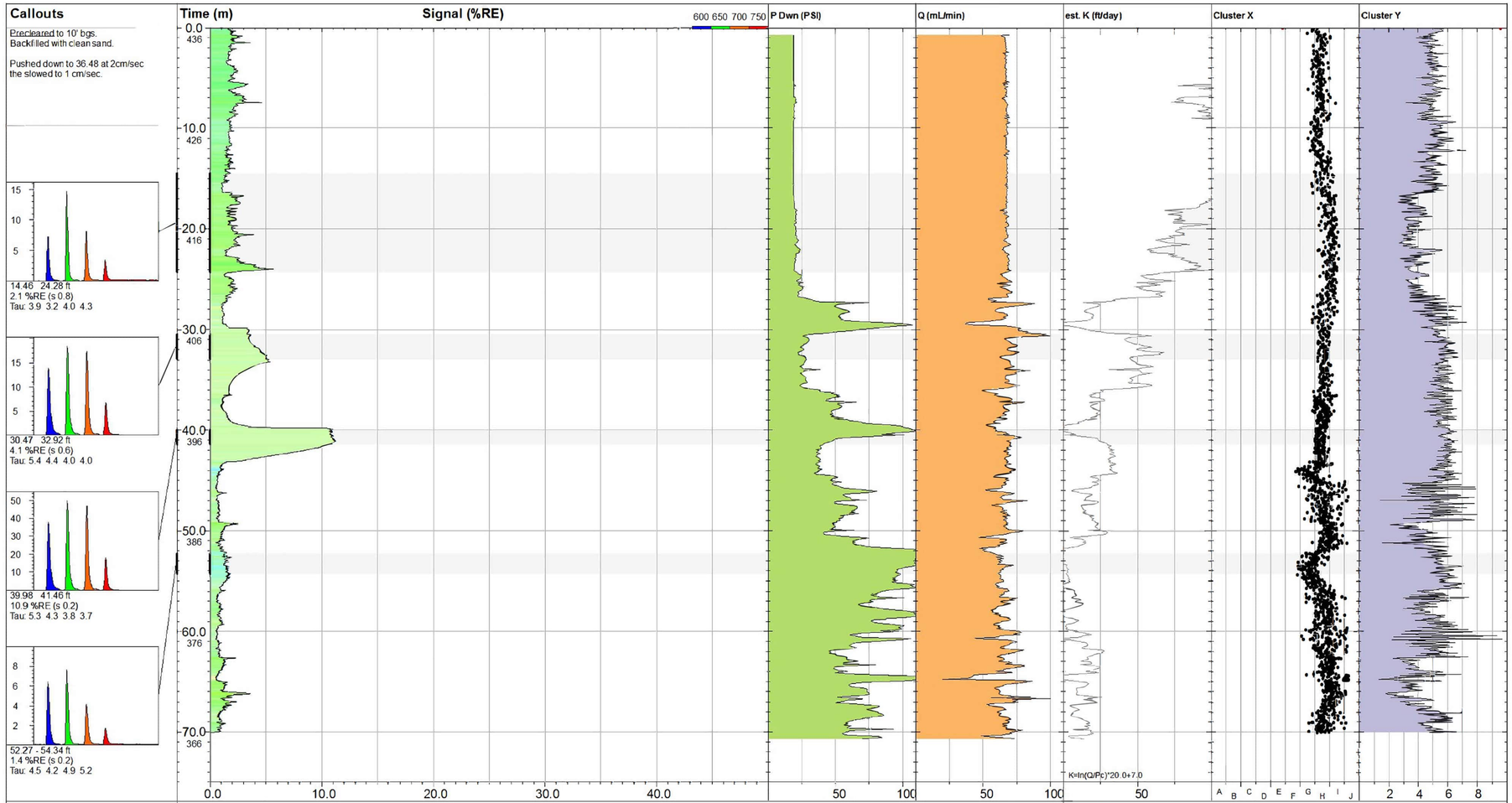
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791857.25 /**	*Final depth:* **70.02 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2321961.85 /**	*Max signal:* **11.7 %RE @ 62.08 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **434.7 ft**	*Date & Time:* **2019-06-12 13:41 CDT**



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PD-09-CPT

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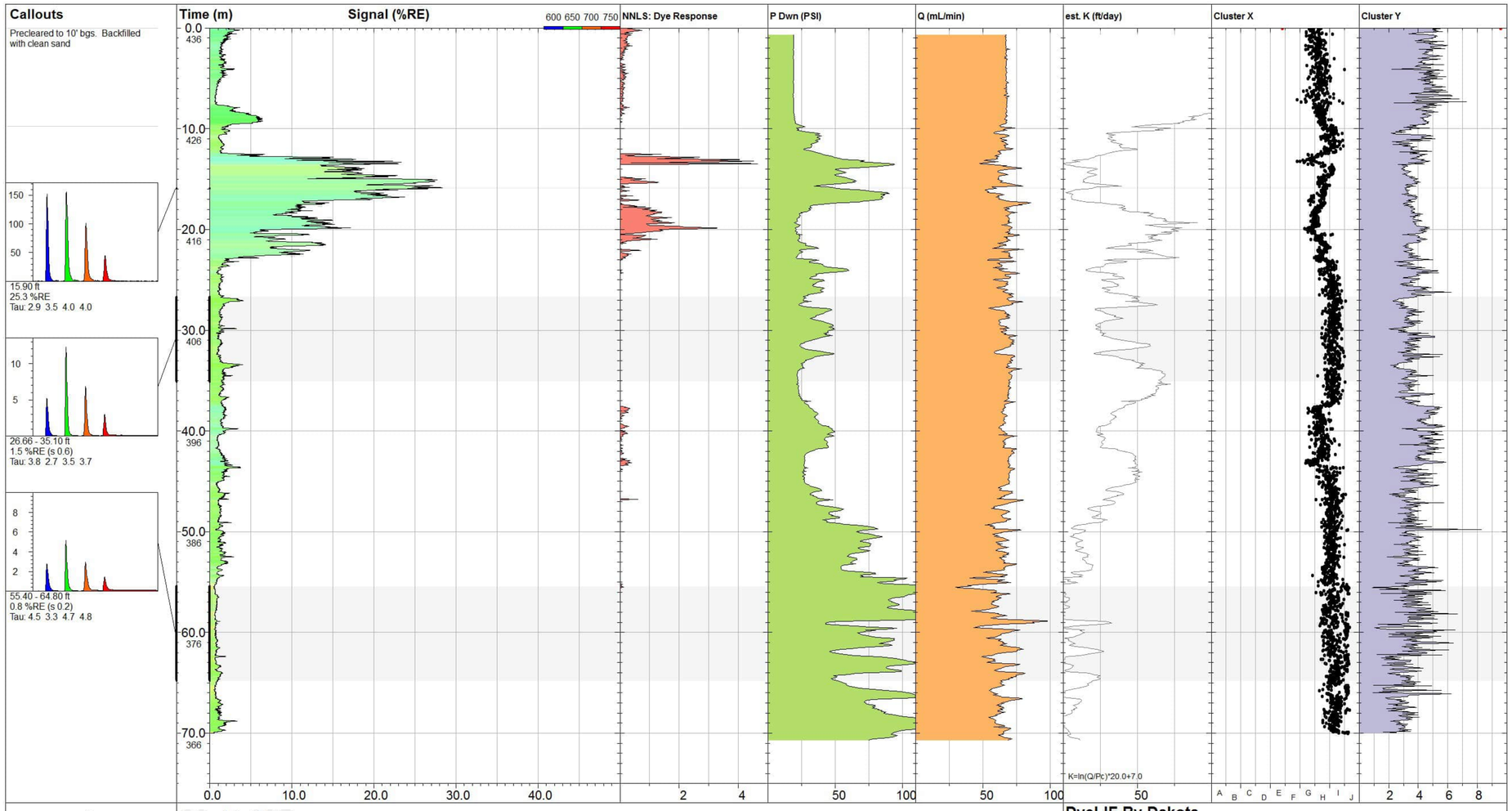
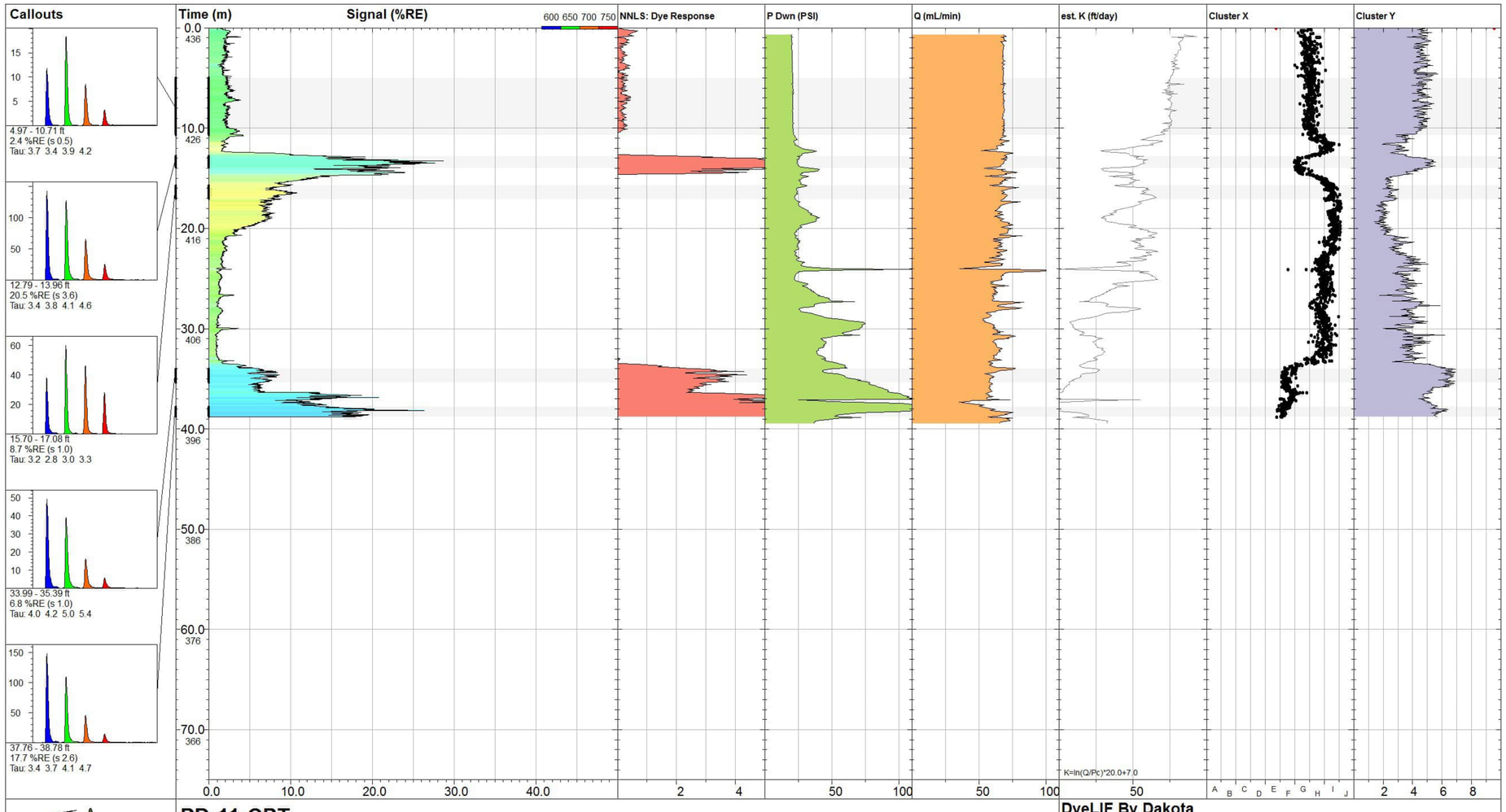
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791863.24 /**	*Final depth:* **70.03 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322070.06 /**	*Max signal:* **11.3 %RE @ 41.14 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **435.7 ft**	*Date & Time:* **2019-06-12 08:41 CDT**



DAKOTA TECHNOLOGIES FARGO, ND 701.237.4908 WWW.DAKOTATECHNOLOGIES.COM	**PD-10-CPT**	**DyeLIF By Dakota** www.DakotaTechnologies.com
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791838.30 /**	*Final depth:* **70.01 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322159.82 /**	*Max signal:* **28.7 %RE @ 15.84 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **435.9 ft**	*Date & Time:* **2019-06-11 09:43 CDT**



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PD-11-CPT

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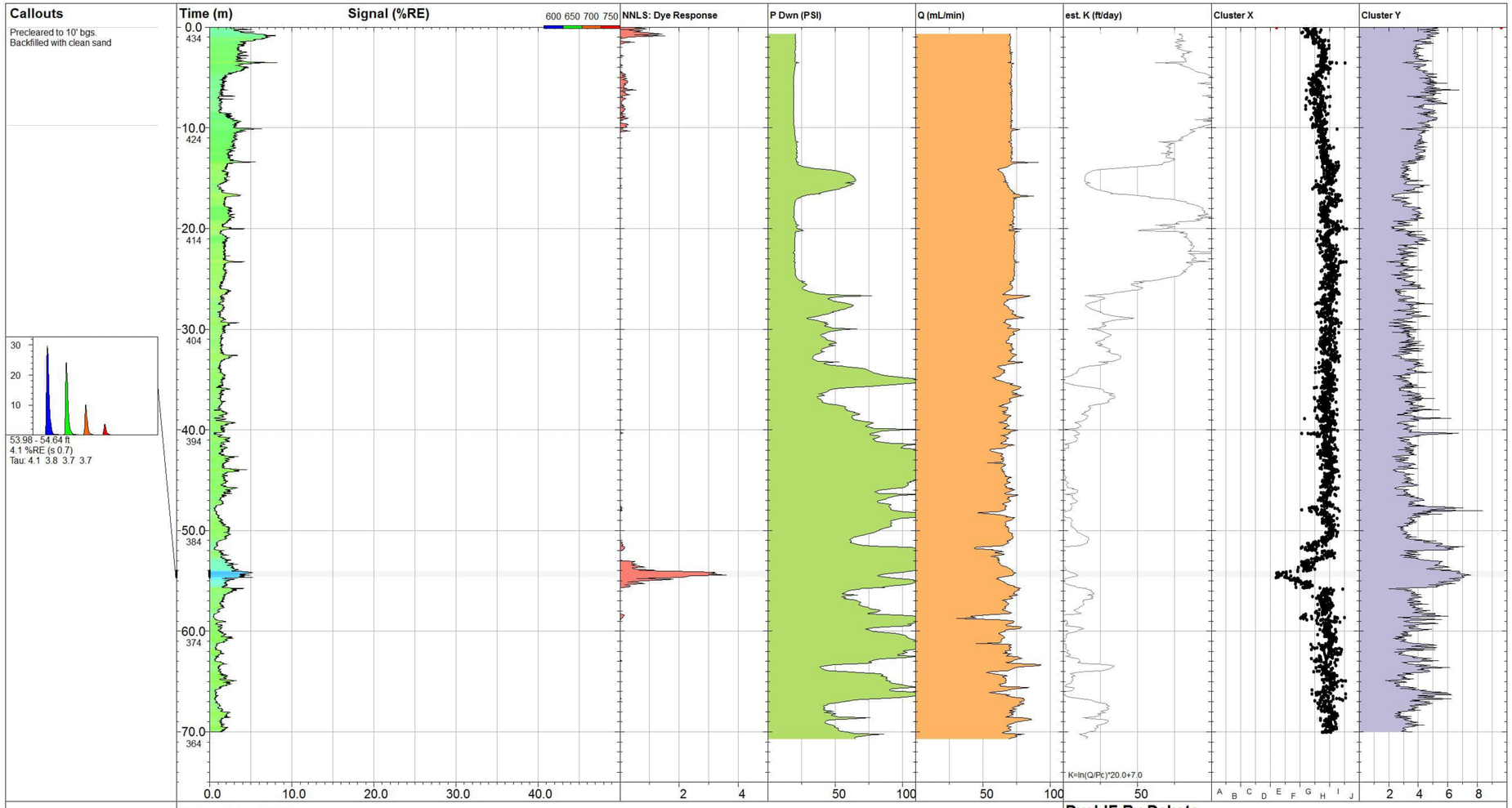
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791844.75 /**	*Final depth:* **38.78 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322239.41 /**	*Max signal:* **29.3 %RE @ 13.25 ft**
Operator / Unit: **SDA / TG1005**	*Elevation:* **436.4 ft**	*Date & Time:* **2019-06-10 15:14 CDT**



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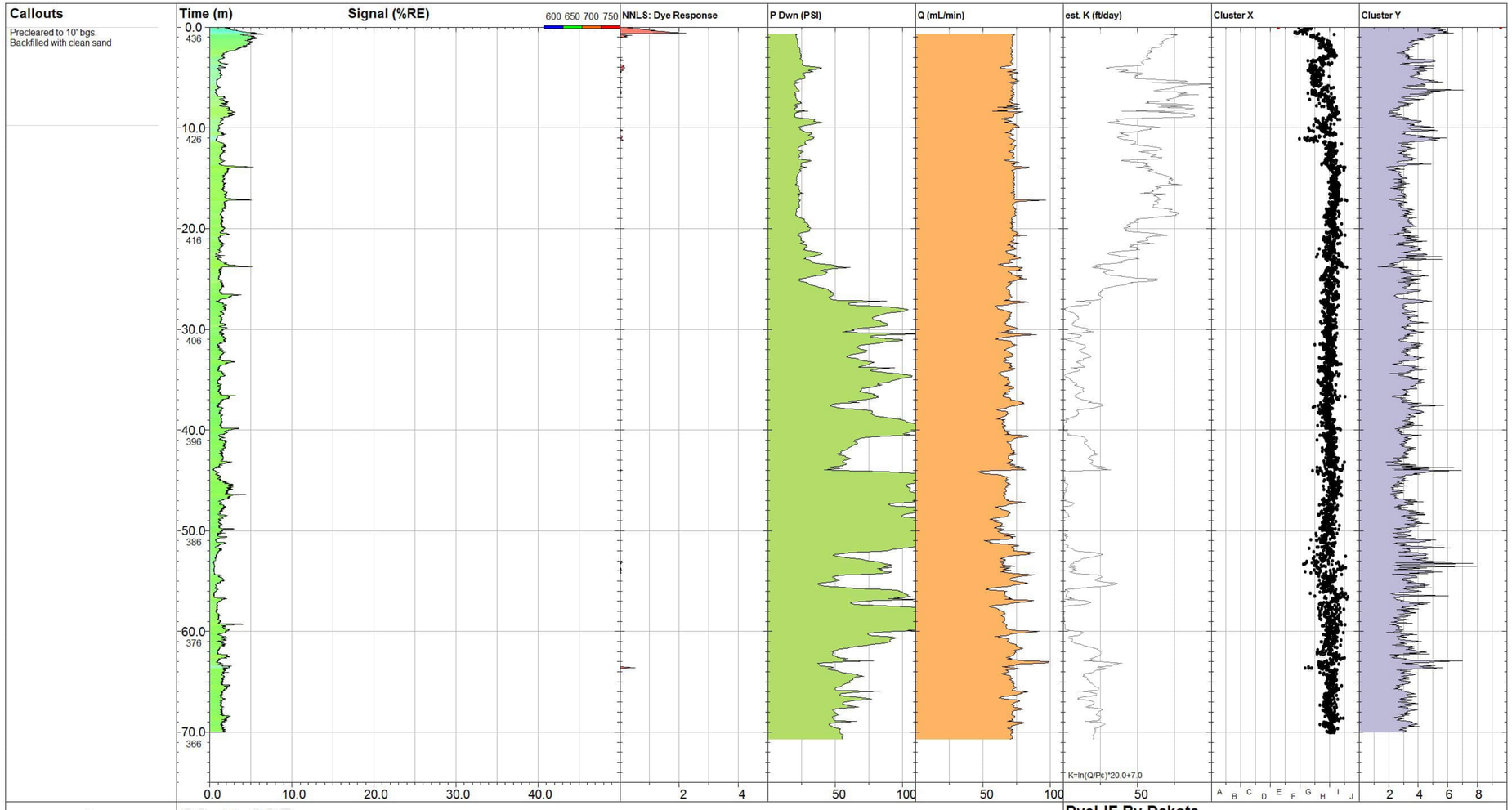
	Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **792017.66 /**	*Final depth:* **70.02 ft**
	Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2321985.38 /**	*Max signal:* **8.5 %RE @ 3.53 ft**
	Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **434.3 ft**	*Date & Time:* **2019-06-17 13:18 CDT**



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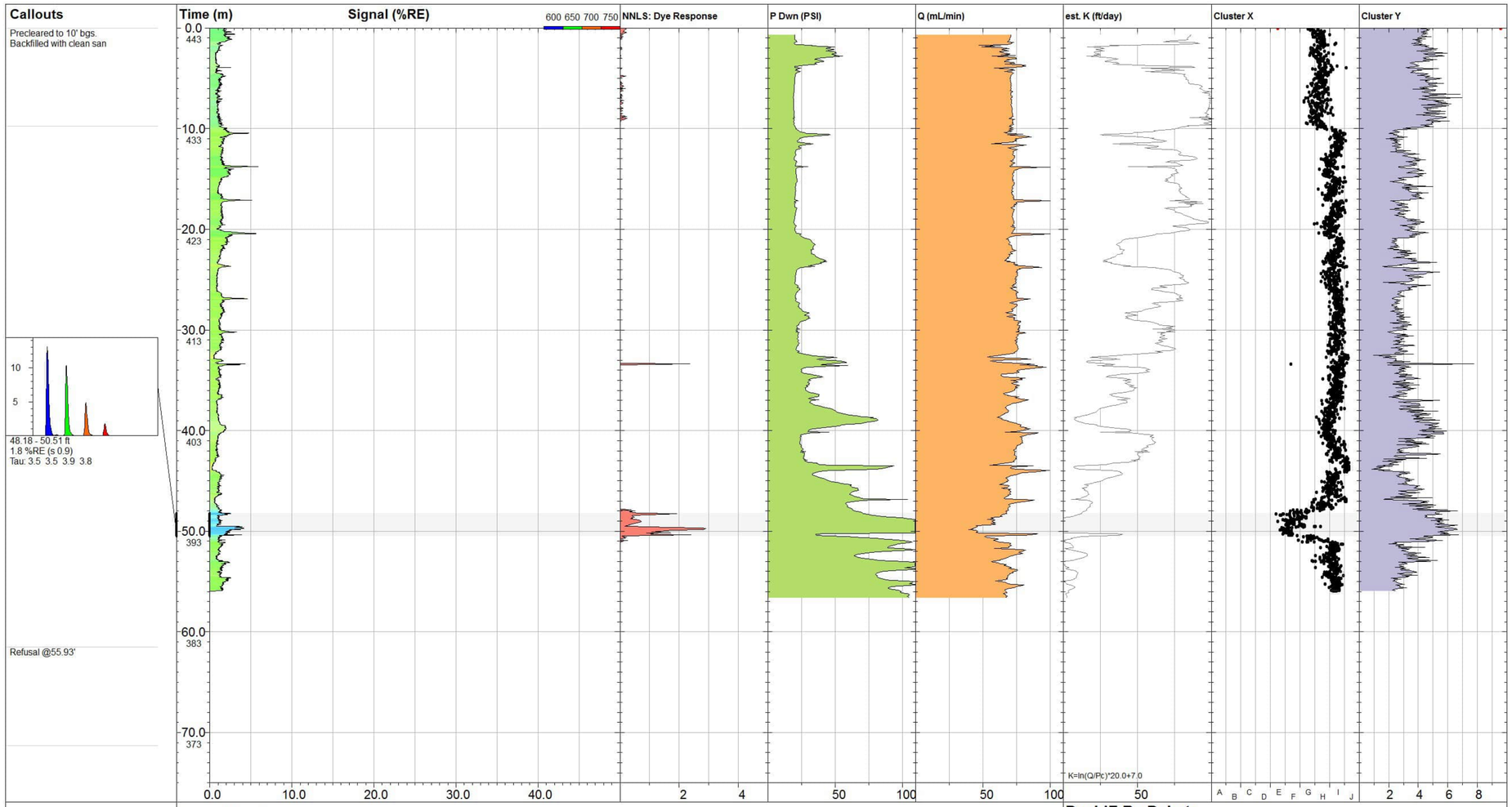
PD-13-CPT

DyeLIF By Dakota
www.DakotaTechnologies.com

Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791961.48 /**	*Final depth:* **70.01 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2321873.89 /**	*Max signal:* **6.5 %RE @ 0.70 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **436.3 ft**	*Date & Time:* **2019-06-17 14:57 CDT**



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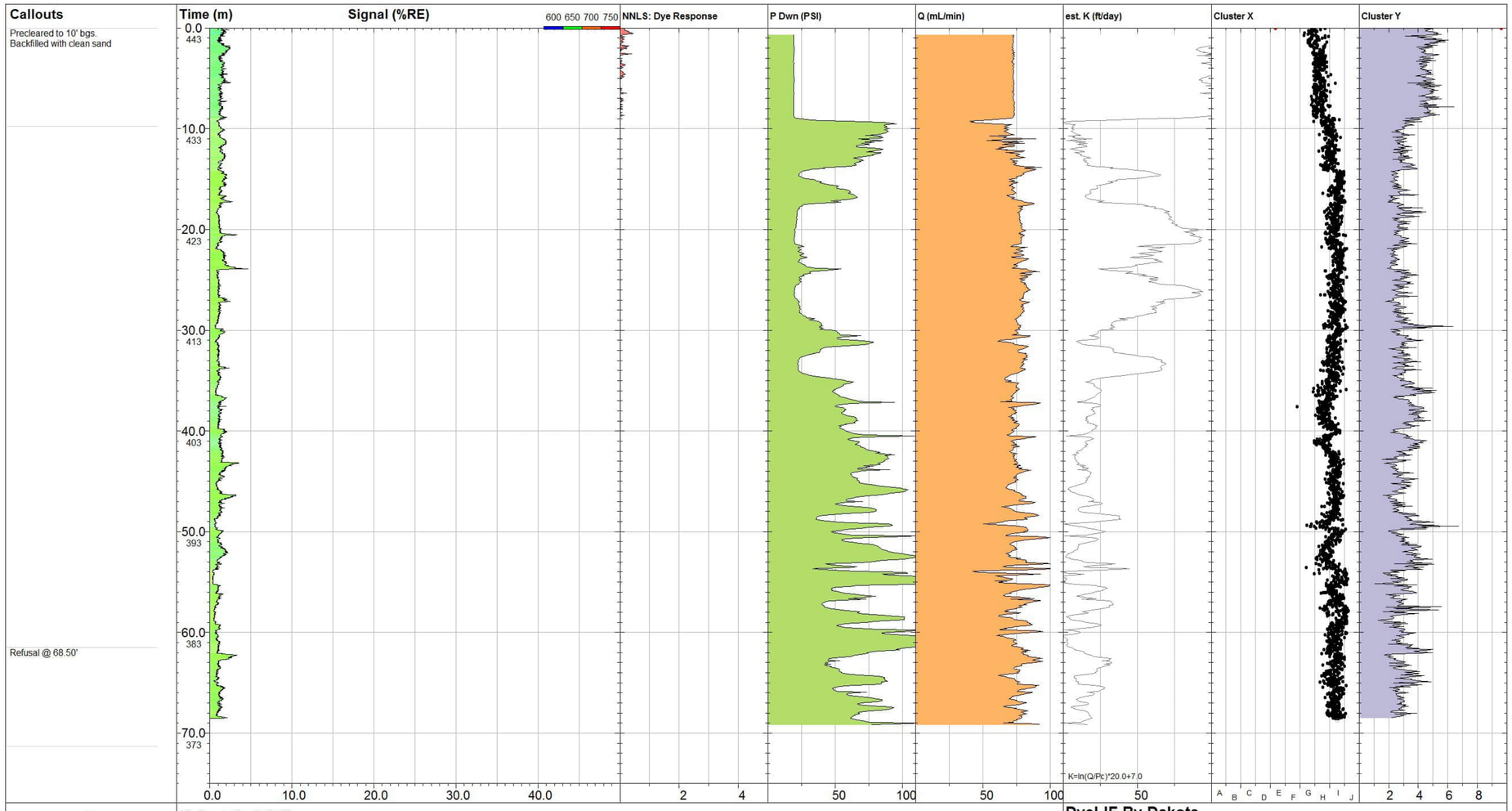
WWW.DAKOTATECHNOLOGIES.COM

PD-14-CPT

DyeLIF By Dakota
www.DakotaTechnologies.com

Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791999.00 /**	*Final depth:* **55.93 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322039.10 /**	*Max signal:* **6.2 %RE @ 13.78 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **442.6 ft**	*Date & Time:* **2019-06-20 10:04 CDT**



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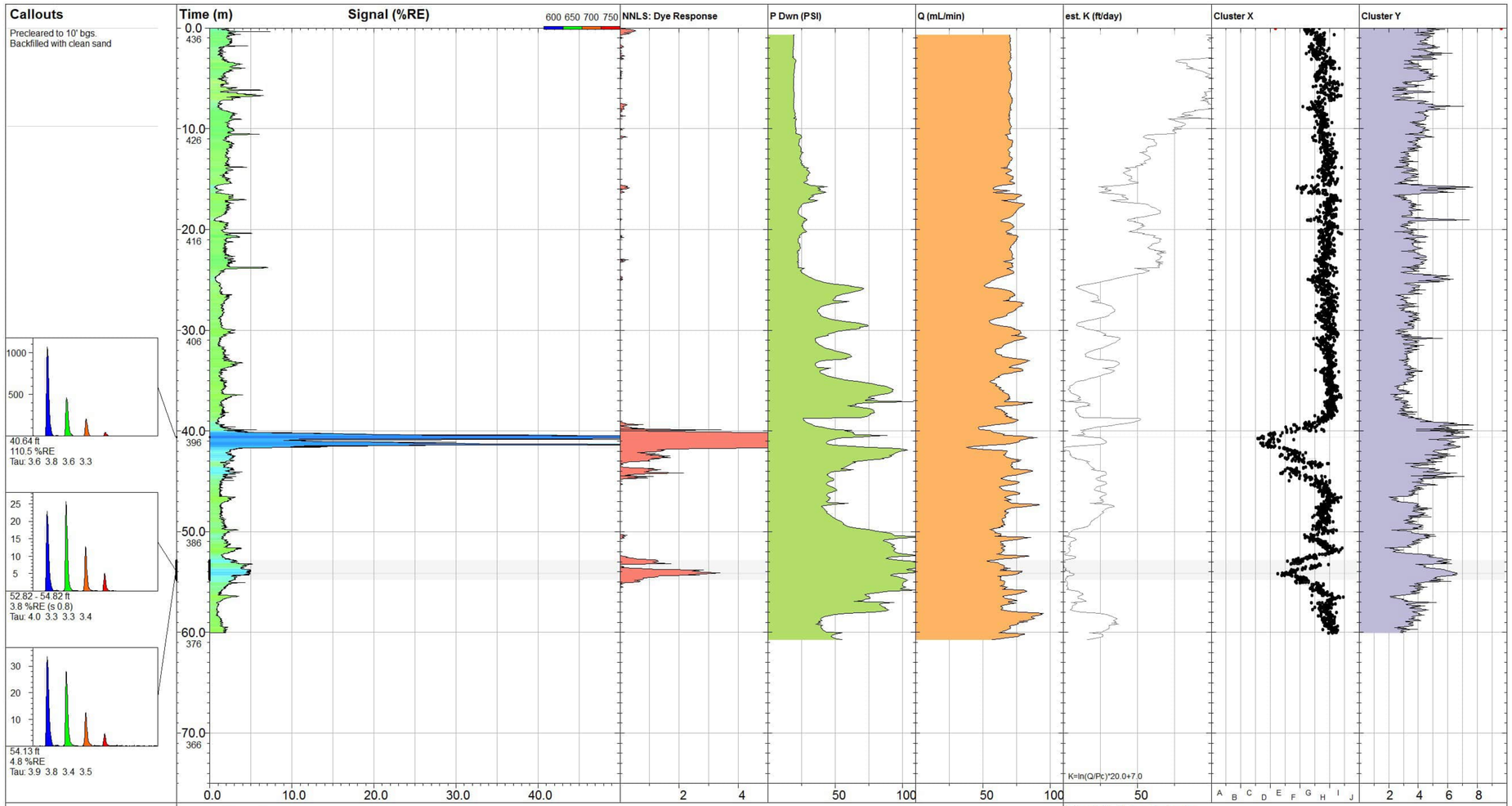
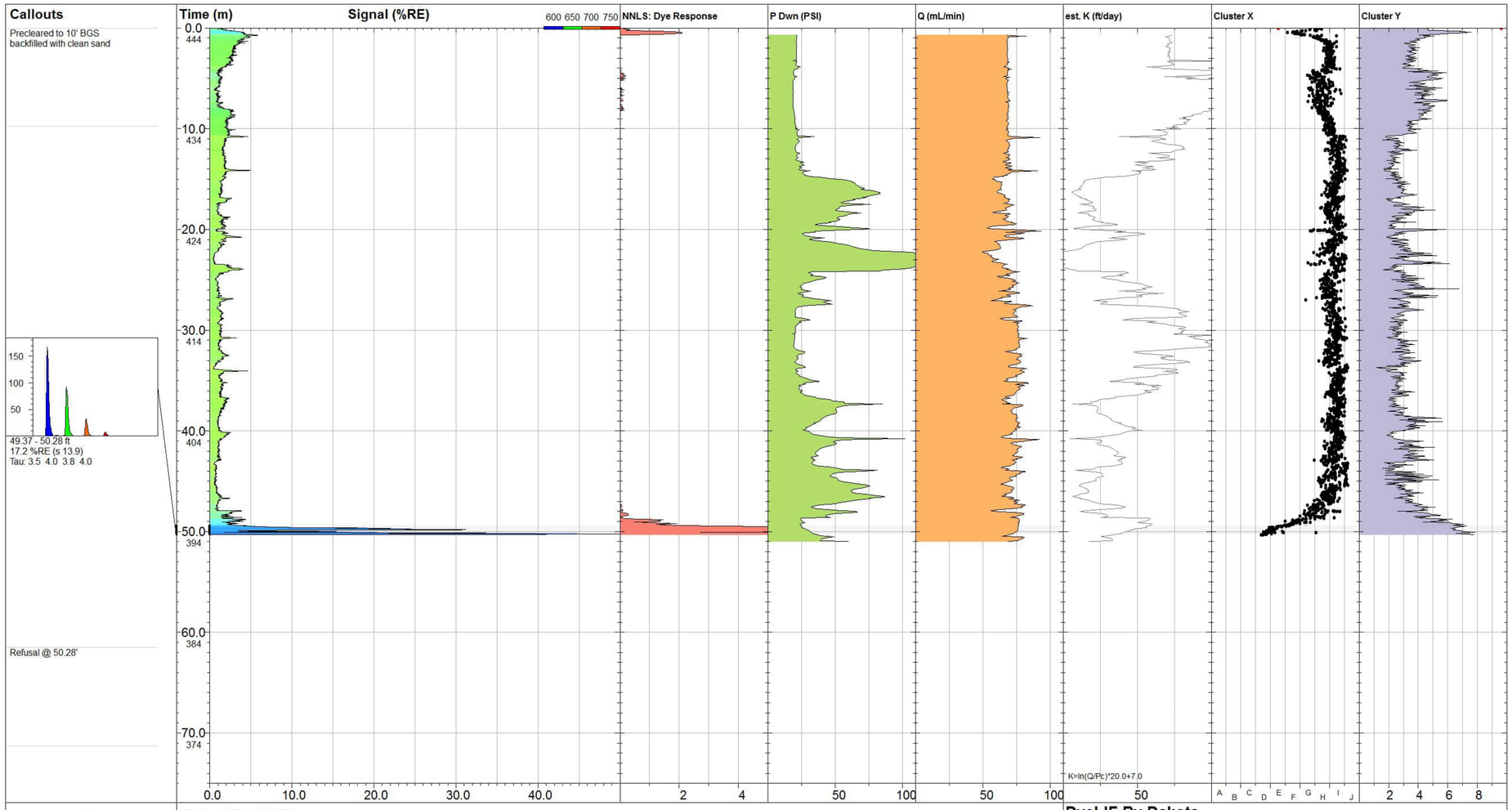
PD-15-CPT

DyeLIF By Dakota
www.DakotaTechnologies.com

Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791907.91 /**	*Final depth:* **68.50 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2321908.32 /**	*Max signal:* **4.8 %RE @ 23.91 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **442.9 ft**	*Date & Time:* **2019-06-20 14:37 CDT**



DAKOTA TECHNOLOGIES FARGO, ND 701.237.4908 WWW.DAKOTATECHNOLOGIES.COM	**PD-16-CPT**	**DyeLIF By Dakota** www.DakotaTechnologies.com
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791887.76 /**	*Final depth:* **60.03 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322029.09 /**	*Max signal:* **110.5 %RE @ 40.64 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **435.6 ft**	*Date & Time:* **2019-06-20 16:35 CDT**



PD-17-CPT		**DyeLIF By Dakota** www.DakotaTechnologies.com
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791909.51 /**	*Final depth:* **50.28 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322174.12 /**	*Max signal:* **60.2 %RE @ 50.23 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **443.9 ft**	*Date & Time:* **2019-06-20 08:09 CDT**

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PD-19-CPT

DyeLIF By Dakota
www.DakotaTechnologies.com

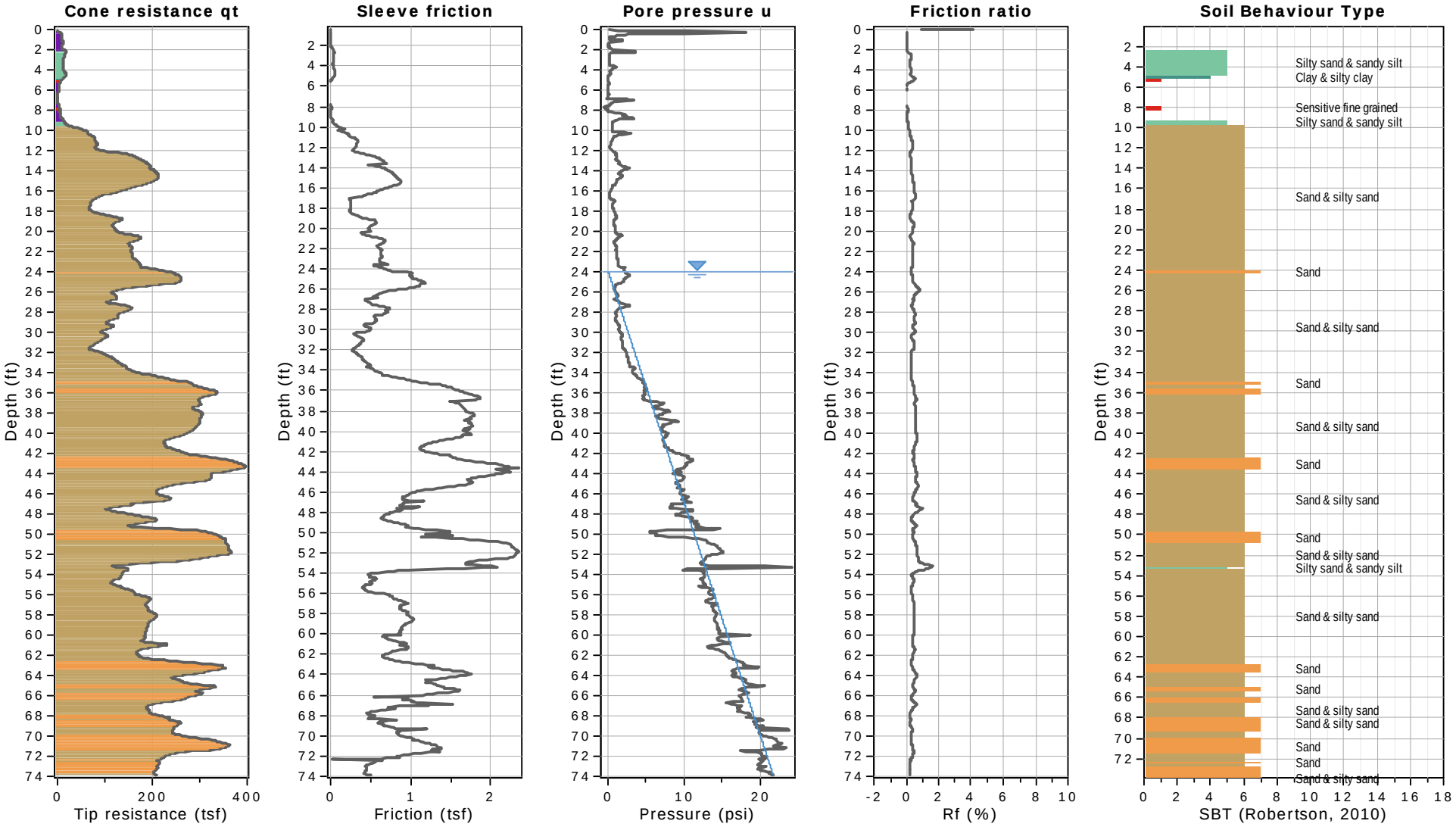
Site: **Roxana Public Works**	*Y Coord.(Lat-N) / System:* **791881.13 /**	*Final depth:* **51.16 ft**
Client / Job: **AECOM /**	*X Coord.(Lng-E) / Fix:* **2322257.60 /**	*Max signal:* **10.0 %RE @ 48.60 ft**
Operator / Unit: **T. Rudolph / TG1005**	*Elevation:* **443.6 ft**	*Date & Time:* **2019-06-20 12:21 CDT**

Appendix B – CPT Logs

Walker-Hill Environmental
Chris Hayslip
chris@whenv.com
www.whenv.com

Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-01-CPT
Total depth: 73.88 ft, Date: 6/14/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
Chris Hayslip
chris@whenv.com
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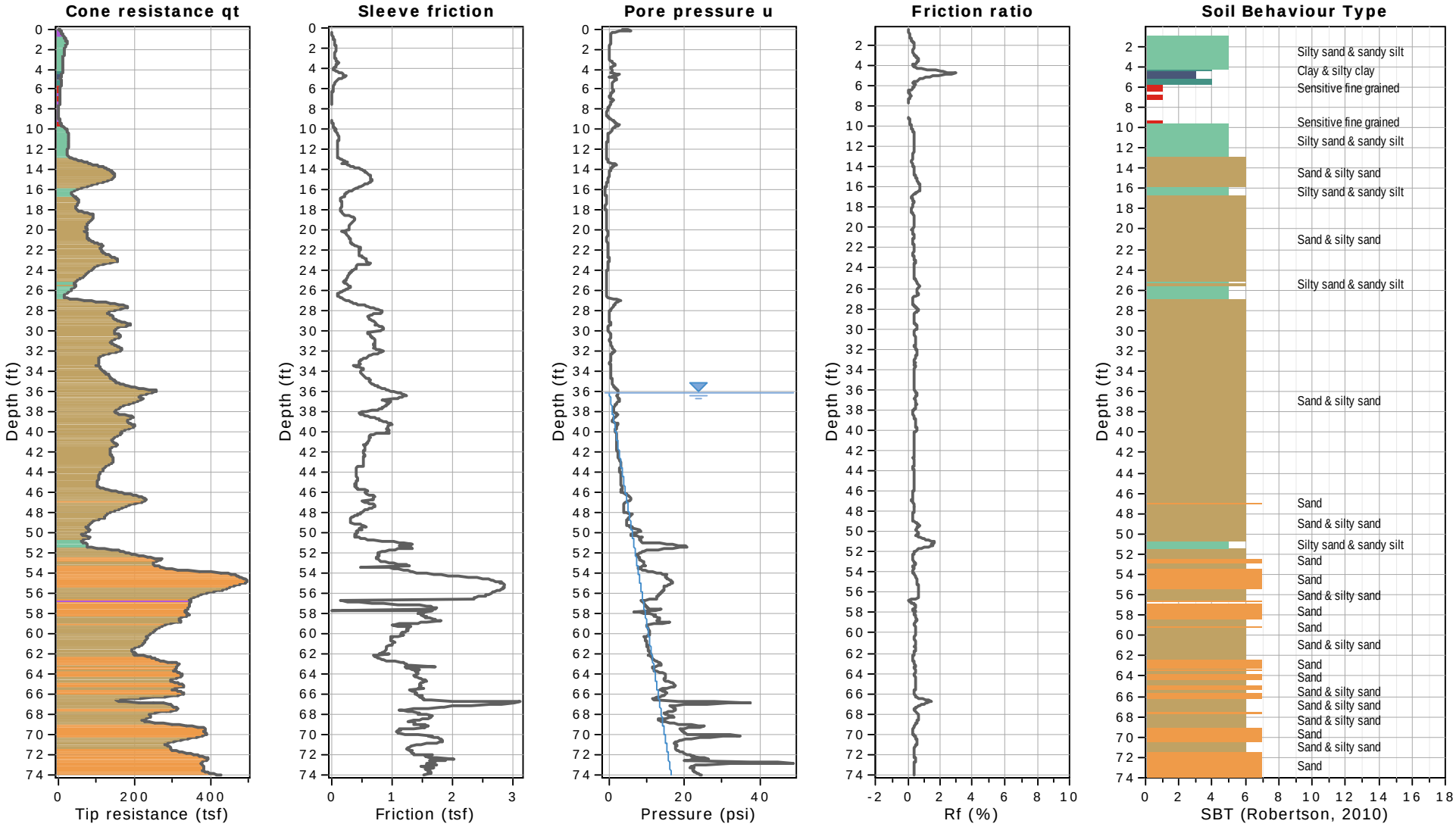
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-02-CPT
Total depth: 74.02 ft, Date: 6/18/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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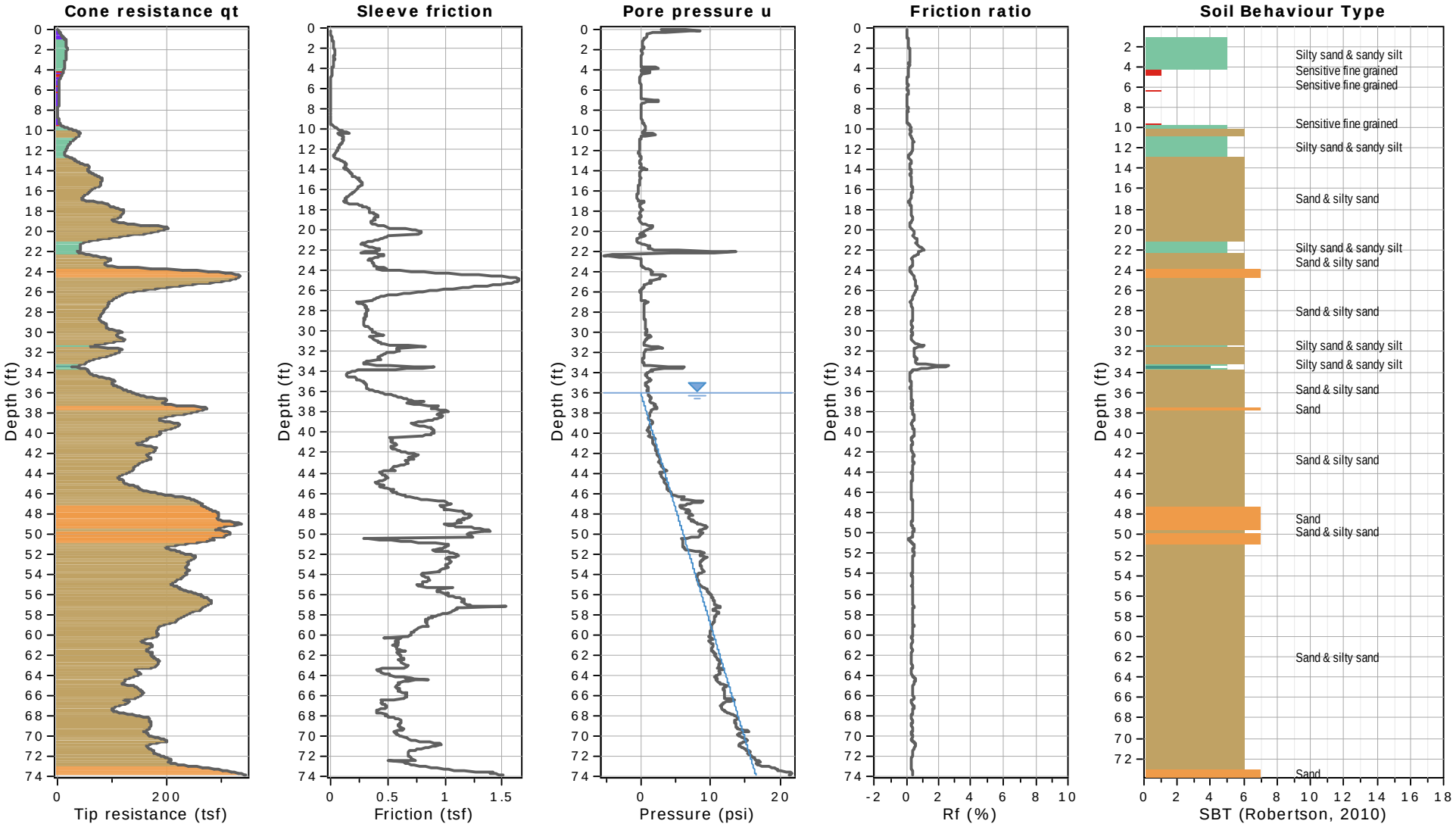
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-03-CPT
Total depth: 73.88 ft, Date: 6/19/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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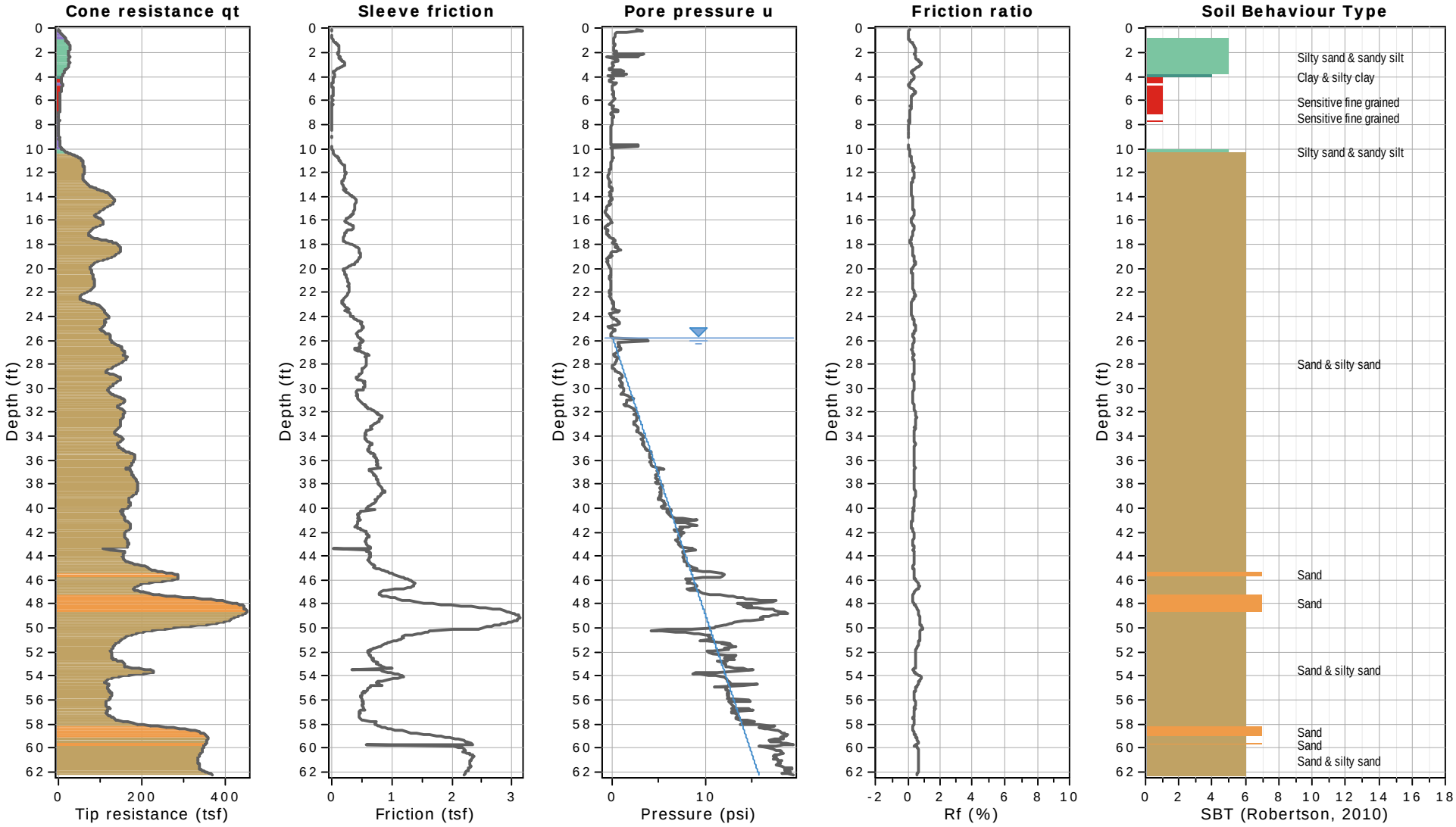
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-04-CPT
Total depth: 62.27 ft, Date: 6/14/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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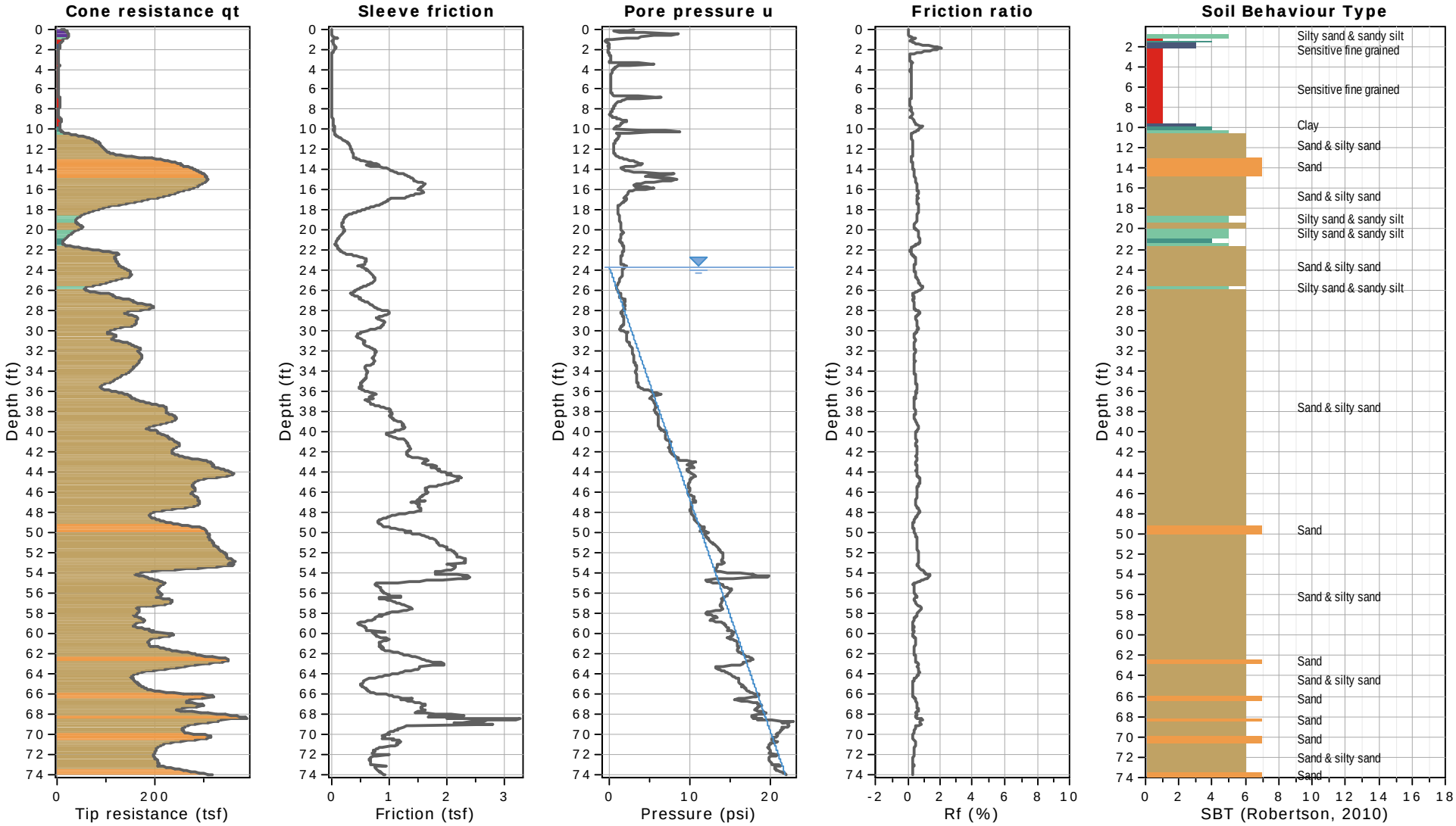
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-05-CPT
Total depth: 74.02 ft, Date: 6/12/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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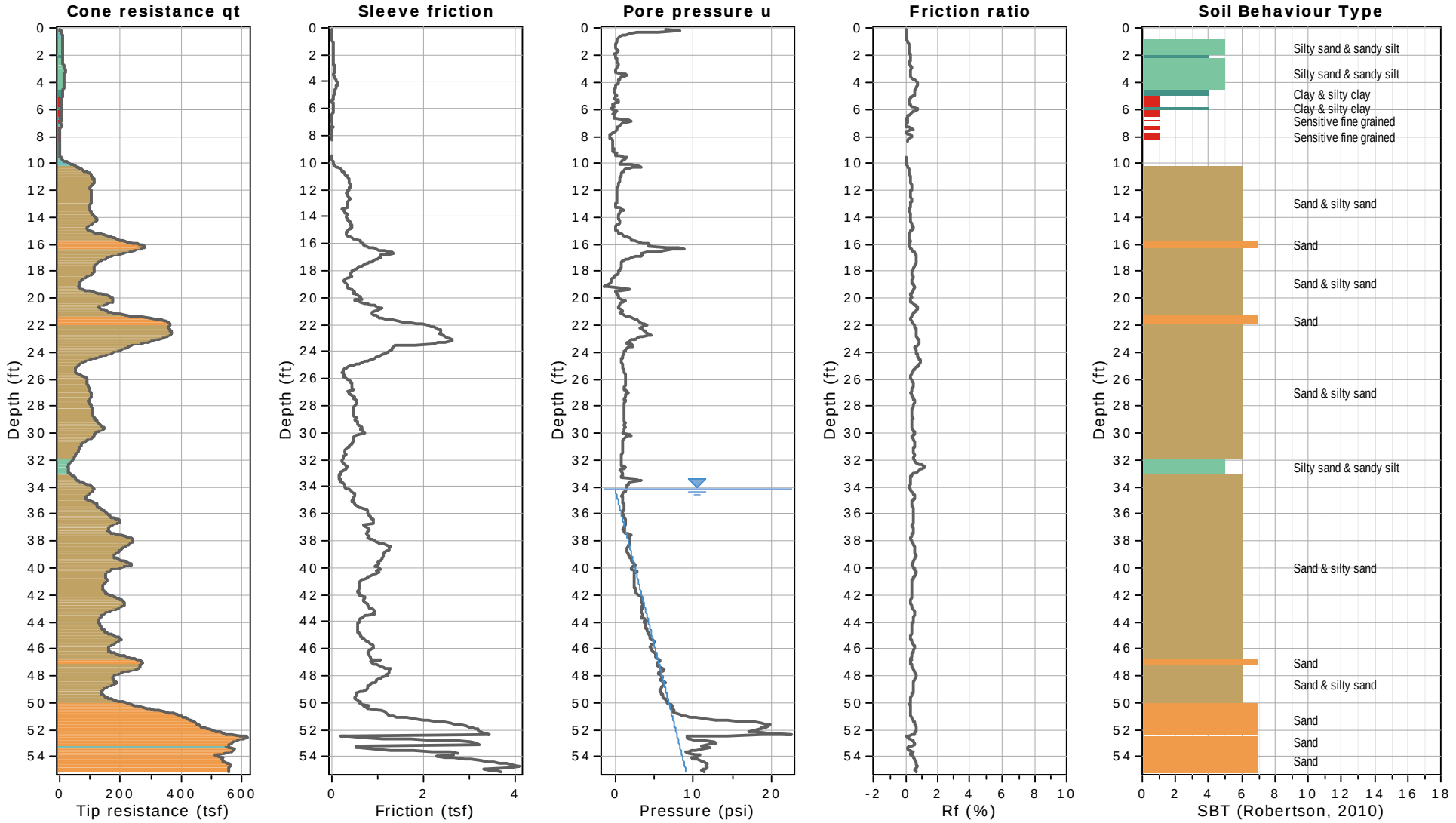
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-06-CPT
Total depth: 55.12 ft, Date: 6/18/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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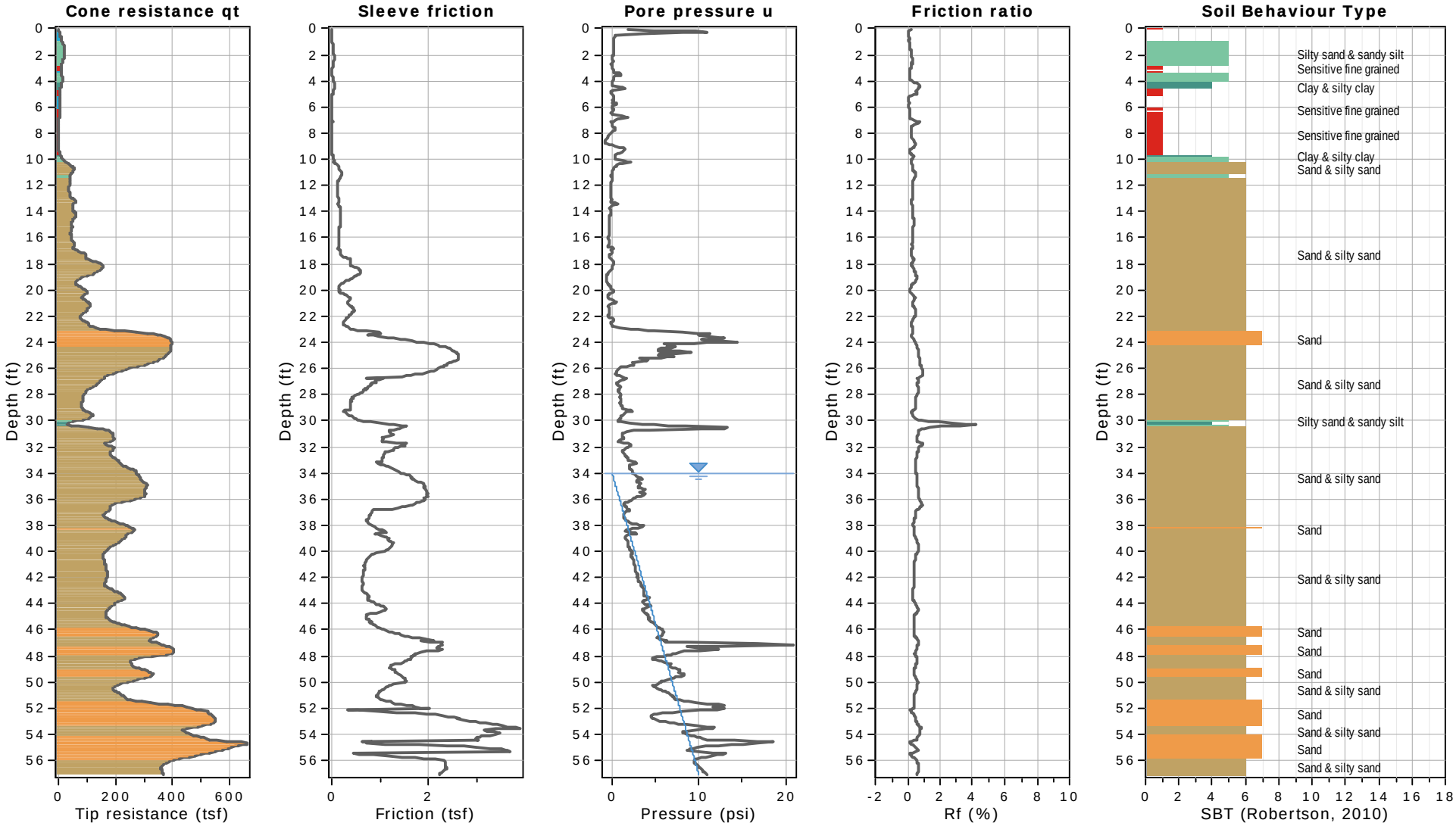
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: HPD-07-CPT
Total depth: 57.09 ft, Date: 6/18/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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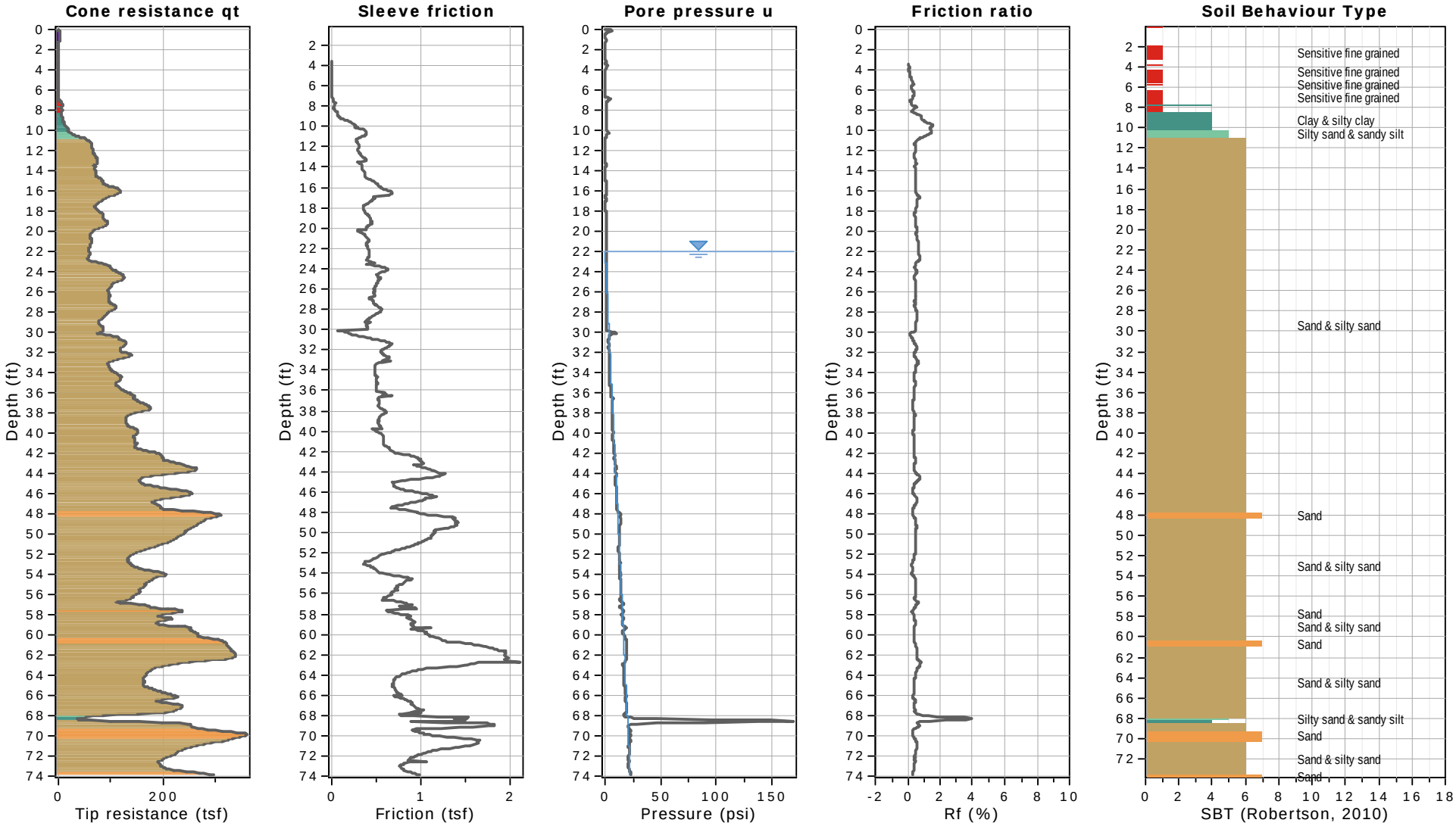
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-08-CPT
Total depth: 73.82 ft, Date: 6/12/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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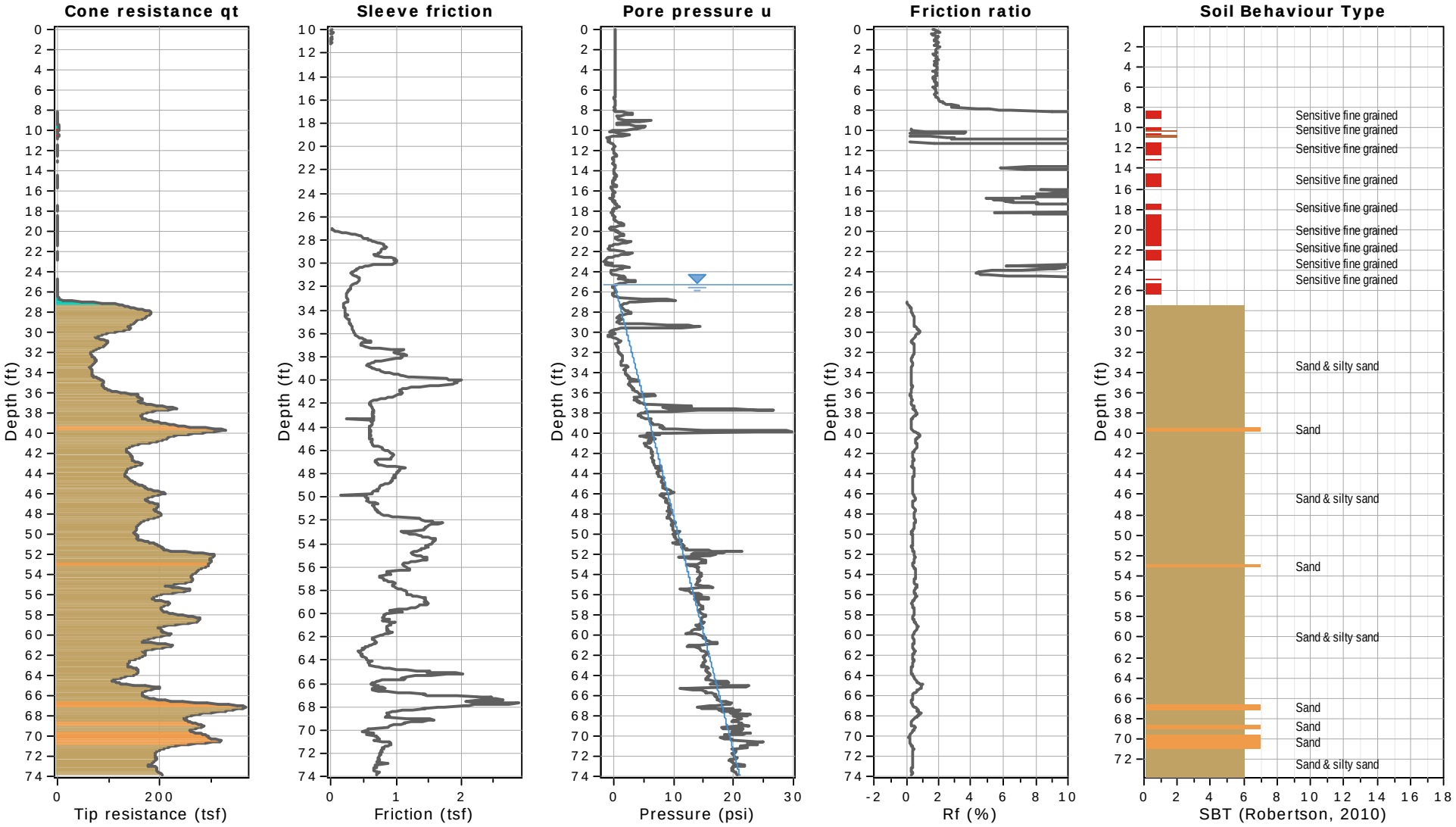
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-09-CPT
Total depth: 73.82 ft, Date: 6/12/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



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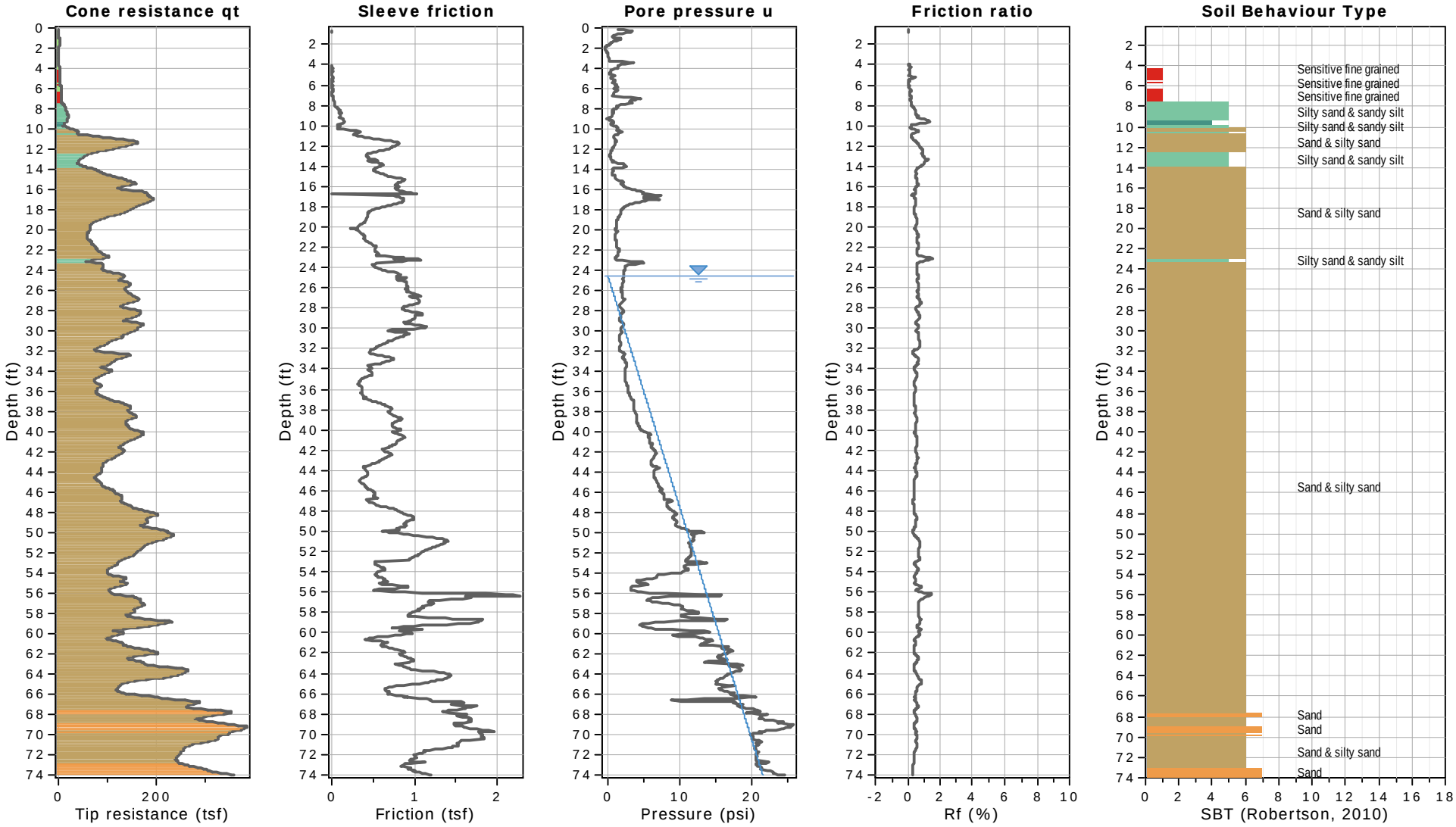
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-10-CPT
Total depth: 74.02 ft, Date: 6/11/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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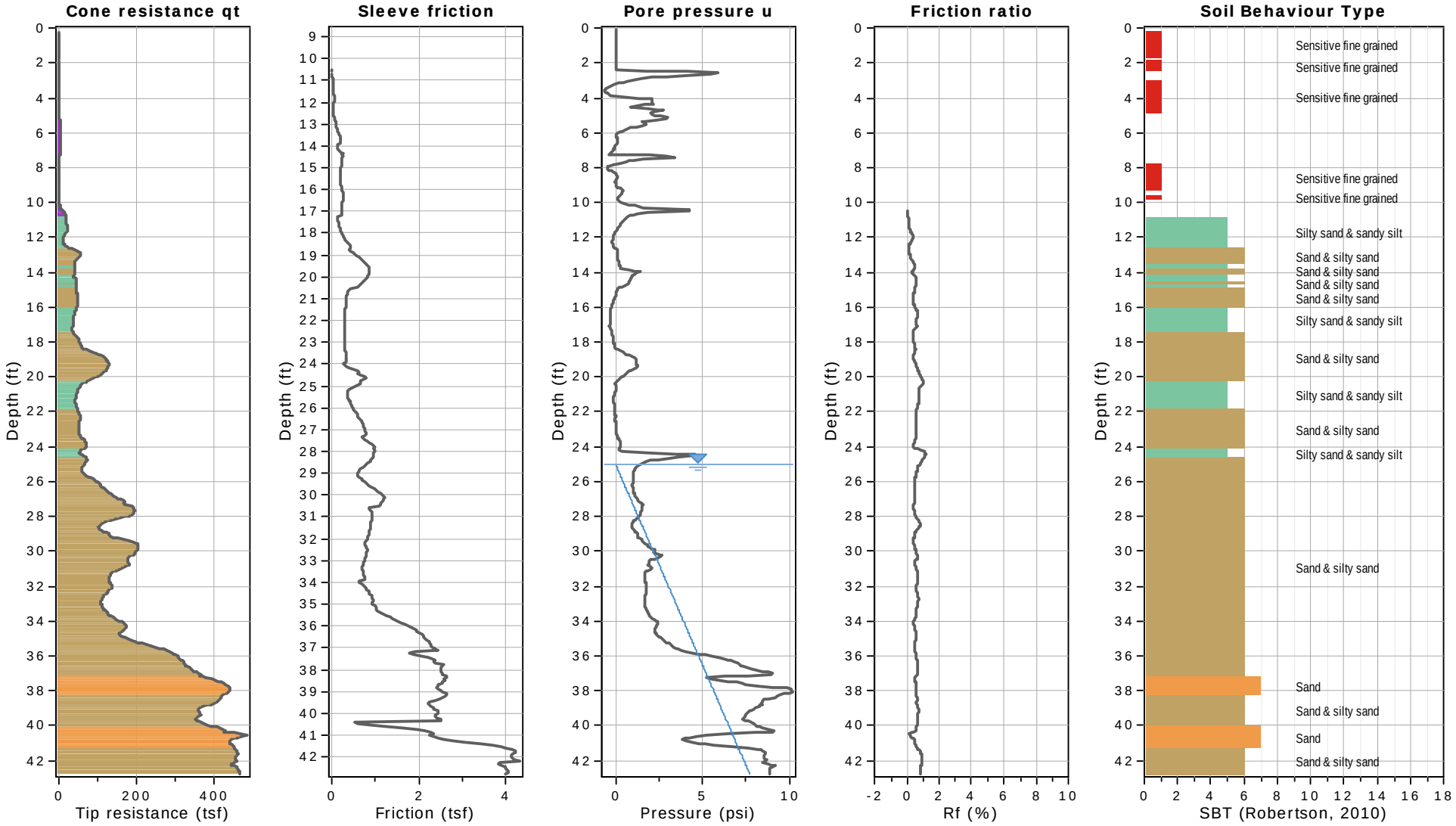
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-11-CPT
Total depth: 42.78 ft, Date: 6/10/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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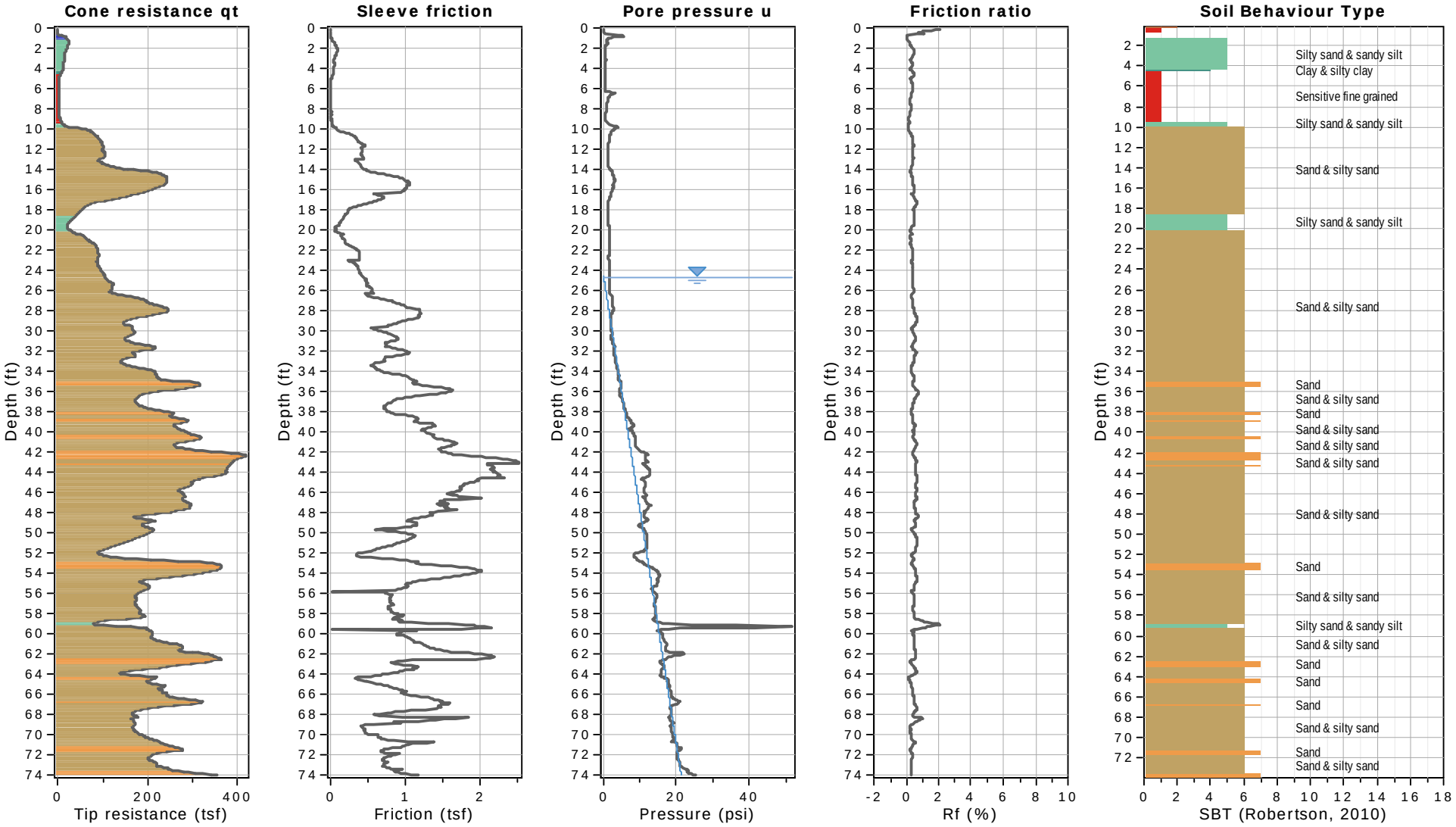
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-12-CPT
Total depth: 73.95 ft, Date: 6/17/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



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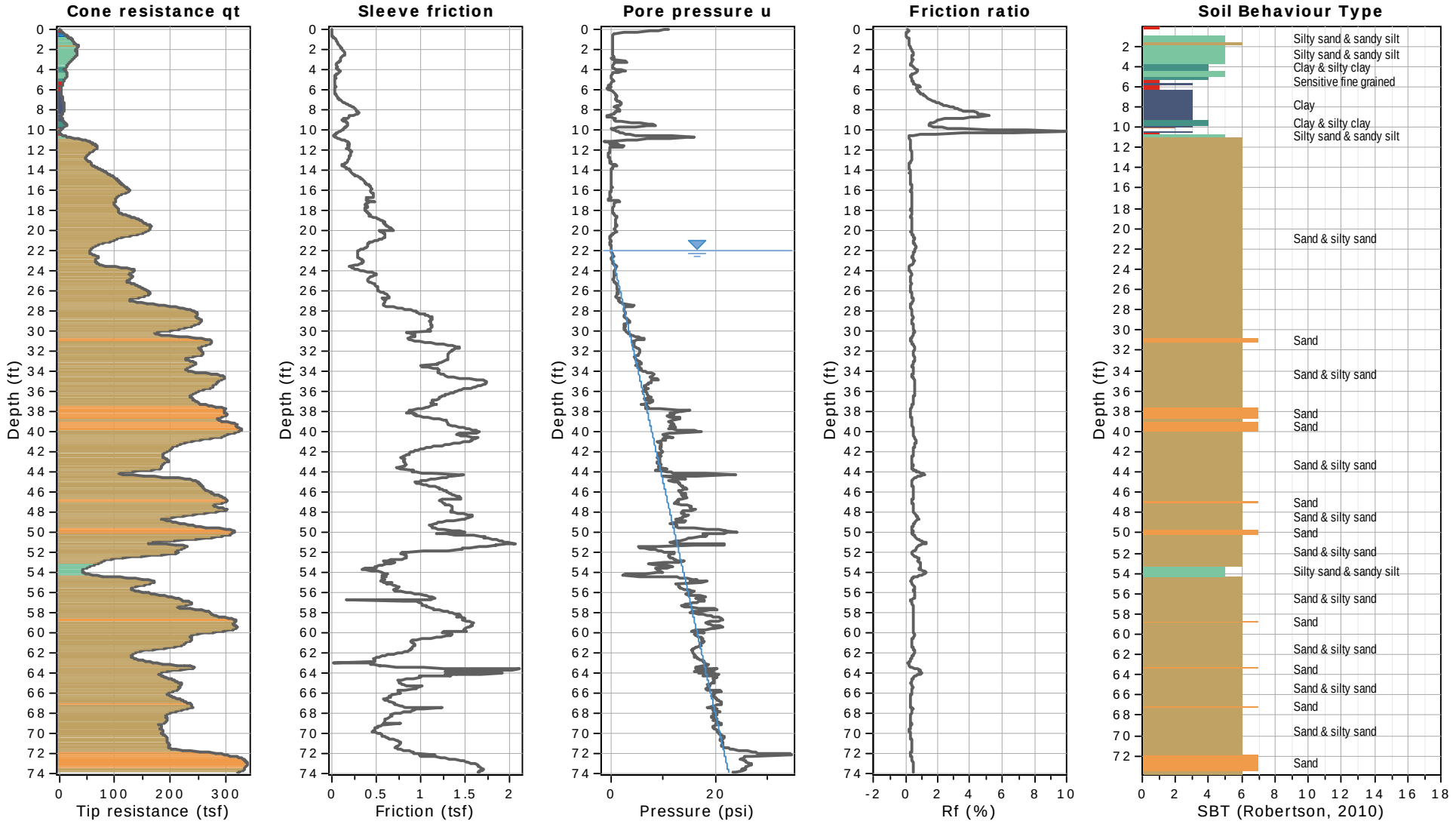
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-13-CPT
Total depth: 73.88 ft, Date: 6/17/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



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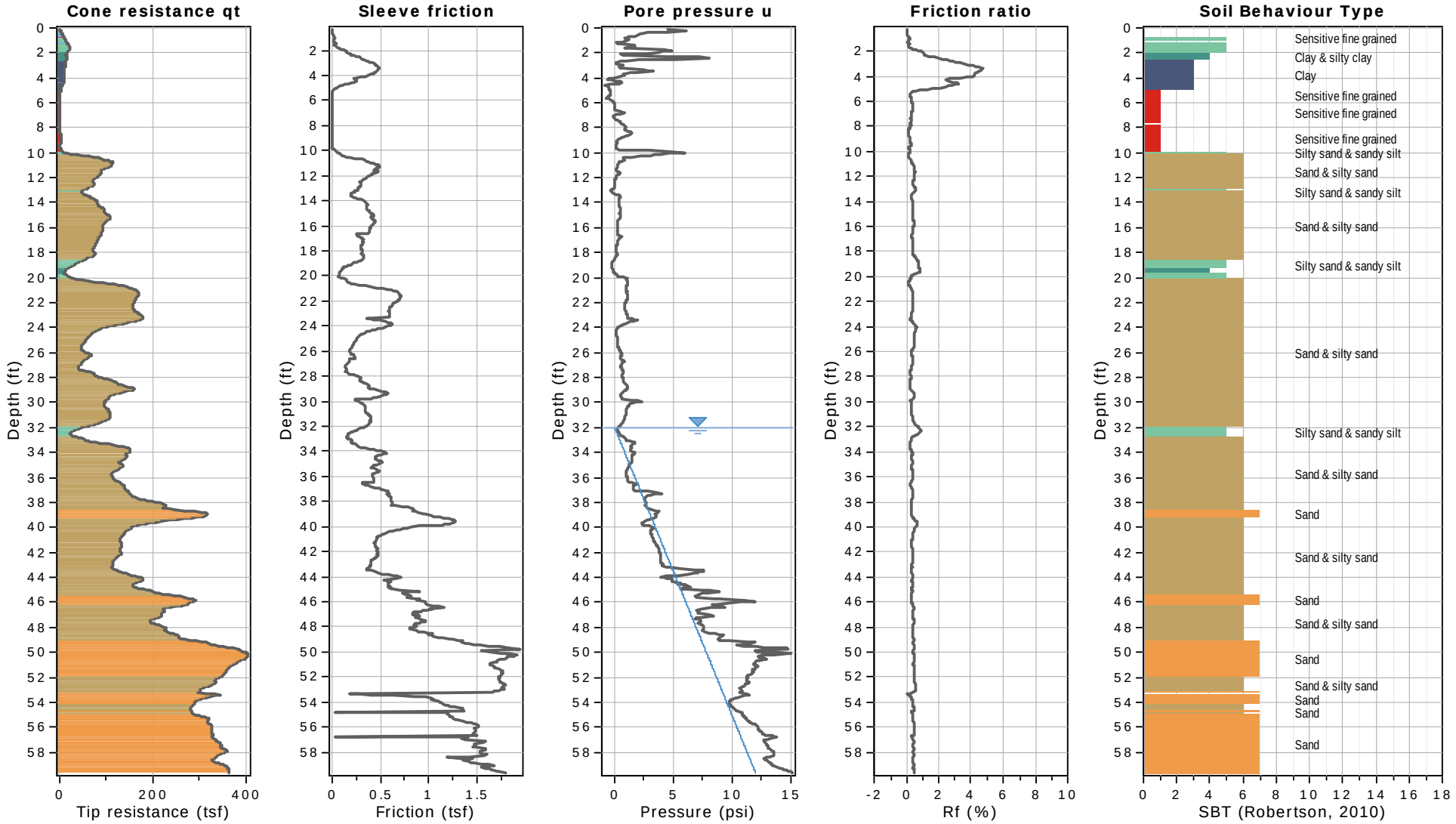
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-14-CPT
Total depth: 59.65 ft, Date: 6/20/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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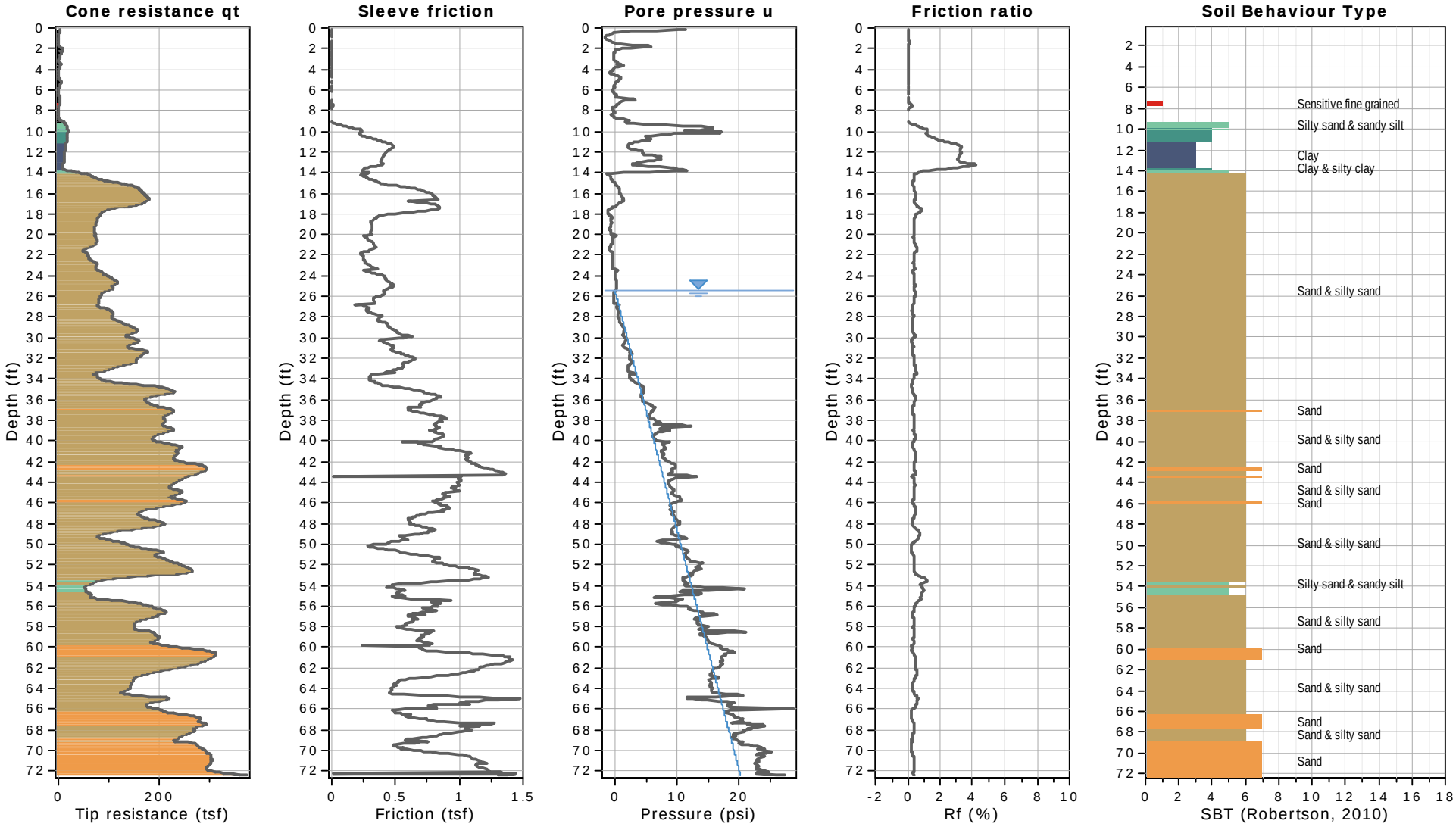
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-15-CPT
Total depth: 72.38 ft, Date: 6/20/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
Chris Hayslip
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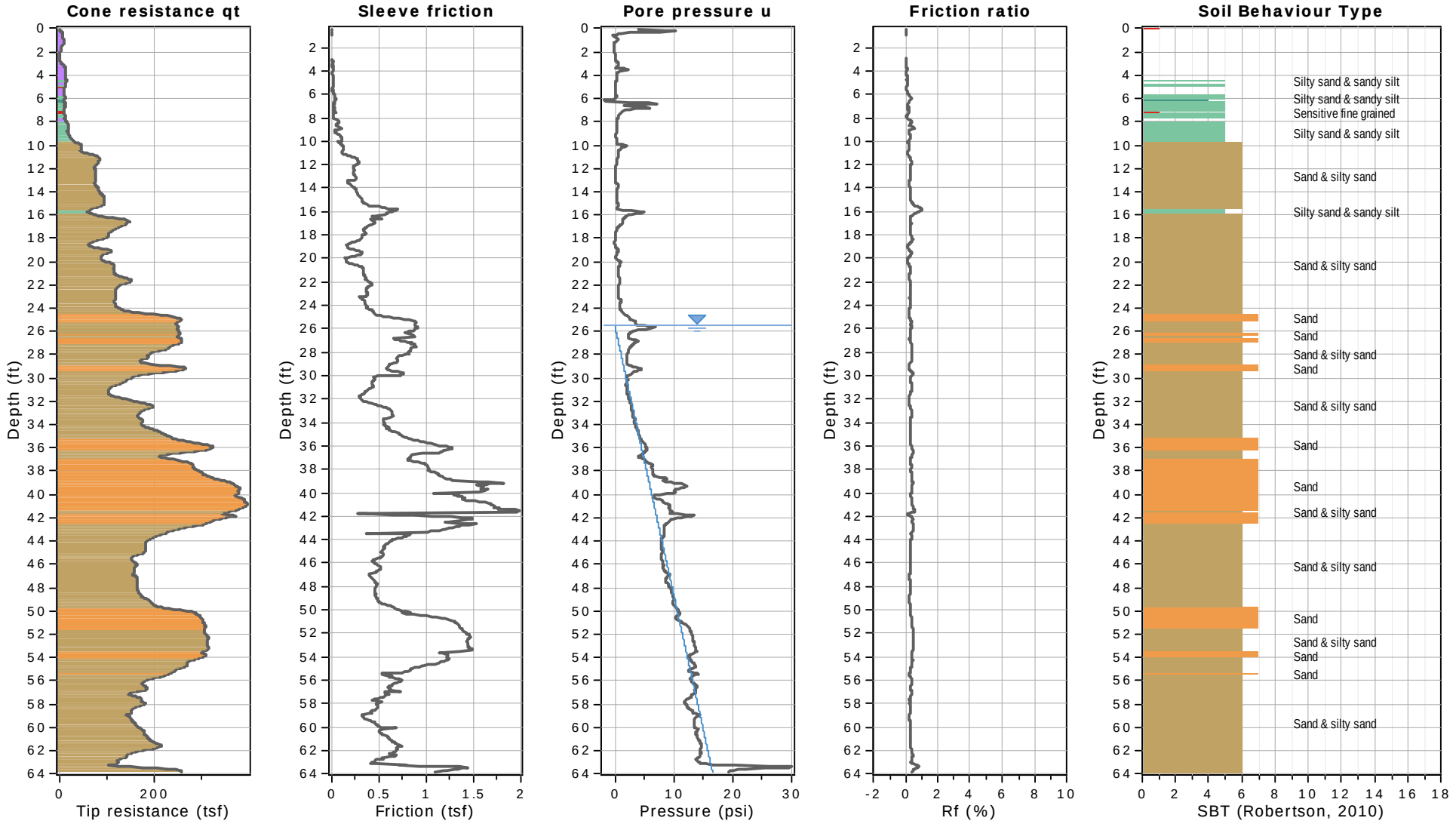
www.whenv.com

Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-16-CPT
Total depth: 63.85 ft, Date: 6/20/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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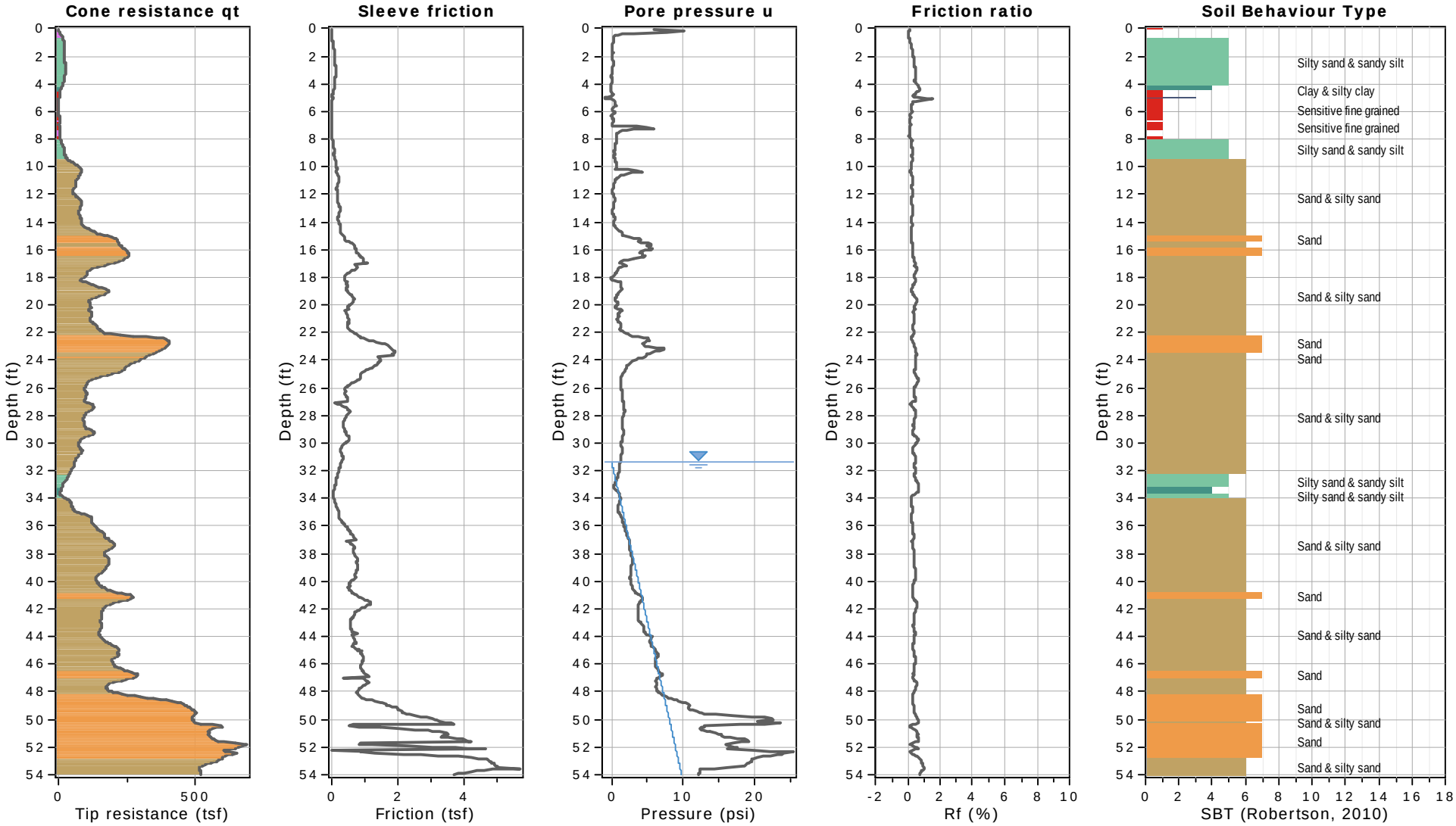
Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-17-CPT
Total depth: 54.00 ft, Date: 6/20/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Walker-Hill Environmental
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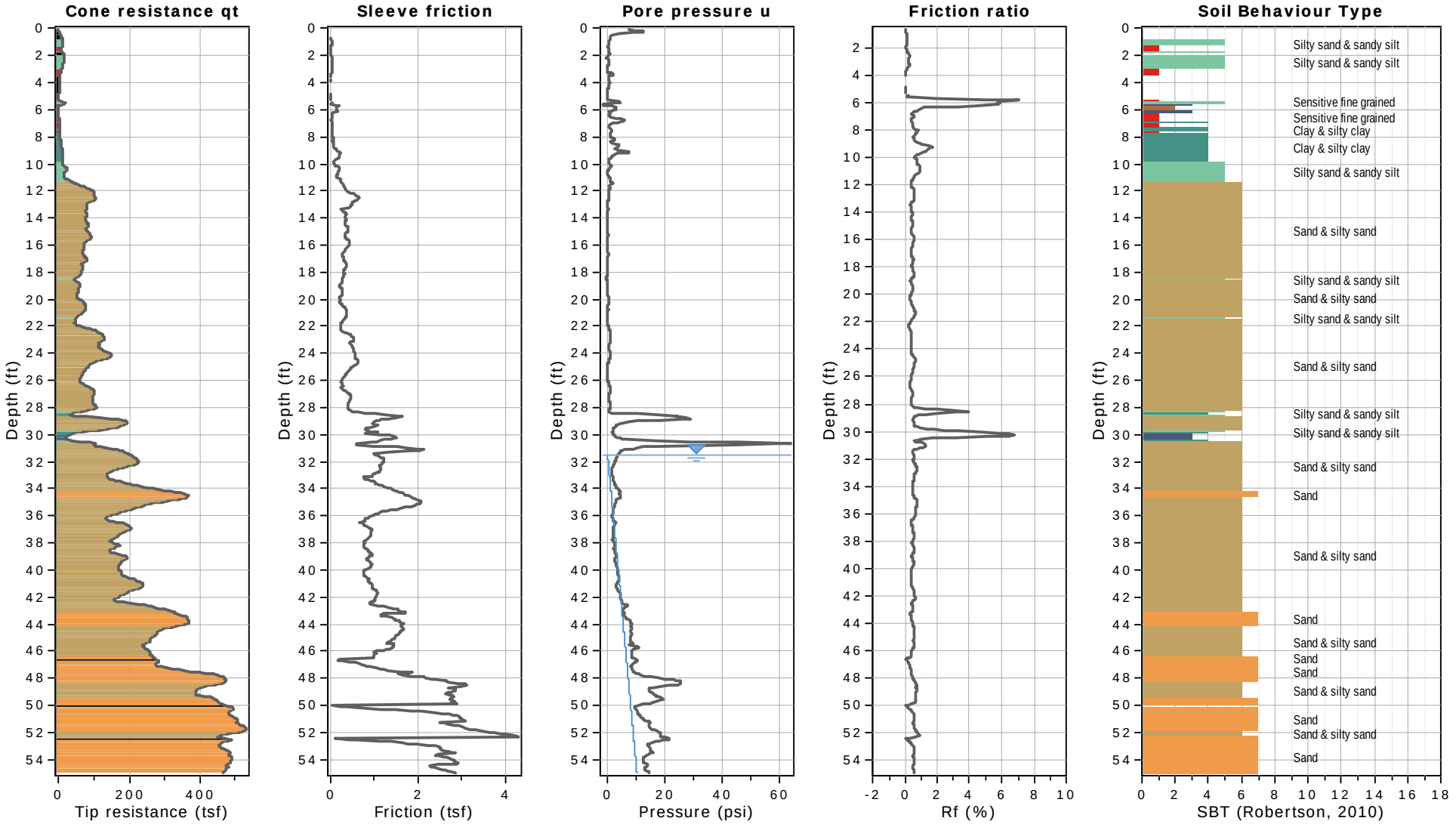
www.whenv.com

Project: **H19013-88IL**
Location: **Roxana, IL**

CPT: PD-19-CPT
Total depth: 54.99 ft, Date: 6/20/2019
Cone Type: Gregg
Cone Operator: Chris Hayslip



Appendix C – Soil Boring Logs

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1.24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-1-SB

Starting Date: 6/17/19
Completion Date: 6/19/19
Casing Elevation: Not Installed
Ground Elevation: 434.75 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791982.56000000
E: (Y):2321984.10

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			ASPHALT	6" asphalt / gravel mix	Air knifed to 10' bgs to clear utilities
				0.0			CL	Soft, moist, dark yellow brown (10 YR - 4/4) CLAY (CL), some fine to medium grained sand	
				0.0				Medium stiff, moist, brown (10 YR - 4/3), low plasticity CLAY (CL), trace silt and fine grained sand	
				0.0				Loose, moist, dark yellow brown (10 YR - 4/6), fine to medium grained poorlysorted SAND (SP), trace silt	
				0.0					
5				0.0				Becomes brown (10 YR - 5/3); Trace silt grades out	
				0.0				Becomes yellow brown (10 YR - 5/4)	
				0.0					
				0.0				Mottling	
				0.0					
10	24	20	2 2 4 7	0.0				Becomes brown (7 1/2 YR - 4/4) and fine grained	Begin hollow stem auger with split spoon sampling
	24	24	2 5 8 11	0.0			SP	Becomes medium dense	
15	24	24	4 8 7 6	0.0					
	24	18	1 2 4 4	0.0				Becomes loose	
	24	16	2 3 5 8	0.0					
20	24	17	5 8 11 14	0.0				Becomes medium dense	
	24	20	3 9 7 8	0.0					
	24	18	2 5	0.0					

Completion Depth: 64.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-1-SB

Starting Date: 6/17/19
Completion Date: 6/19/19
Casing Elevation: Not Installed
Ground Elevation: 434.75 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791982.56000000
E: (Y):2321984.10

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			7 7					SAME: Medium dense, moist, brown (7 1/2 YR - 4/4), fine grained SAND (SP)	
	24	20	4 6 8 9	0.0					
	24	20	8 11 9 12	0.0				Black streaking for 1/4" ▽ Becomes wet	
30	24	12	5 9 14 15	0.0				Becomes fine to medium grained	Begin mud rotary drilling using PureGold gel drilling mud
	24	11	3 7 13 18	0.0					
35	24	13	5 21 31 30	0.0				Becomes very dense	
	24	14	12 19 20 23	0.4			SP		Slight hydrocarbon odor Collected sudan PD-1-SB-37 (Green; negative)
	24	11	12 16 22 19	131				Becomes dense and gray (7 1/2 YR - 5/1)	
40	24	16	16 26 28 30	>5000				Becomes very dense and very dark gray (10 YR - 3/1)	Hydrocarbon odor Collected sudan PD-1-SB-40 (Dark green; negative)
	24	8	12 11 12 17	>5000				Becomes medium dense	Driller noticed slight sheen floating on top of mud pit liquids Hydrocarbon odor
45	24	16	8 10 8 11	552					Hydrocarbon odor, visible sheen
	24	15	10 15 25 25	320				Becomes dense and very dark gray (10 YR - 4/1)	Collected sudan PD-1-SB-46 (Dark green; negative) Hydrocarbon odor
	24	16	13 29 38 31	166				Becomes very dense	Hydrocarbon odor

Completion Depth: 64.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCESIGINTDATAIGINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATAIG NTENVIRONMENTALAECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-1-SB

Starting Date: 6/17/19
Completion Date: 6/19/19
Casing Elevation: Not Installed
Ground Elevation: 434.75 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791982.56000000
E: (Y):2321984.10

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	19.5						SAME: Dense, wet, very dark gray (10 YR - 4/1), fine to medium grained SAND (SP)	Physical sample PD-1-SB-51-061819
	24	12	8 15 15 18	2178				Becomes medium dense	Hydrocarbon odor Analytical sample PD-1-SB-53-061819
55	24	15	8 18 21 21	10.3				Becomes dense	Slight hydrocarbon odor Analytical sample PD-1-SB-55-061819
	24	24	6 8 12 12	102			SP	Becomes medium dense	Slight hydrocarbon odor
	24	0	4 6 10 14						
60	24	12	6 8 12 14	28				Becomes gray and well sorted	Slight hydrocarbon odor
	24	22	6 8 8 10	22					Faint hydrocarbon odor
65								Bottom of boring at 64' bgs	Boring backfilled with high solids grout via tremie to surface.
70									

Completion Depth: 64.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-2-SB

Starting Date: 7/9/19
Completion Date: 7/10/19
Casing Elevation: Not Installed
Ground Elevation: 443.82 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792019.06000000
E: (Y):2322167.16

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
				0.0	TOPSOIL	2" sod	Air knifed to 10' bgs to clear utilities
				0.0	ML	Soft, moist, very dark brown (10 YR - 2/2), low plasticity SILT (ML), some clay	
				0.0		Soft, moist, dark brown (10 YR - 3/3), low plasticity CLAY (CL), trace very fine grained sand	
				0.0		Medium stiff, moist, brown (10 YR - 4/4), medium plasticity CLAY (CL), trace very fine grained sand	
				0.0		Becomes brown (10 YR - 4/3)	
5				0.0	CL	Becomes brown (10 YR - 4/6) with trace silt	
				0.0		Soft, moist, dark yellow brown (10 YR - 3/4), non-plastic CLAY (CL), trace fine grained sand	
				0.0		Becomes dark yellow brown (10 YR - 3/6)	
				0.0		Very loose, moist, yellow brown (10 YR - 5/4), fine to medium grained SAND (SP)	
				0.0		Becomes dark yellow brown (10 YR - 4/4)	
				0.0		Becomes dark yellow brown (10 YR - 4/6)	
10	24	18	3 2 2 3	0.75 0.0		Loose, dry, 10 YR - 4/4, well sorted, fine to medium grained SAND (SP)	Begin hollow stem auger with split spoon sampling
	24	19	5 9 14 17	0.0 0.5		Becomes medium dense and 10 YR - 4/6	
15	24	18	3 5 10 7	0.6 0.5		Becomes 10 YR - 6/4	
	24	20	3 3 4 4	0.1 0.0	SP	Becomes loose	
	24	18	3 3 4 3	0.5 0.6			
20	24	24	3 5 7 7	0.4 1.3		Becomes with 10 YR - 3/2 silt for 6" Becomes medium dense and 10 YR - 5/4	
	24	9	3 4 4 5	0.5		Becomes loose	
	24	22	3 5	0.9		Becomes medium dense	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Bell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-2-SB

Starting Date: 7/9/19
Completion Date: 7/10/19
Casing Elevation: Not Installed
Ground Elevation: 443.82 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792019.06000000
E: (Y):2322167.16

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			7 8	0.5				SAME: Medium dense, dry, 10 YR - 5/4, well sorted, fine to medium grained SAND (SP)	
	24	22	4 6 7 7	0.5 0.3			SP		
	24	21	3 4 8 8	0.5 0.2			CL	2" lens; Soft, dry, 10 YR - 5/4, medium plasticity, fine grained SANDY CLAY (CL)	
30	24	22	6 6 8 7	0.8 0.5					
	24	20	4 8 12 11	0.7 0.3			SP		
35	24	18	3 6 8 11	0.3 0.4					
	24	20	1 1 3 6	0.8 0.9			SM	8" lens; Loose, wet, 10 YR - 4/4, well sorted, fine grained SILTY SAND (SM) ▽	
	24	19	1 3 7 8	1.0 0.6				Loose, wet, 10 YR - 4/4, well sorted, fine grained SAND (SP)	
40	24	12	7 8 9 12	1.3				Becomes medium dense	Begin mud rotary drilling
	24	10	4 8 9 9	51			SP		
45	24	12	5 7 10 13	42 185				Black staining	
	24	15	12 15 15 20	4.0 20				Becomes coarse grained for 2" 1/8" - 2" layer; 50% lignite / coal	
	24	18		432 438				Becomes 10 YR - 5/2	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Bell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-2-SB

Starting Date: 7/9/19
Completion Date: 7/10/19
Casing Elevation: Not Installed
Ground Elevation: 443.82 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792019.06000000
E: (Y):2322167.16

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	18		341				SAME: Medium dense, wet, 10 YR - 5/2, well sorted, fine grained SAND (SP)	Strong hydrocarbon odor Sample PD-2-50-070919 Collected sudan (Red; positive)
	24	12	2 1 9 28	68				Becomes loose	Slight hydrocarbon odor Sample PD-2-52-070919 Collected sudan (No red; negative)
55	24	16	30 42 48 27	62				Becomes very dense	
	24	19	22 30 50 44	18 11				Becomes coarse grained for 1" Becomes 10 YR - 4/4	
	24	0		16 4.0					
60							SP	Becomes coarse grained for 2"	
	24	9	3 4 7 9	18				Becomes 5 YR - 4/4	No hydrocarbon odor Sample PD-2-60-070919, DUP Collected sudan (No red; negative)
	24	16	16 22 30 30	22 7.0				Becomes very dense Becomes coarse grained for 2"	
65	24	15	22 31 36 27	2.0 3.0					
	24	18	9 15 17 20	11 0.5					
	24	12	22 29 34 26	18					
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Bell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-3-SB

Starting Date: 6/6/19
Completion Date: 6/6/19
Casing Elevation: Not Installed
Ground Elevation: 444.64 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792017.91000000
E: (Y):2322267.45

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			TOPSOIL	2" sod	
				0.0			CL	Soft, moist, dark brown (10 YR - 3/3), low plasticity CLAY (CL), trace very fine grained sand Becomes dark brown (10 YR - 3/2)	
				0.0				Becomes dark brown (10 YR - 3/3) and medium plasticity	
				0.0				Loose, moist, brown (10 YR - 3/3), medium grained SAND (SP), with silt	
				0.0				Becomes reddish brown (7.5 YR - 4/3) with some silt	
5				0.0				Loose, moist, dark brown (7.5 YR - 4/3), fine to medium grained SAND (SP), some clay and silt, mottling	
				0.0			SP	Loose, moist, reddish brown (7.5 YR - 4/3), medium grained SAND (SP), some silt Becomes brown (7.5 YR - 4/3) with trace silt	
				0.0				Becomes brown (7.5 YR - 3/4)	
				0.0				Becomes tan (7.5 YR - 5/6) and medium to coarse grained; Trace silt grades out	
10								Bottom of boring at 10' bgs	No soil boring advanced. Boring cleared for CPT and groundwater profiling purposes.
15									
20									

Completion Depth: 10.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: Hand Auger
Drill Rig Type: Hand Auger
Logged by: B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: _____ ft., After _____ hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-4-SB

Starting Date: 6/20/19
Completion Date: 6/24/19
Casing Elevation: Not Installed
Ground Elevation: 434.47 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791932.39000000
E: (Y):2321942.06

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			ASPHALT	8" asphalt / gravel mix	Air knifed to 10' bgs to clear utilities
				0.0			CL	Soft, moist, black (10 YR - 2/1) SILTY CLAY (CL), trace very fine grained sand	
				1.5			CL	Soft, moist, very dark brown (10 YR - 2/2), low plasticity CLAY (CL), with silt and trace very fine grained sand	Strong hydrocarbon odor, oily sheen
				2.3				Soft, moist, black (10 YR - 2/1), high plasticity CLAY (CL), trace silt and very fine grained sand	Strong hydrocarbon odor, oily sheen
				0.0			ML	Soft, moist, dark brown (7.5 YR - 3/3), fine grained SANDY SILT (ML), with clay	
5				0.0			CL	Soft, moist, dark brown (7.5 YR - 3/3), medium grained, low plasticity SANDY CLAY (CL), with silt	
				0.0				Black staining	
				0.0			SC	Loose, moist, dark yellow brown (10 YR - 4/4), medium grained CLAYEY SAND (SC), with silt	
				0.0				Loose, moist, brown (7.5 YR - 4/6), fine to medium grained SAND (SP), with silt	
				0.0					
10	24	18	4 4 5 7	0.0				Becomes well sorted and fine grained; With silt grades out	Begin hollow stem auger with split spoon sampling
	24	18	2 2 3 5	0.0					
15	24	19	6 7 6 8	0.0				Becomes medium dense	
	24	16	1 3 6 7	0.0			SP	Becomes loose Black streaking	
	24	21	4 5 5 6	0.0					
20	24	20	6 5 5 4	0.0					
	24	17	2 3 5 6	0.0				Black streaking	
	24	19	5 6	0.0				Becomes medium dense Black streaking	

Completion Depth: 62.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 31 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1.24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-4-SB

Starting Date: 6/20/19
Completion Date: 6/24/19
Casing Elevation: Not Installed
Ground Elevation: 434.47 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791932.39000000
E: (Y):2321942.06

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			7 9					SAME: Medium dense, moist, brown (7.5 YR - 4/6), well sorted, fine grained SAND (SP)	
	24	15	6 10 8 5	0.0					
	24	15	5 8 10 6	0.0					
30	24	22	5 6 8 8	0.0				▽ Becomes wet Trace fine gravel and coarse grained sand	
	24	0							Physical soil sample PD-4-SB-33-062119
35	24	17	4 6 4 8	0.7				Loose, wet, brown (7.5 YR - 4/4), well sorted, fine to medium grained SAND (SP)	Analytical sample PD-4-SB-35-062119
	24	18	15 17 10 14	71			SP	Becomes medium dense Becomes black (10 YR - 2/1)	Strong hydrocarbon odor Collected sudan (Negative)
	24	9	8 11 11 14	1.0				Becomes dark gray (7.5 YR - 3/1)	Slight hydrocarbon odor
40	24	13	4 4 7 9	30.9					Hydrocarbon odor Analytical sample PD-4-SB-41-062419
	24	12	8 11 14 18	444					Hydrocarbon odor Collected sudan (Negative)
45	24	13	12 20 24 20	46.1				Dense, wet, light gray, fine grained SAND (SP)	
	24	17	28 36 42 50	25.8				Becomes very dense	
	24	12	11 14 16 14	956				Becomes medium dense	Strong hydrocarbon odor

Completion Depth: 62.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 31 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-4-SB

Starting Date: 6/20/19
Completion Date: 6/24/19
Casing Elevation: Not Installed
Ground Elevation: 434.47 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791932.39000000
E: (Y):2321942.06

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	24	16 21 24 31	960				Dense, wet, light gray, fine grained SAND (SP)	Strong hydrocarbon odor
								Black streaking for 2"	
	24	14	14 10 12 12	366				Becomes medium dense	
								Becomes fine to medium grained	Hydrocarbon odor Analytical sample PD-4-SB-53-062419
55	24	24	14 17 22 24	82				Becomes dense	
								Becomes coarse grained for 2"	Slight hydrocarbon odor
	24	0	2 2 6 11				SP	Becomes loose	
	24	24	10 13 17 23	18				Medium dense, wet, gray, fine to coarse grained SAND (SP)	
60									Physical soil sample PD-4-SB-60-062419 Boring backfilled with high solids grout via tremie to surface.
							CL	Medium stiff, wet, dark gray CLAY (CL)	
								Bottom of boring at 62' bgs	
65									
70									

Completion Depth: 62.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 31 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-5-SB

Starting Date: 6/13/19
Completion Date: 6/14/19
Casing Elevation: Not Installed
Ground Elevation: 435.49 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791917.79000000
E: (Y):2322037.88

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			GRAVEL	6" gravel	Air knifed to 10' bgs to clear utilities
				0.0			CL	Soft, moist, brown (10 YR - 4/3), low plasticity CLAY (CL), some silt and very fine grained sand	
				0.0			SP	Loose, moist, yellow brown (10 YR - 5/4), fine grained SAND (SP), some silt Becomes light yellow brown (10 YR - 6/4) with trace silt	
5				0.0					
				0.0			ML	Soft, moist, dark yellow brown (10 YR - 4/6) SILT (ML), trace very fine grained sand, mottling Becomes some very fine grained sand; Mottling grades out	
				0.0			SP	Loose, moist, yellow brown (10 YR - 5/4), fine to medium grained SAND (SP)	
				0.0					
10	24	20	3 4 5 5	0.0				Becomes light brown (10 YR - 4/4) and fine grained	Begin hollow stem auger with split spoon sampling
	24	18	5 7 9 9	0.0				Becomes medium dense	
15	24	24	6 8 13 13	0.0					
	24	20	9 12 9 7	0.0					Analytical sample PD-5-SB-17-061319
	24	22	5 6 6 6	0.0					
20	24	22	8 7 10 7	0.0				Becomes grayish brown (10 YR - 5/2) with thin black streaks for 6"	
	24	20	2 3 3 4	0.0				Becomes loose Becomes yellowish red (5 YR - 5/8)	
	24	22	2 4	0.0				Black (10 YR - 5/1) streaking for 1.5"	

Completion Depth: 62.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur, B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-5-SB

Starting Date: 6/13/19
Completion Date: 6/14/19
Casing Elevation: Not Installed
Ground Elevation: 435.49 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791917.79000000
E: (Y):2322037.88

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			6 8					Loose, moist, light brown (10 YR - 5/3), fine grained SAND (SP)	
	24	16	2 4 6 8	0.0					
								Becomes medium dense	
	24	17	6 7 8 10	0.0				▽ Becomes wet and yellowish brown (10 YR - 5/6)	
30									
	24	12	10 17 20 11	0.1				Dense, wet, yellowish brown (10 YR - 6/2), fine to medium grained SAND (SP)	
	24	12	9 11 11 14	3.7				Becomes medium dense	
35	24	14	7 9 11 17	106 165					
								Becomes very dense	
	24	20	15 26 32 36	1109.3			SP	2" lens; Fine gravel	Collected sudan (Negative)
								Becomes medium dense	
	24	14	7 5 9 9	509					
40									
	24	10	8 16 24 20	>5000				Dense, wet, gray (10 YR - 5/1), coarse grained SAND (SP)	Collected sudan (Negative)
	24	11	11 20 24 29	>5000					Analytical sample PD-5-SB-43-061419 Collected sudan (Postivive)
								Becomes medium dense	
45	24	12							Physical properties sample PD-5-SB-45-061419
	24	13	6 10 12 12	353				Dense, wet, grayish brown (10 YR - 4/2), fine to medium grained SAND (SP)	
								Becomes very dense	
	24	12	9 16 24 29	553					

Completion Depth: 62.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur, B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-5-SB

Starting Date: 6/13/19
Completion Date: 6/14/19
Casing Elevation: Not Installed
Ground Elevation: 435.49 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791917.79000000
E: (Y):2322037.88

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	12	9 16 34 38	2555				Dense, wet, dark gray (10 YR - 4/1), fine to medium grained SAND (SP)	Volatile odor
	24	12	12 23 16 16	1612					Analytical sample PD-5-SB-53-061419 Collected sudan (Positive)
55									
	24	20					SP		Physical properties sample PD-5-SB-57-061419
	24	16	7 9 13 17	3200				Becomes medium dense	
60	24	15	11 10 10 11	98					
								Bottom of boring at 62' bgs	Analytical sample PD-5-SB-62-061419 Boring backfilled with high solids grout via tremie to surface.
65									
70									

Completion Depth: 62.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur, B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-6-SB

Starting Date: 7/11/19
Completion Date: 7/12/19
Casing Elevation: Not Installed
Ground Elevation: 443.74 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791958.05000000
E: (Y):2322180.31

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			TOPSOIL	2" sod	Air knifed to 10' bgs to clear utilities
				0.0				Soft, moist, dark brown (10 YR - 3/2), low plasticity CLAY (CL), some silt and trace very fine grained sand	
				0.0				Medium stiff, moist, brown (10 YR - 3/4), medium plasticity CLAY (CL), trace very fine grained sand	
				0.0			CL	Becomes brown (7.5 YR - 4/3)	
				0.0				Soft, moist, light brown (7.5 YR - 4/4), medium plasticity CLAY (CL), trace very fine grained sand, few mottling	
5				0.0				Soft, moist, light brown (10 YR - 5/4), medium plasticity CLAY (CL), trace medium grained sand	
				0.0				Becomes medium stiff with few mottling	
				0.0				Very loose, moist, tan (10 YR - 6/3), fine to medium grained SAND (SP)	
				0.0					
				0.0				Becomes dark tan (10 YR - 6/3)	
				0.0					
10	24	19	3 5 5 6	0.0				Medium dense, dry, 10 YR - 5/4, well sorted, fine grained SAND (SP)	Begin hollow stem auger with split spoon sampling
	24	16	1 5 6 6	0.0 0.1			SP		
15	24	20	2 6 9 7	0.2 0.5					
	24	16	2 4 5 5	0.3 0.2				Becomes loose and 10 YR - 4/4	
	24	21	2 3 4 3	0.3 0.1					
20							GM	2" lens; Soft, moist, dark gray (5 YR - 3/2) SILTY GRAVEL (GM)	
	24	22	4 7 3 12	0.3 0.4					
	24	23	4 10 19 22	0.4 0.8			SP	Becomes medium dense	
	24	22	5 4	0.1				Becomes loose	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Bell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-6-SB

Starting Date: 7/11/19
Completion Date: 7/12/19
Casing Elevation: Not Installed
Ground Elevation: 443.74 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791958.05000000
E: (Y):2322180.31

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			3 5	0.1				SAME: Loose, dry, 10 YR - 4/4, well sorted, fine grained SAND (SP)	
	24	21	2 4 5 7	0.1 0.0					
	24	22	6 7 7 9	0.2				Becomes medium dense	
30	24	23	6 7 10 13	0.1 0.0					
	24	16	3 6 8 11	0.0					
35	24	22	6 8 9 14	0.1 0.0			SP	▽	
	24	20	4 6 10 10	0.0				Becomes wet	
	24	18	9 8 9 11	131 261					
40	24	19		19.4					
	24	16							Physical properites sample PD-6-SB-41-071119. Begin mud rotary drilling
	12	0							
45	24		15 21 23 11	37 30				Becomes dense	Analytical sample PD-6-SB-45-071119, MS / MSD
							CL	1" lens; Stiff, wet, 10 YR - 4/5 CLAY (CL)	Analytical Hydrocarbon odor, keroseen and sheen Collected sudan (Red; positive) Sample PD-6-SB-46-071119
	12	12		531					
	24	12	10 18 22 29	375			SP		

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Bell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCESIGINTDATAIGINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESIG NTDATAIG NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-6-SB

Starting Date: 7/11/19
Completion Date: 7/12/19
Casing Elevation: Not Installed
Ground Elevation: 443.74 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791958.05000000
E: (Y):2322180.31

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	14	10 22 31 27	198 280				SAME: Very dense, wet, 10 YR - 4/4, well sorted, fine grained SAND (SP) Coarse grained sand	Analytical Sample PD-6-SB-51-071119
	24	11	34 50 50 50	30 165					
55	24	18	25 35 30 30	161					Analytical sample PD-6-SB-54-071119
	24	21	14 19 27 22	75 106				Becomes dense	
	24	11	18 23 25 17	14					
60	24	12	12 16 19 22	0.1 0.2			SP	Becomes dark grayish brown (2.5 YR - 4/2) with silt	
	24	14	15 18 17 18	0.1					Analytical sample PD-6-SB-63-071219
65	24	12	7 17 21 14	5.4 6.2				Becomes coarse grained with trace fine subrounded gravel for 3" Becomes dark gray (10 YR - 4/1)	
	24	18	9 15 23 26	1.7 0.75					
	24	18	12 22 23 25	1.55 0.25				Becomes dark grayish brown (2.5 YR - 4/2)	
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Bell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-7-SB

Starting Date: 7/16/19
Completion Date: 7/19/19
Casing Elevation: Not Installed
Ground Elevation: 443.52 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791939.17000000
E: (Y):2322270.72

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
				0.0	ASPHALT / GRAVEL	4.8" asphalt 2" gravel	Air knifed to 10' bgs to clear utilities
				0.0	ML	Soft, moist, dark gray (10 YR - 2/1), non-plastic SILT (ML), trace fine grained sand Becomes dark olive gray (10 YR - 3/3)	
				0.0	CL	Soft, moist, brown (10 YR - 4/4), low plasticity CLAY (CL), some fine grained sand, mottling Soft, moist, reddish brown (10 YR - 4/4), low plasticity CLAY (CL), with fine grained sand	
				0.0	SP	Loose, moist, reddish brown (5 YR - 4/6), medium grained SAND (SP), trace silt	
5				0.0	ML	Soft, moist, light brown (5 YR - 5/6) SILT (ML), trace very fine grained sand	
				0.0		Loose, moist, brown (5 YR - 5/6), fine grained SAND (SP), some silt	
				0.0		Loose, moist, tan (7.5 YR - 5/6), medium grained SAND (SP), trace silt	
				0.0		Becomes dark brown (7.5 YR - 5/6) with some clay; Trace silt grades out	
				0.0		Very loose, moist, tan (7.5 YR - 5/6), fine to medium grained SAND (SP), mottling	
10	24	18	1 3 3 4	0.0		Loose, moist, dark yellow brown (10 YR - 4/4), fine grained SAND (SP), with silt, mottling	Begin hollow stem auger with split spoon sampling
	24	22	2 3 3 4	0.0			
15	24	14	3 4 4 4	0.0	SP	Becomes yellowish brown (10 YR - 5/6)	
	24	16	2 3 5 8	0.4			
	24	20	5 3 3 4	0.0			
20	24	20	3 4 5 7	0.0			
	24	18	4 12 18 23	0.0		Becomes medium dense	
	24	18	8 17	0.0		Becomes pale brown (10 YR - 6/3) Mottling Becomes dense	

Completion Depth: 72.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1.24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-7-SB

Starting Date: 7/16/19
Completion Date: 7/19/19
Casing Elevation: Not Installed
Ground Elevation: 443.52 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791939.17000000
E: (Y):2322270.72

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			21 15	0.075				SAME: Dense, moist, pale brown (10 YR - 6/3), fine grained SAND (SP), with silt	
	24	18	3 4 4 6	0.0			SP	Becomes loose	Analytical sample PD-7-SB-27-071619
	24	18	4 4 2 5	0.0				Becomes yellowish brown (10 YR - 5/4)	
30							CL	14" lens; Soft to medium stiff, moist, dark grayish brown (2.5 YR - 4/2), medium plasticity CLAY (CL)	
	24	24	6 10 11 13	0.0				Becomes medium dense	
	24	0	4 10 14 16	0.0			SP	Mottling	
35	24	18	10 15 18 17	0.0				Becomes dense ▽	
	24	18	8 12 14 12	0.0				Becomes wet Slight mottling	
	24	16	4 7 6 10	0.0			SM	Medium dense, wet, olive brown (2.5 YR - 4/4), fine grained SILTY SAND (SM), mottling	
40	24	0	3 4 7 7					Becomes pale brown (2.5 YR - 7/3)	
	24	15					SP	Loose, wet, dark brown, fine grained SAND (SP)	Physical properties sample PD-7-SB-43-071819
45	24	12	3 3 7 7	1.5				Becomes dark gray (7.5 YR - 4/1)	
	24	18	35 21 19 21	1.7				Becomes dense	Hydrocarbon odor Analytical sample PD-7-SB-47-071819 Collected sudan (Positive)
	24	14	12 12 14 11	2342				Becomes medium dense	Hydrocarbon odor Collected sudan (Positive)

Completion Depth: 72.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-7-SB

Starting Date: 7/16/19
Completion Date: 7/19/19
Casing Elevation: Not Installed
Ground Elevation: 443.52 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791939.17000000
E: (Y):2322270.72

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	15	4 12 30 42	2500				SAME: Dense, wet, dark gray (7.5 YR - 4/1), fine grained SAND (SP)	Hydrocarbon odor Analytical sample PD-7-SB-51-071819, DUP Collected sudan (Positive) Physical properties sample PD-7-SB-53-071819
	24	17							
55	24	16	26 25 21 29	542				Becomes fine to medium grained	
	24	19	10 18 23 28	47.3					
	24	22	13 19 27 22	62				Trace fine gravel, coarse sand, wood fragments	
60	24	17	12 17 22 25	130			SP		
	24	16	13 17 18 17	392					
65	24	20	10 16 15 19	646				Becomes coarse grained for 3"	
	24	16	16 22 18 19	92					
	24	14	14 24 24 26	1.4 3.05				Dense, wet, grayish brown (2.5 YR - 5/2), fine to coarse grained SAND (SP), trace silt	
70	24	17	18 28 40 41	0.15 0.4				Becomes very dense with trace coarse gravel Trace coarse gravel grades out	
								Bottom of boring at 72' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 72.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 36 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-8-SB

Starting Date: 6/25/19
Completion Date: 6/27/19
Casing Elevation: Not Installed
Ground Elevation: 434.73 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791857.52000000
E: (Y):2321961.85

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			TOPSOIL	2" sod	Air knifed to 10' bgs to clear utilities
				0.0			CL	Soft, moist, yellow brown (10 YR - 5/6), low plasticity CLAY (CL), some very fine grained sand and trace silt	
				0.0				Becomes dark yellow brown (10 YR - 3/6) with some silt	
				0.0				Soft, moist, dark yellow brown (10 YR - 3/4), medium plasticity CLAY (CL), trace fine grained sand, mottling	
				0.0				Medium stiff, moist, dark yellow brown (10 YR - 3/4), low plasticity CLAY (CL), some fine grained sand, mottling	
5				0.0			ML	Soft, moist, very dark gray (10 YR - 3/1) SILT (ML), some clay and fine grained sand	
				0.0				Becomes trace clay and trace very fine grained sand	
				0.0				Very soft, moist, black (10 YR - 2/1) SILT (ML), trace clay and very fine grained sand	
				0.0				Becomes very dark brown (10 YR - 2/2) with trace fine grained sand	
				0.0			CL	Soft, moist, very dark gray (10 YR - 3/1), low plasticity CLAY (CL), trace silt and very fine grained sand	
				0.0				Medium stiff moist, very dark gray brown (10 YR - 3/2), medium plasticity CLAY (CL), trace silt and sand, mottling	
10	24	16	2 3 4 6	0.0				Loose, moist, dark brown (10 YR - 3/3), well sorted, very fine grained SILTY SAND (SM)	Begin hollow stem auger with split spoon sampling
	24	18	2 3 4 5	0.1			SM		
15	24	22	3 5 5 6	0.1					
	24	21	2 4 3 5	0.1				Loose, moist, yellowish brown (10 YR - 4/4), well sorted, very fine grained SAND (SP)	
	24	18	4 5 4 4	0.1					
20	24	18	6 5 4 4	0.1			SP		
	24	17	3 4 4 5	0.1				Becomes very fine to fine grained	
	24	20	5 6	0.1				Medium dense, moist, yellowish brown (10 YR - 5/6), well sorted, fine to medium grained SAND (SP)	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur, B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 27.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1.24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-8-SB

Starting Date: 6/25/19
Completion Date: 6/27/19
Casing Elevation: Not Installed
Ground Elevation: 434.73 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791857.52000000
E: (Y):2321961.85

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			7 6					SAME: Medium dense, moist, yellowish brown (10 YR - 5/6), well sorted, fine to medium grained SAND (SP)	
	24	22	4 6 5 6	51				▽ Becomes wet Becomes loose	
	24	21	3 3 6 7	157					
30	24	22	4 4 5 7	624					Hydrocarbon odor
	24	24	5 7 10 12	507				Becomes medium dense and dark gray (10 YR - 3/1) Becomes dark brown (10 YR - 3/3)	Hydrocarbon odor
35	24	21	5 7 9 7	451					Hydrocarbon odor
	24	24	6 7 9 8	652			SP		Hydrocarbon odor Analytical sample PD-8-SB-062519, DUP Collected sudan (Negative)
	24	16	7 9 11 8	3214					Hydrocarbon odor Collected sudan (Positive)
40	24	14	3 6 8 11	>5000					Strong hydrocarbon odor Analytical sample PD-8-SB-40-062519
	24	15	8 12 18 20	1509					
45	24	17	12 16 20 19	488				Dense, wet, dark gray (7.5 YR - 4/1), well sorted, fine to medium grained SAND (SP), trace coarse sand	
	24	15	12 18 21 18	355					
	24	11	10 15 15 17	173				Medium dense, wet, gray (10 YR - 5/1), well sorted, fine to medium grained SAND (SP)	Hydrocarbon odor

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur, B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 27.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-8-SB

Starting Date: 6/25/19
Completion Date: 6/27/19
Casing Elevation: Not Installed
Ground Elevation: 434.73 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791857.52000000
E: (Y):2321961.85

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	16	8 10 13 18	763				SAME: Medium dense, wet, gray (10 YR - 5/1), well sorted, fine to medium grained SAND (SP)	Hydrocarbon odor Analytical sample PD-8-SB-062619 Collected sudan (Red; positive)
	24	14	11 12 14 12	744				Black streaking for 6"	Hydrocarbon odor Collected sudan (Red; positive)
55	24	18	10 10 13 17	93				Becomes dark gray (10 YR - 4/1)	Hydrocarbon odor
	24	12	8 11 11 14	56					
	24	19	15 25 31 27	83				Becomes very dense	
60	24	15	20 18 15 17	50			SP	Becomes dense Becomes coarse grained for 1" Becomes coarse grained for 2"	
	24	8	5 10 12 16	58				Becomes medium dense	Analytical sample PD-8-SB-62-062619
65	24	16	11 18 19 17	35				Becomes dense Trace coarse grained sand Black streaking for 3.5"	
	24	17	8 10 11 13	52				Medium dense, wet, gray (10 YR - 5/1), well sorted, fine to coarse grained SAND (SP), trace coarse gravel	
	24	14	11 14 12 18	24					
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur, B. Howell
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 27.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-9-SB

Starting Date: 6/27/19
Completion Date: 6/28/19
Casing Elevation: Not Installed
Ground Elevation: 435.67 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791863.24000000
E: (Y):2322070.06

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			GRAVEL	6" gravel	Air knifed to 10' bgs to clear utilities
				0.0			CL	Soft, moist, light yellow brown (10 YR - 6/4) CLAY (CL), some silt and trace very fine grained sand	
				0.0			SP	Loose, moist, brown (10 YR - 5/3), fine to medium grained SAND (SP), some silt	
				0.0				Becomes yellow brown (10 YR - 5/4)	
				0.0				Some silt grades out	
5				0.0			CL	Soft, moist, dark yellow brown (10 YR - 4/4), low plasticity CLAY (CL), some sand	
				0.0			SP	Loose, moist, yellow brown (10 YR - 5/4), medium grained SAND (SP)	
				0.0				Becomes dark yellow brown (10 YR - 4/4) with some clay	
				0.0			CL	Soft, moist, brown (7.5 YR - 5/4), low plasticity CLAY (CL), some fine grained sand, mottling	
10	24	18	3 3 5 5	0.0			SP	Loose, moist, yellowish brown (10 YR - 5/4), well sorted, fine grained SAND (SP)	Begin hollow stem auger with split spoon sampling
	24	18	2 2 3 5	0.0					
15	24	22	4 4 5 4	0.0					
	24	22	2 3 4 4	0.0					
	24	16	2 3 5 6	0.0					
20	24	21	5 6 6 7	0.0				Becomes medium dense and 10 YR - 5/8	
	24	21	3 5 6 6	0.0					
	24	23	4 6	0.0				Thin black streaks	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-9-SB

Starting Date: 6/27/19
Completion Date: 6/28/19
Casing Elevation: Not Installed
Ground Elevation: 435.67 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791863.24000000
E: (Y):2322070.06

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			8 9					SAME: Medium dense, moist, 10 YR - 5/8, well sorted, fine grained SAND (SP)	
	24	20	3 5 8 11	0.0				Becomes fine to medium grained	
	24	23	3 7 9 10	0.0				Becomes wet ▽	
30	24	21	3 6 10 12					Becomes dark yellow brown (10 YR - 4/4)	
	24	20	2 4 7 9	0.0				Becomes dark grayish brown (10 YR - 4/2)	
35	24	20	3 4 7 7	0.0					
	24	10	9 11 14 17	9.2			SP		
	24	13	5 7 10 12	9.0					
40	24	8	5 6 10 9	2.0				Becomes dark gray (10 YR - 4/1)	Analytical sample PD-9-SB-41-062819 Collected sudan (Negative)
	24	8	6 8 10 12	503					Hydrocarbon odor Analytical sample PD-9-SB-43-062819 Collected sudan (Negative)
45	24	12	7 11 15 20	356					
	24	14	9 12 11 13	965					Hydrocarbon odor Collected sudan (Negative)
	24	12	5 9 11 12	56				Becomes coarse grained for 2" Black streaking for 6"	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-9-SB

Starting Date: 6/27/19
Completion Date: 6/28/19
Casing Elevation: Not Installed
Ground Elevation: 435.67 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791863.24000000
E: (Y):2322070.06

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	12	4 8 18 22	1477				SAME: Medium dense, wet, dark gray (10 YR - 4/1), well sorted, fine to medium grained SAND (SP)	
								Trace coarse gravel	
	24	20	14 22 24 20	2148				Becomes dense	Collected sudan (52'-54') (Positive)
								Becomes coarse grained for 3"	
								Becomes medium dense and fine grained	Hydrocarbon odor Analytical sample PD-9-SB-54-062819, DUP
55	24	10	11 13 15 17	873				Becomes coarse grained for 2"	Collected sudan (54'-56') (Positive) Hydrocarbon odor
	24	18	20 18 20 22	56.1				Black streaking for 2.5" Becomes dense	Collected sudan (56'-58') (Negative)
									Hydrocarbon odor
	24	16	7 12 16 20	2.0			SP	Becomes medium dense	
60	24	10	5 7 13 15	10.2					
	24	15	7 11 17 15	6.7					
								Some coarse sand	
65	24	15	12 11 13 22	9.1				Becomes fine to medium grained	
	24	12	11 13 16 14	3.4				Some coarse grained sand and trace coarse gravel	
							CL	1/2" lens; Soft, wet, dark gray CLAY (CL)	
	24	15	5 8 13 14	2.6			SP	Medium dense, wet, dark gray (10 YR - 4/1), well sorted, fine to medium grained SAND (SP)	
								Becomes coarse grained for 6"	
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-10-SB

Starting Date: 6/11/19
Completion Date: 6/13/19
Casing Elevation: Not Installed
Ground Elevation: 435.94 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791838.30000000
E: (Y):2322159.82

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			GRAVEL	6" gravel	Air knifed to 10' bgs to clear utilities
							FILL	Loose, dry, black (10 YR - 2/1) cinter mixed with fine to coarse grained SAND (SP) and fine rounded GRAVEL (GP)	
				0.0				Loose, moist, brown (10 YR - 5/3), fine to coarse grained SAND (SP), trace silt	
								Becomes fine to medium grained	
5				0.0					
				0.0					
				0.0					
10	24	24	7 9 14 11	0.0				Medium dense, moist, dark yellowish brown (10 YR - 4/4), well sorted, fine to medium grained SAND (SP), some clay	Begin hollow stem auger with split spoon sampling
	24	24	6 9 7 12	0.0			SP	Becomes brown (7.5 YR - 5/3); Some clay grades out	
15	24	24	7 14 15 15	0.0					
	24	24	7 9 11 13	0.0 2.6					Slight hydrocarbon odor
	24	24	10 6 6 6	2.8 3.0					Sample PD-10-SB-19-061119 Collected sudan (Pink/red tint; positive)
20	24	24	4 10 10 12	1.0 0.0					
	24	24	6 8 8 10	0.0 0.4					
	24	24	3 7	0.0				Black streaking for 1/5"	

Completion Depth: 51.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Fleming
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-10-SB

Starting Date: 6/11/19
Completion Date: 6/13/19
Casing Elevation: Not Installed
Ground Elevation: 435.94 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791838.30000000
E: (Y):2322159.82

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			11 11	0.1				1/2"-1" clay nodules SAME: Medium dense, moist, brown (7.5 YR - 5/3), well sorted, fine to medium grained SAND (SP) Clay nodules grade out	
	24	24	8 10 10 12	0.1					
	24	24	8 16 19 16	0.1				Becomes dense ▽ Becomes wet	
30	24	18	7 13 16 17	0.0				Becomes medium dense with trace silt	Begin mud rotary drilling
	24	0	5 8 15 21						
35	24	12	3 6 9 11	0.0				Becomes fine to coarse grained	
	24	12	9 12 16 18	0.0			SP	Trace fine gravel	
	24	10	12 13 17 16	0.0					
40	24	0							Attempt unsuccessful shelby tube sampling; no recovery
	24	0							Attempt piston sampling unsuccessful; no recovery
	24	12							Resume split spoon sampling
45									Physical properties sample PD-10-SB-44-061219
	24	12	14 23 32 43	0.0				Becomes very dense and dark gray (10 YR - 4/1)	Analytical sample PD-10-SB-46-061219
	24	12	11 16 24 38	0.0				Becomes dense	
	24	20	17 22	0.0					

Completion Depth: 51.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Fleming
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-10-SB

Starting Date: 6/11/19
Completion Date: 6/13/19
Casing Elevation: Not Installed
Ground Elevation: 435.94 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791838.30000000
E: (Y):2322159.82

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			25				SP	SAME: Dense, wet, dark gray (10 YR - 4/1), fine to coarse grained SAND (SP), trace silt	
			32				SM	Dense, wet, dark gray (10 YR - 4/1), fine to medium grained SILTY SAND (SM)	Boring backfilled with high solids grout via tremie to surface.
								Bottom of boring at 51' bgs	
55									
60									
65									
70									

Completion Depth: 51.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Fleming
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-11-SB

Starting Date: 7/1/19
Completion Date: 7/2/19
Casing Elevation: Not Installed
Ground Elevation: 436.41 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791844.75000000
E: (Y):2322239.41

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			GRAVEL	6" gravel	Air knifed to 10' bgs to clear utilities
				0.0				Loose, moist, dark brown (7.5 YR - 3/4), medium to coarse grained SAND (SP), trace silt and coarse gravel	
				0.0				Becomes dark yellow brown (10 YR - 4/4)	
				0.0				Becomes medium grained with trace clay; Trace coarse gravel grades out	
				0.0				Becomes medium to coarse grained; Trace clay grades out	
5				0.0			SP	Loose, moist, yellow brown (10 YR - 5/6), fine to medium grained SAND (SP), trace silt, common mottling	
				0.0				Mottling grades out	
				0.0				Loose, moist, pale brown (10 YR - 6/3), fine to coarse grained SAND (SP), trace silt, common mottling	
				0.0				Becomes fine to medium grained with mottling	
				0.0					
10	24	20	2 2 3 4	0.0			SM	Loose, moist, dark brown (7.5 YR - 3/3), well sorted, very fine grained SILTY SAND (SM)	Begin hollow stem auger with split spoon sampling
	24	18	2 3 4 4	12.8				6" layer; Loose, dark brown (7.5 YR - 3/3), black staining, oily looking substance	Hydrocarbon odor
15	24	24	4 4 3 4	0.2					
	24	20	3 3 4 5	0.0					
	24	20	4 5 5 4	1.4					
20	24	20	4 4 3 5	1.4			SP	Loose, moist, dark yellowish brown (10 YR - 3/3), well sorted, fine grained SAND (SP)	
							CL	2" lens; Soft, moist, dark gray CLAY (CL)	Collected sudan (Negative)
	24	20	3 3 4 6	2.1			SP		
	24	22	4 6	0.7				Becomes medium dense	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-11-SB

Starting Date: 7/1/19
Completion Date: 7/2/19
Casing Elevation: Not Installed
Ground Elevation: 436.41 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791844.75000000
E: (Y):2322239.41

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			6 6					SAME: Medium dense, moist, dark yellowish brown (10 YR - 3/4), well sorted, fine grained SAND (SP)	
	24	24	4 7 9 7	0.8					
	24	22	4 9 7 8	3.9				▽ Becomes wet and very dark gray (10 YR - 3/1)	
30	24	22	6 5 6 6	11.7				Becomes alternating dark gray and dark yellowish brown	Hydrocarbon odor Begin Mud Rotary Drilling at 45' bgs
	24	24	3 6 7 12	189					Hydrocarbon odor Sheen on interior of split spoon
35	24	24	8 18 25 30	576				Becomes dense and fine to medium grained	Hydrocarbon odor Sheen on split spoon
	24	24	4 8 18 29	4551			SP	Becomes medium dense Dark gray then dark brown	Hydrocarbon odor Sheen on split spoon (yellowish) Analytical sample PD-11-SB-37-070119 Collected sudan (Positive)
	24	22	4 15 50 50	>5000				Becomes very dense	Hydrocarbon odor Collected sudan (Positive)
40	24	14	6 12 19 27	>5000				Becomes dense Becomes yellowish brown (10 YR - 4/4) with gray streaks	Hydocarbon odor
	24	17	20 30 32 34	>5000				Becomes very dense	Hydrocarbon odor
45	24	20	22 44 50	>5000					Hydrocarbon odor Analytical sample PD-11-SB-45-070219 Collected sudan (Red; positive)
	24	15	15 22 24 32	5.0				Becomes dense Becomes dark gray (10 YR - 4/1)	
	24	16	22 24 32 30	25.2				Becomes very dense	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM
USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-11-SB

Starting Date: 7/1/19
Completion Date: 7/2/19
Casing Elevation: Not Installed
Ground Elevation: 436.41 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791844.75000000
E: (Y):2322239.41

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	19	9 8 7 6	128				Medium dense, wet, dark gray (10 YR - 4/1), fine to medium grained SAND (SP) Trace coarse gravel and black streaking for 1'	
	24	20	7 8 9 9	14.8				Trace gravel, wood fragements, black banding	
55	24	22	12 15 20 24	3.3				Becomes dense	Hydrocarbon odor
	24	17	10 18 22 20	129					Collected sudan (Negative)
	24	13	7 10 11 11	694				Becomes medium dense	No hydrocarbon odor
60	24	14	15 12 10 12	659			SP		Hydrocarbon odor Analytical sample PD-11-SB-61-070219
	24	12	3 4 5 5	371				Becomes loose	
65	24	17	9 11 14 17	60.9				Becomes medium dense Becomes coarse grained with fine gravel for 1.5'	
	24	0	12 17 11 10						
	24	18	22 14 18 21	21.9				Becomes dense Becomes coarse grained for 1'	
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: P. LaFleur
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 29.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-12-SB

Starting Date: 7/3/19
Completion Date: 7/8/19
Casing Elevation: Not Installed
Ground Elevation: 424.27 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792017.66000000
E: (Y):2321985.38

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			TOPSOIL	6" sod / clay / top soil	Air knifed to 10' bgs to clear utilities. Lithology from 0' to 10' projected from adjacent boring locations.
				0.0			CL	Soft, moist, dark yellow brown (10 YR - 4/4), low plasticity CLAY (CL), with fine to medium grained sand
				0.0				Becomes 10 YR - 4/3
				0.0				Loose, moist, dark yellow brown (10 YR - 4/6), fine to medium grained SAND (SP), with silt
				0.0				
				0.0				
5				0.0				Becomes brown (10 YR - 5/3)
				0.0				Becomes yellow brown (10 YR - 5/4)
				0.0				
				0.0				
				0.0				Mottling
10	24	18	3 3 4 5	0.0				Loose, moist, yellow brown (10 YR - 5/4), well sorted, very fine to fine grained SAND (SP) — Begin hollow stem auger with split spoon sampling
	24	19	2 4 8 10	0.0			SP	Becomes medium dense Becomes black (10 YR - 5/4) with silt for 1"
15	24	18	7 8 10 13	0.0				Black streaking for 2.5"
	24	20	2 3 3 4	0.0				Becomes loose Black streaking for 1"
	24	20	3 3 5 6	0.0				Becomes light brownish gray (10 YR - 6/2) with black streaking for 9.5"
20	24	22	4 4 5 4	0.0				Becomes yellow brown (10 YR - 5/6)
	24	22	2 3 5 5	0.0				
	24	20	3 5	0.0				Becomes medium dense

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Howell, T. Jones
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 43 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCESIGINTDATAIGINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESIG NTDATAIG NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-12-SB

Starting Date: 7/3/19
Completion Date: 7/8/19
Casing Elevation: Not Installed
Ground Elevation: 424.27 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792017.66000000
E: (Y):2321985.38

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			10 12					SAME: Medium dense, moist, yellow brown (10 YR - 5/4), well sorted, very fine to fine grained SAND (SP) Black streaking for 2"	
	24	18	4 5 9 9	0.0					
	24	18	3 5 9 7	0.0				Becomes dark yellow brown (10 YR - 4/6) for 1"	
30	24	24	3 6 12 19	0.0				Black streaking for 6"	
	24	16	7 7 7 8	0.0				Becomes yellow brown (10 YR - 5/6)	
35	24	18	3 4 4 6	0.0				Becomes loose	
	24	0	9 11 12 15				SP	Becomes medium dense	
	24	24	15 15 20 19	0.9				Becomes dense and olive brown (2.5 YR - 4/3)	
40	24	11	4 7 9 12	2.5				Becomes medium dense	
	24	14	12 22 34 29	34.1				Black streaking Becomes very dense ▽ Becomes wet and dark gray (2.5 YR - 4/1) with mottling and black streaking	
45	24		14 27 30 34	14.3					Begin Mud Rotary Drilling at 45' bgs
	24	15	26 20 20 21	6.6				Becomes dense	
	24	13	8 12 14 14	9.2				Becomes medium dense and black grayish brown (2.5 YR - 4/2)	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Howell, T. Jones
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 43 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-12-SB

Starting Date: 7/3/19
Completion Date: 7/8/19
Casing Elevation: Not Installed
Ground Elevation: 424.27 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):792017.66000000
E: (Y):2321985.38

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	19	5 11 15 25	342.5				SAME: Medium dense, wet, very dark gray (2.5 YR - 3/1), well sorted, very fine to fine grained SAND (SP) Depositional layering	
	24	14	20 24 23 26	1683.4				Becomes dense	
55	24	14	10 13 14 17	1449.6				Becomes medium dense	Sheen seen on sample Collected sudan (Deep red; positive)
	24	14	6 9 12 15	63.4				Becomes dark gray (2.5 YR - 4/1)	
	24	17	10 15 16 14	71.0				Becomes dense Black streaking for 1/3"	
60	24	15	8 12 16 22	35.6			SP	Medium dense, wet, dark gray (2.5 YR - 4/1), poorly sorted, fine to coarse grained SAND (SP), trace fine gravel Black streaking for 1/3"	
	24	20	9 17 20 29	35.6				Becomes dense Trace fine gravel grades out	
65	24	20	4 9 17 21	44.4				Becomes medium dense Becomes dark grayish brown (2.5 YR - 4/2)	
	24	17	10 11 11 14	17.9					
	24	14	16 20 21 20	21.7				Becomes dense	
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Howell, T. Jones
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 43 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM
USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-13-SB

Starting Date: 7/3/19
Completion Date: 7/3/19
Casing Elevation: Not Installed
Ground Elevation: 436.25 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791961.48000000
E: (Y):2321873.89

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			GRAVEL	8" gravel	Air Knifed to 10' bgs to clear utilites. Lithology from 0' to 10' projected from adjacent boring locations.
				0.0			CL	Soft, moist, black (10 YR - 2/1), very fine grained SILTY CLAY (CL), trace sand	
				0.0			CL	Soft, moist, very dark brown (10 YR - 2/2), low plasticity CLAY (CL), with silt and trace sand Becomes black (10 YR - 2/1) and high plasticity	
				0.0					
				0.0					
5				0.0			ML	Soft, moist, dark brown (7.5 YR - 3/3) SANDY SILT (ML)	
				0.0					
				0.0			SC	Loose, moist, dark yellow brown (10 YR - 4/4), medium grained CLAYEY SAND (SC)	
				0.0			SP	Loose, moist, strong brown (7.5 YR - 4/6), medium grained SAND (SP), trace clay and silt	
				0.0					
10								Bottom of boring at 10' bgs	No soil boring advanced. Boring cleard for CPT and groundwater profiling purposes.
15									
20									

Completion Depth: 10.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: Air Knife/Hand Auger
Drill Rig Type: Geoprobe 8040DT
Logged by: B. Howell, T. Jones
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: _____ ft., After _____ hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1.24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-14-SB

Starting Date: 7/19/19
Completion Date: 7/23/19
Casing Elevation: Not Installed
Ground Elevation: 442.57 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791999.00000000
E: (Y):2322039.10

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				0.0			TOPSOIL	8" sod / topsoil	Air knifed to 10' bgs to clear utilities. Lithology from 0' to 10' projected from adjaent boring locations.
				0.0			CL	Soft, moist, dark yellow brown (10 YR - 4/4), low plasticity CLAY (CL), with fine to medium grained sand	
				0.0				Loose, moist, dark yellow brown (10 YR - 4/6), fine to medium grained SAND (SP), with silt	
5				0.0					
				0.0				Becomes brown (10 YR - 5/4)	
				0.0					
10	24	18	3 5 7 7	0.0				Medium dense, moist, pale brown (10 YR - 6/3), fine grained SAND (SP), with clay	Begin hollow stem auger with split spoon sampling
	24	18	3 4 5 4	0.0				Becomes loose Becomes fine to medium grained	
							SP		
15	24	22	3 4 4 5	0.0					
	24	19	1 3 6 7	0.0				Becomes yellowish brown (10 YR - 5/4)	
	24	17	3 6 6 9	0.0				Becomes medium dense	
20	24	21	4 11 11 10	0.0					
	24	22	5 8 11 7	0.0					
	24	20	2 3	0.0				Becomes loose	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1.24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-14-SB

Starting Date: 7/19/19
Completion Date: 7/23/19
Casing Elevation: Not Installed
Ground Elevation: 442.57 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791999.00000000
E: (Y):2322039.10

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			4 4					SAME: Loose, moist, yellowish brown (10 YR - 5/4), fine to medium grained SAND (SP), with clay	
	24	18	1 2 4 6	0.0				Becomes light yellowish brown (10 YR - 4/4)	
	24	19	6 7 8 9	0.0				Becomes medium dense	
30	24	19	9 9 5 5	0.0					
	24	24	2 3 5 5	0.0				Becomes loose	
	24	20	3 7 9 9	0.0				3" layer; Black silty organics Becomes medium dense ▽ Becomes wet and brown (10 YR - 5/3)	
35	24	24	1 2 3 3	0.0			SP	Becomes loose	
	24	24	2 7 8 16	0.0				Becomes medium dense and light yellowish brown (10 YR - 6/4); With clay grades out	
40	24	14	3 6 6 8	0.0					
	24	6	10 8 7 8	0.0				Medium dense, wet, dark grayish brown (10 YR - 4/2), fine grained SAND (SP), with silt	
45	24	16	6 7 14 17	84.5					Analytical sample PD-14-SB-45-072219, MS/MSD
	24	18	10 14 18 30	605.8 >5000				Becomes dense 1/4" seam; Coal or wood	
	24	14	8 16 22 28	516 >5000				1/4" seam; Coal or wood	Collected sudan (Slightly positive) Analytical sample PD-14-SB-49-072219, DUP

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-14-SB

Starting Date: 7/19/19
Completion Date: 7/23/19
Casing Elevation: Not Installed
Ground Elevation: 442.57 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791999.00000000
E: (Y):2322039.10

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	13	16 23 29 28	255				Very dense, wet, dark gray (10 YR - 4/1), fine to medium grained SAND (SP), with silt	Collected sudan (Negative)
	24	15	14 20 27 21	19.0				Becomes dense	
55	24	14	11 17 20 17	41.5					Analytical sample PD-14-SB-55-072219
	24	15	20 24 27 28	216.8				Becomes very dense	
	24	13	14 22 26 29	1221.1				Becomes dense	
60	24	15	8 13 25 39	1062			SP		Hydrocarbon odor
	24	15	19 25 26 31	30.6				Becomes very dense Trace fine gravel	
65	24	12	18 22 15 17	7.325				Becomes dense With wood fragments	
	24	12	16 20 20 24	3.975				Wood grades out	
	24	14	8 9 16 20	2.75				Medium dense, wet, grayish brown (2.5 YR - 5/2), fine to coarse grained SAND (SP), with silt	
70								Bottom of boring at 70' bgs	Boring backfilled with high solids grout via tremie to surface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 35 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCES\G NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NT\ENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

LOG OF BORING
PD-17-SB

Starting Date: 7/15/19
Completion Date: 7/16/19
Casing Elevation: Not Installed
Ground Elevation: 443.91 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791909.51000000
E: (Y):2322174.12

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
							TOPSOIL	8" sod / topsoil	Air knifed to 10' bgs to clear utilities. Lothology from 0' to 10' projected from adjacent boring locations.
							CL	Soft, moist, dark brown (10 YR 3/2), low plasticity CLAY (CL), with silt and trace sand Medium stiff, moist, brown (10 YR - 3/4), medium plasticity CLAY (CL), trace very fine grained sand	
5								Becomes soft Becomes light brown (10 YR - 5/4)	
							SP	Very loose, moist, tan (10 YR - 6/3), fine to medium grined SAND (SP)	
10	24	21	4 3 4 6	0.0				Loose, moist, yellowish brown (10 YR - 5/4), fine grained SAND (SP), few mottling	Begin hollow stem auger with split spoon sampling
	24	23	2 4 5 6	0.0					
15	24	24	2 6 4 14	0.0					
	24	24	2 5 5 9	0.0				Becomes dark yellowish brown	
	24	24	1 5 6 9	0.0				Becomes medium dense	
20	24	22	2 5 6 12	0.0			ML	3" lens; Medium stiff, moist, light olive brown SILT (ML)	
	24	20	4 17 18 16	0.0			SP	Becomes dense	
	24	16	3 6	0.0				Becomes medium dense	

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 39 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

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LOG OF BORING
PD-17-SB

Starting Date: 7/15/19
Completion Date: 7/16/19
Casing Elevation: Not Installed
Ground Elevation: 443.91 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791909.51000000
E: (Y):2322174.12

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
			7 8					SAME: Medium dense, moist, dark yellowish brown, fine grained SAND (SP)	
	24	16	3 3 5 7	0.0				Becomes loose	
	24	19	5 8 11 10	0.0			SP	Becomes medium dense	
30	24	19	8 10 9 8	0.0				Mottling Becomes fine to medium grained	
							ML	2" lens; Medium stiff, moist, SILT (ML)	
	24	14	3 6 5 5	0.0			SP ML	Medium dense, moist, yellowish brown (10 YR - 5/4), fine to medium grained SAND (SP) 1" lens; Medium stiff, moist, light olive brown SILT (ML)	
35	24	24	2 11 11 19	0.0			SP	Organics Mottling	
	24	18	6 11 11 10	0.0				Medium dense, moist, light yellowish brown (10 YR - 6/4), fine to coarse grained SILTY SAND (SM)	
	24	24	1 5 7 9	0.0				▽ Becomes wet	
40	24	9	3 5 6 8	0.0					
	24	12	3 5 11 11	0.0 4.225			SM	Becomes dark gray (10 YR - 4/1) Becomes very dark gray (10 YR - 3/1)	
45	24	12	5 8 11 13	17.65					Oily sheen Sample PD-17-SB-45-071519
	24	14	9 13 13 21	297.4					Oily sheen Collected sudan (Positive)
	24	15	11 25 42 45	300.0					Hydrocarbon odor

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
Drilling Contractor: Roberts Environmental Drilling, Inc.
Driller Name: P. Seymour
Drilling Method: HSA/Mud Rotary
Drill Rig Type: Geoprobe 8040DT
Logged by: J. Carrino
County: Madison
Site ID No.: 1191150002
Federal ID No.: ILD080012305

Water Depth: 39 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife
Hand Auger
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM

USC based on field visual observations

LOG OF BORING
PD-17-SB

Starting Date: 7/15/19
Completion Date: 7/16/19
Casing Elevation: Not Installed
Ground Elevation: 443.91 NAVD 88

Quadrangle
Sec:34.00
T:5N
R:9W
UTM (or State Plane) Coord
N: (X):791909.51000000
E: (Y):2322174.12

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	24	15	25 39 46 50	598.6				SAME: Very dense, wet, dark grayish brown (10 YR - 4/2), fine to coarse grained SILTY SAND (SM)	Slight hydrocarbon odor
	24	14	18 26 39 50	158.0				Becomes fine to medium grained	
55	24	18	18 26 29 33	6.25 5.4					Sample PD-17-SB-55-071519
	24	12	18 20 22 26	8.75				Becomes dense Becomes fine to medium grained with trace coarse grained sand	
							SM		
60	24	13	9 19 16 15	12.45				Becomes grayish brown (10 YR - 5/2)	
	24	12	11 14 18 18	3.9				Organics Becomes medium dense	
65	24	12	11 9 10 11	7.775				Becomes dark grayish brown (10 YR - 4/2)	
	24	14	11 9 18 22	0.225			CL	1/2" lens; Medium stiff, wet, CLAY (CL)	
	24	12	11 15 18 22	2.35 0.625			SM	Becomes dense	
70								Bottom of boring at 70's bgs	Boring backfilled with solids grout via tremie to sruface.

Completion Depth: 70.0 Ft bgs
Project No.: 60592794-1.24.050
Project Name: Shell - Roxana Public Works
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Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
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ATD - At time of drilling
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NA - Not Applicable

Geoprobe
Air Knife
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Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

AECOM
USC based on field visual observations

AECOM (ENVIRON) LOG (EPA FORMAT) G:\STLOUIS\DCS\RESOURCES\GINTDATA\GINTPROJECTS\60592794-1 24 SHELL PUBLIC WORKS 2019.GPJ G:\STLOUIS\DCS\RESOURCESG NTDATA\G NTENVIRONMENTAL\AECOM STL (ENVIRONMENTAL).GLB 9/24/19

Appendix D – Low-flow Groundwater Sampling Datasheets

NOTE - Low-flow Groundwater Sampling Datasheets not included herein due to size. Available upon request.

Appendix E – Laboratory Data Review and Reports

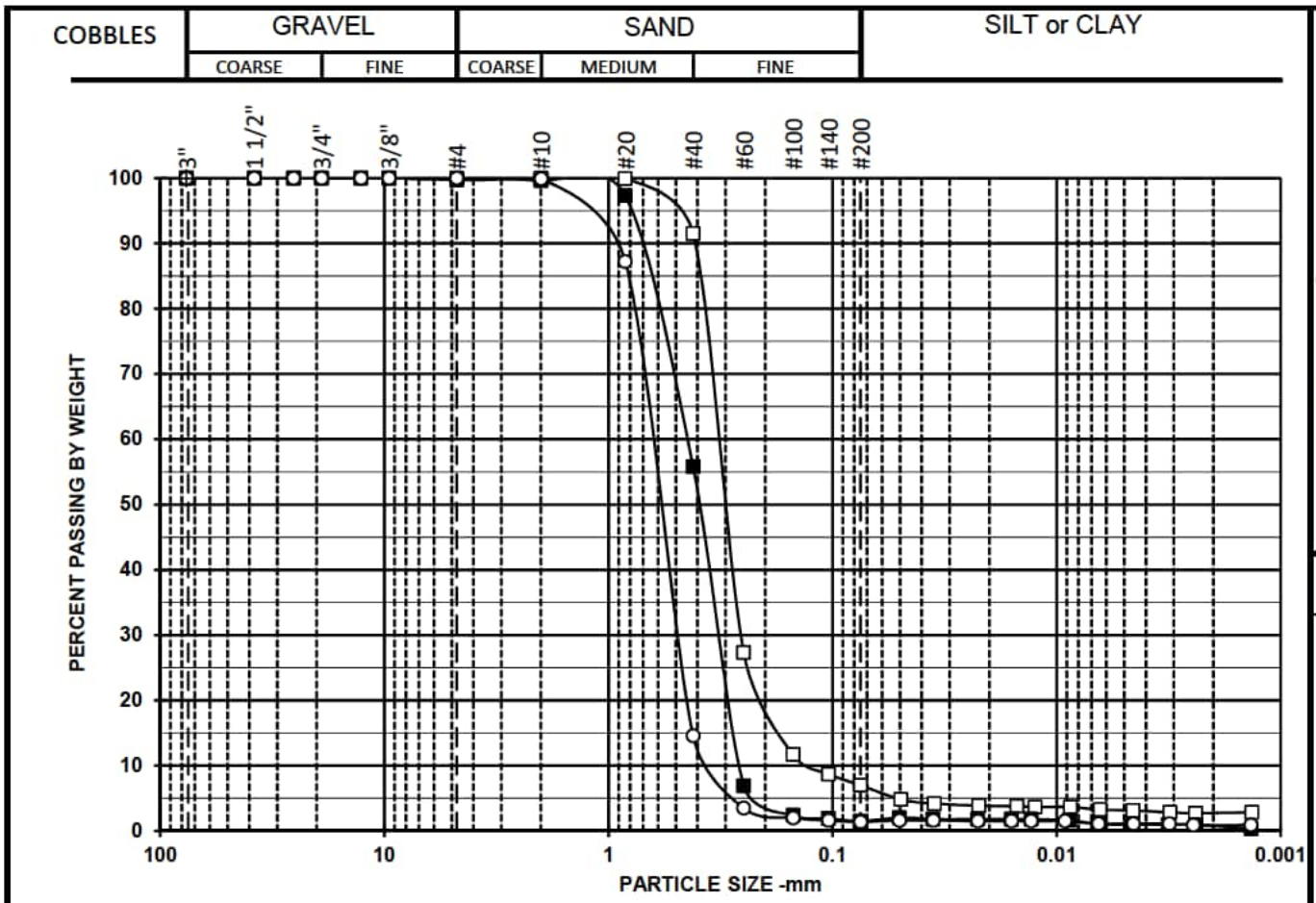
NOTE - Laboratory reports not included herein due to size. Available upon request.

Appendix F – Physical Properties Report

AECOM #60592794
Roxana PreDesign Invest. Site 25278
LABORATORY TESTING DATA SUMMARY

BORING NO.	SAMPLE NO.	DEPTH (ft)	USCS SYMB. (1)	SIEVE MINUS NO. 200 (%)	HYDROMETER % MINUS 2 μm (%)	PERMEABILITY TEST ID	WATER CONTENT (%)	TOTAL UNIT WEIGHT (pcf)	DRY UNIT WEIGHT (pcf)	FLOW ORIENTATION	HYDRAULIC CONDUCTIVITY (cm/sec)	REMARKS
PD-1-SB-51	061819	51	SP-SM	7.0	3	P11573	15.8	131.3	113.4	Vertical	3.0E-05	
PD-1-SB-51	061819	51				P11577	16.4	128.8	110.7	Horizontal	2.9E-03	
PD-4-SB-33	062119	33	SP	1.5	1	P11568	15.5	119.8	103.7	Vertical	1.0E-02	
PD-4-SB-33	062119	33				P11590	17.1	124.8	106.6	Horizontal	2.4E-02	
PD-4-SB-60	062119	60	SP	1.4	1	P11576	17.0	127.1	108.6	Vertical	2.9E-03	
PD-4-SB-60	062119	60				P11580	17.1	118.8	101.5	Horizontal	2.4E-02	
PD-5-SB-45	061419	45	SP	4.3	3	P11572	18.6	127.1	107.1	Vertical	6.5E-05	
PD-5-SB-45	061419	45				P11584	19.5	127.4	106.6	Horizontal	1.0E-02	
PD-5-SB-57	061419	57	SP	3.7	3	P11575	16.6	126.9	108.8	Vertical	2.1E-04	
PD-5-SB-57	061419	57				P11582	14.1	118.1	103.5	Horizontal	5.2E-03	
PD-6-SB-41	071119	41	SP	1.6	1	P11569	18.8	126.2	106.2	Vertical	2.8E-02	
PD-6-SB-41	071119	41				P11592	21.0	120.3	99.4	Horizontal	2.3E-02	
PD-7-SB-43	071819	43	SP	2.7	2	P11570	18.8	125.9	105.9	Vertical	1.9E-03	
PD-7-SB-43	071819	43				P11588	19.6	125.5	104.9	Horizontal	1.5E-02	
PD-7-SB-53	071819	53	SP	4.0	3	P11574	18.6	129.7	109.3	Vertical	4.6E-05	
PD-7-SB-53	071819	53				P11578	18.5	130.8	110.4	Horizontal	2.0E-03	
PD-10-SB-44	061219	44	SP	3.7	2	P11571	20.3	127.4	105.9	Vertical	1.6E-03	
PD-10-SB-44	061219	44				P11586	16.7	127.8	109.5	Horizontal	2.2E-02	

Note: (1) USCS symbol based on visual observation and Sieve results reported.



Symbol	□	■	○
Boring	PD-1-SB-51	PD-4-SB-33	PD-4-SB-60
Sample	061819	062119	062119
Depth	51	33	60
% +3"	0.0	0.0	0.0
% Gravel	0.0	0.3	0.0
% SAND	93.0	98.2	98.6
%C SAND	0.0	0.1	0.1
%M SAND	8.5	43.8	85.3
%F SAND	84.5	54.3	13.2
% FINES	7.0	1.5	1.4
D_{100} (mm)	4.750	9.530	4.750
D_{60} (mm)	0.325	0.450	0.648
D_{30} (mm)	0.254	0.318	0.486
D_{10} (mm)	0.122	0.257	0.338
Cc	1.600	0.900	1.100
Cu	2.7	1.7	1.9

Sieve Size/ID #	Percent Finer Data		
6"	100.0	100.0	100.0
4"	100.0	100.0	100.0
3"	100.0	100.0	100.0
1 1/2"	100.0	100.0	100.0
1"	100.0	100.0	100.0
3/4"	100.0	100.0	100.0
1/2"	100.0	100.0	100.0
3/8"	100.0	100.0	100.0
#4	100.0	99.7	100.0
#10	100.0	99.6	99.9
#20	99.9	97.3	87.2
#40	91.5	55.8	14.6
#60	27.3	6.9	3.5
#100	11.7	2.4	2.0
#140	8.7	1.9	1.6
#200	7.0	1.5	1.4
5μ m	3	2	1
2μ m	3	1	1
1μ m	3		1

SYMBOL	w (%)	LL	PL	PI	USCS	AASHTO	USCS DESCRIPTION AND REMARKS	DATE
□					SP-SM		Brown, Poorly graded sand with silt	08/05/19
■					SP		Brown, Poorly graded sand	08/01/19
○					SP		Brown gray, Poorly graded sand	08/06/19

AECOM #60592794

TerraSense, LLC #T60592794

Roxana
PreDesign Invest. Site 25278

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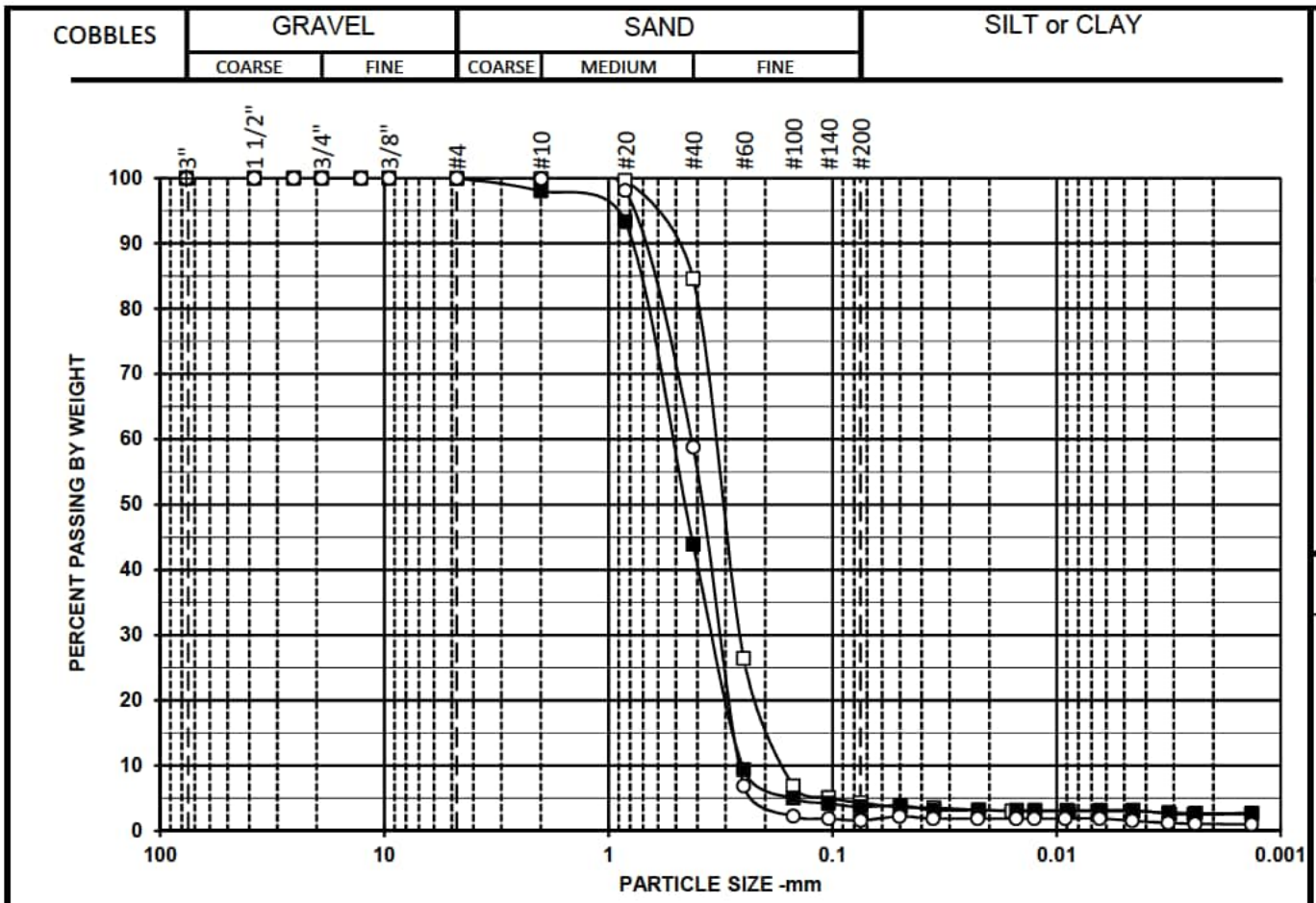

Symbol	□	■	○
Boring	PD-5-SB-45	PD-5-SB-57	PD-6-SB-41
Sample	061419	061419	071119
Depth	45	57	41
% +3"	0.0	0.0	0.0
% Gravel	0.0	0.1	0.0
% SAND	95.7	96.2	98.4
%C SAND	0.1	1.9	0.1
%M SAND	15.3	54.1	41.1
%F SAND	80.3	40.2	57.2
% FINES	4.3	3.7	1.6
D_{100} (mm)	4.750	9.530	4.750
D_{60} (mm)	0.336	0.526	0.428
D_{30} (mm)	0.257	0.340	0.314
D_{10} (mm)	0.162	0.251	0.257
Cc	1.200	0.900	0.900
Cu	2.1	2.1	1.7

Sieve Size/ID #	Percent Finer Data		
6"	100.0	100.0	100.0
4"	100.0	100.0	100.0
3"	100.0	100.0	100.0
1 1/2"	100.0	100.0	100.0
1"	100.0	100.0	100.0
3/4"	100.0	100.0	100.0
1/2"	100.0	100.0	100.0
3/8"	100.0	100.0	100.0
#4	100.0	99.9	100.0
#10	99.9	98.0	99.9
#20	99.6	93.3	98.1
#40	84.6	43.9	58.8
#60	26.4	9.4	6.9
#100	6.9	5.0	2.3
#140	5.1	4.2	1.9
#200	4.3	3.7	1.6
5μ m	3	2	2
2μ m	3	3	1
1μ m	3	3	1

SYMBOL	w (%)	LL	PL	PI	USCS	AASHTO	USCS DESCRIPTION AND REMARKS	DATE
□					SP		Gray-brown, Poorly graded sand	08/05/19
■					SP		Gray-brown, Poorly graded sand	08/05/19
○					SP		Brown, Poorly graded sand	08/05/19

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Roxana
PreDesign Invest. Site 25278

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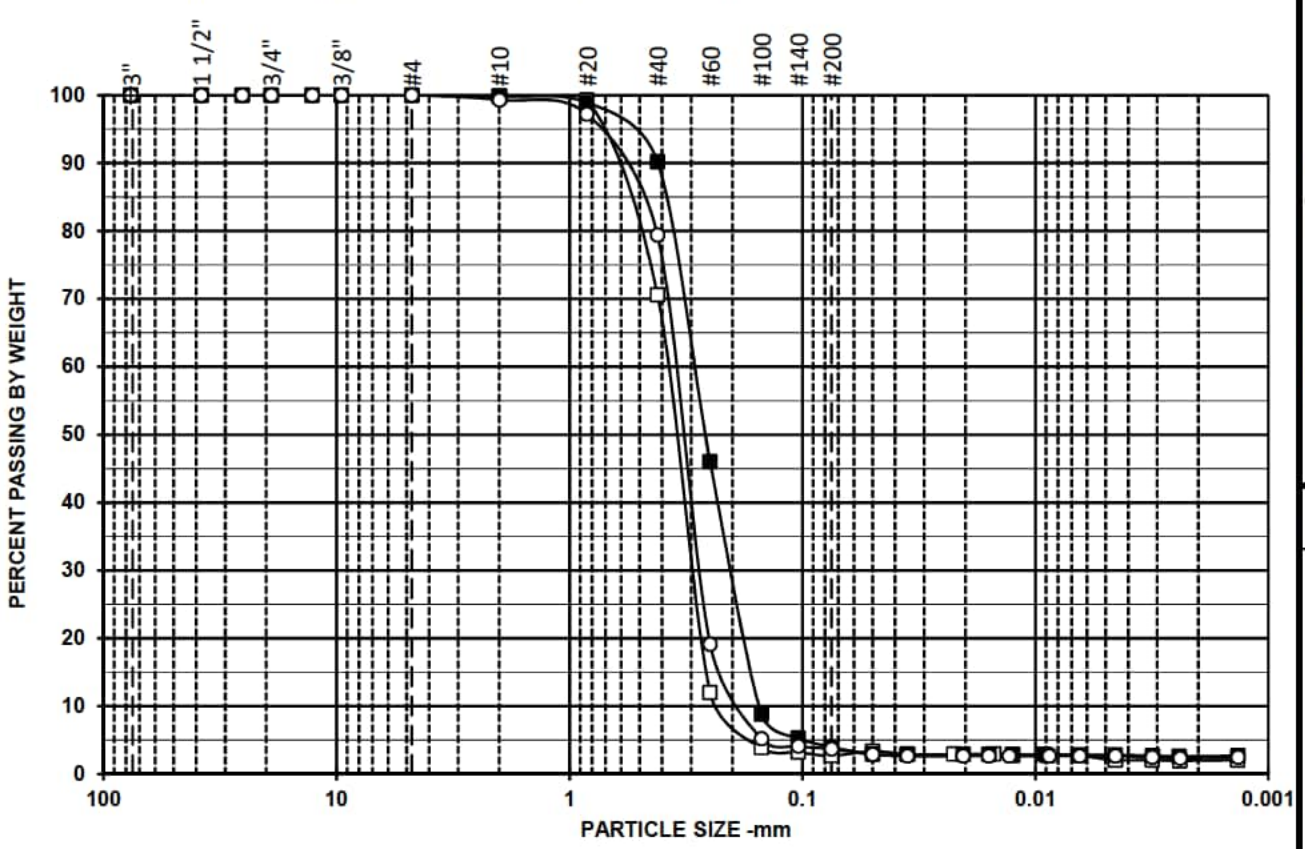


Symbol	□	■	○
Boring	PD-7-SB-43	PD-7-SB-53	PD-10-SB-44
Sample	071819	071819	061219
Depth	43	53	44
% +3"	0.0	0.0	0.0
% Gravel	0.0	0.0	0.0
% SAND	97.3	96.0	96.3
%C SAND	0.1	0.2	0.7
%M SAND	29.3	9.6	19.9
%F SAND	67.9	86.2	75.7
% FINES	2.7	4.0	3.7
D_{100} (mm)	4.750	4.750	4.750
D_{60} (mm)	0.381	0.294	0.354
D_{30} (mm)	0.292	0.200	0.274
D_{10} (mm)	0.220	0.152	0.179
Cc	1.000	0.900	1.200
Cu	1.7	1.9	2.0

Sieve Size/ID #	Percent Finer Data		
6"	100.0	100.0	100.0
4"	100.0	100.0	100.0
3"	100.0	100.0	100.0
1 1/2"	100.0	100.0	100.0
1"	100.0	100.0	100.0
3/4"	100.0	100.0	100.0
1/2"	100.0	100.0	100.0
3/8"	100.0	100.0	100.0
#4	100.0	100.0	100.0
#10	99.9	99.8	99.3
#20	99.3	98.9	97.2
#40	70.6	90.2	79.4
#60	12.0	46.0	19.1
#100	3.9	8.8	5.2
#140	3.2	5.3	4.1
#200	2.7	4.0	3.7
5μ m	2	3	3
2μ m	2	3	2
1μ m	2	3	3

SYMBOL	w (%)	LL	PL	PI	USCS	AASHTO	USCS DESCRIPTION AND REMARKS	DATE
□					SP		Light gray, Poorly graded sand	08/05/19
■					SP		Brown, Poorly graded sand	08/05/19
○					SP		Gray, Poorly graded sand	08/05/19

AECOM #60592794

TerraSense, LLC #T60592794

Roxana
PreDesign Invest. Site 25278

PARTICLE SIZE DISTRIBUTION

PERMEABILITY TEST: FALLING HEAD - CONSTANT VOLUME U-TUBE
ASTM D 5084 - Method F

Project No.: T60592794 | BORING: PD-1-SB-51 | Test No.: P11573

Project Name: Roxana PreDesign Invest. Site 25278 | SAMPLE: 061819 | DEPTH (ft): 51

Specimen - Apparatus set-up - Test Information | Cell No. P-3 | Apparatus No. 3 | Stage No.: 6

Preliminary Length/Area Calculations

Lo =	3.985	in	Lo=	10.123	cm
dLc=	0.013	in	Ao =	40.92	cm^2
Lc=	3.972	in	Vo =	414.25	cm^3
			Lc=	10.090	cm
dVc = 3 Vo * (dLc/Lo)			dVc=	4.05	cm^3
			Vc =	410.19	cm^3
Sc =	0.248	cm^{-1}	Ac=	40.654	cm^2

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
	x	with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove ai			x	No		Yes
4) During consolidation:	x	Top and bottom drainage or		Top		Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
or		Demineralized		0.005 N calcium sulfate (CaSO4)		

Equations Used

Kt = - 0.0000755 * Sc/dT(min) * ln (ho/hf)

RT = (-0.02452*(ave. temp in C) + 1.495)

K @ 20 °C = RT * Kt TubeC= 1.3132

TEST SUMMARY

Final Specimen and Test Conditions

Lc = 10.090 cm ε_{axial} = 0.3%

Ac = 39.806 cm^2

Vc= 401.63 cm^3 ε_{vol} = 3.0%

Sc = 0.253 cm^{-1} Sc = Lc / Ac , final

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	15.78	131.3	113.4	87.7
PreTest	16.32	136.1	117.0	100.0

HYDRAULIC CONDUCTIVITY SUMMARY

Averages for trials: 1-4

ave K @ 20 °C: **2.98E-05** cm/sec

(i_o)ave = 6.1

Tested By: BB Reviewed By: G. Thomas

Consol Stage-Trial No.	Temp. °C	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	U-tube Reading Head (cm) (cc)	U-tube Reading Tail (cm) (cc)	Flow in/out gradient	Permeability Preliminary / Final at 20°C cm/sec / Dev. from Ave.
initial	22.0	8/5/19	00	00	00	133.0	90.0	55.00	50.10	1.01	2.98E-05
final	22.0	8/5/19	00	00	29			53.00	50.72		2.90E-05
1	RT = 0.956	dT =		0.48 min		σ'_c =	6.2 ksf	0.149	0.148	io= 6.1	-3%
initial	22.0	8/5/19	00	00	00	133.0	90.0	55.00	50.10	1.01	3.08E-05
final	22.0	8/5/19	00	00	28			53.00	50.72		3.01E-05
2	RT = 0.956	dT =		0.47 min		σ'_c =	6.2 ksf	0.149	0.148	io= 6.1	1%
initial	22.0	8/5/19	00	00	00	133.0	90.0	55.00	50.10	1.01	3.08E-05
final	22.0	8/5/19	00	00	28			53.00	50.72		3.01E-05
3	RT = 0.956	dT =		0.47 min		σ'_c =	6.2 ksf	0.149	0.148	io= 6.1	1%
initial	22.0	8/5/19	00	00	00	133.0	90.0	55.00	50.10	1.01	3.08E-05
final	22.0	8/5/19	00	00	28			53.00	50.72		3.01E-05
4	RT = 0.956	dT =		0.47 min		σ'_c =	6.2 ksf	0.149	0.148	io= 6.1	1%
initial											
final											
5											
initial											
final											
6											

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-1-SB-51
Project Name: **Roxana** SAMPLE: 061819 DEPTH (ft): 51 Test No.: **P11577**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 5

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	21.1	8/26/19	00	00	00	93.0	50.0				6.40	90.992	45.00	40.70	4.30		
final	21.3	8/26/19	00	46	12						10.80	0.0328	45.00	40.70	0.23		2.98E-03
1	RT = 0 970	dT =		46.20 min		σ'_c =	6.2 ksf						45	40.7	4.07	0.57	2.92E-03
initial	21.3	8/26/19	00	00	00	93.0	50.0				4.40	41.36	45.05	42.65	2.40		
final	21.5	8/26/19	00	37	30						6.40	0.0184	45.05	42.65	0.13		2.99E-03
2	RT = 0 965	dT =		37.50 min		σ'_c =	6.2 ksf						45.05	42.65	2.27	0.32	2.91E-03
initial	21.5	8/26/19	00	00	00	93.0	50.0				4.50	35.156	45.05	42.65	2.40		
final	21.5	8/26/19	00	32	00						6.20	0.0183	45.05	42.65	0.13		2.98E-03
3	RT = 0 963	dT =		32.00 min		σ'_c =	6.2 ksf						45.05	42.65	2.27	0.32	2.89E-03
initial	21.5	8/26/19	00	00	00	93.0	50.0				5.40	70.312	45.05	41.30	3.75		
final	21.5	8/26/19	00	39	00						8.80	0.0300	45.05	41.30	0.21		3.14E-03
4	RT = 0 963	dT =		39.00 min		σ'_c =	6.2 ksf						45.05	41.3	3.54	0.50	3.05E-03
initial	21.5	8/26/19	00	00	00	93.0	50.0				5.20	64.108	45.05	40.40	4.65		
final	21.7	8/26/19	00	29	24						8.30	0.0363	45.05	40.40	0.25		3.05E-03
5	RT = 0 961	dT =		29.40 min		σ'_c =	6.2 ksf						45.05	40.4	4.40	0.62	2.96E-03
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	2.791	in	Lo=	7.088	cm
Ao=	2.972	in^2	Ao =	19.18	cm^2
Vo=	8.294	in^3	Vo =	135.92	cm^3
Lc =	2.791	in	Lc =	7.088	cm
Ac=	2.972	in^2	Ac=	19.175	cm^2
Vc =	8.294	in^3	Vc =	135.92	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	7.088	cm	ε_{axial} =	0.0%	
Ac =	19.008	cm^2			
Vc=	134.73	cm^3	ε_{vol} =	0.9%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	16.38	128.8	110.7	71.0
PreTest	22.59	136.9	111.6	100.0

Project No. T60592794
Project Name: Roxana
PreDesign Invest.
BORING: PD-1-SB-51
SAMPLE: 061819 Depth: 51

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-5
ave K @ 20 ºC: **2.95E-03** cm/sec
(i_o)ave = 0.47

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-4-SB-33

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 062119 DEPTH (ft): 33 Test No.: **P11568**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. P-3 STONE Stage 6

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	23.5	7/31/19	00	00	00	128.0	100.0				5.10	39.292	47.05	46.55	0.50		
final	23.5	7/31/19	00	31	44						7.00	0.0206	47.05	46.55	0.06		1.20E-02
1	RT = 0 919	dT =		31.73 min		σ'_c =	4.0 ksf						47.05	46.55	0.44	0.04	1.10E-02
initial	23.5	7/31/19	00	00	00	128.0	100.0				4.30	49.632	47.05	46.55	0.50		
final	23.5	7/31/19	00	41	54						6.70	0.0197	47.05	46.55	0.06		1.14E-02
2	RT = 0 919	dT =		41.90 min		σ'_c =	4.0 ksf						47.05	46.55	0.44	0.04	1.05E-02
initial	23.5	7/31/19	00	00	00	128.0	100.0				4.00	41.36	47.05	46.55	0.50		
final	23.5	7/31/19	00	35	21						6.00	0.0195	47.05	46.55	0.06		1.12E-02
3	RT = 0 919	dT =		35.35 min		σ'_c =	4.0 ksf						47.05	46.55	0.44	0.04	1.03E-02
initial	23.5	7/31/19	00	00	00	128.0	100.0				4.60	35.156	47.05	46.55	0.50		
final	23.5	7/31/19	00	31	42						6.30	0.0185	47.05	46.55	0.06		1.05E-02
4	RT = 0 919	dT =		31.70 min		σ'_c =	4.0 ksf						47.05	46.55	0.44	0.04	9.72E-03
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	4.010	in	Lo=	10.186	cm
Ao=	6.274	in^2	Ao =	40.48	cm^2
Vo=	25.161	in^3	Vo =	412.31	cm^3
Lc =	3.995	in	Lc =	10.148	cm
Ac=	6.227	in^2	Ac=	40.173	cm^2
Vc =	24.878	in^3	Vc =	407.69	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 10.148 cm ε_{axial} = 0.4%

Ac = 40.076 cm^2

Vc= 406.70 cm^3 ε_{vol} = 1.4%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	15.52	119.8	103.7	67.0
PreTest	22.34	128.6	105.1	100.0

Project No. T60592794

Project Name: Roxana PreDesign Invest. Site 25278

BORING: PD-4-SB-33

SAMPLE: 062119 Depth: 33

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4

ave K @ 20 ºC: **1.04E-02** cm/sec

(i_o)ave = 0.04

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-4-SB-33

Project Name: **Roxana** SAMPLE: 062119 DEPTH (ft): 33 Test No.: **P11590**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 5

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:					x	No / Yes
4) During consolidation:	x	Top and bottom drainage or				Top / Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	22.0	9/5/19	00	00	00	78.0	50.0				4.30	84.788	47.20	46.35	0.85		
final	23.0	9/5/19	00	43	45						8.40	0.0323	47.20	46.35	0.22		1.67E-02
1	RT = 0 941	dT =		43.75 min		σ'_c =	4.0 ksf						47.2	46.35	0.63	0.10	1.56E-02
initial	23.0	9/5/19	00	00	00	78.0	50.0				4.30	66.176	47.20	46.35	0.85		
final	23.3	9/5/19	00	25	12						7.50	0.0438	47.20	46.35	0.30		2.59E-02
2	RT = 0 926	dT =		25.20 min		σ'_c =	4.0 ksf						47.2	46.35	0.55	0.09	2.39E-02
initial	23.3	9/5/19	00	00	00	78.0	50.0				4.50	74.448	47.20	45.85	1.35		
final	22.8	9/5/19	00	16	09						8.10	0.0768	47.20	45.85	0.53		3.04E-02
3	RT = 0 929	dT =		16.15 min		σ'_c =	4.0 ksf						47.2	45.85	0.82	0.13	2.82E-02
initial	22.8	9/5/19	00	00	00	78.0	50.0				4.00	78.584	47.20	45.85	1.35		
final	23.0	9/5/19	00	16	41						7.80	0.0785	47.20	45.85	0.54		3.15E-02
4	RT = 0 932	dT =		16.68 min		σ'_c =	4.0 ksf				7.8		47.2	45.85	0.81	0.13	2.93E-02
initial	22.0	9/5/19	00	00	00	78.0	50.0				4.20	61.006	47.20	46.80	0.40		
final	23.1	9/5/19	00	48	45						7.15	0.0209	47.20	46.80	0.14		2.64E-02
5	RT = 0 940	dT =		48.75 min		σ'_c =	4.0 ksf						47.2	46.8	0.26	0.04	2.47E-02
initial	23.1	9/5/19	00	00	00	78.0	50.0				4.00	55.836	47.20	46.80	0.40		
final	23.0	9/5/19	00	45	22						6.70	0.0205	47.20	46.80	0.14		2.57E-02
6	RT = 0 929	dT =		45.37 min		σ'_c =	4.0 ksf						47.2	46.8	0.26	0.04	2.38E-02

Preliminary Length/Area Calculations

Lo =	2.407	in	Lo=	6.113	cm
Ao=	2.940	in^2	Ao =	18.97	cm^2
Vo=	7.075	in^3	Vo =	115.94	cm^3
Lc =	2.403	in	Lc =	6.103	cm
Ac=	2.930	in^2	Ac=	18.904	cm^2
Vc =	7.040	in^3	Vc =	115.36	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 6.103 cm ε_{axial} = 0.2%

Ac = 18.936 cm^2

Vc= 115.56 cm^3 ε_{vol} = 0.3%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	17.07	124.8	106.6	74.8
PreTest	22.64	131.2	107.0	100.0

Project No. T60592794

Project Name: Roxana

PreDesign Invest.

BORING: PD-4-SB-33

SAMPLE: 062119 Depth: 33

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6

ave K @ 20 ºC: **2.43E-02** cm/sec

(i_o)ave = 0.09

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-4-SB-60

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 062119 DEPTH (ft): 60 Test No.: **P11576**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. P-3 Fabric Stage 7

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	22.5	8/6/19	00	00	00	140.0	90.0				4.50	64.108	48.85	46.45	2.40		
final	22.5	8/6/19	00	39	39						7.60	0.0269	48.85	46.45	0.08		2.95E-03
1	RT = 0 941	dT =		39.65 min		σ'_c =	7.2 ksf						48.85	46.45	2.32	0.23	2.78E-03
initial	22.5	8/6/19	00	00	00	140.0	100.0				4.00	140.624	48.85	46.45	2.40		
final	22.7	8/6/19	00	85	52						10.80	0.0273	48.85	46.45	0.08		2.99E-03
2	RT = 0 938	dT =		85.87 min		σ'_c =	5.8 ksf						48.85	46.45	2.32	0.23	2.81E-03
initial	22.7	8/6/19	00	00	00	140.0	100.0				4.30	74.448	48.85	46.45	2.40		
final	22.7	8/6/19	00	42	42						7.90	0.0291	48.85	46.45	0.09		3.19E-03
3	RT = 0 936	dT =		42.70 min		σ'_c =	5.8 ksf						48.85	46.45	2.31	0.23	2.99E-03
initial	22.7	8/6/19	00	00	00	140.0	100.0				4.50	51.7	48.85	46.45	2.40		
final	22.7	8/6/19	00	29	38						7.00	0.0291	48.85	46.45	0.09		3.19E-03
4	RT = 0 936	dT =		29.63 min		σ'_c =	5.8 ksf						48.85	46.45	2.31	0.23	3.00E-03
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	4.049	in	Lo=	10.285	cm
Ao=	6.309	in^2	Ao =	40.71	cm^2
Vo=	25.550	in^3	Vo =	418.68	cm^3
Lc =	4.032	in	Lc =	10.242	cm
Ac=	6.256	in^2	Ac=	40.363	cm^2
Vc =	25.228	in^3	Vc =	413.41	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 10.242 cm ε_{axial} = 0.4%

Ac = 40.287 cm^2

Vc= 412.63 cm^3 ε_{vol} = 1.4%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	17.03	127.1	108.6	83.2
PreTest	19.64	131.8	110.2	100.0

Project No. T60592794

Project Name: Roxana PreDesign Invest. Site 25278

BORING: PD-4-SB-60

SAMPLE: 062119 Depth: 60

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4

ave K @ 20 ºC: **2.90E-03** cm/sec

(i_o)ave = 0.23

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-4-SB-60

Project Name: **Roxana** SAMPLE: 062119 DEPTH (ft): 60 Test No.: **P11580**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 5

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:					x	No
						Yes
4) During consolidation:	x	Top and bottom drainage or				Top
						Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	21.7	8/28/19	00	00	00	100.0	50.0				4.80	51.7	45.05	44.40	0.65		
final	22.0	8/28/19	00	30	33						7.30	0.0282	45.05	44.40	0.20		2.21E-02
1	RT = 0 955	dT =		30.55 min		σ'_c =	7.2 ksf						45.05	44.4	0.45	0.07	2.17E-02
initial	22.0	8/28/19	00	00	00	100.0	50.0				4.20	78.584	45.05	44.40	0.65		
final	22.3	8/28/19	00	46	25						8.00	0.0282	45.05	44.40	0.20		2.21E-02
2	RT = 0 948	dT =		46.42 min		σ'_c =	7.2 ksf						45.05	44.4	0.45	0.07	2.16E-02
initial	22.3	8/28/19	00	00	00	100.0	50.0				5.40	99.264	45.05	44.05	1.00		
final	22.5	8/28/19	00	32	38						10.20	0.0507	45.05	44.05	0.35		2.78E-02
3	RT = 0 943	dT =		32.63 min		σ'_c =	7.2 ksf						45.05	44.05	0.65	0.10	2.70E-02
initial	22.5	8/28/19	00	00	00	100.0	50.0				4.10	64.108	45.05	44.05	1.00		
final	22.5	8/28/19	00	20	54						7.20	0.0511	45.05	44.05	0.35		2.82E-02
4	RT = 0 941	dT =		20.90 min		σ'_c =	7.2 ksf						45.05	44.05	0.65	0.10	2.73E-02
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	2.664	in	Lo=	6.767	cm
Ao=	2.954	in^2	Ao =	19.06	cm^2
Vo=	7.871	in^3	Vo =	128.98	cm^3
Lc =	2.660	in	Lc =	6.757	cm
Ac=	2.946	in^2	Ac=	19.003	cm^2
Vc =	7.836	in^3	Vc =	128.40	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	6.757	cm	ε_{axial} =	0.2%	
Ac =	18.441	cm^2			
Vc=	124.60	cm^3	ε_{vol} =	3.4%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	17.07	118.8	101.5	58.4
PreTest	27.16	133.6	105.1	100.0

Project No. T60592794

Project Name: Roxana

PreDesign Invest.

BORING: PD-4-SB-60

SAMPLE: 062119 Depth: 60

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4

ave K @ 20 ºC: **2.44E-02** cm/sec

(i_o)ave = 0.08

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-5-SB-45

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 061419 DEPTH (ft): 45 Test No.: **P11572**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. CH Fabric Stage 6

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Pressure Head Reading Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Fluid Head Reading Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	23.3	8/2/19	00	00	00	138.0	100.0				4.70	28.952	68.70	36.75	31.95		
final	23.4	8/2/19	00	54	00						6.10	0.0089	68.70	36.75	0.06		7.03E-05
1	RT = 0 922	dT =		54.00 min		σ'_c =	5.5 ksf						68.7	36.75	31.89	3.24	6.51E-05
initial	23.4	8/2/19	00	00	00	138.0	100.0				4.10	41.36	68.70	36.75	31.95		
final	23.4	8/2/19	00	76	12						6.10	0.0090	68.70	36.75	0.06		7.12E-05
2	RT = 0 921	dT =		76.20 min		σ'_c =	5.5 ksf						68.7	36.75	31.89	3.24	6.59E-05
initial	23.4	8/2/19	00	00	00	138.0	100.0				4.10	41.36	68.70	36.75	31.95		
final	23.5	8/2/19	00	77	05						6.10	0.0089	68.70	36.75	0.06		7.04E-05
3	RT = 0 920	dT =		77.08 min		σ'_c =	5.5 ksf						68.7	36.75	31.89	3.24	6.50E-05
initial	23.5	8/2/19	00	00	00	138.0	100.0				4.70	26.884	68.70	36.75	31.95		
final	23.5	8/2/19	00	51	00						6.00	0.0088	68.70	36.75	0.06		6.91E-05
4	RT = 0 919	dT =		51.00 min		σ'_c =	5.5 ksf						68.7	36.75	31.89	3.24	6.38E-05
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	3.905	in	Lo=	9.918	cm
Ao=	6.177	in^2	Ao =	39.85	cm^2
Vo=	24.121	in^3	Vo =	395.28	cm^3
Lc =	3.873	in	Lc =	9.837	cm
Ac=	6.075	in^2	Ac=	39.195	cm^2
Vc =	23.528	in^3	Vc =	385.56	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	9.837	cm	ε_{axial} =	0.8%	
Ac =	39.019	cm^2			
Vc=	383.82	cm^3	ε_{vol} =	2.9%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	18.64	127.1	107.1	87.8
PreTest	19.55	131.9	110.3	100.0

Project No. T60592794
Project Name: Roxana
PreDesign Invest. Site 25278
BORING: PD-5-SB-45
SAMPLE: 061419 Depth: 45

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4
ave K @ 20 ºC: **6.50E-05** cm/sec
(i_o)ave = 3.24

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-5-SB-45
Project Name: **Roxana** SAMPLE: 061419 DEPTH (ft): 45 Test No.: **P11584**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Fabric Stage 5

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:					x	No / Yes
4) During consolidation:	x	Top and bottom drainage or				Top / Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	21.5	8/30/19	00	00	00	88.0	50.0				5.20	97.196	47.00	45.25	1.75		
final	21.5	8/30/19	00	35	54						9.90	0.0451	47.00	45.25	0.31		9.97E-03
1	RT = 0 963	dT =		35.90 min		σ'_c =	5.5 ksf						47	45.25	1.44	0.24	9.74E-03
initial	21.5	8/30/19	00	00	00	88.0	50.0				4.60	86.856	47.00	45.25	1.75		
final	21.7	8/30/19	00	31	21						8.80	0.0462	47.00	45.25	0.32		1.03E-02
2	RT = 0 961	dT =		31.35 min		σ'_c =	5.5 ksf						47	45.25	1.43	0.24	9.99E-03
initial	21.7	8/30/19	00	00	00	88.0	50.0				4.10	153.032	47.00	44.75	2.25		
final	22.0	8/30/19	00	43	12						11.50	0.0590	47.00	44.75	0.41		1.02E-02
3	RT = 0 955	dT =		43.20 min		σ'_c =	5.5 ksf						47	44.75	1.84	0.30	9.87E-03
initial	22.0	8/30/19	00	00	00	88.0	50.0				4.20	99.264	47.00	44.75	2.25		
final	22.4	8/30/19	00	26	11						9.00	0.0632	47.00	44.75	0.44		1.11E-02
4	RT = 0 947	dT =		26.18 min		σ'_c =	5.5 ksf						47	44.75	1.81	0.30	1.06E-02
initial	22.4	8/30/19	00	00	00	88.0	50.0				4.50	142.692	47.00	44.25	2.75		
final	22.8	8/30/19	00	30	11						11.40	0.0788	47.00	44.25	0.55		1.14E-02
5	RT = 0 938	dT =		30.18 min		σ'_c =	5.5 ksf						47	44.25	2.20	0.36	1.08E-02
initial	22.8	8/30/19	00	00	00	88.0	50.0				4.60	128.216	47.00	44.25	2.75		
final	23.1	8/30/19	00	28	03						10.80	0.0762	47.00	44.25	0.53		1.09E-02
6	RT = 0 931	dT =		28.05 min		σ'_c =	5.5 ksf						47	44.25	2.22	0.37	1.03E-02

Preliminary Length/Area Calculations

Lo =	2.392	in	Lo=	6.076	cm
Ao=	2.970	in^2	Ao =	19.16	cm^2
Vo=	7.106	in^3	Vo =	116.44	cm^3
Lc =	2.388	in	Lc =	6.066	cm
Ac=	2.960	in^2	Ac=	19.100	cm^2
Vc =	7.070	in^3	Vc =	115.86	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 6.066 cm ε_{axial} = 0.2%
Ac = 18.838 cm^2
Vc= 114.27 cm^3 ε_{vol} = 1.9%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	19.49	127.4	106.6	87.8
PreTest	21.10	131.6	108.6	100.0

Project No. T60592794
Project Name: Roxana
PreDesign Invest.
BORING: PD-5-SB-45
SAMPLE: 061419 Depth: 45

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6
ave K @ 20 ºC: **1.02E-02** cm/sec
(i_o)ave = 0.30

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-5-SB-57

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 061419 DEPTH (ft): 57 Test No.: **P11575**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. CH Fabric Stage 7

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	22.4	8/5/19	00	00	00	138.0	90.0				4.10	80.652	68.80	36.75	32.05		
final	22.5	8/5/19	00	46	08						8.00	0.0291	68.80	36.75	0.19		2.30E-04
1	RT = 0 942	dT =		46.13 min		σ'_c =	6.9 ksf						68.8	36.75	31.86	3.14	2.17E-04
initial	22.5	8/5/19	00	00	00	138.0	100.0				4.40	72.38	68.80	36.75	32.05		
final	22.5	8/5/19	00	41	30						7.90	0.0291	68.80	36.75	0.19		2.30E-04
2	RT = 0 941	dT =		41.50 min		σ'_c =	5.5 ksf						68.8	36.75	31.86	3.14	2.16E-04
initial	22.5	8/5/19	00	00	00	138.0	100.0				4.40	76.516	68.80	36.75	32.05		
final	22.7	8/5/19	00	44	25						8.10	0.0287	68.80	36.75	0.19		2.27E-04
3	RT = 0 938	dT =		44.42 min		σ'_c =	5.5 ksf						68.8	36.75	31.86	3.14	2.13E-04
initial	22.7	8/5/19	00	00	00	138.0	100.0				4.50	59.972	68.80	36.75	32.05		
final	22.8	8/5/19	00	35	00						7.40	0.0286	68.80	36.75	0.19		2.25E-04
4	RT = 0 935	dT =		35.00 min		σ'_c =	5.5 ksf						68.8	36.75	31.86	3.14	2.11E-04
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	4.033	in	Lo=	10.243	cm
Ao=	6.364	in^2	Ao =	41.06	cm^2
Vo=	25.667	in^3	Vo =	420.60	cm^3
Lc =	4.000	in	Lc =	10.159	cm
Ac=	6.259	in^2	Ac=	40.384	cm^2
Vc =	25.037	in^3	Vc =	410.28	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	10.159	cm	ε_{axial} =	0.8%	
Ac =	40.372	cm^2			
Vc=	410.16	cm^3	ε_{vol} =	2.5%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	16.62	126.9	108.8	81.6
PreTest	18.93	132.7	111.6	100.0

Project No. T60592794

Project Name: Roxana PreDesign Invest. Site 25278

BORING: PD-5-SB-57

SAMPLE: 061419 Depth: 57

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4

ave K @ 20 ºC: **2.14E-04** cm/sec

(i_o)ave = 3.14

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-5-SB-57

Project Name: **Roxana** SAMPLE: 061419 DEPTH (ft): 57 Test No.: **P11582**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 5

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:					x	No / Yes
4) During consolidation:	x	Top and bottom drainage or				Top / Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	21.7	8/29/19	00	00	00	98.0	50.0				4.00	55.836	45.05	43.90	1.15		
final	22.0	8/29/19	00	58	30						6.70	0.0159	45.05	43.90	0.11		5.16E-03
1	RT = 0 955	dT =		58.50 min		σ'_c =	6.9 ksf						45.05	43.9	1.04	0.16	4.98E-03
initial	22.0	8/29/19	00	00	00	98.0	50.0				4.20	43.428	45.05	43.90	1.15		
final	22.2	8/29/19	00	43	43						6.30	0.0166	45.05	43.90	0.11		5.39E-03
2	RT = 0 949	dT =		43.72 min		σ'_c =	6.9 ksf						45.05	43.9	1.04	0.16	5.18E-03
initial	22.2	8/29/19	00	00	00	98.0	50.0				4.60	49.632	45.05	42.95	2.10		
final	22.5	8/29/19	00	26	54						7.00	0.0308	45.05	42.95	0.21		5.50E-03
3	RT = 0 944	dT =		26.90 min		σ'_c =	6.9 ksf						45.05	42.95	1.89	0.29	5.25E-03
initial	22.5	8/29/19	00	00	00	98.0	50.0				3.85	77.55	45.05	42.95	2.10		
final	23.0	8/29/19	00	41	45						7.60	0.0310	45.05	42.95	0.21		5.54E-03
4	RT = 0 935	dT =		41.75 min		σ'_c =	6.9 ksf						45.05	42.95	1.89	0.29	5.24E-03
initial	23.0	8/29/19	00	00	00	98.0	50.0				5.20	53.768	45.05	41.75	3.30		
final	23.2	8/29/19	00	18	36						7.80	0.0482	45.05	41.75	0.33		5.48E-03
5	RT = 0 928	dT =		18.60 min		σ'_c =	6.9 ksf						45.05	41.75	2.97	0.45	5.14E-03
initial	23.2	8/29/19	00	00	00	98.0	50.0				4.20	64.108	45.05	41.70	3.35		
final	23.2	8/29/19	00	21	33						7.30	0.0496	45.05	41.70	0.34		5.56E-03
6	RT = 0 925	dT =		21.55 min		σ'_c =	6.9 ksf						45.05	41.7	3.01	0.46	5.21E-03

Preliminary Length/Area Calculations

Lo =	2.582	in	Lo=	6.559	cm
Ao=	3.017	in^2	Ao =	19.46	cm^2
Vo=	7.790	in^3	Vo =	127.66	cm^3
Lc =	2.580	in	Lc =	6.554	cm
Ac=	3.012	in^2	Ac=	19.432	cm^2
Vc =	7.772	in^3	Vc =	127.36	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 6.554 cm ε_{axial} = 0.1%

Ac = 19.218 cm^2

Vc= 125.96 cm^3 ε_{vol} = 1.3%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	14.09	118.1	103.5	58.8
PreTest	23.14	129.2	104.9	100.0

Project No. T60592794

Project Name: Roxana

PreDesign Invest.

BORING: PD-5-SB-57

SAMPLE: 061419 Depth: 57

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6

ave K @ 20 ºC: **5.17E-03** cm/sec

(i_o)ave = 0.30

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-6-SB-41

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 071119 DEPTH (ft): 41 Test No.: **P11569**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. CH FABRIC Stage 6

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Pressure Head Reading Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Fluid Head Reading Tail (cm)	Total Head Uncorrected / Correction / Corrected (cm)	Gradient	Permeability Preliminary / Final at 20ºC cm/sec
initial	22.1	8/1/19	00	00	00	134.0	100.0				4.40	51.7	47.10	46.60	0.50		
final	22.1	8/1/19	00	24	54						6.90	0.0346	47.10	46.60	0.22		2.95E-02
1	RT = 0 949	dT =		24.90 min		σ'_c =	4.9 ksf						47.1	46.6	0.28	0.03	2.78E-02
initial	22.1	8/1/19	00	00	00	134.0	100.0				4.40	45.496	47.10	46.60	0.50		
final	22.1	8/1/19	00	21	44						6.60	0.0349	47.10	46.60	0.23		3.00E-02
2	RT = 0 949	dT =		21.73 min		σ'_c =	4.9 ksf						47.1	46.6	0.27	0.03	2.82E-02
initial	22.1	8/1/19	00	00	00	134.0	100.0				4.40	59.972	47.10	46.60	0.50		
final	22.2	8/1/19	00	28	33						7.30	0.0350	47.10	46.60	0.23		3.02E-02
3	RT = 0 948	dT =		28.55 min		σ'_c =	4.9 ksf						47.1	46.6	0.27	0.03	2.83E-02
initial	22.2	8/1/19	00	00	00	134.0	100.0				4.50	88.924	47.10	46.60	0.50		
final	22.2	8/1/19	00	42	00						8.80	0.0353	47.10	46.60	0.23		3.06E-02
4	RT = 0 947	dT =		42.00 min		σ'_c =	4.9 ksf						47.1	46.6	0.27	0.03	2.87E-02
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	3.710	in	Lo=	9.423	cm
Ao=	6.281	in^2	Ao =	40.52	cm^2
Vo=	23.300	in^3	Vo =	381.81	cm^3
Lc =	3.677	in	Lc =	9.339	cm
Ac=	6.168	in^2	Ac=	39.792	cm^2
Vc =	22.678	in^3	Vc =	371.62	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	9.339	cm	ε_{axial} =	0.9%	
Ac =	40.161	cm^2			
Vc=	375.06	cm^3	ε_{vol} =	1.8%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	18.79	126.2	106.2	81.5
PreTest	22.01	132.0	108.1	100.0

Project No. T60592794
Project Name: Roxana
PreDesign Invest. Site 25278
BORING: PD-6-SB-41
SAMPLE: 071119 Depth: 41

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4
ave K @ 20 ºC: **2.83E-02** cm/sec
(i_o)ave = 0.03

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-6-SB-41

Project Name: **Roxana** SAMPLE: 071119 DEPTH (ft): 41 Test No.: **P11592**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 7

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:					x	No / Yes
4) During consolidation:	x	Top and bottom drainage or				Top / Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	21.2	9/6/19	00	00	00	84.0	50.0				3.80	68.244	47.30	46.85	0.45		
final	21.6	9/6/19	00	59	00						7.10	0.0193	47.30	46.85	0.13		1.99E-02
1	RT = 0 965	dT =		59.00 min		σ'_c =	4.9 ksf						47.3	46.85	0.32	0.05	2.00E-02
initial	21.6	9/6/19	00	00	00	84.0	50.0				4.00	51.7	47.30	46.85	0.45		
final	21.6	9/6/19	00	46	00						6.50	0.0187	47.30	46.85	0.13		1.91E-02
2	RT = 0 961	dT =		46.00 min		σ'_c =	4.9 ksf						47.3	46.85	0.32	0.05	1.91E-02
initial	21.6	9/6/19	00	00	00	84.0	50.0				4.70	72.38	47.25	46.65	0.60		
final	21.7	9/6/19	00	42	08						8.20	0.0286	47.25	46.65	0.20		2.32E-02
3	RT = 0 960	dT =		42.13 min		σ'_c =	4.9 ksf						47.25	46.65	0.40	0.06	2.33E-02
initial	21.7	9/6/19	00	00	00	84.0	50.0				3.80	68.244	47.25	46.65	0.60		
final	22.0	9/6/19	00	39	55						7.10	0.0285	47.25	46.65	0.20		2.31E-02
4	RT = 0 955	dT =		39.92 min		σ'_c =	4.9 ksf				7.8		47.25	46.65	0.40	0.06	2.30E-02
initial	22.0	9/6/19	00	00	00	84.0	50.0				4.80	57.904	47.20	46.10	1.10		
final	22.0	9/6/19	00	17	12						7.60	0.0561	47.20	46.10	0.39		2.57E-02
5	RT = 0 952	dT =		17.20 min		σ'_c =	4.9 ksf						47.2	46.1	0.71	0.11	2.55E-02
initial	22.0	9/6/19	00	00	00	84.0	50.0				5.10	84.788	47.20	46.10	1.10		
final	21.8	9/6/19	00	25	36						9.20	0.0552	47.20	46.10	0.38		2.51E-02
6	RT = 0 954	dT =		25.60 min		σ'_c =	4.9 ksf						47.2	46.1	0.72	0.11	2.50E-02

Preliminary Length/Area Calculations

Lo =	2.464	in	Lo=	6.258	cm
Ao=	2.981	in^2	Ao =	19.23	cm^2
Vo=	7.344	in^3	Vo =	120.35	cm^3
Lc =	2.462	in	Lc =	6.253	cm
Ac=	2.976	in^2	Ac=	19.200	cm^2
Vc =	7.326	in^3	Vc =	120.06	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	6.253	cm	ε_{axial} =	0.1%	
Ac =	18.394	cm^2			
Vc=	115.02	cm^3	ε_{vol} =	4.4%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	20.99	120.3	99.4	74.1
PreTest	25.54	130.6	104.0	100.0

Project No. T60592794

Project Name: Roxana

PreDesign Invest.

BORING: PD-6-SB-41

SAMPLE: 071119 Depth: 41

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6

ave K @ 20 ºC: **2.27E-02** cm/sec

(i_o)ave = 0.08

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-7-SB-43

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 071819 DEPTH (ft): 43 Test No.: **P11570**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. P-3 Fabric Stage 6

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	22.5	8/1/19	00	00	00	136.0	100.0				4.70	84.788	52.50	43.70	8.80		
final	22.5	8/1/19	00	21	54						8.80	0.0645	52.50	43.70	0.20		1.81E-03
1	RT = 0 941	dT =		21.90 min		σ'_c =	5.2 ksf						52.5	43.7	8.60	0.88	1.72E-03
initial	22.5	8/1/19	00	00	00	136.0	100.0				4.30	99.264	52.50	43.70	8.80		
final	22.7	8/1/19	00	23	24						9.10	0.0707	52.50	43.70	0.22		1.98E-03
2	RT = 0 938	dT =		23.40 min		σ'_c =	5.2 ksf						52.5	43.7	8.58	0.88	1.89E-03
initial	22.7	8/1/19	00	00	00	136.0	100.0				4.80	113.74	52.50	43.70	8.80		
final	22.7	8/1/19	00	24	12						10.30	0.0783	52.50	43.70	0.24		2.20E-03
3	RT = 0 936	dT =		24.20 min		σ'_c =	5.2 ksf						52.5	43.7	8.56	0.88	2.09E-03
initial	22.7	8/1/19	00	00	00	136.0	100.0				4.10	97.196	52.50	43.70	8.80		
final	22.7	8/1/19	00	21	39						8.80	0.0748	52.50	43.70	0.23		2.10E-03
4	RT = 0 936	dT =		21.65 min		σ'_c =	5.2 ksf						52.5	43.7	8.57	0.88	1.99E-03
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	3.863	in	Lo=	9.812	cm
Ao=	6.347	in^2	Ao =	40.95	cm^2
Vo=	24.517	in^3	Vo =	401.76	cm^3
Lc =	3.846	in	Lc =	9.769	cm
Ac=	6.291	in^2	Ac=	40.584	cm^2
Vc =	24.193	in^3	Vc =	396.46	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	9.769	cm	ε_{axial} =	0.4%	
Ac =	40.054	cm^2			
Vc=	391.28	cm^3	ε_{vol} =	2.6%	

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	18.84	125.9	105.9	86.0
PreTest	20.37	130.9	108.7	100.0

Project No. T60592794
Project Name: Roxana PreDesign Invest. Site 25278
BORING: PD-7-SB-43
SAMPLE: 071819 Depth: 43

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4
ave K @ 20 ºC: **1.92E-03** cm/sec
(i_o)ave = 0.88

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-7-SB-43

Project Name: **Roxana** SAMPLE: 071819 DEPTH (ft): 43 Test No.: **P11588**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 8

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:					x	No / Yes
4) During consolidation:	x	Top and bottom drainage or				Top / Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	22.0	9/4/19	00	00	00	86.0	50.0				4.80	43.428	47.20	46.75	0.45		
final	22.7	9/4/19	00	44	35						6.90	0.0162	47.20	46.75	0.11		1.62E-02
1	RT = 0 944	dT =		44.58 min		σ'_c =	5.2 ksf						47.2	46.75	0.34	0.05	1.43E-02
initial	22.7	9/4/19	00	00	00	86.0	50.0				3.50	69.278	47.20	46.75	0.45		
final	23.5	9/4/19	00	69	19						6.85	0.0166	47.20	46.75	0.12		1.67E-02
2	RT = 0 928	dT =		69.51 min		σ'_c =	5.2 ksf						47.2	46.75	0.33	0.05	1.45E-02
initial	23.5	9/4/19	00	00	00	86.0	50.0				3.90	101.332	47.20	46.30	0.90		
final	24.0	9/4/19	00	48	47						8.80	0.0346	47.20	46.30	0.24		1.76E-02
3	RT = 0 914	dT =		48.78 min		σ'_c =	5.2 ksf						47.2	46.3	0.66	0.11	1.51E-02
initial	22.4	9/4/19	00	00	00	86.0	50.0				4.10	90.992	47.20	46.30	0.90		
final	23.0	9/4/19	00	44	00						8.50	0.0345	47.20	46.30	0.24		1.75E-02
4	RT = 0 936	dT =		44.00 min		σ'_c =	5.2 ksf						47.2	46.3	0.66	0.11	1.54E-02
initial	23.0	9/4/19	00	00	00	86.0	50.0				4.40	93.06	47.20	45.90	1.30		
final	23.3	9/4/19	00	30	45						8.90	0.0504	47.20	45.90	0.35		1.78E-02
5	RT = 0 926	dT =		30.75 min		σ'_c =	5.2 ksf						47.2	45.9	0.95	0.15	1.55E-02
initial	23.3	9/4/19	00	00	00	86.0	50.0				4.70	80.652	47.20	45.90	1.30		
final	23.4	9/4/19	00	26	22						8.60	0.0510	47.20	45.90	0.35		1.81E-02
6	RT = 0 922	dT =		26.37 min		σ'_c =	5.2 ksf						47.2	45.9	0.95	0.15	1.57E-02

Preliminary Length/Area Calculations

Lo =	2.466	in	Lo=	6.263	cm
Ao=	2.898	in^2	Ao =	18.70	cm^2
Vo=	7.145	in^3	Vo =	117.09	cm^3
Lc =	2.459	in	Lc =	6.245	cm
Ac=	2.881	in^2	Ac=	18.589	cm^2
Vc =	7.085	in^3	Vc =	116.10	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 6.245 cm ε_{axial} = 0.3%

Ac = 19.829 cm^2

Vc= 123.84 cm^3 ε_{vol} = -5.8%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	19.63	125.5	104.9	87.3
PreTest	25.91	124.9	99.2	100.0

Project No. T60592794

Project Name: Roxana

PreDesign Invest.

BORING: PD-7-SB-43

SAMPLE: 071819 Depth: 43

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6

ave K @ 20 ºC: **1.51E-02** cm/sec

(i_o)ave = 0.10

PERMEABILITY TEST: FALLING HEAD - CONSTANT VOLUME U-TUBE
ASTM D 5084 - Method F

Project No.: T60592794 | BORING: PD-7-SB-53 | Test No.: P11574

Project Name: **Roxana PreDesign Invest. Site 25278** | SAMPLE: 071819 | DEPTH (ft): 53

Specimen - Apparatus set-up - Test Information | Cell No. P-1 | Apparatus No. 2 | Stage No.: 6

Preliminary Length/Area Calculations

Lo =	4.003	in	Lo=	10.168	cm
dLc=	0.020	in	Ao =	40.85	cm^2
Lc=	3.983	in	Vo =	415.30	cm^3
			Lc=	10.117	cm
dVc = 3 Vo * (dLc/Lo)			dVc=	6.22	cm^3
			Vc =	409.07	cm^3
Sc =	0.250	cm^{-1}	Ac=	40.435	cm^2

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
	x	with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove ai			x	No		Yes
4) During consolidation:	x	Top and bottom drainage or		Top		Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
or		Demineralized		0.005 N calcium sulfate (CaSO4)		

Equations Used

Kt = - 0.0000746 * Sc/dT(min) * ln (ho/hf)

RT = (-0.02452*(ave. temp in C) + 1.495)

K @ 20 ºC = RT * Kt TubeC= 1.3214

TEST SUMMARY

Final Specimen and Test Conditions

Lc =	10.117	cm	ε_{axial} =	0.5%	
Ac =	40.546	cm^2			
Vc=	410.19	cm^3	ε_{vol} =	1.2%	
Sc =	0.250	cm^{-1}	Sc = Lc / Ac , final		

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	18.64	129.7	109.3	92.8
PreTest	19.38	132.1	110.7	100.0

HYDRAULIC CONDUCTIVITY SUMMARY

Averages for trials: 1-4

ave K @ 20 ºC: **4.61E-05** cm/sec

(i_o)ave = 5.4

Tested By: BB Reviewed By: G. Thomas

Consol Stage-Trial No.	Temp. ºC	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	U-tube Reading Head (cm) (cc)	U-tube Reading Tail (cm) (cc)	Flow in/out gradient	Permeability Preliminary Final at 20ºC cm/sec Dev. from Ave.
initial	22.0	8/5/19	00	00	00	134.0	90.0	45.00	40.63	0.99	4.73E-05
final	22.0	8/5/19	00	00	22			43.00	41.28		4.51E-05
1	RT = 0.956	dT =		0.37 min		σ'_c =	6.3 ksf	0.149	0.150	io= 5.4	-2%
initial	22.0	8/5/19	00	00	00	134.0	90.0	45.00	40.63	0.99	4.95E-05
final	22.0	8/5/19	00	00	21			43.00	41.28		4.72E-05
2	RT = 0.956	dT =		0.35 min		σ'_c =	6.3 ksf	0.149	0.150	io= 5.4	2%
initial	22.0	8/5/19	00	00	00	134.0	90.0	45.00	40.63	0.99	4.95E-05
final	22.0	8/5/19	00	00	21			43.00	41.28		4.72E-05
3	RT = 0.956	dT =		0.35 min		σ'_c =	6.3 ksf	0.149	0.150	io= 5.4	2%
initial	22.0	8/5/19	00	00	00	134.0	90.0	45.00	40.63	0.99	4.73E-05
final	22.0	8/5/19	00	00	22			43.00	41.28		4.51E-05
4	RT = 0.956	dT =		0.37 min		σ'_c =	6.3 ksf	0.149	0.150	io= 5.4	-2%
initial											
final											
5											
initial											
final											
6											

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-7-SB-53
Project Name: **Roxana** SAMPLE: 071819 DEPTH (ft): 53 Test No.: **P11578**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 5

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:			x	No		Yes
4) During consolidation:	x	Top and bottom drainage or		Top		Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	20.7	8/27/19	00	00	00	94.0	50.0				4.70	52.734	45.05	42.30	2.75		
final	21.2	8/27/19	00	50	10						7.25	0.0175	45.05	42.30	0.12		2.18E-03
1	RT = 0 976	dT =		50.17 min		σ'_c =	6.3 ksf						45.05	42.3	2.63	0.43	2.14E-03
initial	21.2	8/27/19	00	00	00	94.0	50.0				4.60	53.768	45.05	42.30	2.75		
final	21.5	8/27/19	00	56	38						7.20	0.0158	45.05	42.30	0.11		1.96E-03
2	RT = 0 967	dT =		56.63 min		σ'_c =	6.3 ksf						45.05	42.3	2.64	0.43	1.91E-03
initial	21.5	8/27/19	00	00	00	94.0	50.0				4.40	45.496	45.05	41.60	3.45		
final	21.5	8/27/19	00	35	00						6.60	0.0217	45.05	41.60	0.15		2.15E-03
3	RT = 0 963	dT =		35.00 min		σ'_c =	6.3 ksf						45.05	41.6	3.30	0.54	2.08E-03
initial	21.5	8/27/19	00	00	00	94.0	50.0				4.40	43.428	45.05	41.60	3.45		
final	21.7	8/27/19	00	32	49						6.50	0.0221	45.05	41.60	0.15		2.19E-03
4	RT = 0 961	dT =		32.82 min		σ'_c =	6.3 ksf						45.05	41.6	3.30	0.53	2.11E-03
initial	21.7	8/27/19	00	00	00	94.0	50.0				4.70	39.292	45.05	40.75	4.30		
final	21.7	8/27/19	00	24	50						6.60	0.0264	45.05	40.75	0.18		2.09E-03
5	RT = 0 959	dT =		24.83 min		σ'_c =	6.3 ksf						45.05	40.75	4.12	0.67	2.02E-03
initial	21.7	8/27/19	00	00	00	94.0	50.0				4.00	68.244	45.05	40.75	4.30		
final	22.0	8/27/19	00	42	40						7.30	0.0267	45.05	40.75	0.19		2.12E-03
6	RT = 0 955	dT =		42.67 min		σ'_c =	6.3 ksf						45.05	40.75	4.11	0.67	2.04E-03

Preliminary Length/Area Calculations

Lo =	2.433	in	Lo=	6.180	cm
Ao=	2.935	in^2	Ao =	18.94	cm^2
Vo=	7.141	in^3	Vo =	117.02	cm^3
Lc =	2.428	in	Lc =	6.167	cm
Ac=	2.923	in^2	Ac=	18.858	cm^2
Vc =	7.097	in^3	Vc =	116.30	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 6.167 cm ε_{axial} = 0.2%
Ac = 18.743 cm^2
Vc= 115.59 cm^3 ε_{vol} = 1.2%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	18.52	130.8	110.4	86.2
PreTest	20.78	135.0	111.7	100.0

Project No. T60592794
Project Name: Roxana
PreDesign Invest.
BORING: PD-7-SB-53
SAMPLE: 071819 Depth: 53

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6
ave K @ 20 ºC: **2.05E-03** cm/sec
(i_o)ave = 0.54

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST

ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-10-SB-44

Project Name: **Roxana PreDesign Invest. Site 25278** SAMPLE: 061219 DEPTH (ft): 44 Test No.: **P11571**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. P-1 STONE Stage 6

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or	
		with stones or		Stones with filter paper or	top + bottom
2) Specimen orientation for:	x	Vertical or		Horizontal permeability determination	
3) During saturation: Water flushed up sides of specimen to remove air:			x	No	Yes
4) During consolidation:	x	Top and bottom drainage or		Top	Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation	
6) Permeant: water used	x	Tap		Distilled	
		Demineralized		0.005 N calcium sulfate (CaSO4)	

Consol Stage- Trial No.	Temp. °C	Date	Time hr	Time min	Time sec	Initial σ_c psi	Initial Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Pressure Head Reading Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Fluid Head Reading Tail (cm)	Total Head Uncorrected / Correction / Corrected (cm)	Gradient	Permeability Preliminary / Final at 20°C cm/sec
initial	22.3	8/2/19	00	00	00	137.0	100.0				5.10	45.496	48.10	44.25	3.85		
final	22.5	8/2/19	00	31	26						7.30	0.0241	48.10	44.25	0.48		1.61E-03
1	RT = 0 943	dT =		31.43 min		σ'_c =	5.3 ksf						48.1	44.25	3.37	0.36	1.54E-03
initial	22.5	8/2/19	00	00	00	137.0	100.0				4.30	62.04	48.10	44.25	3.85		
final	22.5	8/2/19	00	42	43						7.30	0.0242	48.10	44.25	0.48		1.62E-03
2	RT = 0 941	dT =		42.72 min		σ'_c =	5.3 ksf						48.1	44.25	3.37	0.36	1.54E-03
initial	22.5	8/2/19	00	00	00	137.0	100.0				4.30	66.176	48.10	44.25	3.85		
final	22.7	8/2/19	00	44	56						7.50	0.0245	48.10	44.25	0.49		1.64E-03
3	RT = 0 938	dT =		44.93 min		σ'_c =	5.3 ksf						48.1	44.25	3.36	0.36	1.57E-03
initial	22.7	8/2/19	00	00	00	137.0	100.0				4.40	47.564	48.10	44.25	3.85		
final	22.8	8/2/19	00	32	23						6.70	0.0245	48.10	44.25	0.49		1.64E-03
4	RT = 0 935	dT =		32.38 min		σ'_c =	5.3 ksf						48.1	44.25	3.36	0.36	1.56E-03
initial																	
final																	
5																	
initial																	
final																	
6																	

Preliminary Length/Area Calculations

Lo =	3.655	in	Lo=	9.283	cm
Ao=	6.423	in^2	Ao =	41.44	cm^2
Vo=	23.477	in^3	Vo =	384.71	cm^3
Lc =	3.638	in	Lc =	9.240	cm
Ac=	6.363	in^2	Ac=	41.054	cm^2
Vc =	23.149	in^3	Vc =	379.34	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc =	9.240	cm	ε_{axial} =	0.5%
Ac =	40.435	cm^2		
Vc=	373.62	cm^3	ε_{vol} =	2.9%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	20.26	127.4	105.9	92.4
PreTest	20.21	131.1	109.0	100.0

Project No. T60592794

Project Name: Roxana PreDesign Invest. Site 25278

BORING: PD-10-SB-44

SAMPLE: 061219 Depth: 44

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-4

ave K @ 20 °C: **1.55E-03** cm/sec

(i_o)ave = 0.36

CONSTANT HEAD HYDRAULIC CONDUCTIVITY TEST
ASTM D 5084 - 90

Project No. **T60592794** BORING: PD-10-SB-44
Project Name: **Roxana** SAMPLE: 061219 DEPTH (ft): 44 Test No.: **P11586**

Specimen - Apparatus set-up - Test Information Apparatus No. C-2 Cell No. BLK#5 Stage 8

1) Specimen Tested in :	x	Triaxial Cell or		Compaction Mold or		
		with stones or		Stones with filter paper or		top + bottom
2) Specimen orientation for:		Vertical or	X	Horizontal permeability determination		
3) During saturation: Water flushed up sides of specimen to remove air:			x	No		Yes
4) During consolidation:	x	Top and bottom drainage or		Top		Bottom only
5) Direction of permeant :	x	Up during or		Down during permeation		
6) Permeant: water used	x	Tap		Distilled		
		Demineralized		0.005 N calcium sulfate (CaSO4)		

Consol Stage- Trial No.	Temp. ºC	Date	Time hr	min	sec	Initial σ_c psi	Ub psi	Dial Indicator in	Pressure Head Reading Mercury (inch)	Gage (psi)	Flow Reading (cm)	Flow Vol (cm3) Rate (cm3/sec)	Fluid Head Reading Head (cm)	Tail (cm)	Total Head Uncorrected Correction Corrected (cm)	Gradient	Permeability Preliminary Final at 20ºC cm/sec
initial	21.5	9/3/19	00	00	00	87.0	50.0				4.90	49.632	47.10	46.75	0.35		
final	22.0	9/3/19	00	55	30						7.30	0.0149	47.10	46.75	0.10		2.15E-02
1	RT = 0 957	dT =		55.50 min		σ'_c =	5.3 ksf						47.1	46.75	0.25	0.04	2.07E-02
initial	22.0	9/3/19	00	00	00	87.0	50.0				4.40	39.292	47.10	46.75	0.35		
final	22.0	9/3/19	00	40	49						6.30	0.0160	47.10	46.75	0.11		2.39E-02
2	RT = 0 952	dT =		40.82 min		σ'_c =	5.3 ksf						47.1	46.75	0.24	0.04	2.29E-02
initial	22.0	9/3/19	00	00	00	87.0	50.0				4.30	68.244	47.10	46.40	0.70		
final	22.4	9/3/19	00	35	41						7.60	0.0319	47.10	46.40	0.22		2.37E-02
3	RT = 0 947	dT =		35.68 min		σ'_c =	5.3 ksf						47.1	46.4	0.48	0.07	2.26E-02
initial	22.4	9/3/19	00	00	00	87.0	50.0				4.30	78.584	47.10	46.40	0.70		
final	22.7	9/3/19	00	41	02						8.10	0.0319	47.10	46.40	0.22		2.37E-02
4	RT = 0 940	dT =		41.03 min		σ'_c =	5.3 ksf						47.1	46.4	0.48	0.07	2.24E-02
initial	22.7	9/3/19	00	00	00	87.0	50.0				4.10	109.604	47.10	45.65	1.45		
final	22.7	9/3/19	00	29	38						9.40	0.0616	47.10	45.65	0.43		2.14E-02
5	RT = 0 936	dT =		29.63 min		σ'_c =	5.3 ksf						47.1	45.65	1.02	0.15	2.02E-02
initial	22.7	9/3/19	00	00	00	87.0	50.0				4.60	105.468	47.10	45.65	1.45		
final	23.0	9/3/19	00	27	48						9.70	0.0632	47.10	45.65	0.44		2.22E-02
6	RT = 0 933	dT =		27.80 min		σ'_c =	5.3 ksf						47.1	45.65	1.01	0.15	2.09E-02

Preliminary Length/Area Calculations

Lo =	2.628	in	Lo=	6.675	cm
Ao=	2.916	in^2	Ao =	18.82	cm^2
Vo=	7.664	in^3	Vo =	125.59	cm^3
Lc =	2.623	in	Lc =	6.662	cm
Ac=	2.905	in^2	Ac=	18.744	cm^2
Vc =	7.620	in^3	Vc =	124.87	cm^3

Tested By: BB Reviewed By: G. Thomas

TEST CONDITIONS

Final Specimen and Test Conditions

Lc = 6.662 cm ε_{axial} = 0.2%
Ac = 18.621 cm^2
Vc= 124.05 cm^3 ε_{vol} = 1.2%

	w (%)	γ_τ (pcf)	γ_d (pcf)	S (%)
Initial	16.68	127.8	109.5	83.5
PreTest	19.27	132.2	110.9	100.0

Project No. T60592794
Project Name: Roxana
PreDesign Invest.
BORING: PD-10-SB-44
SAMPLE: 061219 Depth: 44

HYDRAULIC CONDUCTIVITY TEST SUMMARY

Averages for trials: 1-6
ave K @ 20 ºC: **2.16E-02** cm/sec
(i_o)ave = 0.09

Appendix G – Summary of Soil VOC and SVOC TIC Analytical Detections

Location	Sample ID	Depth	Sample Date	1,2,3-Trimethylbenzene	1,3-dimethyl-,cis-Cyclopentane	1-Chlorohexane	1H-Indene, 2,3-dihydro-1,1-dimethyl-	1H-Indene, 2,3-dihydro-4,7-dimethyl-	1-methyl-4-Benzene	1-Pentene, 2-methyl-	2,3-dihydro-4,7-1H-Indene	2-ethyl-Naphthalene	2-Ethyltoluene
				Analytical Results (mg/kg)									
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019							0.17925898 T J			
	PD-1-SB-55-061819	55 ft	6/18/2019										
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019			<4.4							
	PD-2-SB-52-070919	52 ft	7/9/2019			<6							
	PD-2-SB-60-070919	60 ft	7/9/2019			<1.2							
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019			<1.2							
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019										
	PD-4-SB-41-062419	41 ft	6/24/2019			<0.005							
	PD-4-SB-53-062419	53 ft	6/24/2019	39		<5.8							33
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019										
	PD-5-SB-43-061419	43 ft	6/14/2019										
	PD-5-SB-53-061419	53 ft	6/14/2019		54.73253688 T J					3.7788 T J			243.09479124 T J
	PD-5-SB-62-061419	62 ft	6/14/2019	0.19461304 T J									0.17584936 T J
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019	0.67 T J N		<0.66							
	PD-6-SB-46-071119	46 ft	7/11/2019	4.7 J		<5.2							3 J
	PD-6-SB-51-071119	51 ft	7/11/2019	3.1		<2.7							2.4 J
	PD-6-SB-54-071119	54 ft	7/11/2019			<0.28							
	PD-6-SB-63-071219	63 ft	7/12/2019			<0.25							
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019			<0.0071							
	PD-7-SB-43-071819	43 ft	7/18/2019	0.64		<0.31							
	PD-7-SB-51-071819	51 ft	7/18/2019	18 J		<67							
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	16 J		<60							
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	0.91 J		<3.2							0.86 J
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	1.6 T J N		<3.2							
	PD-8-SB-40-062519	40 ft	6/25/2019	6.9 J		<15							5.5 J
	PD-8-SB-51-062619	51 ft	6/26/2019	91		<5.4							71
	PD-8-SB-62-062619	62 ft	6/26/2019			<0.0049							

Location	Sample ID	Depth	Sample Date	1,2,3-Trimethylbenzene	1,3-dimethyl-,cis-Cyclopentane	1-Chlorohexane	1H-Indene, 2,3-dihydro-1,1-dimethyl-	1H-Indene, 2,3-dihydro-4,7-dimethyl-	1-methyl-4-Benzene	1-Pentene, 2-methyl-	2,3-dihydro-4,7-1H-Indene	2-ethyl-Naphthalene	2-Ethyltoluene
				Analytical Results (mg/kg)									
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019			<0.0048							
	PD-9-SB-43-062819	43 ft	6/28/2019			<1.5							
	PD-9-SB-54-062819	54 ft	6/28/2019			<5.7							
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	7.4 T J N		<5.6							
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019				3.08116482 T J	4.04283942 T J	5.2371936 T J		2.31943734 T J	2.31892986 T J	
	PD-10-SB-46-061219	46 ft	6/12/2019										
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	55		<5.3							33
	PD-11-SB-45-070219	45 ft	7/2/2019	4.6 T J N		<1							
	PD-11-SB-57-070219	57 ft	7/2/2019			<0.65							
	PD-11-SB-61-070219	61 ft	7/2/2019			<0.27							
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019			<0.37							
	PD-12-SB-55-070819	55 ft	7/8/2019	1.4 J		<1.9							1.2 J
	PD-12-SB-59-070819	59 ft	7/8/2019			<0.26							
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019			<11							
	PD-14-SB-49-072219	49 ft	7/22/2019			<49							
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019			<56							
	PD-14-SB-55-072219	55 ft	7/22/2019			<0.26							
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019			<0.26							
	PD-17-SB-55-071519	55 ft	7/15/2019	0.32 J		<1.1							0.22 J

Location	Sample ID	Depth	Sample Date	2-methyl-1-Pentanol	2-Methyl-2-propanol	2-Propanol	3-Phenylbut-1-ene	4-methylpentyl ester Dichloroacetic acid	9-Octadecyne	Benzene, (2-methyl-1-butenyl)-	Benzene, 1,2,3,4-tetramethyl-	Benzene, 1,2,3,5-tetramethyl-	Benzene, 1,2,4,5-tetramethyl-	Benzene, 1-butenyl-, (E)-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019	0.12488222 T J										
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019		2.1 J									
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019					82.47995112 T J						4.9872 T J
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019											
	PD-6-SB-54-071119	54 ft	7/11/2019		0.5 J *									
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019											
	PD-7-SB-51-071819	51 ft	7/18/2019											
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019											
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019										0.35 T J N	
	PD-8-SB-40-062519	40 ft	6/25/2019										2 T J N	
	PD-8-SB-51-062619	51 ft	6/26/2019								22 T J N		22 T J N	
	PD-8-SB-62-062619	62 ft	6/26/2019			0.071 J								

Location	Sample ID	Depth	Sample Date	2-methyl-1-Pentanol	2-Methyl-2-propanol	2-Propanol	3-Phenylbut-1-ene	4-methylpentyl ester Dichloroacetic acid	9-Octadecyne	Benzene, (2-methyl-1-butenyl)-	Benzene, 1,2,3,4-tetramethyl-	Benzene, 1,2,3,5-tetramethyl-	Benzene, 1,2,4,5-tetramethyl-	Benzene, 1-butenyl-, (E)-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019											
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019										5.5 T J N	
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019				2.67721074 T J			2.64295584 T J	1.9208118 T J			
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019									66 T J N		
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019								1.7 T J N			
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019						0.42 T J N			0.91 T J N		
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethenyl-3-ethyl-	Benzene, 1-ethyl-2,3-dimethyl-	Benzene, 1-ethyl-2,4-dimethyl-	Benzene, 1-ethyl-2,4-dimethyl-A	Benzene, 1-ethyl-2,4-dimethyl-B	Benzene, 1-ethyl-2-methyl-	Benzene, 1-ethyl-3,5-dimethyl-	Benzene, 1-ethyl-3-methyl-	Benzene, 1-ethyl-4-(1-methylethyl)-	Benzene, 1-ethyl-4-methyl-	Benzene, 1-methyl-2-(1-methylethyl)-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019											
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019								0.59 T J N			
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019			36 T J N					110			
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019											
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019								7.5			
	PD-6-SB-51-071119	51 ft	7/11/2019								7.7			
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019		3.4 T J N				4.8 T J N		0.69			
	PD-7-SB-51-071819	51 ft	7/18/2019						3 T J N		22 J			
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019											
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019								3.1 J			0.39 T J N
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019								0.67 J			
	PD-8-SB-40-062519	40 ft	6/25/2019								23			17 T J N
	PD-8-SB-51-062619	51 ft	6/26/2019			42 T J N			18 T J N	35 T J N	150			
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethenyl-3-ethyl-	Benzene, 1-ethyl-2,3-dimethyl-	Benzene, 1-ethyl-2,4-dimethyl-	Benzene, 1-ethyl-2,4-dimethyl-A	Benzene, 1-ethyl-2,4-dimethyl-B	Benzene, 1-ethyl-2-methyl-	Benzene, 1-ethyl-3,5-dimethyl-	Benzene, 1-ethyl-3-methyl-	Benzene, 1-ethyl-4-(1-methylethyl)-	Benzene, 1-ethyl-4-methyl-	Benzene, 1-methyl-2-(1-methylethyl)-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019				18 T J N	12 T J N	15 T J N	12 T J N	45		15 T J N	13 T J N
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	4 T J N	6 T J N					9.3 T J N	43			3.9 T J N
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019									2.42397822 T J		
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019						3.5 T J N		120			
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019	1.8 T J N							5.3			
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019								0.088 J			
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019								0.29 J			

Location	Sample ID	Depth	Sample Date	Benzene, 1-methyl-2-(1-methylethyl)-A	Benzene, 1-methyl-2-(2-propenyl)-	Benzene, 1-methyl-2-propyl-	Benzene, 1-methyl-3-(1-methylethyl)-	Benzene, 1-methyl-3-propyl-	Benzene, 1-methyl-4-(2-propenyl)-	Benzene, 2-ethenyl-1,4-dimethyl-	Benzene, 2-ethyl-1,3-dimethyl-	Benzene, 2-ethyl-1,4-dimethyl-	Benzene, 2-ethyl-1,4-dimethyl-B	Benzene, 4-ethyl-1,2-dimethyl-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019											
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019		53.89401612 T J			3.1152 T J				57.40055748 T J		
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019											
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019	1.3 T J N		0.82 T J N								
	PD-7-SB-51-071819	51 ft	7/18/2019											
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019											
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019		0.77 T J N			0.58 T J N						0.72 T J N
	PD-8-SB-40-062519	40 ft	6/25/2019					2.2 T J N					26 T J N	
	PD-8-SB-51-062619	51 ft	6/26/2019	19 T J N				18 T J N	49 T J N			34 T J N		27 T J N
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	Benzene, 1-methyl-2-(1-methylethyl)-A	Benzene, 1-methyl-2-(2-propenyl)-	Benzene, 1-methyl-2-propyl-	Benzene, 1-methyl-3-(1-methylethyl)-	Benzene, 1-methyl-3-propyl-	Benzene, 1-methyl-4-(2-propenyl)-	Benzene, 2-ethenyl-1,4-dimethyl-	Benzene, 2-ethyl-1,3-dimethyl-	Benzene, 2-ethyl-1,4-dimethyl-	Benzene, 2-ethyl-1,4-dimethyl-B	Benzene, 4-ethyl-1,2-dimethyl-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019		13 T J N			13 T J N				33 T J N		13 T J N
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019		4.4 T J N		14 T J N	6.5 T J N						3.8 T J N
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019							5.18314698 T J				
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019		64 T J N						52 T J N	33 T J N		3.9 T J N
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019	1.9 T J N			2.7 T J N	2.1 T J N						1.7 T J N
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Benzene, cyclopropyl-	Benzocycloheptatriene	Benzocycloheptene	Butane, 2,2,3,3-tetramethyl-	Butane, 2,2-dimethyl-	Butane, 2,3-dimethyl-	Butane	Butyl methacrylate	Carbon Dioxide	Cycloheptane	Cyclohexane, 1,1,3-trimethyl-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019				57.85234 T J				<0			
	PD-1-SB-55-061819	55 ft	6/18/2019				56.55594 T J				<0			
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019				25.58143 T J				<0	0.54258336 T J		
	PD-4-SB-41-062419	41 ft	6/24/2019					0.048 T J N	0.3 T J N					0.087 T J N
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019				14.7693 T J				<0	1.11064064 T J		
	PD-5-SB-43-061419	43 ft	6/14/2019								<0			
	PD-5-SB-53-061419	53 ft	6/14/2019	90.10286712 T J						59.30628648 T J	<0			
	PD-5-SB-62-061419	62 ft	6/14/2019								<0	0.17488712 T J		
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019											
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019											
	PD-7-SB-51-071819	51 ft	7/18/2019											
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019		6.5 T J N									
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019											
	PD-8-SB-40-062519	40 ft	6/25/2019											
	PD-8-SB-51-062619	51 ft	6/26/2019											
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	Benzene, cyclopropyl-	Benzocycloheptatriene	Benzocycloheptene	Butane, 2,2,3,3-tetramethyl-	Butane, 2,2-dimethyl-	Butane, 2,3-dimethyl-	Butane	Butyl methacrylate	Carbon Dioxide	Cycloheptane	Cyclohexane, 1,1,3-trimethyl-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019		14 T J N									
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019										19 T J N	
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019			6.83626308 T J					<0			
	PD-10-SB-46-061219	46 ft	6/12/2019				0.03702 T J				<0	0.79547 T J		
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019											
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019											
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019							61 T J N				
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Cyclohexane, 1,2-dimethyl-, trans-	Cyclohexane, methyl-	Cyclohexane, propyl-	Cyclohexane	Cyclohexasiloxane, dodecamethyl-	Cyclopentane, 1,2,4-trimethyl-, (1alpha,2beta,4alpha)-	Cyclopentane, 1,2-dimethyl-, trans-	Cyclopentane, methyl-	Cyclotetrasiloxane, octamethyl-	Cyclotrisiloxane, hexamethyl-	Decane, 4-methyl-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019		0.19677014 T J									
	PD-1-SB-55-061819	55 ft	6/18/2019		0.07950228 T J									
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019										0.00705408 T J	
	PD-4-SB-41-062419	41 ft	6/24/2019	0.045 T J N					0.053 T J N					
	PD-4-SB-53-062419	53 ft	6/24/2019		110		93				23 T J N			
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019										125.48123 T J	
	PD-5-SB-53-061419	53 ft	6/14/2019		183.86473392 T J					63.88003608 T J	187.98110856 T J		113.04784428 T J	
	PD-5-SB-62-061419	62 ft	6/14/2019		0.16742976 T J						0.20279208 T J		0.47173816 T J	
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019				0.8 J							
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019											4.5 T J N
	PD-7-SB-51-071819	51 ft	7/18/2019											3 T J N
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019											6.8 T J N
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019		1.1 J		0.65 J							
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019											
	PD-8-SB-40-062519	40 ft	6/25/2019		8 J		3.7 J							
	PD-8-SB-51-062619	51 ft	6/26/2019		23									
	PD-8-SB-62-062619	62 ft	6/26/2019		0.14		0.078		0.035 T J N	0.039 T J N	0.15 T J N			

Location	Sample ID	Depth	Sample Date	Cyclohexane, 1,2-dimethyl-, trans-	Cyclohexane, methyl-	Cyclohexane, propyl-	Cyclohexane	Cyclohexasiloxane, dodecamethyl-	Cyclopentane, 1,2,4-trimethyl-, (1alpha,2beta,4alpha)-	Cyclopentane, 1,2-dimethyl-, trans-	Cyclopentane, methyl-	Cyclotetrasiloxane, octamethyl-	Cyclotrisiloxane, hexamethyl-	Decane, 4-methyl-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019		32		20			24 T J N	33 T J N			
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	12 T J N	33		22				36 T J N			
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019											
	PD-10-SB-46-061219	46 ft	6/12/2019										0.01085 T J	
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019		33	3.3 T J N								
	PD-11-SB-45-070219	45 ft	7/2/2019					2.5 T J N				1.5 T J N		
	PD-11-SB-57-070219	57 ft	7/2/2019									4.5 T J N		
	PD-11-SB-61-070219	61 ft	7/2/2019		0.098 J		0.1 J					0.43 T J N		
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019				0.22 J				0.41 T J N			
	PD-12-SB-55-070819	55 ft	7/8/2019		5.6		4.4				9.6 T J N			
	PD-12-SB-59-070819	59 ft	7/8/2019		0.12 J		0.12 J							
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019		0.099 J		0.07 J				0.39 T J N			
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Dibromomethane	Dodecane	Ethanol	Heptadecane, 2,6-dimethyl-	Heptane, 2,5-dimethyl-	Heptane, 2,6-dimethyl-	Heptane, 2-methyl-	Heptane, 3-methyl-	Heptane	hex-1-Enylbenzene	Hexane, 3-methyl-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019				3.74035 T J							
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019	<4.4										
	PD-2-SB-52-070919	52 ft	7/9/2019	<6										
	PD-2-SB-60-070919	60 ft	7/9/2019	<1.2										
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019	<1.2										
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019	<0.005				0.045 T J N	0.044 T J N					
	PD-4-SB-53-062419	53 ft	6/24/2019	<5.8							15 T J N	150		
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019		5.9232 T J					77.52505572 T J	104.12903256 T J			108.39786552 T J
	PD-5-SB-62-061419	62 ft	6/14/2019								0.14601992 T J			
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019	<0.66		11 J								
	PD-6-SB-46-071119	46 ft	7/11/2019	<5.2	6.9 T J N									
	PD-6-SB-51-071119	51 ft	7/11/2019	<2.7	0.4 T J N									
	PD-6-SB-54-071119	54 ft	7/11/2019	<0.28										
	PD-6-SB-63-071219	63 ft	7/12/2019	<0.25		5.7								
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019	<0.0071										
	PD-7-SB-43-071819	43 ft	7/18/2019	<0.31	7.2 T J N									0.56 T J N
	PD-7-SB-51-071819	51 ft	7/18/2019	<67	9 T J N									
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	<60	13 T J N									
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	<3.2	0.36 T J N					3.5 T J N	3.2 T J N			
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	<3.2	0.88 T J N									
	PD-8-SB-40-062519	40 ft	6/25/2019	<15	4.5 T J N					26 T J N	22 T J N	7.8 J		
	PD-8-SB-51-062619	51 ft	6/26/2019	<5.4	35 T J N						41 T J N	18		
	PD-8-SB-62-062619	62 ft	6/26/2019	<0.0049				0.037 T J N				0.22		0.15 T J N

Location	Sample ID	Depth	Sample Date	Dibromomethane	Dodecane	Ethanol	Heptadecane, 2,6-dimethyl-	Heptane, 2,5-dimethyl-	Heptane, 2,6-dimethyl-	Heptane, 2-methyl-	Heptane, 3-methyl-	Heptane	hex-1-Enylbenzene	Hexane, 3-methyl-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019	<0.0048										
	PD-9-SB-43-062819	43 ft	6/28/2019	<1.5										
	PD-9-SB-54-062819	54 ft	6/28/2019	<5.7	16 T J N					34 T J N		43		25 T J N
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	<5.6	5.1 T J N					36 T J N	30 T J N	48		27 T J N
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019										2.00784462 T J	
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	<5.3										
	PD-11-SB-45-070219	45 ft	7/2/2019	<1	5.8 T J N									
	PD-11-SB-57-070219	57 ft	7/2/2019	<0.65										
	PD-11-SB-61-070219	61 ft	7/2/2019	<0.27		7.1								
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019	<0.37		5.5 J								
	PD-12-SB-55-070819	55 ft	7/8/2019	<1.9	2.3 T J N					5.9 T J N	5 T J N	7.6		5.4 T J N
	PD-12-SB-59-070819	59 ft	7/8/2019	<0.26										
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019	<11										
	PD-14-SB-49-072219	49 ft	7/22/2019	<49										
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019	<56										
	PD-14-SB-55-072219	55 ft	7/22/2019	<0.26								0.14 J		
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019	<0.26										
	PD-17-SB-55-071519	55 ft	7/15/2019	<1.1										

Location	Sample ID	Depth	Sample Date	Hexane	Indane	Isobutanol (Isobutyl alcohol)	Isooctane	Isopentane	Isopropylcyclobutane	Naphthalene, 1,2,3,4-tetrahydro- A	Naphthalene, 1,2,3,4-tetrahydro- B	Naphthalene, 1,2,3,4-tetrahydro- C	Naphthalene, 1,2,3,4-tetrahydro-	Naphthalene, 1,2,3,4-tetrahydro-5-methyl-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019											
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019		0.01717056 T J			0.00556512 T J						
	PD-4-SB-41-062419	41 ft	6/24/2019				0.053							
	PD-4-SB-53-062419	53 ft	6/24/2019	20 T J N		4300 E *	40							
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019					93.45695016 T J						
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019										1.8 T J N	
	PD-6-SB-51-071119	51 ft	7/11/2019											
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019	0.0018 J										
	PD-7-SB-43-071819	43 ft	7/18/2019				0.56							
	PD-7-SB-51-071819	51 ft	7/18/2019	35 J *			26 J							
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	34 J *			26 J							
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019	1.2 J										
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019											
	PD-8-SB-40-062519	40 ft	6/25/2019	4.2 J										
	PD-8-SB-51-062619	51 ft	6/26/2019		15 T J N	510 *								
	PD-8-SB-62-062619	62 ft	6/26/2019	0.37 E			0.094	0.081 T J N						

Location	Sample ID	Depth	Sample Date	Hexane	Indane	Isobutanol (Isobutyl alcohol)	Isooctane	Isopentane	Isopropylcyclobutane	Naphthalene, 1,2,3,4-tetrahydro- A	Naphthalene, 1,2,3,4-tetrahydro- B	Naphthalene, 1,2,3,4-tetrahydro- C	Naphthalene, 1,2,3,4-tetrahydro-	Naphthalene, 1,2,3,4-tetrahydro-5-methyl-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019	44	14 T J N									
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019	48	4.1 T J N			12 T J N	15 T J N					
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019							3.50491062 T J	3.86471394 T J	8.38280838 T J		
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019				39						47 T J N	29 T J N
	PD-11-SB-45-070219	45 ft	7/2/2019										1.7 T J N	
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019				0.13 J	0.89 T J N						
	PD-12-SB-55-070819	55 ft	7/8/2019	13	1.6 T J N		1.4 J	4.4 T J N						
	PD-12-SB-59-070819	59 ft	7/8/2019	0.21 J										
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019	0.26										
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019				0.14 J							
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Naphthalene, 1-ethyl-	Nonane, 4-methyl-	Nonane	Octane, 2,6-dimethyl-	Octane, 3-methyl-	Octane	p-Diethylbenzene	Pentane, 2,3,3-trimethyl-	Pentane, 2,3,4-trimethyl-	Pentane, 2,3-dimethyl-	Pentane, 2,4-dimethyl-
				Analytical Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019						0.16405192 T J					
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019				0.083 T J N						0.093 T J N	0.047 T J N
	PD-4-SB-53-062419	53 ft	6/24/2019							36				
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019					109.08392796 T J	305.60270244 T J					
	PD-5-SB-62-061419	62 ft	6/14/2019						0.26533768 T J					
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019											
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019		1.1 T J N		0.56 T J N	0.39 T J N		0.52		0.57 T J N		
	PD-7-SB-51-071819	51 ft	7/18/2019											
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019											
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019											
	PD-8-SB-40-062519	40 ft	6/25/2019					21 T J N	37 T J N	7.5 J				
	PD-8-SB-51-062619	51 ft	6/26/2019			24 T J N				82				
	PD-8-SB-62-062619	62 ft	6/26/2019					0.05 T J N						0.05 T J N

Location	Sample ID	Depth	Sample Date	Naphthalene, 1-ethyl-	Nonane, 4-methyl-	Nonane	Octane, 2,6-dimethyl-	Octane, 3-methyl-	Octane	p-Diethylbenzene	Pentane, 2,3,3-trimethyl-	Pentane, 2,3,4-trimethyl-	Pentane, 2,3-dimethyl-	Pentane, 2,4-dimethyl-
				Analytical Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019					22 T J N		12				
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019					21 T J N	55 T J N					
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019											
	PD-10-SB-46-061219	46 ft	6/12/2019									0.02126 T J	0.01059 T J	0.00698 T J
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	25 T J N		4.2 T J N				29		45 T J N		
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019						7.9 T J N	1.4 J				
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019								0.27 T J N			
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Pentane, 2-methyl-	Pentane, 3-methyl-	Pentane	p-Xylenes	Sulfur dioxide	TIC-Unknown Hydrocarbon	TIC-Unknown Hydrocarbon-2	TIC-Unknown Hydrocarbon-3	TIC-Unknown Hydrocarbon-4
				Analytical Results (mg/kg)								
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019		0.14308461 T J	0.20483449 T J						
	PD-1-SB-55-061819	55 ft	6/18/2019									
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019				0.48 T J N					
	PD-2-SB-52-070919	52 ft	7/9/2019									
	PD-2-SB-60-070919	60 ft	7/9/2019									
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019									
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019									
	PD-4-SB-41-062419	41 ft	6/24/2019		0.29 T J N							
	PD-4-SB-53-062419	53 ft	6/24/2019	25 T J N	12 T J N							
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019									
	PD-5-SB-43-061419	43 ft	6/14/2019									
	PD-5-SB-53-061419	53 ft	6/14/2019		138.58461288 T J	131.8764468 T J						
	PD-5-SB-62-061419	62 ft	6/14/2019		0.17007592 T J							
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019									
	PD-6-SB-46-071119	46 ft	7/11/2019			5.9 T J N						
	PD-6-SB-51-071119	51 ft	7/11/2019			2.8 T J N						
	PD-6-SB-54-071119	54 ft	7/11/2019									
	PD-6-SB-63-071219	63 ft	7/12/2019									
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019									
	PD-7-SB-43-071819	43 ft	7/18/2019									
	PD-7-SB-51-071819	51 ft	7/18/2019									
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019									
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019									
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019				0.85 T J N					
	PD-8-SB-40-062519	40 ft	6/25/2019									
	PD-8-SB-51-062619	51 ft	6/26/2019				62 T J N					
	PD-8-SB-62-062619	62 ft	6/26/2019	0.31 T J N	0.16 T J N	0.1 T J N						

Location	Sample ID	Depth	Sample Date	Pentane, 2-methyl-	Pentane, 3-methyl-	Pentane	p-Xylenes	Sulfur dioxide	TIC-Unknown Hydrocarbon	TIC-Unknown Hydrocarbon-2	TIC-Unknown Hydrocarbon-3	TIC-Unknown Hydrocarbon-4
				Analytical Results (mg/kg)								
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019									
	PD-9-SB-43-062819	43 ft	6/28/2019									
	PD-9-SB-54-062819	54 ft	6/28/2019		20 T J N	16 T J N	15 T J N					
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019		21 T J N	18 T J N	9.3 T J N					
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019						120 T	155 T	160 T	101 T
	PD-10-SB-46-061219	46 ft	6/12/2019					0.00569 T J				
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019									
	PD-11-SB-45-070219	45 ft	7/2/2019									
	PD-11-SB-57-070219	57 ft	7/2/2019									
	PD-11-SB-61-070219	61 ft	7/2/2019									
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019		0.66 T J N							
	PD-12-SB-55-070819	55 ft	7/8/2019		6.4 T J N	6.8 T J N	8.6 T J N					
	PD-12-SB-59-070819	59 ft	7/8/2019									
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019									
	PD-14-SB-49-072219	49 ft	7/22/2019			77 T J N						
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019									
	PD-14-SB-55-072219	55 ft	7/22/2019		0.3 T J N	0.53 T J N						
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019									
	PD-17-SB-55-071519	55 ft	7/15/2019									

Location	Sample ID	Depth	Sample Date	TIC-Unknown Hydrocarbon-5	TIC-Unknown Hydrocarbon-6	TIC-Unknown Hydrocarbon-7	trans-Decalin, 2-methyl-	Undecane, 2,6-dimethyl-	Undecane, 2-methyl-	Undecane	Unknown
				Analytical Results (mg/kg)							
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019								
	PD-1-SB-55-061819	55 ft	6/18/2019								
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019								
	PD-2-SB-52-070919	52 ft	7/9/2019								
	PD-2-SB-60-070919	60 ft	7/9/2019								
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019								
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019								
	PD-4-SB-41-062419	41 ft	6/24/2019					0.045 T J N			
	PD-4-SB-53-062419	53 ft	6/24/2019								
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019								
	PD-5-SB-43-061419	43 ft	6/14/2019								
	PD-5-SB-53-061419	53 ft	6/14/2019								
	PD-5-SB-62-061419	62 ft	6/14/2019								
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019								
	PD-6-SB-46-071119	46 ft	7/11/2019					3.4 T J N			
	PD-6-SB-51-071119	51 ft	7/11/2019							0.62 T J N	
	PD-6-SB-54-071119	54 ft	7/11/2019								
	PD-6-SB-63-071219	63 ft	7/12/2019								
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019								
	PD-7-SB-43-071819	43 ft	7/18/2019					7.3 T J N			
	PD-7-SB-51-071819	51 ft	7/18/2019					5.1 T J N		89 T J N	
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019						5.7 T J N	86 T J N	
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019								
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019								6.7 T J
	PD-8-SB-40-062519	40 ft	6/25/2019							29 T J N	
	PD-8-SB-51-062619	51 ft	6/26/2019								
	PD-8-SB-62-062619	62 ft	6/26/2019								

Location	Sample ID	Depth	Sample Date	TIC-Unknown Hydrocarbon-5	TIC-Unknown Hydrocarbon-6	TIC-Unknown Hydrocarbon-7	trans-Decalin, 2-methyl-	Undecane, 2,6-dimethyl-	Undecane, 2-methyl-	Undecane	Unknown
				Analytical Results (mg/kg)							
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019								
	PD-9-SB-43-062819	43 ft	6/28/2019								
	PD-9-SB-54-062819	54 ft	6/28/2019								
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019								
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	130 T	129 T	175 T					
	PD-10-SB-46-061219	46 ft	6/12/2019								
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019								
	PD-11-SB-45-070219	45 ft	7/2/2019					3.3 T J N			
	PD-11-SB-57-070219	57 ft	7/2/2019								
	PD-11-SB-61-070219	61 ft	7/2/2019								
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019								
	PD-12-SB-55-070819	55 ft	7/8/2019								
	PD-12-SB-59-070819	59 ft	7/8/2019								
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019								
	PD-14-SB-49-072219	49 ft	7/22/2019								
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019								
	PD-14-SB-55-072219	55 ft	7/22/2019								
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019				0.65 T J N				
	PD-17-SB-55-071519	55 ft	7/15/2019								1.2 T J

Notes:

1. Values are only reported if a TIC is identified
2. The number of significant figures is laboratory-specific.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

T = Result is a tentatively identified compound (TIC) and an estimated value.

N - Presumptive evidence of material.

<#.## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Location	Sample ID	Depth	Sample Date	1-(2-methoxy-1-2-Propanol)	1,1'-Biphenyl, 4-fluoro-	1,2,3-TrimethylbenzeneA	1,2,3-TrimethylbenzeneB	1,3,5-TrimethylbenzeneA	1,3,5-TrimethylbenzeneB	13-Docosenamide, (Z)-	1H-Indene, 1-ethylidene-	1-Methyldecahydronaphthalene	1-MethylnaphthaleneA	1-MethylnaphthaleneB
				Analyte Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019											
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019								0.83 T J N			
	PD-2-SB-52-070919	52 ft	7/9/2019							0.81 T J N				
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019											
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019							0.39 T J N				
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019							0.52 T J N			0.39 T J N	0.33 T J N
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019									3.4 T J N	4.1 T J N	5.1 T J N
	PD-7-SB-51-071819	51 ft	7/18/2019			2.9 T J N	7.3 T J N							
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019			6.1 T J N	7.3 T J N							
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019											
	PD-8-SB-40-062519	40 ft	6/25/2019											
	PD-8-SB-51-062619	51 ft	6/26/2019					31 T J N	51 T J N					
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	1-(2-methoxy-1-2-Propanol)	1,1'-Biphenyl, 4-fluoro-	1,2,3-TrimethylbenzeneA	1,2,3-TrimethylbenzeneB	1,3,5-TrimethylbenzeneA	1,3,5-TrimethylbenzeneB	13-Docosenamide, (Z)-	1H-Indene, 1-ethylidene-	1-Methyldecahydronaphthalene	1-MethylnaphthaleneA	1-MethylnaphthaleneB
				Analyte Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019											
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019											
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	114.82405 T J										
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019											
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019					5.9 T J N	12 T J N					
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019		0.36 T J N									

Location	Sample ID	Depth	Sample Date	2,8-Dimethyldibenzo(b,d)thiophene	2-methyl-8-propyl-Dodecane	2-nonyl-4,6-diphenylpyrimidine	3-Penten-2-ol	4-methyl-Dodecane	4-methyl-Phenanthrene	7,12-Dimethylbenz(a)anthracene	9H-Fluorene, 2,3-dimethyl-	9H-Fluorene, 2-methyl-	9-Octadecenamide, (Z)-	9-Octadecenamide, (Z)-A
				Analyte Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019		8.23594 T J									
	PD-1-SB-55-061819	55 ft	6/18/2019				1.1781 T J							
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019											
	PD-2-SB-52-070919	52 ft	7/9/2019										0.64 T J N	
	PD-2-SB-60-070919	60 ft	7/9/2019										0.7 T J N	
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019					4.8444 T J						
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019										0.69 T J N	
	PD-6-SB-46-071119	46 ft	7/11/2019											
	PD-6-SB-51-071119	51 ft	7/11/2019										0.9 T J N	
	PD-6-SB-54-071119	54 ft	7/11/2019										0.53 T J N	
	PD-6-SB-63-071219	63 ft	7/12/2019											0.5 T J N
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019											
	PD-7-SB-51-071819	51 ft	7/18/2019											
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019											
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019											
	PD-8-SB-40-062519	40 ft	6/25/2019											
	PD-8-SB-51-062619	51 ft	6/26/2019											
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	2,8-Dimethyldibenzo(b,d)thiophene	2-methyl-8-propyl-Dodecane	2-nonyl-4,6-diphenylpyrimidine	3-Penten-2-ol	4-methyl-Dodecane	4-methyl-Phenanthrene	7,12-Dimethylbenz(a)anthracene	9H-Fluorene, 2,3-dimethyl-	9H-Fluorene, 2-methyl-	9-Octadecenamide, (Z)-	9-Octadecenamide, (Z)-A
				Analyte Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019											
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019											
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019			128.94035 T J			120.33285 T J					
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	3.2 T J N							8.5 T J N	4.6 T J N		
	PD-11-SB-45-070219	45 ft	7/2/2019											
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019							0.14 J F1 *				
	PD-12-SB-55-070819	55 ft	7/8/2019											
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	9-Octadecenamide, (Z)-	Anthracene, 2-methyl-	Azulene	Benzene, 1,2,4,5-tetramethyl-A	Benzene, 1,2,4,5-tetramethyl-B	Benzene, 1,2-diethyl-	Benzene, 1,3-diethyl-	Benzene, 1,3-dimethyl-	Benzene, 1,4-diethyl-	Benzene, 1-ethyl-2-methyl-A	Benzene, 1-ethyl-2-methyl-B
				Analyte Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019											
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019		0.65 T J N							0.64 T J N		
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019									6.7404 T J		
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019											
	PD-6-SB-46-071119	46 ft	7/11/2019									2.7 T J N	2.4 T J N	2.6 T J N
	PD-6-SB-51-071119	51 ft	7/11/2019										0.43 T J N	0.58 T J N
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019	0.94 T J N										
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019									5.7 T J N		
	PD-7-SB-51-071819	51 ft	7/18/2019									4 T J N		
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019			7.3 T J N								
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019						1.1 T J N				0.75 T J N	0.57 T J N
	PD-8-SB-40-062519	40 ft	6/25/2019								4 T J N	4.3 T J N	3.6 T J N	2.8 T J N
	PD-8-SB-51-062619	51 ft	6/26/2019											
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	9-Octadecenamide, (Z)-B	Anthracene, 2-methyl-	Azulene	Benzene, 1,2,4,5-tetramethyl-A	Benzene, 1,2,4,5-tetramethyl-B	Benzene, 1,2-diethyl-	Benzene, 1,3-diethyl-	Benzene, 1,3-dimethyl-	Benzene, 1,4-diethyl-	Benzene, 1-ethyl-2-methyl-A	Benzene, 1-ethyl-2-methyl-B
				Analyte Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019				12 T J N	18 T J N	12 T J N					
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019						4.4 T J N					
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019											
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019											
	PD-11-SB-45-070219	45 ft	7/2/2019							1.8 T J N				
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019							3.9 T J N				
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethyl-2-methyl-C	Benzene, 1-ethyl-3-methyl-A	Benzene, 1-ethyl-3-methyl-B	Benzene, 1-ethyl-4-methyl-A	Benzene, 1-ethyl-4-methyl-B	Benzene, 1-methyl-2-(1-methylethyl)-B	Benzene, 2-butenyl-	Benzene, 2-ethyl-1,4-dimethyl-A	Benzenethiol	Benzidine	Butane, 2-methoxy-2-methyl-
				Analyte Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019											
	PD-1-SB-55-061819	55 ft	6/18/2019											
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019				0.64 T J N	0.61 T J N				<0.38 UJ		
	PD-2-SB-52-070919	52 ft	7/9/2019									<0.39 UJ		0.8 T J N
	PD-2-SB-60-070919	60 ft	7/9/2019									<0.4 UJ		
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019									<0.38 UJ		
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019											
	PD-4-SB-41-062419	41 ft	6/24/2019									<0.42 UJ		
	PD-4-SB-53-062419	53 ft	6/24/2019									<0.4 UJ		
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019											
	PD-5-SB-43-061419	43 ft	6/14/2019											
	PD-5-SB-53-061419	53 ft	6/14/2019											
	PD-5-SB-62-061419	62 ft	6/14/2019											
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019									<0.38 UJ		
	PD-6-SB-46-071119	46 ft	7/11/2019									<0.37 UJ		
	PD-6-SB-51-071119	51 ft	7/11/2019	0.62 T J N								<0.38 UJ		
	PD-6-SB-54-071119	54 ft	7/11/2019									<0.38 UJ		
	PD-6-SB-63-071219	63 ft	7/12/2019									<0.37 UJ		
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019									<0.42 UJ		
	PD-7-SB-43-071819	43 ft	7/18/2019						0.48 T J N			<0.42		
	PD-7-SB-51-071819	51 ft	7/18/2019									<0.44		
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019									<0.41		
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019									<0.4 UJ		
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019	0.51 T J N								<0.41 UJ		
	PD-8-SB-40-062519	40 ft	6/25/2019								2.7 T J N	<0.38 UJ		
	PD-8-SB-51-062619	51 ft	6/26/2019						15 T J N	38 T J N		<1.9 UJ		
	PD-8-SB-62-062619	62 ft	6/26/2019									<0.41 UJ		

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethyl-2-methyl-C	Benzene, 1-ethyl-3-methyl-A	Benzene, 1-ethyl-3-methyl-B	Benzene, 1-ethyl-4-methyl-A	Benzene, 1-ethyl-4-methyl-B	Benzene, 1-methyl-2-(1-methylethyl)-B	Benzene, 2-butenyl-	Benzene, 2-ethyl-1,4-dimethyl-A	Benzenethiol	Benzidine	Butane, 2-methoxy-2-methyl-
				Analyte Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019									<0.41 UJ		
	PD-9-SB-43-062819	43 ft	6/28/2019									<0.4 UJ		
	PD-9-SB-54-062819	54 ft	6/28/2019									<0.39 UJ		
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019				4.5 T J N	4.8 T J N				<0.38 UJ		
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019											
	PD-10-SB-46-061219	46 ft	6/12/2019											
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019									<0.38		
	PD-11-SB-45-070219	45 ft	7/2/2019									<0.38		
	PD-11-SB-57-070219	57 ft	7/2/2019									<0.41		
	PD-11-SB-61-070219	61 ft	7/2/2019									<0.39		
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019									<0.42	0.33 J	
	PD-12-SB-55-070819	55 ft	7/8/2019		1.8 T J N	5.4 T J N			2.2 T J N			<0.48		
	PD-12-SB-59-070819	59 ft	7/8/2019									<0.39		
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019									<0.39 UJ		
	PD-14-SB-49-072219	49 ft	7/22/2019									<0.37		
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019									<0.39		
	PD-14-SB-55-072219	55 ft	7/22/2019									<0.39		
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019									<0.38		
	PD-17-SB-55-071519	55 ft	7/15/2019									<0.39		

Location	Sample ID	Depth	Sample Date	Butyl Acrylate	Decane, 2-methyl-	Decane	Dibenzothiophene, 3-methyl-	Dibenzothiophene, 4-methyl-	di-p-Tolylacetylene	Dodecane, 2,6,10-trimethyl-	Dodecane, 2-methyl-	Heneicosane	Hexadecane, 2,6,10,14-tetramethyl-	Hexadecane
				Analyte Results (mg/kg)										
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019	<0								3.60412 T J		6.34067 T J
	PD-1-SB-55-061819	55 ft	6/18/2019	<0										
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019			0.8 T J N	0.78 T J N		1 T J N					0.82 T J N
	PD-2-SB-52-070919	52 ft	7/9/2019											
	PD-2-SB-60-070919	60 ft	7/9/2019											
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019											
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019	<0										
	PD-4-SB-41-062419	41 ft	6/24/2019											
	PD-4-SB-53-062419	53 ft	6/24/2019											
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019	<0										
	PD-5-SB-43-061419	43 ft	6/14/2019	<0										
	PD-5-SB-53-061419	53 ft	6/14/2019	<0										3.1836 T J
	PD-5-SB-62-061419	62 ft	6/14/2019	<0										
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019			0.11 J								
	PD-6-SB-46-071119	46 ft	7/11/2019			2.3 T J N					1.8 T J N			1.5 T J N
	PD-6-SB-51-071119	51 ft	7/11/2019											
	PD-6-SB-54-071119	54 ft	7/11/2019											
	PD-6-SB-63-071219	63 ft	7/12/2019											
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019											
	PD-7-SB-43-071819	43 ft	7/18/2019			4.7 T J N								
	PD-7-SB-51-071819	51 ft	7/18/2019			5.9 T J N					2.3 T J N			2.7 T J N
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019			7.9 T J N				7.6 T J N				5.8 T J N
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019											
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019			0.4 T J N								
	PD-8-SB-40-062519	40 ft	6/25/2019			1.8 T J N							2.2 T J N	
	PD-8-SB-51-062619	51 ft	6/26/2019			20 T J N								
	PD-8-SB-62-062619	62 ft	6/26/2019											

Location	Sample ID	Depth	Sample Date	Butyl Acrylate	Decane, 2-methyl-	Decane	Dibenzothiophene, 3-methyl-	Dibenzothiophene, 4-methyl-	di-p-Tolylacetylene	Dodecane, 2,6,10-trimethyl-	Dodecane, 2-methyl-	Heneicosane	Hexadecane, 2,6,10,14-tetramethyl-	Hexadecane
				Analyte Results (mg/kg)										
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019											
	PD-9-SB-43-062819	43 ft	6/28/2019											
	PD-9-SB-54-062819	54 ft	6/28/2019			15 T J N								
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019			5.1 T J N								
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	<0			103.39329 T J							
	PD-10-SB-46-061219	46 ft	6/12/2019	<0										
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019					7.2 T J N						
	PD-11-SB-45-070219	45 ft	7/2/2019		2.7 T J N	2.6 T J N								
	PD-11-SB-57-070219	57 ft	7/2/2019											
	PD-11-SB-61-070219	61 ft	7/2/2019											
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019											
	PD-12-SB-55-070819	55 ft	7/8/2019			2.1 T J N								
	PD-12-SB-59-070819	59 ft	7/8/2019											
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019											
	PD-14-SB-49-072219	49 ft	7/22/2019											
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019											
	PD-14-SB-55-072219	55 ft	7/22/2019											
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019											
	PD-17-SB-55-071519	55 ft	7/15/2019											

Location	Sample ID	Depth	Sample Date	Indan, 1-methyl-A	Indan, 1-methyl-B	Naphthalene, 1,4,6-trimethyl-	Naphthalene, 1,6-dimethyl-	Naphthalene, 1,7-dimethyl-	Naphthalene, 2,3,6-trimethyl-A	Naphthalene, 2,3,6-trimethyl-B	Naphthalene, 2,3,6-trimethyl-C	Naphthalene, 2,3-dimethyl-	Naphthalene, 2,6-dimethyl-
				Analyte Results (mg/kg)									
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019										3.47745 T J
	PD-1-SB-55-061819	55 ft	6/18/2019										
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019			0.44 T J N							0.44 T J N
	PD-2-SB-52-070919	52 ft	7/9/2019										
	PD-2-SB-60-070919	60 ft	7/9/2019										
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019										
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019										
	PD-4-SB-41-062419	41 ft	6/24/2019										
	PD-4-SB-53-062419	53 ft	6/24/2019										
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019										
	PD-5-SB-43-061419	43 ft	6/14/2019										
	PD-5-SB-53-061419	53 ft	6/14/2019										
	PD-5-SB-62-061419	62 ft	6/14/2019										
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019										0.34 T J N
	PD-6-SB-46-071119	46 ft	7/11/2019									1.8 T J N	
	PD-6-SB-51-071119	51 ft	7/11/2019				0.32 T J N						
	PD-6-SB-54-071119	54 ft	7/11/2019										
	PD-6-SB-63-071219	63 ft	7/12/2019										
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019										
	PD-7-SB-43-071819	43 ft	7/18/2019				4.3 T J N						
	PD-7-SB-51-071819	51 ft	7/18/2019				2.8 T J N					3.9 T J N	
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019										
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019										
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019										
	PD-8-SB-40-062519	40 ft	6/25/2019										1.6 T J N
	PD-8-SB-51-062619	51 ft	6/26/2019	14 T J N	15 T J N								
	PD-8-SB-62-062619	62 ft	6/26/2019										

Location	Sample ID	Depth	Sample Date	Indan, 1-methyl-A	Indan, 1-methyl-B	Naphthalene, 1,4,6-trimethyl-	Naphthalene, 1,6-dimethyl-	Naphthalene, 1,7-dimethyl-	Naphthalene, 2,3,6-trimethyl-A	Naphthalene, 2,3,6-trimethyl-B	Naphthalene, 2,3,6-trimethyl-C	Naphthalene, 2,3-dimethyl-	Naphthalene, 2,6-dimethyl-
				Analyte Results (mg/kg)									
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019										
	PD-9-SB-43-062819	43 ft	6/28/2019										
	PD-9-SB-54-062819	54 ft	6/28/2019										
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019										
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019				3.34657686 T J	2.60032752 T J					
	PD-10-SB-46-061219	46 ft	6/12/2019										
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019			6.3 T J N			4.9 T J N	4.7 T J N	4.9 T J N	72 T J N	
	PD-11-SB-45-070219	45 ft	7/2/2019									2 T J N	2.8 T J N
	PD-11-SB-57-070219	57 ft	7/2/2019										
	PD-11-SB-61-070219	61 ft	7/2/2019										
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019										
	PD-12-SB-55-070819	55 ft	7/8/2019										
	PD-12-SB-59-070819	59 ft	7/8/2019										
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019										
	PD-14-SB-49-072219	49 ft	7/22/2019										
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019										
	PD-14-SB-55-072219	55 ft	7/22/2019										
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019										
	PD-17-SB-55-071519	55 ft	7/15/2019				1.9 T J N						

Location	Sample ID	Depth	Sample Date	Naphthalene, 2,7-dimethyl-	Naphthalene, 2-methyl-1-propyl-	n-Hexadecanoic acid	N-phenyl-1,4-Benzenediamine	o-XylenesA	o-XylenesB	Pentadecane, 4-methyl-	Pentadecane	Phenanthrene, 1-methyl-	Phenanthrene, 2,5-dimethyl- cis
				Analyte Results (mg/kg)									
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019								6.38608 T J		
	PD-1-SB-55-061819	55 ft	6/18/2019										
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019										
	PD-2-SB-52-070919	52 ft	7/9/2019			0.68 T J N							
	PD-2-SB-60-070919	60 ft	7/9/2019			0.47 T J N							
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019			0.59 T J N							
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019										
	PD-4-SB-41-062419	41 ft	6/24/2019										
	PD-4-SB-53-062419	53 ft	6/24/2019										
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019										
	PD-5-SB-43-061419	43 ft	6/14/2019										
	PD-5-SB-53-061419	53 ft	6/14/2019								4.6584 T J		
	PD-5-SB-62-061419	62 ft	6/14/2019										
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019			0.42 T J N							
	PD-6-SB-46-071119	46 ft	7/11/2019	1.4 T J N							1.9 T J N		
	PD-6-SB-51-071119	51 ft	7/11/2019					0.41 T J N	0.46 T J N				
	PD-6-SB-54-071119	54 ft	7/11/2019										
	PD-6-SB-63-071219	63 ft	7/12/2019			0.99 T J N							
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019										
	PD-7-SB-43-071819	43 ft	7/18/2019	3.5 T J N									
	PD-7-SB-51-071819	51 ft	7/18/2019							3.3 T J N	4.7 T J N		
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019								7.3 T J N		
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019										
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019										
	PD-8-SB-40-062519	40 ft	6/25/2019								1.8 T J N		
	PD-8-SB-51-062619	51 ft	6/26/2019										
	PD-8-SB-62-062619	62 ft	6/26/2019										

Location	Sample ID	Depth	Sample Date	Naphthalene, 2,7-dimethyl-	Naphthalene, 2-methyl-1-propyl-	n-Hexadecanoic acid	N-phenyl-1,4-Benzenediamine	o-XylenesA	o-XylenesB	Pentadecane, 4-methyl-	Pentadecane	Phenanthrene, 1-methyl-	Phenanthrene, 2,5-dimethyl- cis
				Analyte Results (mg/kg)									
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019										
	PD-9-SB-43-062819	43 ft	6/28/2019										
	PD-9-SB-54-062819	54 ft	6/28/2019										
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019										
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019				467.31839 T J					154.96943 T J	159.7552 T J
	PD-10-SB-46-061219	46 ft	6/12/2019										
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	49 T J N	8.4 T J N								
	PD-11-SB-45-070219	45 ft	7/2/2019								1.6 T J N		
	PD-11-SB-57-070219	57 ft	7/2/2019										
	PD-11-SB-61-070219	61 ft	7/2/2019										
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019										
	PD-12-SB-55-070819	55 ft	7/8/2019										
	PD-12-SB-59-070819	59 ft	7/8/2019										
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019										
	PD-14-SB-49-072219	49 ft	7/22/2019										
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019										
	PD-14-SB-55-072219	55 ft	7/22/2019										
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019										
	PD-17-SB-55-071519	55 ft	7/15/2019										

Location	Sample ID	Depth	Sample Date	Phenanthrene, 2,5-dimethyl-trans	Phenanthrene, 2,5-dimethyl-	Phenanthrene, 2-methyl-	Phenanthrene, 3,6-dimethyl-	p-Methylstyrene	Pyrene, 1-methyl-	Pyrene, 4-methyl-	Tetradecane	TIC-Unknown SVOC	TIC-Unknown SVOC-2
				Analyte Results (mg/kg)									
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019					<0			5.29146 T J		
	PD-1-SB-55-061819	55 ft	6/18/2019					<0					
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019						0.49 T J N				
	PD-2-SB-52-070919	52 ft	7/9/2019										
	PD-2-SB-60-070919	60 ft	7/9/2019										
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019										
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019					<0					
	PD-4-SB-41-062419	41 ft	6/24/2019										
	PD-4-SB-53-062419	53 ft	6/24/2019										
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019					<0					
	PD-5-SB-43-061419	43 ft	6/14/2019					<0					
	PD-5-SB-53-061419	53 ft	6/14/2019					<0					
	PD-5-SB-62-061419	62 ft	6/14/2019					<0					
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019										
	PD-6-SB-46-071119	46 ft	7/11/2019										
	PD-6-SB-51-071119	51 ft	7/11/2019		0.31 T J N								
	PD-6-SB-54-071119	54 ft	7/11/2019										
	PD-6-SB-63-071219	63 ft	7/12/2019										
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019										
	PD-7-SB-43-071819	43 ft	7/18/2019										
	PD-7-SB-51-071819	51 ft	7/18/2019										
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019										
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019										
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019										
	PD-8-SB-40-062519	40 ft	6/25/2019								2.7 T J N		
	PD-8-SB-51-062619	51 ft	6/26/2019										
	PD-8-SB-62-062619	62 ft	6/26/2019										

Location	Sample ID	Depth	Sample Date	Phenanthrene, 2,5-dimethyl-trans	Phenanthrene, 2,5-dimethyl-	Phenanthrene, 2-methyl-	Phenanthrene, 3,6-dimethyl-	p-Methylstyrene	Pyrene, 1-methyl-	Pyrene, 4-methyl-	Tetradecane	TIC-Unknown SVOC	TIC-Unknown SVOC-2
				Analyte Results (mg/kg)									
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019										
	PD-9-SB-43-062819	43 ft	6/28/2019										
	PD-9-SB-54-062819	54 ft	6/28/2019										
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019								4.5 T J N		
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	175.45528 T J			101.25863 T J	<0		130.24869 T J		115 T	103 T
	PD-10-SB-46-061219	46 ft	6/12/2019					<0					
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019			7.1 T J N							
	PD-11-SB-45-070219	45 ft	7/2/2019		1.7 T J N	1.4 T J N							
	PD-11-SB-57-070219	57 ft	7/2/2019										
	PD-11-SB-61-070219	61 ft	7/2/2019										
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019										
	PD-12-SB-55-070819	55 ft	7/8/2019								1.8 T J N		
	PD-12-SB-59-070819	59 ft	7/8/2019										
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019										
	PD-14-SB-49-072219	49 ft	7/22/2019										
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019										
	PD-14-SB-55-072219	55 ft	7/22/2019										
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019										
	PD-17-SB-55-071519	55 ft	7/15/2019										

Location	Sample ID	Depth	Sample Date	TIC-Unknown SVOC-3	Tridecane, 2-methyl-	Tridecane	Tridecanoic acid	UnknownA	UnknownB	UnknownC	UnknownD	UnknownE
				Analyte Results (mg/kg)								
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019			9.61019 T J						
	PD-1-SB-55-061819	55 ft	6/18/2019									
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019					1.7 T J	0.55 T J	1.2 T J	0.54 T J	1.7 T J
	PD-2-SB-52-070919	52 ft	7/9/2019									
	PD-2-SB-60-070919	60 ft	7/9/2019									
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019									
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019									
	PD-4-SB-41-062419	41 ft	6/24/2019					0.069 T J	0.077 T J	0.045 T J	0.057 T J	0.11 T J
	PD-4-SB-53-062419	53 ft	6/24/2019					15 T J	74 T J	35 T J	57 T J	25 T J
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019									
	PD-5-SB-43-061419	43 ft	6/14/2019									
	PD-5-SB-53-061419	53 ft	6/14/2019			7.5576 T J						
	PD-5-SB-62-061419	62 ft	6/14/2019									
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019									
	PD-6-SB-46-071119	46 ft	7/11/2019			6.1 T J N		3.4 T J	1.8 T J	1.3 T J	3.4 T J	1.5 T J
	PD-6-SB-51-071119	51 ft	7/11/2019			0.39 T J N	0.52 T J N					
	PD-6-SB-54-071119	54 ft	7/11/2019									
	PD-6-SB-63-071219	63 ft	7/12/2019									
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019									
	PD-7-SB-43-071819	43 ft	7/18/2019		3.9 T J N	5.5 T J N		6.4 T J	3.8 T J	5.2 T J	3.5 T J	4.2 T J
	PD-7-SB-51-071819	51 ft	7/18/2019		2.7 T J N	7.7 T J N		2.6 T J	2.3 T J	4.6 T J	2.9 T J	4.1 T J
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019			11 T J N		4.7 T J	8.7 T J	4.2 T J	4.1 T J	4.5 T J
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019					3.3 T J	3.3 T J	5 T J	3.9 T J	
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019			0.54 T J N		0.49 T J	0.49 T J	0.44 T J	0.35 T J	
	PD-8-SB-40-062519	40 ft	6/25/2019			3 T J N		24 T J	22 T J	4.2 T J	1.7 T J	2.3 T J
	PD-8-SB-51-062619	51 ft	6/26/2019			22 T J N		49 T J	64 T J	68 T J	30 T J	27 T J
	PD-8-SB-62-062619	62 ft	6/26/2019					0.08 T J	0.027 T J	0.084 T J	0.12 T J	0.034 T J

Location	Sample ID	Depth	Sample Date	TIC-Unknown SVOC-3	Tridecane, 2-methyl-	Tridecane	Tridecanoic acid	UnknownA	UnknownB	UnknownC	UnknownD	UnknownE
				Analyte Results (mg/kg)								
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019									
	PD-9-SB-43-062819	43 ft	6/28/2019									
	PD-9-SB-54-062819	54 ft	6/28/2019			13 T J N		26 T J	13 T J	14 T J	31 T J	13 T J
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019			4.3 T J N		4.1 T J	30 T J	12 T J	13 T J	22 T J
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019	467 T								
	PD-10-SB-46-061219	46 ft	6/12/2019									
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019					71 T J	6.2 T J	6.4 T J	46 T J	4 T J
	PD-11-SB-45-070219	45 ft	7/2/2019		1.6 T J N	4.9 T J N		1.8 T J	2.8 T J	1.5 T J	2.1 T J	1.5 T J
	PD-11-SB-57-070219	57 ft	7/2/2019									
	PD-11-SB-61-070219	61 ft	7/2/2019									
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019									
	PD-12-SB-55-070819	55 ft	7/8/2019			1.8 T J N		2.6 T J	2.2 T J	2.6 T J	1.9 T J	
	PD-12-SB-59-070819	59 ft	7/8/2019									
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019									
	PD-14-SB-49-072219	49 ft	7/22/2019									
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019									
	PD-14-SB-55-072219	55 ft	7/22/2019									
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019					0.6 T J	0.4 T J			
	PD-17-SB-55-071519	55 ft	7/15/2019							2.2 T J	1.5 T J	

Location	Sample ID	Depth	Sample Date	UnknownF	UnknownG	UnknownH	UnknownI	UnknownJ	UnknownK	UnknownL	Unknown-G
				Analyte Results (mg/kg)							
PD-01	PD-1-SB-53-061819	53 ft	6/18/2019								
	PD-1-SB-55-061819	55 ft	6/18/2019								
PD-02	PD-2-SB-50-070919	50 ft	7/9/2019	0.61 T J	0.77 T J	0.52 T J					
	PD-2-SB-52-070919	52 ft	7/9/2019								
	PD-2-SB-60-070919	60 ft	7/9/2019								
	PD-2-SB-60-070919-DUP	60 ft	7/9/2019								
PD-04	PD-4-SB-35-062119	35 ft	6/21/2019								
	PD-4-SB-41-062419	41 ft	6/24/2019	0.085 T J	0.055 T J	0.079 T J	0.055 T J	0.063 T J	0.07 T J		
	PD-4-SB-53-062419	53 ft	6/24/2019	16 T J	51 T J	31 T J					
PD-05	PD-5-SB-17-061319	17 ft	6/13/2019								
	PD-5-SB-43-061419	43 ft	6/14/2019								
	PD-5-SB-53-061419	53 ft	6/14/2019								
	PD-5-SB-62-061419	62 ft	6/14/2019								
PD-06	PD-6-SB-45-071119	45 ft	7/11/2019								
	PD-6-SB-46-071119	46 ft	7/11/2019	3.3 T J	2.4 T J	2.2 T J					
	PD-6-SB-51-071119	51 ft	7/11/2019								
	PD-6-SB-54-071119	54 ft	7/11/2019								
	PD-6-SB-63-071219	63 ft	7/12/2019								
PD-07	PD-7-SB-27-071619	27 ft	7/16/2019								
	PD-7-SB-43-071819	43 ft	7/18/2019	5.2 T J	3.5 T J	3.8 T J	1 T J	0.74 T J			
	PD-7-SB-51-071819	51 ft	7/18/2019	4.1 T J							
	PD-7-SB-51-071819-DUP	51 ft	7/18/2019	6.4 T J		5.4 T J	5.7 T J	5.3 T J	5.1 T J	8.5 T J	5.6 T J
PD-08	PD-8-SB-37-062519	37 ft	6/25/2019								
	PD-8-SB-37-062519-DUP	37 ft	6/25/2019								
	PD-8-SB-40-062519	40 ft	6/25/2019	2.6 T J							
	PD-8-SB-51-062619	51 ft	6/26/2019	35 T J	36 T J						
	PD-8-SB-62-062619	62 ft	6/26/2019	0.072 T J	0.037 T J						

Location	Sample ID	Depth	Sample Date	UnknownF	UnknownG	UnknownH	UnknownI	UnknownJ	UnknownK	UnknownL	Unknown-G
				Analyte Results (mg/kg)							
PD-09	PD-9-SB-41-062819	41 ft	6/28/2019								
	PD-9-SB-43-062819	43 ft	6/28/2019								
	PD-9-SB-54-062819	54 ft	6/28/2019	14 T J	51 T J	29 T J					
	PD-9-SB-54-062819-DUP	54 ft	6/28/2019								
PD-10	PD-10-SB-19-061119	19 ft	6/11/2019								
	PD-10-SB-46-061219	46 ft	6/12/2019								
PD-11	PD-11-SB-37-070119	37 ft	7/1/2019	37 T J	4.9 T J						
	PD-11-SB-45-070219	45 ft	7/2/2019	2.9 T J	1.6 T J	1.4 T J					
	PD-11-SB-57-070219	57 ft	7/2/2019								
	PD-11-SB-61-070219	61 ft	7/2/2019								
PD-12	PD-12-SB-52-070819	52 ft	7/8/2019								
	PD-12-SB-55-070819	55 ft	7/8/2019								
	PD-12-SB-59-070819	59 ft	7/8/2019								
PD-14	PD-14-SB-45-072219	45 ft	7/22/2019								
	PD-14-SB-49-072219	49 ft	7/22/2019								
	PD-14-SB-49-072219-DUP	49 ft	7/22/2019								
	PD-14-SB-55-072219	55 ft	7/22/2019								
PD-17	PD-17-SB-45-071519	45 ft	7/15/2019								
	PD-17-SB-55-071519	55 ft	7/15/2019								

Notes:

1. Values are only reported if a TIC is identified
2. The number of significant figures is laboratory-specific.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

T = Result is a tentatively identified compound (TIC) and an estimated value.

N - Presumptive evidence of material.

<#.## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Appendix H – Summary of Groundwater VOC and SVOC TIC Analytical Detections

Location	Sample ID	Depth	Sample Date	(2-Methyl-prop-2-enyloxyl)-trimethyl silane	1,2,3-Trimethylbenzene	1,4-Difluorobenzene	1,4-Pentadiene, 2,3,3-trimethyl-	1,5-Hexadiyne	1H-Indene, 2,3-dihydro-1,1-dimethyl-	1H-Indene, 2,3-dihydro-1,6-dimethyl-	1H-Indene, 2,3-dihydro-4-methyl-	1H-Indene, 2,3-dihydro-5-methyl-	1-Pentene	1-Phenyl-1-butene	1-Phenyl-1-buteneA	2,4-Dimethylstyrene
				Analytical Results (mg/L)												
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019													
	PD-1-GWP-53-062519	53 ft	6/25/2019													
	PD-1-GWP-60-062619	60 ft	6/26/2019			0 05031 T J										
	PD-1-GWP-69-062619	69 ft	6/26/2019													
	PD-1-GWP-75-062619	75 ft	6/26/2019													
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019													
	PD-2-GWP-50-071819	50 ft	7/18/2019													
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019													
	PD-2-GWP-59-071819	59 ft	7/18/2019													0.0054 T J N
	PD-2-GWP-70-071919	70 ft	7/19/2019													
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019													
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019													
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019													
	PD-3-GWP-55-072319	55 ft	7/23/2019													
	PD-3-GWP-60-072319	60 ft	7/23/2019													
	PD-3-GWP-65-072319	65 ft	7/23/2019													
	PD-3-GWP-71-072319	71 ft	7/23/2019													
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019													
	PD-4-GWP-41-071519	41 ft	7/15/2019		0.021 T J N											
	PD-4-GWP-43-071519	43 ft	7/15/2019		0 056											
	PD-4-GWP-50-071519	50 ft	7/15/2019		0.015 T J N										0.11 T J N	
	PD-4-GWP-53-071619	53 ft	7/16/2019											0.12 T J N		
	PD-4-GWP-60-071619	60 ft	7/16/2019		0.0011 J		0.0059 T J N									
	PD-4-GWP-70-071619	70 ft	7/16/2019		0.0023 J											
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019		0.0021 J											
	PD-4-GWP-80-071619	80 ft	7/16/2019													
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019													
	PD-5-GWP-42-062719	42 ft	6/27/2019					3.3858 T J J								
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019													
	PD-5-GWP-48-062719	48 ft	6/27/2019			1.0268 T J J					0.0249 T J					
	PD-5-GWP-54-062719	54 ft	6/27/2019			0.9694 T J										
	PD-5-GWP-62-062719	62 ft	6/27/2019	0 00948 T J												
	PD-5-GWP-80-062819	80 ft	6/28/2019													
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019		0 031											
	PD-7-GWP-50-072219	50 ft	7/22/2019													
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019													
	PD-7-GWP-55-072319	55 ft	7/23/2019													
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019		0.12 J J											
	PD-8-GWP-46-062819	46 ft	6/28/2019		0.039 T J N						0.032 T J N		0.47 T J N			
	PD-8-GWP-52-062819	52 ft	6/28/2019													
	PD-8-GWP-57-070119	57 ft	7/1/2019													
	PD-8-GWP-62-070119	62 ft	7/1/2019													
	PD-8-GWP-70-070119	70 ft	7/1/2019		0 033							0.02 T J N				
	PD-8-GWP-80-070119	80 ft	7/1/2019													

Location	Sample ID	Depth	Sample Date	(2-Methyl-prop-2-enyloxyl)-trimethyl silane	1,2,3-Trimethylbenzene	1,4-Difluorobenzene	1,4-Pentadiene, 2,3,3-trimethyl-	1,5-Hexadiyne	1H-Indene, 2,3-dihydro-1,1-dimethyl-	1H-Indene, 2,3-dihydro-1,6-dimethyl-	1H-Indene, 2,3-dihydro-4-methyl-	1H-Indene, 2,3-dihydro-5-methyl-	1-Pentene	1-Phenyl-1-butene	1-Phenyl-1-buteneA	2,4-Dimethylstyrene
				Analytical Results (mg/L)												
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019													
	PD-9-GWP-40-070919	40 ft	7/9/2019									0 027 T J N				
	PD-9-GWP-45-070919	45 ft	7/9/2019		0.74 T J N											
	PD-9-GWP-54-071019	54 ft	7/10/2019		0.49 J											
	PD-9-GWP-60-071019	60 ft	7/10/2019											0.0051 T J N		
	PD-9-GWP-70-071019	70 ft	7/10/2019		0.024 J									0 019 T J N		
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019											0 012 T J N		
	PD-9-GWP-80-071019	80 ft	7/10/2019													
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019		0.001 J				0.0064 T J N							
	PD-11-GWP-37-071119	37 ft	7/11/2019		0.15											
	PD-11-GWP-43-071119	43 ft	7/11/2019		0.13 T J N											
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019													
	PD-11-GWP-50-071119	50 ft	7/11/2019		0.011 T J N											
	PD-11-GWP-56-071119	56 ft	7/11/2019		0.0066 J											
	PD-11-GWP-60-071119	60 ft	7/11/2019													
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019													
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019		0.0014 J											
	PD-12-GWP-45-071219	45 ft	7/12/2019													
	PD-12-GWP-50-071219	50 ft	7/12/2019													
	PD-12-GWP-55-071219	55 ft	7/12/2019													
	PD-12-GWP-60-071219	60 ft	7/12/2019													
	PD-12-GWP-70-071519	70 ft	7/15/2019													
	PD-12-GWP-73-071519	73 ft	7/15/2019													
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019													
	PD-13-GWP-46-070819	46 ft	7/8/2019							0 0082 T J N				0.0061 T J N		
	PD-13-GWP-50-070819	50 ft	7/8/2019				0.0093 T J N									
	PD-13-GWP-59-070819	59 ft	7/8/2019													
	PD-13-GWP-65-070919	65 ft	7/9/2019													
	PD-13-GWP-70-070919	70 ft	7/9/2019													
	PD-13-GWP-80-070919	80 ft	7/9/2019													
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019													
	PD-14-GWP-45-071719	45 ft	7/17/2019		0.013 T J N											
	PD-14-GWP-50-071719	50 ft	7/17/2019		0.007 T J N											
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019		0 0058 T J N											
	PD-14-GWP-53-071719	53 ft	7/17/2019											0 046 T J N		
	PD-14-GWP-60-071719	60 ft	7/17/2019		0.12 T J N							0 084 T J N				
	PD-14-GWP-70-071719	70 ft	7/17/2019													
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019		0 0071 T J N											
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019													
	PD-17-GWP-50-072219	50 ft	7/22/2019		0.13 T J N											
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019		0.53 T J N											

Location	Sample ID	Depth	Sample Date	2-Butene, 2,3-dimethyl-	2-Butenedinitrile, (E)-	2-Ethyltoluene	2-Methyl-1-butene	2-Methyl-2-propanol	2-Pentene, (E)-	2-Pentene, 2-methyl-	2-Pentene, 3-methyl-, (Z)-	2-Pentene, 3-methyl-	2-Pentene, 4-methyl-	2-Propanol	3,4-dihydro-1,2,4-Triazin-5(2H)-one	3,5-Dimethylcyclopentene	3-Phenylbut-1-ene
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019						0 01369 T J								
	PD-1-GWP-53-062519	53 ft	6/25/2019			0.13106 T J											
	PD-1-GWP-60-062619	60 ft	6/26/2019														
	PD-1-GWP-69-062619	69 ft	6/26/2019											0 00726 T J			
	PD-1-GWP-75-062619	75 ft	6/26/2019											0 00787 T J	0.00786 T J		
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019														
	PD-2-GWP-50-071819	50 ft	7/18/2019														
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019														
	PD-2-GWP-59-071819	59 ft	7/18/2019														
	PD-2-GWP-70-071919	70 ft	7/19/2019					0.005 J						0.1 J			
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019					0.01						0 064 J			
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019														
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019														
	PD-3-GWP-55-072319	55 ft	7/23/2019														
	PD-3-GWP-60-072319	60 ft	7/23/2019														
	PD-3-GWP-65-072319	65 ft	7/23/2019		0.11 T J N												
	PD-3-GWP-71-072319	71 ft	7/23/2019														
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	0.0076 T J N				0.75						0 018 J			
	PD-4-GWP-41-071519	41 ft	7/15/2019														
	PD-4-GWP-43-071519	43 ft	7/15/2019			0 05		0.41						0.19 J			
	PD-4-GWP-50-071519	50 ft	7/15/2019					0.69		0.11 T J N		0.11 T J N					
	PD-4-GWP-53-071619	53 ft	7/16/2019														
	PD-4-GWP-60-071619	60 ft	7/16/2019			0.00091 J		0.34						0 079 J			
	PD-4-GWP-70-071619	70 ft	7/16/2019			0.0018		0.057						0 065 J			
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019			0.0018		0.065						0 086 J			
	PD-4-GWP-80-071619	80 ft	7/16/2019					0.19						0.11 J			
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019														
	PD-5-GWP-42-062719	42 ft	6/27/2019														
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019			0 00898 T J											0.0135 T J
	PD-5-GWP-48-062719	48 ft	6/27/2019			0.13102 T J											
	PD-5-GWP-54-062719	54 ft	6/27/2019														
	PD-5-GWP-62-062719	62 ft	6/27/2019														
	PD-5-GWP-80-062819	80 ft	6/28/2019											0 058 J			
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019			0.018								0 057 J			
	PD-7-GWP-50-072219	50 ft	7/22/2019														
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019														
	PD-7-GWP-55-072319	55 ft	7/23/2019		0.038 T J N												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019			0.11 J					0.16 T J N J						
	PD-8-GWP-46-062819	46 ft	6/28/2019							0.16 T J N	0.13 T J N			0.13 J		0.079 T J N	
	PD-8-GWP-52-062819	52 ft	6/28/2019					0.022 J						0.19 J J			
	PD-8-GWP-57-070119	57 ft	7/1/2019					0.025						0 062 J			
	PD-8-GWP-62-070119	62 ft	7/1/2019					0.027						0 018 J			
	PD-8-GWP-70-070119	70 ft	7/1/2019			0.024		0.021						0.13 J			0.0092 T J N
	PD-8-GWP-80-070119	80 ft	7/1/2019					0.018 J									

Location	Sample ID	Depth	Sample Date	2-Butene, 2,3-dimethyl-	2-Butenedinitrile, (E)-	2-Ethyltoluene	2-Methyl-1-butene	2-Methyl-2-propanol	2-Pentene, (E)-	2-Pentene, 2-methyl-	2-Pentene, 3-methyl-, (Z)-	2-Pentene, 3-methyl-	2-Pentene, 4-methyl-	2-Propanol	3,4-dihydro-1,2,4-Triazin-5(2H)-one	3,5-Dimethylcyclopentene	3-Phenylbut-1-ene
				Analytical Results (mg/L)													
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019														
	PD-9-GWP-40-070919	40 ft	7/9/2019														
	PD-9-GWP-45-070919	45 ft	7/9/2019														
	PD-9-GWP-54-071019	54 ft	7/10/2019	0.63 T J N		0 39	1 T J N										
	PD-9-GWP-60-071019	60 ft	7/10/2019											0.22 J			
	PD-9-GWP-70-071019	70 ft	7/10/2019			0.021											0.01 T J N
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019														
	PD-9-GWP-80-071019	80 ft	7/10/2019											0.12 J			
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019											0 051 J			
	PD-11-GWP-37-071119	37 ft	7/11/2019			0.088											
	PD-11-GWP-43-071119	43 ft	7/11/2019														
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019														
	PD-11-GWP-50-071119	50 ft	7/11/2019											0.18 J			
	PD-11-GWP-56-071119	56 ft	7/11/2019											0.15 J			
	PD-11-GWP-60-071119	60 ft	7/11/2019														
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019											0.14 J			
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019			0.00087 J		0.65						0 015 J			
	PD-12-GWP-45-071219	45 ft	7/12/2019		0.32 T H J N												
	PD-12-GWP-50-071219	50 ft	7/12/2019														
	PD-12-GWP-55-071219	55 ft	7/12/2019														
	PD-12-GWP-60-071219	60 ft	7/12/2019			0.021		1.1			0.032 T J N	0 051 T J N	0.061 T J N			0.026 T J N	
	PD-12-GWP-70-071519	70 ft	7/15/2019					0.17						0 073 J			
	PD-12-GWP-73-071519	73 ft	7/15/2019					0.074						0.11 J			
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019			0.00041 J		0.51						0 074 J			
	PD-13-GWP-46-070819	46 ft	7/8/2019					0.12						0 081 J			
	PD-13-GWP-50-070819	50 ft	7/8/2019									0 012 T J N	0.011 T J N	0 086 J		0.014 T J N	
	PD-13-GWP-59-070819	59 ft	7/8/2019					0.91						0.1 J			
	PD-13-GWP-65-070919	65 ft	7/9/2019											0 071 J			
	PD-13-GWP-70-070919	70 ft	7/9/2019					0.057 *						0.19 J			
	PD-13-GWP-80-070919	80 ft	7/9/2019					0.032 *						0 091 J			
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019														
	PD-14-GWP-45-071719	45 ft	7/17/2019														
	PD-14-GWP-50-071719	50 ft	7/17/2019														
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019														
	PD-14-GWP-53-071719	53 ft	7/17/2019														
	PD-14-GWP-60-071719	60 ft	7/17/2019			0.32 J											
	PD-14-GWP-70-071719	70 ft	7/17/2019					0.073						0.08 J			
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019			0.00054 J		0.098						0.11 J			
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019		1 5 T J N												
	PD-17-GWP-50-072219	50 ft	7/22/2019														
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019														

Location	Sample ID	Depth	Sample Date	9-Octadecenamide, (Z)-	Benzene, (1-methyl-1-butenyl)-	Benzene, (1-methyl-1-propenyl)-, (Z)-	Benzene, (2-methyl-1-butenyl)-	Benzene, (2-methyl-1-propenyl)-	Benzene, 1,2,3,4-tetramethyl-	Benzene, 1,2,3,4-tetramethyl-A	Benzene, 1,2,3,5-tetramethyl-	Benzene, 1,2,4,5-tetramethyl-	Benzene, 1,3-diethyl-5-methyl-	Benzene, 1-ethenyl-3-ethyl-	Benzene, 1-ethenyl-4-ethyl-	Benzene, 1-ethyl-2,3-dimethyl-	Benzene, 1-ethyl-2,4-dimethyl-
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019														
	PD-1-GWP-53-062519	53 ft	6/25/2019														
	PD-1-GWP-60-062619	60 ft	6/26/2019														
	PD-1-GWP-69-062619	69 ft	6/26/2019														
	PD-1-GWP-75-062619	75 ft	6/26/2019														
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019														
	PD-2-GWP-50-071819	50 ft	7/18/2019														
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019														
	PD-2-GWP-59-071819	59 ft	7/18/2019														
	PD-2-GWP-70-071919	70 ft	7/19/2019														
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019														
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019									0 008 T J N				0.011 T J N	
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019									0 011 T J N				0.014 T J N	0.0078 T J N
	PD-3-GWP-55-072319	55 ft	7/23/2019									0.0059 T J N					
	PD-3-GWP-60-072319	60 ft	7/23/2019														
	PD-3-GWP-65-072319	65 ft	7/23/2019												0 0075 T J N		
	PD-3-GWP-71-072319	71 ft	7/23/2019						0.0044 T J N								
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019														
	PD-4-GWP-41-071519	41 ft	7/15/2019									0 018 T J N			0.014 T J N		
	PD-4-GWP-43-071519	43 ft	7/15/2019													0.014 T J N	
	PD-4-GWP-50-071519	50 ft	7/15/2019		0.024 T J N						0.013 T J N	0 034 T J N			0.035 T J N		
	PD-4-GWP-53-071619	53 ft	7/16/2019		0.13 T J N			0.078 T J N									0 059 T J N
	PD-4-GWP-60-071619	60 ft	7/16/2019													0.0043 T J N	
	PD-4-GWP-70-071619	70 ft	7/16/2019														
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019														
	PD-4-GWP-80-071619	80 ft	7/16/2019														
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019														
	PD-5-GWP-42-062719	42 ft	6/27/2019														
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019														
	PD-5-GWP-48-062719	48 ft	6/27/2019									0.0235 T J					
	PD-5-GWP-54-062719	54 ft	6/27/2019			0 01056 T J											
	PD-5-GWP-62-062719	62 ft	6/27/2019														
	PD-5-GWP-80-062819	80 ft	6/28/2019														
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019				0 013 T J N			0.042 T J N			0.01 T J N				
	PD-7-GWP-50-072219	50 ft	7/22/2019														
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019														
	PD-7-GWP-55-072319	55 ft	7/23/2019									0.0078 T J N					
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019						0 031 T J N							0.047 T J N	
	PD-8-GWP-46-062819	46 ft	6/28/2019						0 021 T J N			0.01 T J N		0.07 T J N	0.064 T J N		
	PD-8-GWP-52-062819	52 ft	6/28/2019														
	PD-8-GWP-57-070119	57 ft	7/1/2019														
	PD-8-GWP-62-070119	62 ft	7/1/2019														
	PD-8-GWP-70-070119	70 ft	7/1/2019		0.024 T J N			0.016 T J N		0.012 T J N	0.0077 T J N	0 016 T J N			0.022 T J N	0.046 T J N	
	PD-8-GWP-80-070119	80 ft	7/1/2019														

Location	Sample ID	Depth	Sample Date	9-Octadecenamide, (Z)-	Benzene, (1-methyl-1-butenyl)-	Benzene, (1-methyl-1-propenyl)-, (Z)-	Benzene, (2-methyl-1-butenyl)-	Benzene, (2-methyl-1-propenyl)-	Benzene, 1,2,3,4-tetramethyl-	Benzene, 1,2,3,4-tetramethyl-A	Benzene, 1,2,3,5-tetramethyl-	Benzene, 1,2,4,5-tetramethyl-	Benzene, 1,3-diethyl-5-methyl-	Benzene, 1-ethenyl-3-ethyl-	Benzene, 1-ethenyl-4-ethyl-	Benzene, 1-ethyl-2,3-dimethyl-	Benzene, 1-ethyl-2,4-dimethyl-
				Analytical Results (mg/L)													
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019	0 018 T J N													
	PD-9-GWP-40-070919	40 ft	7/9/2019								0.036 T J N	0 034 T J N					
	PD-9-GWP-45-070919	45 ft	7/9/2019		0.021 T J N										0.041 T J N	0 05 T J N	
	PD-9-GWP-54-071019	54 ft	7/10/2019														
	PD-9-GWP-60-071019	60 ft	7/10/2019														
	PD-9-GWP-70-071019	70 ft	7/10/2019		0.011 T J N							0 011 T J N					
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019		0.006 T J N							0.0071 T J N			0 0066 T J N		
	PD-9-GWP-80-071019	80 ft	7/10/2019														
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019				0.0095 T J N		0.0087 T J N								
	PD-11-GWP-37-071119	37 ft	7/11/2019														
	PD-11-GWP-43-071119	43 ft	7/11/2019														
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019														
	PD-11-GWP-50-071119	50 ft	7/11/2019														
	PD-11-GWP-56-071119	56 ft	7/11/2019														
	PD-11-GWP-60-071119	60 ft	7/11/2019													0.0046 T H J N	
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019														
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019														
	PD-12-GWP-45-071219	45 ft	7/12/2019													0.028 T H J N	
	PD-12-GWP-50-071219	50 ft	7/12/2019														
	PD-12-GWP-55-071219	55 ft	7/12/2019									0 054 T H J N					
	PD-12-GWP-60-071219	60 ft	7/12/2019						0 012 T H J N		0.013 T H J N						
	PD-12-GWP-70-071519	70 ft	7/15/2019														
	PD-12-GWP-73-071519	73 ft	7/15/2019														
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019	0.01 T J N													
	PD-13-GWP-46-070819	46 ft	7/8/2019	0 011 T J N						0.014 T J N							
	PD-13-GWP-50-070819	50 ft	7/8/2019	0.0083 T J N					0.01 T J N		0 01 T J N						
	PD-13-GWP-59-070819	59 ft	7/8/2019	0.0067 T J N													
	PD-13-GWP-65-070919	65 ft	7/9/2019	0.0041 T J N													
	PD-13-GWP-70-070919	70 ft	7/9/2019	0.0084 T J N													
	PD-13-GWP-80-070919	80 ft	7/9/2019														
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019														
	PD-14-GWP-45-071719	45 ft	7/17/2019														
	PD-14-GWP-50-071719	50 ft	7/17/2019														
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019													0.0056 T J N	
	PD-14-GWP-53-071719	53 ft	7/17/2019									0 021 T J N			0.019 T J N		
	PD-14-GWP-60-071719	60 ft	7/17/2019				0 051 T J N		0 073 T J N								
	PD-14-GWP-70-071719	70 ft	7/17/2019														
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019														
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019				0.0041 T J N										
	PD-17-GWP-50-072219	50 ft	7/22/2019														
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019														

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethyl-2-methyl-	Benzene, 1-ethyl-3,5-dimethyl-	Benzene, 1-ethyl-3-methyl-	Benzene, 1-ethyl-4-methyl-	Benzene, 1-methyl-2-(1-methyl-2-propenyl)-	Benzene, 1-methyl-2-(1-methylethyl)-	Benzene, 1-methyl-3-(1-methylethyl)-	Benzene, 1-methyl-3-propyl-	Benzene, 1-methyl-4-(1-methylethyl)-	Benzene, 1-methyl-4-(2-propenyl)-	Benzene, 1-methyl-4-propyl-	Benzene, 2-ethenyl-1,4-dimethyl-	Benzene, 2-ethyl-1,3-dimethyl-	Benzene, 2-ethyl-1,3-dimethyl-B
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019														
	PD-1-GWP-53-062519	53 ft	6/25/2019										0.08592 T J		0.05152 T J		
	PD-1-GWP-60-062619	60 ft	6/26/2019														
	PD-1-GWP-69-062619	69 ft	6/26/2019														
	PD-1-GWP-75-062619	75 ft	6/26/2019														
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019														
	PD-2-GWP-50-071819	50 ft	7/18/2019	0.01 T H J N		0.018 T H J N				0 0096 T H J N							
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	0.0082 T J N		0.012 T J N	0.0065 T J N										
	PD-2-GWP-59-071819	59 ft	7/18/2019	0.0074 T J N		0.0072 T J N	0 014 T J N										
	PD-2-GWP-70-071919	70 ft	7/19/2019														
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019														
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019			0.048 T J N											
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019		0.014 T J N	0.058 T J N											
	PD-3-GWP-55-072319	55 ft	7/23/2019			0.014 T J N											
	PD-3-GWP-60-072319	60 ft	7/23/2019												0.013 T J N		
	PD-3-GWP-65-072319	65 ft	7/23/2019	0 018 T J N			0.04 T J N										
	PD-3-GWP-71-072319	71 ft	7/23/2019												0.014 T J N		
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019														
	PD-4-GWP-41-071519	41 ft	7/15/2019							0.027 T J N							
	PD-4-GWP-43-071519	43 ft	7/15/2019			0.065											
	PD-4-GWP-50-071519	50 ft	7/15/2019	0 019 T J N						0.1 T J N				0 013 T J N	0.14 T J N		
	PD-4-GWP-53-071619	53 ft	7/16/2019	0 061 T J N	0.07 T J N												
	PD-4-GWP-60-071619	60 ft	7/16/2019			0.0011							0.0052 T J N				
	PD-4-GWP-70-071619	70 ft	7/16/2019	0 004 T J N		0.0023							0.0042 T J N				
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019			0.0021							0.0044 T J N				
	PD-4-GWP-80-071619	80 ft	7/16/2019														
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019														
	PD-5-GWP-42-062719	42 ft	6/27/2019														
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019														
	PD-5-GWP-48-062719	48 ft	6/27/2019												0.06168 T J		
	PD-5-GWP-54-062719	54 ft	6/27/2019														
	PD-5-GWP-62-062719	62 ft	6/27/2019														
	PD-5-GWP-80-062819	80 ft	6/28/2019			0.0015											
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0.0049 T J N		0.046											0 048 T J N
	PD-7-GWP-50-072219	50 ft	7/22/2019			0 34 T J N											
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019		0.062 T J N	0.12 T J N											
	PD-7-GWP-55-072319	55 ft	7/23/2019	0 026 T J N					0.0074 T J N								
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019			0.22 J							0.072 T J N			0.021 T J N	
	PD-8-GWP-46-062819	46 ft	6/28/2019											0 012 T J N	0.085 T J N		
	PD-8-GWP-52-062819	52 ft	6/28/2019														
	PD-8-GWP-57-070119	57 ft	7/1/2019														
	PD-8-GWP-62-070119	62 ft	7/1/2019														
	PD-8-GWP-70-070119	70 ft	7/1/2019		0.04 T J N	0.046				0.016 T J N	0.017 T J N		0.037 T J N			0.023 T J N	
	PD-8-GWP-80-070119	80 ft	7/1/2019														

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethyl-2-methyl-	Benzene, 1-ethyl-3,5-dimethyl-	Benzene, 1-ethyl-3-methyl-	Benzene, 1-ethyl-4-methyl-	Benzene, 1-methyl-2-(1-methyl-2-propenyl)-	Benzene, 1-methyl-2-(1-methylethyl)-	Benzene, 1-methyl-3-(1-methylethyl)-	Benzene, 1-methyl-3-propyl-	Benzene, 1-methyl-4-(1-methylethyl)-	Benzene, 1-methyl-4-(2-propenyl)-	Benzene, 1-methyl-4-propyl-	Benzene, 2-ethenyl-1,4-dimethyl-	Benzene, 2-ethyl-1,3-dimethyl-	Benzene, 2-ethyl-1,3-dimethyl-B
				Analytical Results (mg/L)													
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019														
	PD-9-GWP-40-070919	40 ft	7/9/2019						0 068 T J N						0.049 T J N		
	PD-9-GWP-45-070919	45 ft	7/9/2019			0 21 T J N									0.099 T J N		
	PD-9-GWP-54-071019	54 ft	7/10/2019		2 3 T J N	1.3			1.1 T J N		1.2 T J N		2.7 T J N				
	PD-9-GWP-60-071019	60 ft	7/10/2019	0.0057 T J N		0.0062											
	PD-9-GWP-70-071019	70 ft	7/10/2019			0.075			0.0093 T J N		0.013 T J N	0 015 T J N					
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019		0.018 T J N	0.029 T J N			0.0086 T J N		0.0067 T J N						
	PD-9-GWP-80-071019	80 ft	7/10/2019														
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019			0.002		0.0063 T J N	0.0059 T J N								
	PD-11-GWP-37-071119	37 ft	7/11/2019			0.093			0 059 T J N								
	PD-11-GWP-43-071119	43 ft	7/11/2019														
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	0 098 T J N		0.13 T J N											
	PD-11-GWP-50-071119	50 ft	7/11/2019														
	PD-11-GWP-56-071119	56 ft	7/11/2019			0.0084											
	PD-11-GWP-60-071119	60 ft	7/11/2019	0 012 T H J N			0.0091 T J N										
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019														
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019			0.0014											
	PD-12-GWP-45-071219	45 ft	7/12/2019											0.0057 T H J N			
	PD-12-GWP-50-071219	50 ft	7/12/2019				0 006 T H J N										
	PD-12-GWP-55-071219	55 ft	7/12/2019									0 043 T H J N		0 052 T H J N			
	PD-12-GWP-60-071219	60 ft	7/12/2019	0 013 T H J N		0.015									0.029 T J N		
	PD-12-GWP-70-071519	70 ft	7/15/2019														
	PD-12-GWP-73-071519	73 ft	7/15/2019														
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019														
	PD-13-GWP-46-070819	46 ft	7/8/2019						0 024 T J N							0.014 T J N	
	PD-13-GWP-50-070819	50 ft	7/8/2019	0.0047 T J N													
	PD-13-GWP-59-070819	59 ft	7/8/2019														
	PD-13-GWP-65-070919	65 ft	7/9/2019														
	PD-13-GWP-70-070919	70 ft	7/9/2019														
	PD-13-GWP-80-070919	80 ft	7/9/2019														
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019														
	PD-14-GWP-45-071719	45 ft	7/17/2019	0 019 T J N													
	PD-14-GWP-50-071719	50 ft	7/17/2019				0.0068 T J N										
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019	0.0077 T J N			0.0056 T J N										
	PD-14-GWP-53-071719	53 ft	7/17/2019			0.11 T J N			0 038 T J N								
	PD-14-GWP-60-071719	60 ft	7/17/2019	0.12 T J N		1.2											
	PD-14-GWP-70-071719	70 ft	7/17/2019														
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019			0.0019											
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019				0 004 T J N							0 014 T J N			
	PD-17-GWP-50-072219	50 ft	7/22/2019	0.1 T J N	0.038 T J N	0.14 T J N	0.06 T J N										
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019				0.27 T J N										

Location	Sample ID	Depth	Sample Date	Benzene, 2-ethyl-1,4-dimethyl-	Benzene, 4-ethyl-1,2-dimethyl-	Bicyclo310hexane, 1,5-dimethyl-	Butane, 2,2-dimethyl-	Butane, 2,3-dimethyl-	Butane	Carbon Dioxide	Cyclobutane, (1-methylethylidene)-	Cyclohexane, 1,2-dimethyl-, trans-	Cyclohexane, 1,3-dimethyl-, trans-	Cyclohexane, methyl-	Cyclohexane	Cyclohexene, 1-methyl-	Cyclohexene, 1-methyl-B
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019				0.02576 T J	0.04785 T J	0 05099 T J					0 02942 T J	0.02305 T J		
	PD-1-GWP-53-062519	53 ft	6/25/2019	0.10346 T J					1.591 T J								
	PD-1-GWP-60-062619	60 ft	6/26/2019							0.07699 T J							
	PD-1-GWP-69-062619	69 ft	6/26/2019														
	PD-1-GWP-75-062619	75 ft	6/26/2019														
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019														
	PD-2-GWP-50-071819	50 ft	7/18/2019														
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019														
	PD-2-GWP-59-071819	59 ft	7/18/2019														
	PD-2-GWP-70-071919	70 ft	7/19/2019														
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019														
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019	0.0073 T J N													
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	0.0091 T J N													
	PD-3-GWP-55-072319	55 ft	7/23/2019		0 0043 T J N												
	PD-3-GWP-60-072319	60 ft	7/23/2019		0 0072 T J N												
	PD-3-GWP-65-072319	65 ft	7/23/2019		0 0061 T J N												
	PD-3-GWP-71-072319	71 ft	7/23/2019		0.011 T J N												
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019												0 00071 J		
	PD-4-GWP-41-071519	41 ft	7/15/2019		0.029 T J N										0.17 J		
	PD-4-GWP-43-071519	43 ft	7/15/2019										0.021 T J N	0 28	0.63 E		
	PD-4-GWP-50-071519	50 ft	7/15/2019	0.07 T J N	0.014 T J N						0 22 T J N			0 26	0.32		0.13 T J N
	PD-4-GWP-53-071619	53 ft	7/16/2019	0 052 T J N	0.13 T J N										1.1		
	PD-4-GWP-60-071619	60 ft	7/16/2019		0.006 T J N		0.03 T J N							0.0051	0 012	0.0061 T J N	
	PD-4-GWP-70-071619	70 ft	7/16/2019											0.0014	0.0016		
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019											0.0012	0.0014		
	PD-4-GWP-80-071619	80 ft	7/16/2019											0.00057 J	0 00067 J		
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019														
	PD-5-GWP-42-062719	42 ft	6/27/2019														
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019														
	PD-5-GWP-48-062719	48 ft	6/27/2019	0 02918 T J					1.2212 T J J	0 2414 T J J							
	PD-5-GWP-54-062719	54 ft	6/27/2019							0 205 T J							
	PD-5-GWP-62-062719	62 ft	6/27/2019														
	PD-5-GWP-80-062819	80 ft	6/28/2019											0.0017	0.0018		
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0 042 T J N								0 011 T J N		0.0089			
	PD-7-GWP-50-072219	50 ft	7/22/2019														
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019		0.038 T J N												
	PD-7-GWP-55-072319	55 ft	7/23/2019	0 011 T J N													
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	0 022 T J N										0.12 J	0.4 J		
	PD-8-GWP-46-062819	46 ft	6/28/2019	0 068 T J N							0.087 T J N			0.072	0.45		0 061 T J N
	PD-8-GWP-52-062819	52 ft	6/28/2019														
	PD-8-GWP-57-070119	57 ft	7/1/2019														
	PD-8-GWP-62-070119	62 ft	7/1/2019														
	PD-8-GWP-70-070119	70 ft	7/1/2019	0 021 T J N										0.0045	0.0042		
	PD-8-GWP-80-070119	80 ft	7/1/2019														

Location	Sample ID	Depth	Sample Date	Benzene, 2-ethyl-1,4-dimethyl-	Benzene, 4-ethyl-1,2-dimethyl-	Bicyclo310hexane, 1,5-dimethyl-	Butane, 2,2-dimethyl-	Butane, 2,3-dimethyl-	Butane	Carbon Dioxide	Cyclobutane, (1-methylethylidene)-	Cyclohexane, 1,2-dimethyl-, trans-	Cyclohexane, 1,3-dimethyl-, trans-	Cyclohexane, methyl-	Cyclohexane	Cyclohexene, 1-methyl-	Cyclohexene, 1-methyl-B
				Analytical Results (mg/L)													
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019														
	PD-9-GWP-40-070919	40 ft	7/9/2019	0 035 T J N													
	PD-9-GWP-45-070919	45 ft	7/9/2019														
	PD-9-GWP-54-071019	54 ft	7/10/2019	1.8 T J N	0.99 T J N									0.49	1.5		
	PD-9-GWP-60-071019	60 ft	7/10/2019											0 004 J	0.0057		
	PD-9-GWP-70-071019	70 ft	7/10/2019											0.055	0 067		
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019		0 0048 T J N												
	PD-9-GWP-80-071019	80 ft	7/10/2019														
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019														
	PD-11-GWP-37-071119	37 ft	7/11/2019	0 077 T J N										0.031			
	PD-11-GWP-43-071119	43 ft	7/11/2019		0.047 T J N												
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019														
	PD-11-GWP-50-071119	50 ft	7/11/2019														
	PD-11-GWP-56-071119	56 ft	7/11/2019														
	PD-11-GWP-60-071119	60 ft	7/11/2019														
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019														
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019														
	PD-12-GWP-45-071219	45 ft	7/12/2019														
	PD-12-GWP-50-071219	50 ft	7/12/2019														
	PD-12-GWP-55-071219	55 ft	7/12/2019											0 086 T H J N			
	PD-12-GWP-60-071219	60 ft	7/12/2019	0 028 T H J N	0.016 T J N		0 025 T J N				0.044 T J N			0.041	0.31 T J N	0 05 T J N	
	PD-12-GWP-70-071519	70 ft	7/15/2019														
	PD-12-GWP-73-071519	73 ft	7/15/2019														
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019				0 018 T J N							0.0013	0.02		
	PD-13-GWP-46-070819	46 ft	7/8/2019				0 023 T J N				0.0088 T J N			0.034	0.01	0.0091 T J N	
	PD-13-GWP-50-070819	50 ft	7/8/2019			0.0091 T J N	0 037 T J N							0.047	0 025		0 027 T J N
	PD-13-GWP-59-070819	59 ft	7/8/2019														
	PD-13-GWP-65-070919	65 ft	7/9/2019														
	PD-13-GWP-70-070919	70 ft	7/9/2019														
	PD-13-GWP-80-070919	80 ft	7/9/2019														
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019														
	PD-14-GWP-45-071719	45 ft	7/17/2019		0.013 T J N												
	PD-14-GWP-50-071719	50 ft	7/17/2019		0 0051 T J N												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019														
	PD-14-GWP-53-071719	53 ft	7/17/2019														
	PD-14-GWP-60-071719	60 ft	7/17/2019											0.49 J	1.2		
	PD-14-GWP-70-071719	70 ft	7/17/2019														
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019											0.001	0.0014		
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019														
	PD-17-GWP-50-072219	50 ft	7/22/2019		0.024 T J N												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	0.23 T J N													

Location	Sample ID	Depth	Sample Date	Cyclohexene, 4-methyl-	Cyclopentane, 1,1-dimethyl-	Cyclopentane, 1,2-dimethyl-, trans-	Cyclopentane, ethyl-	Cyclopentane, methyl-	Cyclopentene, 1-methyl-	Cyclopropane, 1,1-dimethyl-	Cyclopropane, 1,2-dimethyl-, cis-	Diisopropyl Ether	Ethanol	Goitrin	Heptane, 2-methyl-	Heptane	Hexane, 1-(hexyloxy)-3-methyl-
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019			0 01899 T J		0.03417 T J									
	PD-1-GWP-53-062519	53 ft	6/25/2019					1 5715 T J		2 3325 T J							
	PD-1-GWP-60-062619	60 ft	6/26/2019														
	PD-1-GWP-69-062619	69 ft	6/26/2019											0 00849 T J			
	PD-1-GWP-75-062619	75 ft	6/26/2019														
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019														
	PD-2-GWP-50-071819	50 ft	7/18/2019														
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019														
	PD-2-GWP-59-071819	59 ft	7/18/2019														
	PD-2-GWP-70-071919	70 ft	7/19/2019														
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019														
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019														
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019														
	PD-3-GWP-55-072319	55 ft	7/23/2019														
	PD-3-GWP-60-072319	60 ft	7/23/2019														
	PD-3-GWP-65-072319	65 ft	7/23/2019														
	PD-3-GWP-71-072319	71 ft	7/23/2019														
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019		0 0051 T J N												
	PD-4-GWP-41-071519	41 ft	7/15/2019														
	PD-4-GWP-43-071519	43 ft	7/15/2019					0.053 T J N			0.021 T J N		0.057 J			0.077	
	PD-4-GWP-50-071519	50 ft	7/15/2019				0.09 T J N	0.59 T J N	0 082 T J N		0.18 T J N						
	PD-4-GWP-53-071619	53 ft	7/16/2019												0.053 T J N		
	PD-4-GWP-60-071619	60 ft	7/16/2019													0.0033	
	PD-4-GWP-70-071619	70 ft	7/16/2019													0.00078 J	
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019														
	PD-4-GWP-80-071619	80 ft	7/16/2019													0.0015	
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019														
	PD-5-GWP-42-062719	42 ft	6/27/2019														
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019														
	PD-5-GWP-48-062719	48 ft	6/27/2019								0.7292 T J J						
	PD-5-GWP-54-062719	54 ft	6/27/2019												0.00826 T J		0.00896 T J
	PD-5-GWP-62-062719	62 ft	6/27/2019														
	PD-5-GWP-80-062819	80 ft	6/28/2019													0.0011	
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019														
	PD-7-GWP-50-072219	50 ft	7/22/2019														
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019														
	PD-7-GWP-55-072319	55 ft	7/23/2019														
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019						0.32 T J N J		0.93 T J N J					0 038 J	
	PD-8-GWP-46-062819	46 ft	6/28/2019	0 053 T J N				0.36 T J N	0.26 T J N		0 95 T J N						
	PD-8-GWP-52-062819	52 ft	6/28/2019														
	PD-8-GWP-57-070119	57 ft	7/1/2019														
	PD-8-GWP-62-070119	62 ft	7/1/2019														
	PD-8-GWP-70-070119	70 ft	7/1/2019					0.0064 T J N								0.00078 J	
	PD-8-GWP-80-070119	80 ft	7/1/2019														

Location	Sample ID	Depth	Sample Date	Cyclohexene, 4-methyl-	Cyclopentane, 1,1-dimethyl-	Cyclopentane, 1,2-dimethyl-, trans-	Cyclopentane, ethyl-	Cyclopentane, methyl-	Cyclopentene, 1-methyl-	Cyclopropane, 1,1-dimethyl-	Cyclopropane, 1,2-dimethyl-, cis-	Diisopropyl Ether	Ethanol	Goitrin	Heptane, 2-methyl-	Heptane	Hexane, 1-(hexyloxy)-3-methyl-
				Analytical Results (mg/L)													
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019														
	PD-9-GWP-40-070919	40 ft	7/9/2019														
	PD-9-GWP-45-070919	45 ft	7/9/2019														
	PD-9-GWP-54-071019	54 ft	7/10/2019						0.99 T J N		3.2 T J N					0 31	
	PD-9-GWP-60-071019	60 ft	7/10/2019														
	PD-9-GWP-70-071019	70 ft	7/10/2019					0.12 T J N									
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019														
	PD-9-GWP-80-071019	80 ft	7/10/2019														
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019														
	PD-11-GWP-37-071119	37 ft	7/11/2019														
	PD-11-GWP-43-071119	43 ft	7/11/2019														
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019														
	PD-11-GWP-50-071119	50 ft	7/11/2019														
	PD-11-GWP-56-071119	56 ft	7/11/2019														
	PD-11-GWP-60-071119	60 ft	7/11/2019														
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019														
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019														
	PD-12-GWP-45-071219	45 ft	7/12/2019														
	PD-12-GWP-50-071219	50 ft	7/12/2019														
	PD-12-GWP-55-071219	55 ft	7/12/2019														
	PD-12-GWP-60-071219	60 ft	7/12/2019	0 026 T J N				0.23 T J N			0.068 T J N						
	PD-12-GWP-70-071519	70 ft	7/15/2019														
	PD-12-GWP-73-071519	73 ft	7/15/2019														
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019									0.00093 J					
	PD-13-GWP-46-070819	46 ft	7/8/2019														
	PD-13-GWP-50-070819	50 ft	7/8/2019	0 014 T J N	0.039 T J N						0.012 T J N						
	PD-13-GWP-59-070819	59 ft	7/8/2019														
	PD-13-GWP-65-070919	65 ft	7/9/2019														
	PD-13-GWP-70-070919	70 ft	7/9/2019														
	PD-13-GWP-80-070919	80 ft	7/9/2019														
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019														
	PD-14-GWP-45-071719	45 ft	7/17/2019														
	PD-14-GWP-50-071719	50 ft	7/17/2019														
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019														
	PD-14-GWP-53-071719	53 ft	7/17/2019														
	PD-14-GWP-60-071719	60 ft	7/17/2019													0.39 J	
	PD-14-GWP-70-071719	70 ft	7/17/2019														
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019														
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019														
	PD-17-GWP-50-072219	50 ft	7/22/2019														
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019														

Location	Sample ID	Depth	Sample Date	Hexane	Indane	Isobutanol (Isobutyl alcohol)	Isooctane	Isopentane	Methyl-Cyclobutane	Naphthalene, 1,2,3,4-tetrahydro-	Naphthalene, 1,2,3,4-tetrahydro-B	Naphthalene, 1,2,3,4-tetrahydro-2-methyl-	Naphthalene, 1,2,3,4-tetrahydro-2-methyl-A	Naphthalene, 1,6,7-trimethyl-	Naphthalene, 2,3-dimethyl-	Naphthalene, 2,6-dimethyl-	n-Butyl acetate
				Analytical Results (mg/L)													
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019					0.10415 T J									
	PD-1-GWP-53-062519	53 ft	6/25/2019		0.17854 T J			1.7945 T J	2.233 T J								
	PD-1-GWP-60-062619	60 ft	6/26/2019														
	PD-1-GWP-69-062619	69 ft	6/26/2019														
	PD-1-GWP-75-062619	75 ft	6/26/2019														
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019		0 0041 T J N												
	PD-2-GWP-50-071819	50 ft	7/18/2019							0 0046 T H J N							
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019														
	PD-2-GWP-59-071819	59 ft	7/18/2019		0.02 T J N												
	PD-2-GWP-70-071919	70 ft	7/19/2019														
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019														
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019		0.026 T J N					0.011 T J N							
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019		0.03 T J N					0.014 T J N							
	PD-3-GWP-55-072319	55 ft	7/23/2019		0.01 T J N					0 0048 T J N							
	PD-3-GWP-60-072319	60 ft	7/23/2019		0.059 T J N												
	PD-3-GWP-65-072319	65 ft	7/23/2019		0.059 T J N												
	PD-3-GWP-71-072319	71 ft	7/23/2019		0.047 T J N					0 0041 T J N							
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019				0.002 J										
	PD-4-GWP-41-071519	41 ft	7/15/2019		0.13 T J N										0.018 T J N	0.014 T J N	
	PD-4-GWP-43-071519	43 ft	7/15/2019	0.17	0.097 T J N		0 091	0.053 T J N							0.012 T J N		
	PD-4-GWP-50-071519	50 ft	7/15/2019	0.12	0.099 T J N			0.84 T J N									
	PD-4-GWP-53-071619	53 ft	7/16/2019	1	0.12 T J N												
	PD-4-GWP-60-071619	60 ft	7/16/2019	0.0058			0 0019 J	0.07 T J N									
	PD-4-GWP-70-071619	70 ft	7/16/2019	0.0016													
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019	0.0014													0.0012
	PD-4-GWP-80-071619	80 ft	7/16/2019	0.001													
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019														
	PD-5-GWP-42-062719	42 ft	6/27/2019														
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019														
	PD-5-GWP-48-062719	48 ft	6/27/2019														
	PD-5-GWP-54-062719	54 ft	6/27/2019														
	PD-5-GWP-62-062719	62 ft	6/27/2019														
	PD-5-GWP-80-062819	80 ft	6/28/2019	0.0023													
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019				0 022					0 012 T J N					
	PD-7-GWP-50-072219	50 ft	7/22/2019							0.55 T J N							
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019														
	PD-7-GWP-55-072319	55 ft	7/23/2019		0.014 T J N					0.014 T J N							
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	0.25 J	0.15 T J N			0.32 T J N J									
	PD-8-GWP-46-062819	46 ft	6/28/2019		0.13 T J N			0.48 T J N									
	PD-8-GWP-52-062819	52 ft	6/28/2019														
	PD-8-GWP-57-070119	57 ft	7/1/2019														
	PD-8-GWP-62-070119	62 ft	7/1/2019														
	PD-8-GWP-70-070119	70 ft	7/1/2019	0.0016	0.025 T J N												
	PD-8-GWP-80-070119	80 ft	7/1/2019														

Location	Sample ID	Depth	Sample Date	Hexane	Indane	Isobutanol (Isobutyl alcohol)	Isooctane	Isopentane	Methyl-Cyclobutane	Naphthalene, 1,2,3,4-tetrahydro-	Naphthalene, 1,2,3,4-tetrahydro-B	Naphthalene, 1,2,3,4-tetrahydro-2-methyl-	Naphthalene, 1,2,3,4-tetrahydro-2-methyl-A	Naphthalene, 1,6,7-trimethyl-	Naphthalene, 2,3-dimethyl-	Naphthalene, 2,6-dimethyl-	n-Butyl acetate
				Analytical Results (mg/L)													
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019		0.014 T J N												
	PD-9-GWP-40-070919	40 ft	7/9/2019		0.095 T J N												
	PD-9-GWP-45-070919	45 ft	7/9/2019		0.18 T J N												
	PD-9-GWP-54-071019	54 ft	7/10/2019	1.4	1.7 T J N			3 T J N									
	PD-9-GWP-60-071019	60 ft	7/10/2019	0.0069													
	PD-9-GWP-70-071019	70 ft	7/10/2019	0.094	0.015 T J N												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019		0.012 T J N												
	PD-9-GWP-80-071019	80 ft	7/10/2019														
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019				0.02						0.0084 T J N	0 012 T J N			
	PD-11-GWP-37-071119	37 ft	7/11/2019		0.052 T J N		0.038 J				0.059 T J N				0.055 T J N		
	PD-11-GWP-43-071119	43 ft	7/11/2019							0.038 T J N					0.038 T J N		
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019													0.079 T J N	
	PD-11-GWP-50-071119	50 ft	7/11/2019														
	PD-11-GWP-56-071119	56 ft	7/11/2019														
	PD-11-GWP-60-071119	60 ft	7/11/2019														
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019														
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019														
	PD-12-GWP-45-071219	45 ft	7/12/2019		0.068 T H J N										0.009 T H J N		
	PD-12-GWP-50-071219	50 ft	7/12/2019		0.02 T H J N			0.35 T J N									
	PD-12-GWP-55-071219	55 ft	7/12/2019		0.066 T H J N												
	PD-12-GWP-60-071219	60 ft	7/12/2019		0.088 T H J N			0.29 T J N									
	PD-12-GWP-70-071519	70 ft	7/15/2019														
	PD-12-GWP-73-071519	73 ft	7/15/2019														
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019		0.025 T J N												
	PD-13-GWP-46-070819	46 ft	7/8/2019		0.027 T J N			0.064 T J N									
	PD-13-GWP-50-070819	50 ft	7/8/2019		0.057 T J N			0.18 T J N									
	PD-13-GWP-59-070819	59 ft	7/8/2019														
	PD-13-GWP-65-070919	65 ft	7/9/2019														
	PD-13-GWP-70-070919	70 ft	7/9/2019														
	PD-13-GWP-80-070919	80 ft	7/9/2019														
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	1.7		50		7 9 T J N									
	PD-14-GWP-45-071719	45 ft	7/17/2019		0.045 T J N												
	PD-14-GWP-50-071719	50 ft	7/17/2019		0.012 T J N												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019		0.011 T J N												
	PD-14-GWP-53-071719	53 ft	7/17/2019		0.098 T J N												
	PD-14-GWP-60-071719	60 ft	7/17/2019	0.9	0.1 T J N	21											
	PD-14-GWP-70-071719	70 ft	7/17/2019														
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019	0.0012		0.032											
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019										0.0049 T J N		0 0059 T J N		
	PD-17-GWP-50-072219	50 ft	7/22/2019							0.028 T J N							
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019											0.17 T J N			

Location	Sample ID	Depth	Sample Date	Octane, 2,6-dimethyl-	Octane	o-diethylbenzene	p-Diethylbenzene	Pentane, 2,3,4-trimethyl-	Pentane, 2,3-dimethyl-	Pentane, 2,4-dimethyl-	Pentane, 2-methyl-	Pentane, 3-methyl-	Pentane	p-Xylenes	Sulfur dioxide	t-Amyl alcohol	Tetrahydrofuran	Undecane, 2,6-dimethyl-
				Analytical Results (mg/L)														
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019						0 01313 T J		0.067 T J		0.03131 T J					
	PD-1-GWP-53-062519	53 ft	6/25/2019															
	PD-1-GWP-60-062619	60 ft	6/26/2019															
	PD-1-GWP-69-062619	69 ft	6/26/2019															
	PD-1-GWP-75-062619	75 ft	6/26/2019															
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019															
	PD-2-GWP-50-071819	50 ft	7/18/2019															
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019															
	PD-2-GWP-59-071819	59 ft	7/18/2019															
	PD-2-GWP-70-071919	70 ft	7/19/2019															
	PD-2-GWP-74 5-071919	74.5 ft	7/19/2019															
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019															
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019											0.13 T J N				
	PD-3-GWP-55-072319	55 ft	7/23/2019											0 043 T J N				
	PD-3-GWP-60-072319	60 ft	7/23/2019															
	PD-3-GWP-65-072319	65 ft	7/23/2019															
	PD-3-GWP-71-072319	71 ft	7/23/2019											0 067 T J N				
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019													0.088		
	PD-4-GWP-41-071519	41 ft	7/15/2019											0.12 T J N				
	PD-4-GWP-43-071519	43 ft	7/15/2019													0.1		
	PD-4-GWP-50-071519	50 ft	7/15/2019									0.44 T J N	0.29 T J N		0.24 T J N			
	PD-4-GWP-53-071619	53 ft	7/16/2019		0.057 T J N									0.17 T J N				
	PD-4-GWP-60-071619	60 ft	7/16/2019													0.045		
	PD-4-GWP-70-071619	70 ft	7/16/2019													0.011		
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019													0.011		
	PD-4-GWP-80-071619	80 ft	7/16/2019															
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019											0.17 T J N				
	PD-5-GWP-42-062719	42 ft	6/27/2019											0.13954 T J				
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019															
	PD-5-GWP-48-062719	48 ft	6/27/2019											2.17288 T J				
	PD-5-GWP-54-062719	54 ft	6/27/2019															
	PD-5-GWP-62-062719	62 ft	6/27/2019															
	PD-5-GWP-80-062819	80 ft	6/28/2019															
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019			0.0056 J	0 016			0.013 T J N		0 018 T J N						
	PD-7-GWP-50-072219	50 ft	7/22/2019															0.75 T J N
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0 063 T J N										0 069 T J N				
	PD-7-GWP-55-072319	55 ft	7/23/2019											0.06 T J N				
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019										0.47 T J N J	0.15 T J N				
	PD-8-GWP-46-062819	46 ft	6/28/2019									0.1 T J N						
	PD-8-GWP-52-062819	52 ft	6/28/2019															
	PD-8-GWP-57-070119	57 ft	7/1/2019															
	PD-8-GWP-62-070119	62 ft	7/1/2019															
	PD-8-GWP-70-070119	70 ft	7/1/2019				0.0078											
	PD-8-GWP-80-070119	80 ft	7/1/2019															

Location	Sample ID	Depth	Sample Date	Octane, 2,6-dimethyl-	Octane	o-diethylbenzene	p-Diethylbenzene	Pentane, 2,3,4-trimethyl-	Pentane, 2,3-dimethyl-	Pentane, 2,4-dimethyl-	Pentane, 2-methyl-	Pentane, 3-methyl-	Pentane	p-Xylenes	Sulfur dioxide	t-Amyl alcohol	Tetrahydrofuran	Undecane, 2,6-dimethyl-
				Analytical Results (mg/L)														
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019															
	PD-9-GWP-40-070919	40 ft	7/9/2019											0.14 T J N				
	PD-9-GWP-45-070919	45 ft	7/9/2019															
	PD-9-GWP-54-071019	54 ft	7/10/2019		2 T J N		0.11 J					0.92 T J N	3 9 T J N	2.8 T J N				
	PD-9-GWP-60-071019	60 ft	7/10/2019															
	PD-9-GWP-70-071019	70 ft	7/10/2019										0.12 T J N					
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019															
	PD-9-GWP-80-071019	80 ft	7/10/2019															
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019			0.0078	0.0066	0.013 T J N	0 042 T J N									
	PD-11-GWP-37-071119	37 ft	7/11/2019			0 011 J	0.033 J											
	PD-11-GWP-43-071119	43 ft	7/11/2019															0.042 T J N
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019															
	PD-11-GWP-50-071119	50 ft	7/11/2019														0.041 J	
	PD-11-GWP-56-071119	56 ft	7/11/2019														0 031	
	PD-11-GWP-60-071119	60 ft	7/11/2019															
	PD-11-GWP-66.7-071219	66.7 ft	7/12/2019															
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019															
	PD-12-GWP-45-071219	45 ft	7/12/2019															
	PD-12-GWP-50-071219	50 ft	7/12/2019															
	PD-12-GWP-55-071219	55 ft	7/12/2019										3 5 T J N					
	PD-12-GWP-60-071219	60 ft	7/12/2019									0.11 T J N	0.092 T J N	0 017 T H J N		0.11		
	PD-12-GWP-70-071519	70 ft	7/15/2019															
	PD-12-GWP-73-071519	73 ft	7/15/2019															
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019															
	PD-13-GWP-46-070819	46 ft	7/8/2019									0 065 T J N						
	PD-13-GWP-50-070819	50 ft	7/8/2019									0.13 T J N						
	PD-13-GWP-59-070819	59 ft	7/8/2019													0.056		
	PD-13-GWP-65-070919	65 ft	7/9/2019															
	PD-13-GWP-70-070919	70 ft	7/9/2019															
	PD-13-GWP-80-070919	80 ft	7/9/2019															
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019										5.1 T J N					
	PD-14-GWP-45-071719	45 ft	7/17/2019											0.05 T J N				
	PD-14-GWP-50-071719	50 ft	7/17/2019															
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019															
	PD-14-GWP-53-071719	53 ft	7/17/2019															
	PD-14-GWP-60-071719	60 ft	7/17/2019															
	PD-14-GWP-70-071719	70 ft	7/17/2019															
	PD-14-GWP-78.5-071819	78.5 ft	7/18/2019											0.0059 T J N				
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019															
	PD-17-GWP-50-072219	50 ft	7/22/2019															
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	0.18 T J N										0.4 T J N				

Notes

1. Values are only reported if a TIC is identified
2. The number of significant figures is laboratory-specific.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

T = Result is a tentatively identified compound (TIC) and an estimated value.

N - Presumptive evidence of material.

H = Sample was prepared or analyzed beyond the specified holding time

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Location	Sample ID	Depth	Sample Date	1,2,3-Trimethylbenzene A	1,2,3-Trimethylbenzene B	1,2,3-Trimethylbenzene C	1,2,3-Trimethylbenzene D	1,3,5-Trimethylbenzene A	1,3,5-Trimethylbenzene B	1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene-	1,3-Dimethylcyclopentanol	13-Docosenamide, (Z)-	1-Docosene	1H-Benzotriazole, 5-methyl-	1-Heneicosyl formate
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019								0 00806 T J				
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	0 011 T J N	0.05 T J N										
	PD-2-GWP-59-071819	59 ft	7/18/2019	0 016 T J N	0.042 T J N										
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019	0 064 T J N	0.037 T J N	0.016 T J N	0.12 T J N								
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	0 021 T J N	0.073 T J N	0.043 T J N	0.14 T J N								
	PD-3-GWP-55-072319	55 ft	7/23/2019	0 024 T J N	0.057 T J N										
	PD-3-GWP-60-072319	60 ft	7/23/2019					0.05 T J N	0 052 T J N						
	PD-3-GWP-65-072319	65 ft	7/23/2019											0 019 T J N	
	PD-3-GWP-71-072319	71 ft	7/23/2019	0 096 T J N	0.023 T J N										
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019								0.0057 T J N				
	PD-4-GWP-41-071519	41 ft	7/15/2019												
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019								0.012 T J N				
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019	0 011 T J N	0 0047 T J N										
	PD-4-GWP-70-071619	70 ft	7/16/2019	0.0053 T J N	0.012 T J N										
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019	0.02 T J N	0.043 T J N										
	PD-5-GWP-42-062719	42 ft	6/27/2019												
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019								0 01294 T J				
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019	0.75 T J N	0.54 T J N					0.48 T J N					
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0.34 T J N	0.11 T J N										
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	0.12 T J N	0.21 T J N										
	PD-8-GWP-46-062819	46 ft	6/28/2019								0 01 T J N				
	PD-8-GWP-52-062819	52 ft	6/28/2019												0 0057 T J N
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	1,2,3-Trimethylbenzene A	1,2,3-Trimethylbenzene B	1,2,3-Trimethylbenzene C	1,2,3-Trimethylbenzene D	1,3,5-Trimethylbenzene A	1,3,5-Trimethylbenzene B	1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene-	1,3-Dimethylcyclopentanol	13-Docosenamide, (Z)-	1-Docosene	1H-Benzotriazole, 5-methyl-	1-Heneicosyl formate
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019									0 015 T J N			
	PD-9-GWP-40-070919	40 ft	7/9/2019	0.21 T J N	0.066 T J N										
	PD-9-GWP-45-070919	45 ft	7/9/2019												
	PD-9-GWP-54-071019	54 ft	7/10/2019					2 5 T J N	2.6 T J N						
	PD-9-GWP-60-071019	60 ft	7/10/2019	0.0041 T J N	0.015 T J N										
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	0.02 T J N	0.058 T J N										
	PD-9-GWP-80-071019	80 ft	7/10/2019										0 0044 T J N		
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019												
	PD-11-GWP-37-071119	37 ft	7/11/2019	0.11 T J N	0.27 T J N										
	PD-11-GWP-43-071119	43 ft	7/11/2019												
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	0.11 T J N	0.066 T J N										
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019	0.0054 T J N	0.019 T J N										
	PD-11-GWP-60-071119	60 ft	7/11/2019	0.0087 T H J N	0 0042 T J N	0.0051 T H J N									
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												0 0042 T J N
	PD-12-GWP-45-071219	45 ft	7/12/2019	0.0086 T H J N	0 0083 T H J N	0.0097 T H J N									
	PD-12-GWP-50-071219	50 ft	7/12/2019								0.007 T H J N				
	PD-12-GWP-55-071219	55 ft	7/12/2019												
	PD-12-GWP-60-071219	60 ft	7/12/2019	0.0088 T H J N	0.026 T H J N	0.019 T H J N	0 034 T H J N				0.0096 T H J N				
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019									0 013 T J N			0 0064 T J N
	PD-13-GWP-46-070819	46 ft	7/8/2019									0 014 T J N			0 0055 T J N
	PD-13-GWP-50-070819	50 ft	7/8/2019									0.01 T J N			
	PD-13-GWP-59-070819	59 ft	7/8/2019									0.0054 T J N			
	PD-13-GWP-65-070919	65 ft	7/9/2019									0.0059 T J N			
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019												
	PD-14-GWP-45-071719	45 ft	7/17/2019								0.017 T J N				
	PD-14-GWP-50-071719	50 ft	7/17/2019												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019								0.015 T J N				
	PD-14-GWP-53-071719	53 ft	7/17/2019	0.24 T J N	0.098 T J N						0.015 T J N				
	PD-14-GWP-60-071719	60 ft	7/17/2019												
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019												

Location	Sample ID	Depth	Sample Date	1H-Inden-1-one, 2,3-dihydro-	1H-Indene, 2,3-dihydro-2-methyl-	1H-Indene,2,3-dihydro-2,2-dimethyl-	1-methoxy-4-methyl-2-(1-methylethyl)-Benzene	1-Methylcyclohexanol	1-MethylnaphthaleneA	1-MethylnaphthaleneB	1-Phenyl-1-buteneB	1-Propene, 1,2,3-trichloro-, (E)-	2-Benzothiophene	2-Butanone, 4-hydroxy-	2-Butanone, 4-hydroxy-A
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019											0 029 T J N	
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019						0.0042 T J N	0 0052 T J N				0.0066 T J N	
	PD-3-GWP-60-072319	60 ft	7/23/2019											0.19 T J N	
	PD-3-GWP-65-072319	65 ft	7/23/2019											0 028 T J N	
	PD-3-GWP-71-072319	71 ft	7/23/2019												
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019					0 0051 T J N						0 011 T J N	
	PD-4-GWP-41-071519	41 ft	7/15/2019											0 012 T J N	
	PD-4-GWP-43-071519	43 ft	7/15/2019											0 022 T J N	
	PD-4-GWP-50-071519	50 ft	7/15/2019								0.071 T J N				
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019										0.014 T J N		
	PD-5-GWP-42-062719	42 ft	6/27/2019					0.00892 T J							
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019				0.01122 T J								
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019											0.0081 T J N	
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019												
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019		0.034 T J N										
	PD-8-GWP-46-062819	46 ft	6/28/2019			0 01 T J N			0 048 T J N	0.039 T J N				0 027 T J N	
	PD-8-GWP-52-062819	52 ft	6/28/2019											0 019 T J N	
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	1H-Inden-1-one, 2,3-dihydro-	1H-Indene, 2,3-dihydro-2-methyl-	1H-Indene,2,3-dihydro-2,2-dimethyl-	1-methoxy-4-methyl-2-(1-methylethyl)-Benzene	1-Methylcyclohexanol	1-MethylnaphthaleneA	1-MethylnaphthaleneB	1-Phenyl-1-buteneB	1-Propene, 1,2,3-trichloro-, (E)-	2-Benzothiophene	2-Butanone, 4-hydroxy-	2-Butanone, 4-hydroxy-A
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019											0.0043 T J N	
	PD-9-GWP-40-070919	40 ft	7/9/2019	0 047 T J N											
	PD-9-GWP-45-070919	45 ft	7/9/2019												
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019											0 011 T J N	
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019											0 027 T J N	
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019											0 016 T J N	
	PD-11-GWP-37-071119	37 ft	7/11/2019											0.14 T J N	
	PD-11-GWP-43-071119	43 ft	7/11/2019											0 083 T J N	
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019												
	PD-11-GWP-50-071119	50 ft	7/11/2019											0.09 T J N	
	PD-11-GWP-56-071119	56 ft	7/11/2019											0.28 T J N	
	PD-11-GWP-60-071119	60 ft	7/11/2019												0.16 T H J N
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019									0.0043 T J N			
	PD-12-GWP-45-071219	45 ft	7/12/2019					0 0074 T H J N						0 048 T H J N	
	PD-12-GWP-50-071219	50 ft	7/12/2019					0.006 T H J N						0 043 T H J N	
	PD-12-GWP-55-071219	55 ft	7/12/2019												
	PD-12-GWP-60-071219	60 ft	7/12/2019											0 023 T H J N	
	PD-12-GWP-70-071519	70 ft	7/15/2019											0.0098 T J N	
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019												
	PD-13-GWP-50-070819	50 ft	7/8/2019												
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019					0 0069 T J N							
	PD-14-GWP-45-071719	45 ft	7/17/2019					0 0093 T J N						0.2 T J N	
	PD-14-GWP-50-071719	50 ft	7/17/2019					0 0062 T J N							
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019					0.007 T J N							
	PD-14-GWP-53-071719	53 ft	7/17/2019											0 078 T J N	
	PD-14-GWP-60-071719	60 ft	7/17/2019						0 047 T J N	0.067 T J N					
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019											0 011 T J N	
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019												

Location	Sample ID	Depth	Sample Date	2-Butanone, 4-hydroxy-, B	2-Cyclopenten-1-one, 2,3-dimethyl-	2-Cyclopenten-1-one, 3,4,4-trimethyl-	2-methyl-2-Pentanol	2-Methylindene	2-MethylnaphthaleneA	2-MethylnaphthaleneB	2-Naphthalenecarboxylic acid	2-Pentene, 3-methyl-, (E)-	2-Thiophenecarboxylic acid, 5-ethyl-	3-Eicosene, (E)-
				Analytical Results (mg/L)										
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019				0.01352 T J							
	PD-1-GWP-53-062519	53 ft	6/25/2019				0.0441 T J							
	PD-1-GWP-60-062619	60 ft	6/26/2019											
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019											
	PD-2-GWP-50-071819	50 ft	7/18/2019		0.011 T H J N									
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019		0 0085 T J N									
	PD-2-GWP-59-071819	59 ft	7/18/2019											
	PD-2-GWP-70-071919	70 ft	7/19/2019											
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019											
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019						0 012 T J N	0.016 T J N				
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019											
	PD-3-GWP-55-072319	55 ft	7/23/2019											
	PD-3-GWP-60-072319	60 ft	7/23/2019											
	PD-3-GWP-65-072319	65 ft	7/23/2019		0 0053 T J N									
	PD-3-GWP-71-072319	71 ft	7/23/2019											
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019											
	PD-4-GWP-41-071519	41 ft	7/15/2019											
	PD-4-GWP-43-071519	43 ft	7/15/2019											
	PD-4-GWP-50-071519	50 ft	7/15/2019											
	PD-4-GWP-53-071619	53 ft	7/16/2019						0.11 T J N	0.09 T J N				
	PD-4-GWP-60-071619	60 ft	7/16/2019											
	PD-4-GWP-70-071619	70 ft	7/16/2019											
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019											
	PD-4-GWP-80-071619	80 ft	7/16/2019											
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019		0.009 T J N								0.015 T J N	
	PD-5-GWP-42-062719	42 ft	6/27/2019				0.01002 T J							
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019				0.01112 T J							
	PD-5-GWP-48-062719	48 ft	6/27/2019											
	PD-5-GWP-54-062719	54 ft	6/27/2019											
	PD-5-GWP-80-062819	80 ft	6/28/2019											
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019											
	PD-7-GWP-50-072219	50 ft	7/22/2019											
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019											
	PD-7-GWP-55-072319	55 ft	7/23/2019								0.0097 T J N			
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019											
	PD-8-GWP-46-062819	46 ft	6/28/2019					0 0077 T J N				0 079 T J N		
	PD-8-GWP-52-062819	52 ft	6/28/2019											
	PD-8-GWP-57-070119	57 ft	7/1/2019											0.0063 T J N
	PD-8-GWP-62-070119	62 ft	7/1/2019											
	PD-8-GWP-70-070119	70 ft	7/1/2019											
	PD-8-GWP-80-070119	80 ft	7/1/2019											

Location	Sample ID	Depth	Sample Date	2-Butanone, 4-hydroxy-, B	2-Cyclopenten-1-one, 2,3-dimethyl-	2-Cyclopenten-1-one, 3,4,4-trimethyl-	2-methyl-2-Pentanol	2-Methylindene	2-MethylnaphthaleneA	2-MethylnaphthaleneB	2-Naphthalenecarboxylic acid	2-Pentene, 3-methyl-, (E)-	2-Thiophenecarboxylic acid, 5-ethyl-	3-Eicosene, (E)-
				Analytical Results (mg/L)										
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019											
	PD-9-GWP-40-070919	40 ft	7/9/2019											
	PD-9-GWP-45-070919	45 ft	7/9/2019											
	PD-9-GWP-54-071019	54 ft	7/10/2019											
	PD-9-GWP-60-071019	60 ft	7/10/2019											0.0042 T J N
	PD-9-GWP-70-071019	70 ft	7/10/2019											
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019											
	PD-9-GWP-80-071019	80 ft	7/10/2019											
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019											
	PD-11-GWP-37-071119	37 ft	7/11/2019											
	PD-11-GWP-43-071119	43 ft	7/11/2019						0 056 T J N	0.055 T J N				
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019											
	PD-11-GWP-50-071119	50 ft	7/11/2019											
	PD-11-GWP-56-071119	56 ft	7/11/2019											
	PD-11-GWP-60-071119	60 ft	7/11/2019	0.024 T J N										
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019											
	PD-12-GWP-45-071219	45 ft	7/12/2019											
	PD-12-GWP-50-071219	50 ft	7/12/2019											
	PD-12-GWP-55-071219	55 ft	7/12/2019											
	PD-12-GWP-60-071219	60 ft	7/12/2019											
	PD-12-GWP-70-071519	70 ft	7/15/2019											
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019											
	PD-13-GWP-46-070819	46 ft	7/8/2019											
	PD-13-GWP-50-070819	50 ft	7/8/2019											
	PD-13-GWP-59-070819	59 ft	7/8/2019											
	PD-13-GWP-65-070919	65 ft	7/9/2019											
	PD-13-GWP-70-070919	70 ft	7/9/2019											
	PD-13-GWP-80-070919	80 ft	7/9/2019											
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019										0.015 T J N	
	PD-14-GWP-45-071719	45 ft	7/17/2019		0.015 T J N									
	PD-14-GWP-50-071719	50 ft	7/17/2019		0 0077 T J N	0.0069 T J N								
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019		0 0076 T J N	0.012 T J N								
	PD-14-GWP-53-071719	53 ft	7/17/2019											
	PD-14-GWP-60-071719	60 ft	7/17/2019											
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019											
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019											
	PD-17-GWP-50-072219	50 ft	7/22/2019											
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019											

Location	Sample ID	Depth	Sample Date	3-Penten-2-one, (E)-	3-Penten-2-one, 4-methyl-	4-(1-methylethyl)-Benzoic acid	4-Octanone	5-Eicosene, (E)-	7-Methylindan-1-one	9H-Fluorene, 9-methyl-	9-Octadecenamide, (Z)-A	9-Octadecenamide, (Z)-B	Anthracene, 2-methyl-	Benzene, (1-methyl-1-propenyl)-, (E)-	Benzene, (1-methylpropyl)-
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019												
	PD-3-GWP-60-072319	60 ft	7/23/2019	0.0062 T J N											
	PD-3-GWP-65-072319	65 ft	7/23/2019												
	PD-3-GWP-71-072319	71 ft	7/23/2019												
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019						0 012 T J N						
	PD-4-GWP-41-071519	41 ft	7/15/2019												
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019												
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019												
	PD-5-GWP-42-062719	42 ft	6/27/2019			0 01128 T J	0.0123 T J								
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019												
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019												
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019												
	PD-8-GWP-46-062819	46 ft	6/28/2019												
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019					0 0043 T J N							
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	3-Penten-2-one, (E)-	3-Penten-2-one, 4-methyl-	4-(1-methylethyl)-Benzoic acid	4-Octanone	5-Eicosene, (E)-	7-Methylindan-1-one	9H-Fluorene, 9-methyl-	9-Octadecenamide, (Z)-A	9-Octadecenamide, (Z)-B	Anthracene, 2-methyl-	Benzene, (1-methyl-1-propenyl)-, (E)-	Benzene, (1-methylpropyl)-
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019												
	PD-9-GWP-45-070919	45 ft	7/9/2019												
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019							0.016 T J N					0.018 T J N
	PD-11-GWP-37-071119	37 ft	7/11/2019												
	PD-11-GWP-43-071119	43 ft	7/11/2019												
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019										0.063 T J N		
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019												
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019												
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019												
	PD-12-GWP-60-071219	60 ft	7/12/2019												
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019												
	PD-13-GWP-50-070819	50 ft	7/8/2019											0.0069 T J N	0 0047 T J N
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019								0.012 T J N	0.0076 T J N			
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019												
	PD-14-GWP-45-071719	45 ft	7/17/2019												
	PD-14-GWP-50-071719	50 ft	7/17/2019												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												
	PD-14-GWP-53-071719	53 ft	7/17/2019												
	PD-14-GWP-60-071719	60 ft	7/17/2019												
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019		0.64 T J N										

Location	Sample ID	Depth	Sample Date	Benzene, 1,2,3,4-tetramethyl-B	Benzene, 1,2,4,5-tetramethyl-A	Benzene, 1,2,4,5-tetramethyl-B	Benzene, 1,2-diethyl-	Benzene, 1,3-diethyl-	Benzene, 1,3-dimethyl-	Benzene, 1,4-diethyl-	Benzene, 1,4-diethyl-A	Benzene, 1,4-diethyl-B	Benzene, 1-ethyl-2,3-dimethyl-A	Benzene, 1-ethyl-2,3-dimethyl-B	Benzene, 1-ethyl-2-methyl-A
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019						0 01374 T J						
	PD-1-GWP-53-062519	53 ft	6/25/2019						1 66536 T J						
	PD-1-GWP-60-062619	60 ft	6/26/2019						0.014 T J						
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019					0 0073 T H J N							
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019						0 013 T J N						
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019												
	PD-3-GWP-60-072319	60 ft	7/23/2019												0.035 T J N
	PD-3-GWP-65-072319	65 ft	7/23/2019												
	PD-3-GWP-71-072319	71 ft	7/23/2019												
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019												
	PD-4-GWP-41-071519	41 ft	7/15/2019							0.015 T J N					0.022 T J N
	PD-4-GWP-43-071519	43 ft	7/15/2019					0.013 T J N	0 059 T J N						0.025 T J N
	PD-4-GWP-50-071519	50 ft	7/15/2019							0.047 T J N					
	PD-4-GWP-53-071619	53 ft	7/16/2019		0.1 T J N	0.064 T J N									
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019							0 0043 T J N					
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019												0 0073 T J N
	PD-5-GWP-42-062719	42 ft	6/27/2019						0.0594 T J						
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019						0.1357 T J						
	PD-5-GWP-48-062719	48 ft	6/27/2019						0.6842 T J						
	PD-5-GWP-54-062719	54 ft	6/27/2019						0 02626 T J	0.01374 T J					
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0.0057 T J N	0.048 T J N	0.062 T J N									
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019												0.11 T J N
	PD-7-GWP-55-072319	55 ft	7/23/2019					0.016 T J N							
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019					0 026 J J	0.13 T J N	0.057 T J N					0.11 T J N
	PD-8-GWP-46-062819	46 ft	6/28/2019				0.02 T J N								0.056 T J N
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019	0 024 T J N				0.0026 J							0.049 T J N
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	Benzene, 1,2,3,4-tetramethyl-B	Benzene, 1,2,4,5-tetramethyl-A	Benzene, 1,2,4,5-tetramethyl-B	Benzene, 1,2-diethyl-	Benzene, 1,3-diethyl-	Benzene, 1,3-dimethyl-	Benzene, 1,4-diethyl-	Benzene, 1,4-diethyl-A	Benzene, 1,4-diethyl-B	Benzene, 1-ethyl-2,3-dimethyl-A	Benzene, 1-ethyl-2,3-dimethyl-B	Benzene, 1-ethyl-2-methyl-A
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019				0 036 T J N								0.025 T J N
	PD-9-GWP-45-070919	45 ft	7/9/2019		0.036 T J N	0.022 T J N									0.12 T J N
	PD-9-GWP-54-071019	54 ft	7/10/2019		1.4 T J N	1.6 T J N		0.16 J	3.4 T J N						
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019										0.029 T J N	0.0082 T J N	0.015 T J N
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												0.02 T J N
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019				0 011 T J N			0.012 T J N					
	PD-11-GWP-37-071119	37 ft	7/11/2019					0.018 J	0 072 T J N	0.047 T J N					0.098 T J N
	PD-11-GWP-43-071119	43 ft	7/11/2019						0.14 T J N						0.078 T J N
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019							0.078 T J N					
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019												
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019		0.019 T H J N	0.0093 T H J N		0.021 T H J N							
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019												
	PD-12-GWP-60-071219	60 ft	7/12/2019												
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019	0 012 T J N											
	PD-13-GWP-50-070819	50 ft	7/8/2019				0.0048 T J N								
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019												
	PD-14-GWP-45-071719	45 ft	7/17/2019												
	PD-14-GWP-50-071719	50 ft	7/17/2019												0 0082 T J N
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												
	PD-14-GWP-53-071719	53 ft	7/17/2019												0.098 T J N
	PD-14-GWP-60-071719	60 ft	7/17/2019		0.065 T J N	0.043 T J N									
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019		0.012 T J N	0 01 T J N					0.0041 T J N	0.0049 T J N			
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019												

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethyl-2-methyl-B	Benzene, 1-ethyl-2-methyl-C	Benzene, 1-ethyl-4-methyl-A	Benzene, 1-ethyl-4-methyl-B	Benzene, 1-methyl-2-(1-methylethyl)-A	Benzene, 1-methyl-2-(1-methylethyl)-B	Benzene, 2-butenyl-	Benzene, 2-ethenyl-1,4-dimethyl-A	Benzene, 2-ethenyl-1,4-dimethyl-B	Benzene, 2-ethyl-1,3-dimethyl-A	Benzene, 2-ethyl-1,4-dimethyl-A	Benzene, 2-ethyl-1,4-dimethyl-B
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019			0.014 T J N	0 012 T J N								
	PD-3-GWP-60-072319	60 ft	7/23/2019	0 024 T J N											
	PD-3-GWP-65-072319	65 ft	7/23/2019												
	PD-3-GWP-71-072319	71 ft	7/23/2019			0.014 T J N	0 036 T J N								
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019												
	PD-4-GWP-41-071519	41 ft	7/15/2019	0 021 T J N	0.018 T J N										
	PD-4-GWP-43-071519	43 ft	7/15/2019	0 026 T J N	0.04 T J N					0.034 T J N					
	PD-4-GWP-50-071519	50 ft	7/15/2019												
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019	0 011 T J N											
	PD-5-GWP-42-062719	42 ft	6/27/2019												
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019												
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019										0 0057 T J N		
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0 051 T J N											
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	0.1 T J N	0.12 T J N										
	PD-8-GWP-46-062819	46 ft	6/28/2019	0 058 T J N											
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019	0 037 T J N	0.031 T J N			0.012 T J N	0 01 T J N						
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	Benzene, 1-ethyl-2-methyl-B	Benzene, 1-ethyl-2-methyl-C	Benzene, 1-ethyl-4-methyl-A	Benzene, 1-ethyl-4-methyl-B	Benzene, 1-methyl-2-(1-methylethyl)-A	Benzene, 1-methyl-2-(1-methylethyl)-B	Benzene, 2-butenyl-	Benzene, 2-ethenyl-1,4-dimethyl-A	Benzene, 2-ethenyl-1,4-dimethyl-B	Benzene, 2-ethyl-1,3-dimethyl-A	Benzene, 2-ethyl-1,4-dimethyl-A	Benzene, 2-ethyl-1,4-dimethyl-B
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019	0 048 T J N	0.084 T J N										
	PD-9-GWP-45-070919	45 ft	7/9/2019	0.13 T J N											
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019	0 034 T J N	0.019 T J N										
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	0 015 T J N											
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019												
	PD-11-GWP-37-071119	37 ft	7/11/2019	0 064 T J N	0.08 T J N										
	PD-11-GWP-43-071119	43 ft	7/11/2019	0.11 T J N	0.055 T J N										
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019												
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019												
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019												
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019												
	PD-12-GWP-60-071219	60 ft	7/12/2019								0.034 T H J N	0 019 T H J N			
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019								0.023 T J N	0 022 T J N			
	PD-13-GWP-50-070819	50 ft	7/8/2019					0.013 T J N	0.05 T J N		0.026 T J N	0 022 T J N			
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019												
	PD-14-GWP-45-071719	45 ft	7/17/2019												
	PD-14-GWP-50-071719	50 ft	7/17/2019	0.0058 T J N											
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												
	PD-14-GWP-53-071719	53 ft	7/17/2019	0.088 T J N										0.049 T J N	0.018 T J N
	PD-14-GWP-60-071719	60 ft	7/17/2019					0.1 T J N	0.045 T J N						
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019												

Location	Sample ID	Depth	Sample Date	BenzeneA	BenzeneB	Benzeneacetic acid, alpha-methyl-	Benzobthiophene	Benzoic acid, 2,4-dimethyl-	Benzoic acid, 2,6-dimethyl-	Benzoic acid, 2-methyl-	Benzoic acid, 3,4-dimethyl-	Benzoic acid, 3-methyl-	Cyclohexene, 1-methyl-A	Cyclopent-2-ene-1-one, 2,3,4-trimethyl-	Cyclopentadecane
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019								0.0056 T J N	0.0051 T J N			
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	0.32 T J N	0.97 T J N										
	PD-3-GWP-55-072319	55 ft	7/23/2019	1.1 T J N	0.088 T J N										
	PD-3-GWP-60-072319	60 ft	7/23/2019				0.0061 T J N								
	PD-3-GWP-65-072319	65 ft	7/23/2019				0.0059 T J N								
	PD-3-GWP-71-072319	71 ft	7/23/2019												
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019												
	PD-4-GWP-41-071519	41 ft	7/15/2019												
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019										0.018 T J N		
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019			0.014 T J N				0.072 T J N					
	PD-5-GWP-42-062719	42 ft	6/27/2019							0.02698 T J		0.01914 T J			
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019							0.02326 T J					
	PD-5-GWP-48-062719	48 ft	6/27/2019				0.02584 T J								
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019												
	PD-7-GWP-55-072319	55 ft	7/23/2019								0.11 T J N				
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019												
	PD-8-GWP-46-062819	46 ft	6/28/2019										0.014 T J N		
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												0 0048 T J N

Location	Sample ID	Depth	Sample Date	BenzeneA	BenzeneB	Benzeneacetic acid, alpha-methyl-	Benzobthiophene	Benzoic acid, 2,4-dimethyl-	Benzoic acid, 2,6-dimethyl-	Benzoic acid, 2-methyl-	Benzoic acid, 3,4-dimethyl-	Benzoic acid, 3-methyl-	Cyclohexene, 1-methyl-A	Cyclopent-2-ene-1-one, 2,3,4-trimethyl-	Cyclopentadecane
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019												
	PD-9-GWP-45-070919	45 ft	7/9/2019				0 022 T J N								
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019												
	PD-11-GWP-37-071119	37 ft	7/11/2019												
	PD-11-GWP-43-071119	43 ft	7/11/2019								0.055 T J N				
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019												
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019												
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019												
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019	0.75 T H J N	0.079 T H J N										
	PD-12-GWP-60-071219	60 ft	7/12/2019												
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019												
	PD-13-GWP-50-070819	50 ft	7/8/2019										0 0053 T J N		0 0044 T J N
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019					0.009 T J N	0.0042 T J N					0.0061 T J N	
	PD-14-GWP-45-071719	45 ft	7/17/2019						0 012 T J N						
	PD-14-GWP-50-071719	50 ft	7/17/2019												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												
	PD-14-GWP-53-071719	53 ft	7/17/2019												
	PD-14-GWP-60-071719	60 ft	7/17/2019				0.05 T J N								
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019												

Location	Sample ID	Depth	Sample Date	Cyclopentanol, 1-methyl-	decamethyl-Cyclopentasiloxane	Decane	Dibenzothiophene, 3-methyl-	Dibenzothiophene, 4-methyl-	Dodecane, 2,6,10-trimethyl-	Dodecane, 4,6-dimethyl-	Dodecane	EthylbenzeneA	EthylbenzeneB	Hexadecane	Indan, 1-methyl-
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019		0.00918 T J										
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019	0.01 T H J N											
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019	0.0042 T J N											
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019												
	PD-3-GWP-60-072319	60 ft	7/23/2019												
	PD-3-GWP-65-072319	65 ft	7/23/2019												
	PD-3-GWP-71-072319	71 ft	7/23/2019	0 005 T J N											
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	0.0045 T J N											
	PD-4-GWP-41-071519	41 ft	7/15/2019												
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019												
	PD-4-GWP-53-071619	53 ft	7/16/2019								0.089 T J N				
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019	0 025 T J N											
	PD-5-GWP-42-062719	42 ft	6/27/2019	0 01352 T J											
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019	0.0123 T J											
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019			0.3 T J N					1.1 T J N				
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019			0.089 T J N			0.04 T J N		0.13 T J N				
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019	0 041 T J N							0.024 T J N				
	PD-8-GWP-46-062819	46 ft	6/28/2019	0 038 T J N											
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	Cyclopentanol, 1-methyl-	decamethyl-Cyclopentasiloxane	Decane	Dibenzothiophene, 3-methyl-	Dibenzothiophene, 4-methyl-	Dodecane, 2,6,10-trimethyl-	Dodecane, 4,6-dimethyl-	Dodecane	EthylbenzeneA	EthylbenzeneB	Hexadecane	Indan, 1-methyl-
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019												
	PD-9-GWP-45-070919	45 ft	7/9/2019												
	PD-9-GWP-54-071019	54 ft	7/10/2019			2.1 T J N					1.8 T J N				1.1 T J N
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019				0 014 T J N	0.017 T J N							
	PD-11-GWP-37-071119	37 ft	7/11/2019					0.035 T J N							
	PD-11-GWP-43-071119	43 ft	7/11/2019			0.039 T J N					0.056 T J N				
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019			0.11 T J N					0.14 T J N			0 062 T J N	
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019									0 011 T H J N	0.008 T J N		
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019												
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019								0.088 T H J N			0 067 T H J N	
	PD-12-GWP-60-071219	60 ft	7/12/2019												0.036 T J N
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019												0.028 T J N
	PD-13-GWP-50-070819	50 ft	7/8/2019												0.028 T J N
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	0 017 T J N											
	PD-14-GWP-45-071719	45 ft	7/17/2019	0.05 T J N											
	PD-14-GWP-50-071719	50 ft	7/17/2019												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												
	PD-14-GWP-53-071719	53 ft	7/17/2019	0 022 T J N											
	PD-14-GWP-60-071719	60 ft	7/17/2019			0.054 T J N					0.052 T J N				
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019			0.039 T J N				0.02 T J N	0.062 T J N				
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019								0 28 T J N			0.27 T J N	

Location	Sample ID	Depth	Sample Date	IndaneA	IndaneB	Isopropylbenzene (Cumene)A	Isopropylbenzene (Cumene)B	Methylcarbazole	Naphthalene, 1,2,3,4-tetrahydro-A	Naphthalene, 1,2,3,4-tetrahydro-2-methyl-B	Naphthalene, 1,3-dimethyl-	Naphthalene, 1,4-dimethyl-	Naphthalene, 1,5-dimethyl-	Naphthalene, 1,6-dimethyl-	Naphthalene, 1,6-dimethyl-A
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019	0.11388 T J	0.08346 T J										
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019												
	PD-3-GWP-60-072319	60 ft	7/23/2019												
	PD-3-GWP-65-072319	65 ft	7/23/2019												
	PD-3-GWP-71-072319	71 ft	7/23/2019												
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	0 028 T J N	0.024 T J N										
	PD-4-GWP-41-071519	41 ft	7/15/2019											0 011 T J N	
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019												
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019												
	PD-5-GWP-42-062719	42 ft	6/27/2019												
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019												
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019									0.34 T J N			
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019												0.068 T J N
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019									0 027 T J N			
	PD-8-GWP-46-062819	46 ft	6/28/2019												
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	IndaneA	IndaneB	Isopropylbenzene (Cumene)A	Isopropylbenzene (Cumene)B	Methylcarbazole	Naphthalene, 1,2,3,4-tetrahydro-A	Naphthalene, 1,2,3,4-tetrahydro-2-methyl-B	Naphthalene, 1,3-dimethyl-	Naphthalene, 1,4-dimethyl-	Naphthalene, 1,5-dimethyl-	Naphthalene, 1,6-dimethyl-	Naphthalene, 1,6-dimethyl-A
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019												
	PD-9-GWP-45-070919	45 ft	7/9/2019												
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019					0.02 T J N		0.01 T J N	0.017 T J N				
	PD-11-GWP-37-071119	37 ft	7/11/2019						0 036 T J N						
	PD-11-GWP-43-071119	43 ft	7/11/2019												
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019												
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019	0 019 T H J N	0.018 T J N	0.005 T J N	0.0064 T H J N								
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019									0 006 T H J N			
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019										0.033 T H J N		
	PD-12-GWP-60-071219	60 ft	7/12/2019												
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019												
	PD-13-GWP-50-070819	50 ft	7/8/2019												
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019												
	PD-14-GWP-45-071719	45 ft	7/17/2019												
	PD-14-GWP-50-071719	50 ft	7/17/2019												
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												
	PD-14-GWP-53-071719	53 ft	7/17/2019												
	PD-14-GWP-60-071719	60 ft	7/17/2019												
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019								0 02 T J N				
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019												

Location	Sample ID	Depth	Sample Date	Naphthalene, 1,6-dimethyl-B	Naphthalene, 1,7-dimethyl-	Naphthalene, 2,3,6-trimethyl-	Naphthalene, 2,7-dimethyl-	n-Hexadecanoic acid	n-PropylbenzeneA	n-PropylbenzeneB	Octadecanoic acid	o-XylenesA	o-XylenesB	p-Benzoquinone	Pentadecane, 2,6,10-trimethyl-
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019					0.00918 T J							
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019					0 0085 T J N							
	PD-2-GWP-50-071819	50 ft	7/18/2019												
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019					0.011 T J N							
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019					0 0043 T J N							
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019					0 0076 T J N							
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019					0 0067 T J N							
	PD-3-GWP-60-072319	60 ft	7/23/2019					0.016 T J N							
	PD-3-GWP-65-072319	65 ft	7/23/2019					0.015 T J N							
	PD-3-GWP-71-072319	71 ft	7/23/2019					0.017 T J N							
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019					0.012 T J N							
	PD-4-GWP-41-071519	41 ft	7/15/2019					0.013 T J N							
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019												
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019					0.015 T J N							
	PD-5-GWP-42-062719	42 ft	6/27/2019												
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019												
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0.04 T J N											
	PD-7-GWP-55-072319	55 ft	7/23/2019								0.0096 T J N				
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019												
	PD-8-GWP-46-062819	46 ft	6/28/2019												
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019								0.013 T J N				
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	Naphthalene, 1,6-dimethyl-B	Naphthalene, 1,7-dimethyl-	Naphthalene, 2,3,6-trimethyl-	Naphthalene, 2,7-dimethyl-	n-Hexadecanoic acid	n-PropylbenzeneA	n-PropylbenzeneB	Octadecanoic acid	o-XylenesA	o-XylenesB	p-Benzoquinone	Pentadecane, 2,6,10-trimethyl-
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019												
	PD-9-GWP-45-070919	45 ft	7/9/2019									0.45 T J N	2.1 T J N		
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019					0.014 T J N							
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019					0 0099 T J N							
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019		0.015 T J N	0 01 T J N									
	PD-11-GWP-37-071119	37 ft	7/11/2019				0 044 T J N								
	PD-11-GWP-43-071119	43 ft	7/11/2019												
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019												
	PD-11-GWP-50-071119	50 ft	7/11/2019					0 0065 T J N							
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019						0 013 T H J N	0 0094 T J N		0.0058 T H J N	0 0042 T J N		
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019											0.0059 T H J N	
	PD-12-GWP-50-071219	50 ft	7/12/2019					0 0065 T H J N							
	PD-12-GWP-55-071219	55 ft	7/12/2019												0.038 T H J N
	PD-12-GWP-60-071219	60 ft	7/12/2019												
	PD-12-GWP-70-071519	70 ft	7/15/2019					0.013 T J N							
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019								0.0064 T J N				
	PD-13-GWP-46-070819	46 ft	7/8/2019								0.0068 T J N				
	PD-13-GWP-50-070819	50 ft	7/8/2019								0.0056 T J N				
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019					0.014 T J N							
	PD-14-GWP-45-071719	45 ft	7/17/2019					0.012 T J N							
	PD-14-GWP-50-071719	50 ft	7/17/2019					0 0082 T J N							
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019					0 0087 T J N				0 033 T J N	0.068 T J N		
	PD-14-GWP-53-071719	53 ft	7/17/2019												
	PD-14-GWP-60-071719	60 ft	7/17/2019												
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019					0 0046 T J N							
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019												
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019			0 21 T J N									0.34 T J N

Location	Sample ID	Depth	Sample Date	Pentadecane	Phenanthrene, 1-methyl-	Phenanthrene, 2,3,5-trimethyl-	Phenanthrene, 2,5-dimethyl-	Phenanthrene, 2,5-dimethyl-A	Phenanthrene, 2,5-dimethyl-B	Phenanthrene, 2-methyl-	Phenol, 2,3-dimethyl-	Phenol, 2,5-dimethyl-	Phenol, 2,6-dimethyl-	p-menth-1-en-8-ol	Propanedioic acid, phenyl-
				Analytical Results (mg/L)											
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019												
	PD-1-GWP-53-062519	53 ft	6/25/2019												
	PD-1-GWP-60-062619	60 ft	6/26/2019												
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019												
	PD-2-GWP-50-071819	50 ft	7/18/2019										0 0047 T H J N	0.0043 T H J N	
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												
	PD-2-GWP-59-071819	59 ft	7/18/2019												
	PD-2-GWP-70-071919	70 ft	7/19/2019												
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019												
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019												
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												
	PD-3-GWP-55-072319	55 ft	7/23/2019												
	PD-3-GWP-60-072319	60 ft	7/23/2019												
	PD-3-GWP-65-072319	65 ft	7/23/2019												
	PD-3-GWP-71-072319	71 ft	7/23/2019												0.018 T J N
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019												
	PD-4-GWP-41-071519	41 ft	7/15/2019												
	PD-4-GWP-43-071519	43 ft	7/15/2019												
	PD-4-GWP-50-071519	50 ft	7/15/2019												
	PD-4-GWP-53-071619	53 ft	7/16/2019												
	PD-4-GWP-60-071619	60 ft	7/16/2019												
	PD-4-GWP-70-071619	70 ft	7/16/2019												
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019												
	PD-4-GWP-80-071619	80 ft	7/16/2019												
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019								0.0083 T J N				
	PD-5-GWP-42-062719	42 ft	6/27/2019												
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019												
	PD-5-GWP-48-062719	48 ft	6/27/2019												
	PD-5-GWP-54-062719	54 ft	6/27/2019												
	PD-5-GWP-80-062819	80 ft	6/28/2019												
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												
	PD-7-GWP-50-072219	50 ft	7/22/2019												
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019	0.06 T J N											
	PD-7-GWP-55-072319	55 ft	7/23/2019												
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019												
	PD-8-GWP-46-062819	46 ft	6/28/2019												
	PD-8-GWP-52-062819	52 ft	6/28/2019												
	PD-8-GWP-57-070119	57 ft	7/1/2019												
	PD-8-GWP-62-070119	62 ft	7/1/2019												
	PD-8-GWP-70-070119	70 ft	7/1/2019												
	PD-8-GWP-80-070119	80 ft	7/1/2019												

Location	Sample ID	Depth	Sample Date	Pentadecane	Phenanthrene, 1-methyl-	Phenanthrene, 2,3,5-trimethyl-	Phenanthrene, 2,5-dimethyl-	Phenanthrene, 2,5-dimethyl-A	Phenanthrene, 2,5-dimethyl-B	Phenanthrene, 2-methyl-	Phenol, 2,3-dimethyl-	Phenol, 2,5-dimethyl-	Phenol, 2,6-dimethyl-	p-menth-1-en-8-ol	Propanedioic acid, phenyl-
				Analytical Results (mg/L)											
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												
	PD-9-GWP-40-070919	40 ft	7/9/2019										0.014 T J N		
	PD-9-GWP-45-070919	45 ft	7/9/2019												
	PD-9-GWP-54-071019	54 ft	7/10/2019												
	PD-9-GWP-60-071019	60 ft	7/10/2019												
	PD-9-GWP-70-071019	70 ft	7/10/2019												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												
	PD-9-GWP-80-071019	80 ft	7/10/2019												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019					0.031 T J N	0 015 T J N						
	PD-11-GWP-37-071119	37 ft	7/11/2019		0.039 T J N		0 064 T J N			0.05 T J N					
	PD-11-GWP-43-071119	43 ft	7/11/2019												
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	0 075 T J N		0.11 T J N	0.06 T J N								
	PD-11-GWP-50-071119	50 ft	7/11/2019												
	PD-11-GWP-56-071119	56 ft	7/11/2019												
	PD-11-GWP-60-071119	60 ft	7/11/2019												
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019												
	PD-12-GWP-45-071219	45 ft	7/12/2019												
	PD-12-GWP-50-071219	50 ft	7/12/2019												
	PD-12-GWP-55-071219	55 ft	7/12/2019	0 057 T H J N											
	PD-12-GWP-60-071219	60 ft	7/12/2019												
	PD-12-GWP-70-071519	70 ft	7/15/2019												
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												
	PD-13-GWP-46-070819	46 ft	7/8/2019												
	PD-13-GWP-50-070819	50 ft	7/8/2019												
	PD-13-GWP-59-070819	59 ft	7/8/2019												
	PD-13-GWP-65-070919	65 ft	7/9/2019												
	PD-13-GWP-70-070919	70 ft	7/9/2019												
	PD-13-GWP-80-070919	80 ft	7/9/2019												
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019										0.016 T J N		
	PD-14-GWP-45-071719	45 ft	7/17/2019									0.0089 T J N			
	PD-14-GWP-50-071719	50 ft	7/17/2019												0.018 T J N
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												0.017 T J N
	PD-14-GWP-53-071719	53 ft	7/17/2019												
	PD-14-GWP-60-071719	60 ft	7/17/2019												
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019												
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019												
	PD-17-GWP-50-072219	50 ft	7/22/2019	0 019 T J N											
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019				0.16 T J N								

Location	Sample ID	Depth	Sample Date	p-XylenesA	p-XylenesB	Pyrene, 1-methyl-	Pyrene, 4-methyl-	Sulfolane	Tetradecane	Thiophene, tetrahydro-, 1,1-dioxide	Trichloroacetic acid, hexadecyl ester	Tricyclo3100(2,4)hex-3-ene-3-carbonitrile	Tridecane	Unknown	UnknownA	UnknownB
				Analytical Results (mg/L)												
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019													
	PD-1-GWP-53-062519	53 ft	6/25/2019													
	PD-1-GWP-60-062619	60 ft	6/26/2019													
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019													
	PD-2-GWP-50-071819	50 ft	7/18/2019												0.016 T H J	0.0057 T H J
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019												0.0039 T J	0.0056 T J
	PD-2-GWP-59-071819	59 ft	7/18/2019													
	PD-2-GWP-70-071919	70 ft	7/19/2019												0 004 T J	0.0078 T J
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019													
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019	0.13 T J N	0.27 T J N										0.0069 T J	0 02 T J
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019												0.0076 T J	0.057 T J
	PD-3-GWP-55-072319	55 ft	7/23/2019												0 017 T J	0.011 T J
	PD-3-GWP-60-072319	60 ft	7/23/2019								0.006 T J N				0 018 T J	0.0063 T J
	PD-3-GWP-65-072319	65 ft	7/23/2019													
	PD-3-GWP-71-072319	71 ft	7/23/2019												0.0045 T J	0.0092 T J
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019												0.0084 T J	0.0056 T J
	PD-4-GWP-41-071519	41 ft	7/15/2019												0 011 T J	0.018 T J
	PD-4-GWP-43-071519	43 ft	7/15/2019												0 023 T J	0.026 T J
	PD-4-GWP-50-071519	50 ft	7/15/2019												0 068 T J	0.44 T J
	PD-4-GWP-53-071619	53 ft	7/16/2019												0 059 T J	0.069 T J
	PD-4-GWP-60-071619	60 ft	7/16/2019											0.004 T J		
	PD-4-GWP-70-071619	70 ft	7/16/2019													
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019													
	PD-4-GWP-80-071619	80 ft	7/16/2019					0.0011 J								
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019									0.0083 T J N	0.01 T J N			
	PD-5-GWP-42-062719	42 ft	6/27/2019													
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019													
	PD-5-GWP-48-062719	48 ft	6/27/2019													
	PD-5-GWP-54-062719	54 ft	6/27/2019													
	PD-5-GWP-80-062819	80 ft	6/28/2019					0.0014 J						0.028 T J		
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019												0 022 T J	0.053 T J
	PD-7-GWP-50-072219	50 ft	7/22/2019	0.42 T J N	0.85 T J N								0.93 T J N			
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019						0 087 T J N				0.1 T J N		0 043 T J	0.066 T J
	PD-7-GWP-55-072319	55 ft	7/23/2019												0.0088 T J	0.0069 T J
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019											0.024 T J	0 55 T J J	0.46 T J J
	PD-8-GWP-46-062819	46 ft	6/28/2019												0.41 T J	0.11 T J
	PD-8-GWP-52-062819	52 ft	6/28/2019											0.0063 T J J		
	PD-8-GWP-57-070119	57 ft	7/1/2019												0.0058 T J	0.0056 T J
	PD-8-GWP-62-070119	62 ft	7/1/2019							0 0066 T J N				0.0045 T J		
	PD-8-GWP-70-070119	70 ft	7/1/2019										0 0097 T J N	0.011 T J		
	PD-8-GWP-80-070119	80 ft	7/1/2019													

Location	Sample ID	Depth	Sample Date	p-XylenesA	p-XylenesB	Pyrene, 1-methyl-	Pyrene, 4-methyl-	Sulfolane	Tetradecane	Thiophene, tetrahydro-, 1,1-dioxide	Trichloroacetic acid, hexadecyl ester	Tricyclo3100(2,4)hex-3-ene-3-carbonitrile	Tridecane	Unknown	UnknownA	UnknownB
				Analytical Results (mg/L)												
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019												0.0088 T J	0.0047 T J
	PD-9-GWP-40-070919	40 ft	7/9/2019												0 017 T J	0.018 T J
	PD-9-GWP-45-070919	45 ft	7/9/2019												0.48 T J	0.031 T J
	PD-9-GWP-54-071019	54 ft	7/10/2019										1.4 T J N		1.1 T J	1.8 T J
	PD-9-GWP-60-071019	60 ft	7/10/2019												0.0048 T J	0.0058 T J
	PD-9-GWP-70-071019	70 ft	7/10/2019												0.0063 T J	0.0068 T J
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019												0.0059 T J	0.0052 T J
	PD-9-GWP-80-071019	80 ft	7/10/2019												0.0046 T J	0.046 T J
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019			0.012 T J N									0 021 T J	0.023 T J
	PD-11-GWP-37-071119	37 ft	7/11/2019												0 087 T J	0.053 T J
	PD-11-GWP-43-071119	43 ft	7/11/2019										0.05 T J N		0 045 T J	0.055 T J
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	0.2 T J N	0.11 T J N	0.12 T J N	0 078 T J N						0.087 T J N		0 074 T J	0.15 T J
	PD-11-GWP-50-071119	50 ft	7/11/2019													
	PD-11-GWP-56-071119	56 ft	7/11/2019												0.0087 T J	0.0042 T J
	PD-11-GWP-60-071119	60 ft	7/11/2019												0.004 T H J	0.004 T H J
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019													
	PD-12-GWP-45-071219	45 ft	7/12/2019												0.013 T H J	0.017 T H J
	PD-12-GWP-50-071219	50 ft	7/12/2019												0 0056 T H J	0.0048 T H J
	PD-12-GWP-55-071219	55 ft	7/12/2019												0.062 T H J	0.062 T H J
	PD-12-GWP-60-071219	60 ft	7/12/2019												0 057 T J	0.047 T J
	PD-12-GWP-70-071519	70 ft	7/15/2019							0 0059 T J N						
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019												0 005 T J	0.011 T J
	PD-13-GWP-46-070819	46 ft	7/8/2019												0 007 T J	0.012 T J
	PD-13-GWP-50-070819	50 ft	7/8/2019												0 014 T J	0.024 T J
	PD-13-GWP-59-070819	59 ft	7/8/2019							0 0057 T J N				0.068 T J	0.0069 T J	0.0048 T J
	PD-13-GWP-65-070919	65 ft	7/9/2019											0.0067 T J		
	PD-13-GWP-70-070919	70 ft	7/9/2019												0.0046 T J	0.0061 T J
	PD-13-GWP-80-070919	80 ft	7/9/2019												0.0093 T J	0.017 T J
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019												0.0045 T J	0.0046 T J
	PD-14-GWP-45-071719	45 ft	7/17/2019									0.01 T J N			0 016 T J	0.017 T J
	PD-14-GWP-50-071719	50 ft	7/17/2019												0 013 T J	0 04 T J
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019												0 027 T J	0.0095 T J
	PD-14-GWP-53-071719	53 ft	7/17/2019												0 018 T J	0.016 T J
	PD-14-GWP-60-071719	60 ft	7/17/2019										0.057 T J N		0 057 T J	0.038 T J
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019											0.004 T J		
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019													
	PD-17-GWP-50-072219	50 ft	7/22/2019						0 024 T J N				0.033 T J N		0 054 T J	0.054 T J
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019													

Location	Sample ID	Depth	Sample Date	UnknownC	UnknownD	UnknownE	UnknownF	UnknownG	UnknownH	UnknownI	UnknownJ	UnknownK	UnknownL	UnknownM	UnknownN	UnknownO
				Analytical Results (mg/L)												
PD-01	PD-1-GWP-44-062519	44 ft	6/25/2019													
	PD-1-GWP-53-062519	53 ft	6/25/2019													
	PD-1-GWP-60-062619	60 ft	6/26/2019													
PD-02	PD-2-GWP-44-071819	44 ft	7/18/2019													
	PD-2-GWP-50-071819	50 ft	7/18/2019	0.07 T H J	0 0091 T H J	0.0075 T H J	0.0052 T H J									
	PD-2-GWP-50-071819-DUP	50 ft	7/18/2019	0 06 T J	0.0088 T J	0.0082 T J	0 004 T J	0.004 T J	0.016 T J	0.0046 T J	0.0092 T J	0.0079 T J				
	PD-2-GWP-59-071819	59 ft	7/18/2019													
	PD-2-GWP-70-071919	70 ft	7/19/2019													
	PD-2-GWP-74 5-071919	74 5 ft	7/19/2019													
PD-03	PD-3-GWP-50-072319	50 ft	7/23/2019	0.057 T J	0.0065 T J											
	PD-3-GWP-50-072319-DUP	50 ft	7/23/2019	0.023 T J												
	PD-3-GWP-55-072319	55 ft	7/23/2019													
	PD-3-GWP-60-072319	60 ft	7/23/2019	0.0044 T J	0.0048 T J	0.0083 T J										
	PD-3-GWP-65-072319	65 ft	7/23/2019													
	PD-3-GWP-71-072319	71 ft	7/23/2019	0.0077 T J	0.0096 T J	0.0071 T J	0.0062 T J									
PD-04	PD-4-GWP-35-071519	35 ft	7/15/2019	0.0051 T J	0 013 T J	0.0043 T J	0 012 T J	0 0044 T J	0.0073 T J							
	PD-4-GWP-41-071519	41 ft	7/15/2019													
	PD-4-GWP-43-071519	43 ft	7/15/2019	0.022 T J	0 044 T J	0 04 T J	0 057 T J									
	PD-4-GWP-50-071519	50 ft	7/15/2019	0.085 T J	0 072 T J	0.074 T J	0 014 T J	0.018 T J	0.013 T J	0 025 T J						
	PD-4-GWP-53-071619	53 ft	7/16/2019	0.079 T J												
	PD-4-GWP-60-071619	60 ft	7/16/2019													
	PD-4-GWP-70-071619	70 ft	7/16/2019													
	PD-4-GWP-70-071619-DUP	70 ft	7/16/2019													
	PD-4-GWP-80-071619	80 ft	7/16/2019													
PD-05	PD-5-GWP-35-062819	35 ft	6/28/2019													
	PD-5-GWP-42-062719	42 ft	6/27/2019													
	PD-5-GWP-42-062719-DUP	42 ft	6/27/2019													
	PD-5-GWP-48-062719	48 ft	6/27/2019													
	PD-5-GWP-54-062719	54 ft	6/27/2019													
	PD-5-GWP-80-062819	80 ft	6/28/2019													
PD-07	PD-7-GWP-45-072219	45 ft	7/22/2019	0 03 T J	0 015 T J	0.0071 T J	0.0076 T J	0 0045 T J								
	PD-7-GWP-50-072219	50 ft	7/22/2019	0 63 T J	0.4 T J	0 52 T J	0.97 T J	0.37 T J	0 54 T J	0.71 T J						
	PD-7-GWP-50-072219-DUP	50 ft	7/22/2019													
	PD-7-GWP-55-072319	55 ft	7/23/2019	0.015 T J	0 019 T J											
PD-08	PD-8-GWP-41-062819	41 ft	6/28/2019													
	PD-8-GWP-46-062819	46 ft	6/28/2019	0.088 T J	0.24 T J	0.15 T J										
	PD-8-GWP-52-062819	52 ft	6/28/2019													
	PD-8-GWP-57-070119	57 ft	7/1/2019	0.0076 T J												
	PD-8-GWP-62-070119	62 ft	7/1/2019													
	PD-8-GWP-70-070119	70 ft	7/1/2019													
	PD-8-GWP-80-070119	80 ft	7/1/2019													

Location	Sample ID	Depth	Sample Date	UnknownC	UnknownD	UnknownE	UnknownF	UnknownG	UnknownH	UnknownI	UnknownJ	UnknownK	UnknownL	UnknownM	UnknownN	UnknownO
				Analytical Results (mg/L)												
PD-09	PD-9-GWP-35-070919	35 ft	7/9/2019	0.0079 T J												
	PD-9-GWP-40-070919	40 ft	7/9/2019	0.019 T J												
	PD-9-GWP-45-070919	45 ft	7/9/2019	0.066 T J	0 021 T J	0.16 T J										
	PD-9-GWP-54-071019	54 ft	7/10/2019	2.9 T J	0.96 T J											
	PD-9-GWP-60-071019	60 ft	7/10/2019	0.0043 T J	0.0048 T J											
	PD-9-GWP-70-071019	70 ft	7/10/2019	0.0091 T J												
	PD-9-GWP-70-071019-DUP	70 ft	7/10/2019	0.0059 T J												
	PD-9-GWP-80-071019	80 ft	7/10/2019	0.0053 T J												
PD-11	PD-11-GWP-35-071019	35 ft	7/10/2019	0.011 T J	0 023 T J	0.013 T J	0 013 T J									
	PD-11-GWP-37-071119	37 ft	7/11/2019	0.11 T J	0 053 T J											
	PD-11-GWP-43-071119	43 ft	7/11/2019	0 05 T J	0 053 T J											
	PD-11-GWP-43-071119-DUP	43 ft	7/11/2019	0.074 T J	0 082 T J											
	PD-11-GWP-50-071119	50 ft	7/11/2019													
	PD-11-GWP-56-071119	56 ft	7/11/2019													
	PD-11-GWP-60-071119	60 ft	7/11/2019													
PD-12	PD-12-GWP-35-070119	35 ft	7/1/2019													
	PD-12-GWP-45-071219	45 ft	7/12/2019	0.0066 T H J												
	PD-12-GWP-50-071219	50 ft	7/12/2019	0 012 T H J	0 0042 T H J	0.037 T H J	0 029 T H J	0.012 T H J								
	PD-12-GWP-55-071219	55 ft	7/12/2019	0 036 T H J	0.054 T H J	0.032 T H J	0 041 T H J	0.046 T H J	0 031 T H J							
	PD-12-GWP-60-071219	60 ft	7/12/2019	0 012 T H J	0.016 T H J	0.038 T H J	0 017 T H J									
	PD-12-GWP-70-071519	70 ft	7/15/2019													
PD-13	PD-13-GWP-40-070819	40 ft	7/8/2019	0.1 T J	0 015 T J	0.0046 T J	0.0069 T J	0 0049 T J	0.0072 T J	0.0069 T J	0.0074 T J	0.0046 T J	0 0057 T J	0.007 T J		
	PD-13-GWP-46-070819	46 ft	7/8/2019	0.0063 T J	0.0089 T J	0.0066 T J	0.0064 T J	0 0062 T J	0.099 T J	0 008 T J	0.0044 T J	0.0091 T J	0 0049 T J			
	PD-13-GWP-50-070819	50 ft	7/8/2019	0.058 T J	0 017 T J	0.056 T J	0.0048 T J	0 0054 T J	0.0095 T J	0.0068 T J	0.0051 T J	0.0047 T J	0 0054 T J	0.0053 T J	0 007 T J	
	PD-13-GWP-59-070819	59 ft	7/8/2019													
	PD-13-GWP-65-070919	65 ft	7/9/2019													
	PD-13-GWP-70-070919	70 ft	7/9/2019	0.0095 T J												
	PD-13-GWP-80-070919	80 ft	7/9/2019													
PD-14	PD-14-GWP-40-071719	40 ft	7/17/2019	0 02 T J	0 025 T J	0.0048 T J	0.0077 T J	0.014 T J	0.014 T J	0.0046 T J	0.0071 T J	0 021 T J	0 0043 T J	0.0067 T J	0 024 T J	0.005 T J
	PD-14-GWP-45-071719	45 ft	7/17/2019	0.023 T J	0 015 T J	0.026 T J										
	PD-14-GWP-50-071719	50 ft	7/17/2019	0.0078 T J	0.01 T J	0.0061 T J	0.0086 T J	0 0054 T J	0.0062 T J	0 006 T J						
	PD-14-GWP-50-071719-DUP	50 ft	7/17/2019	0.0068 T J	0.0057 T J	0.0055 T J	0.0062 T J	0 0072 T J	0.0082 T J	0 033 T J						
	PD-14-GWP-53-071719	53 ft	7/17/2019	0.016 T J												
	PD-14-GWP-60-071719	60 ft	7/17/2019	0.1 T J	0 043 T J											
	PD-14-GWP-78.5-071819	78 5 ft	7/18/2019													
PD-17	PD17-GWP-45-071919	45 ft	7/19/2019													
	PD-17-GWP-50-072219	50 ft	7/22/2019													
	PD-17-GWP-50-072219-DUP	50 ft	7/22/2019	0.18 T J	0.16 T J	0.4 T J	0.28 T J	0.42 T J	0.41 T J	0.22 T J	0 33 T J	0.32 T J				

Notes

1. Values are only reported if a TIC is identified
2. The number of significant figures is laboratory-specific.

Compound was not detected, tentatively identified compound (TIC) search was performed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

T = Result is a tentatively identified compound (TIC) and an estimated value.

N - Presumptive evidence of material.

H = Sample was prepared or analyzed beyond the specified holding time

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Appendix I – Summary of Westhollow Results

PWY Soil and Water Samples

OBSERVATIONS

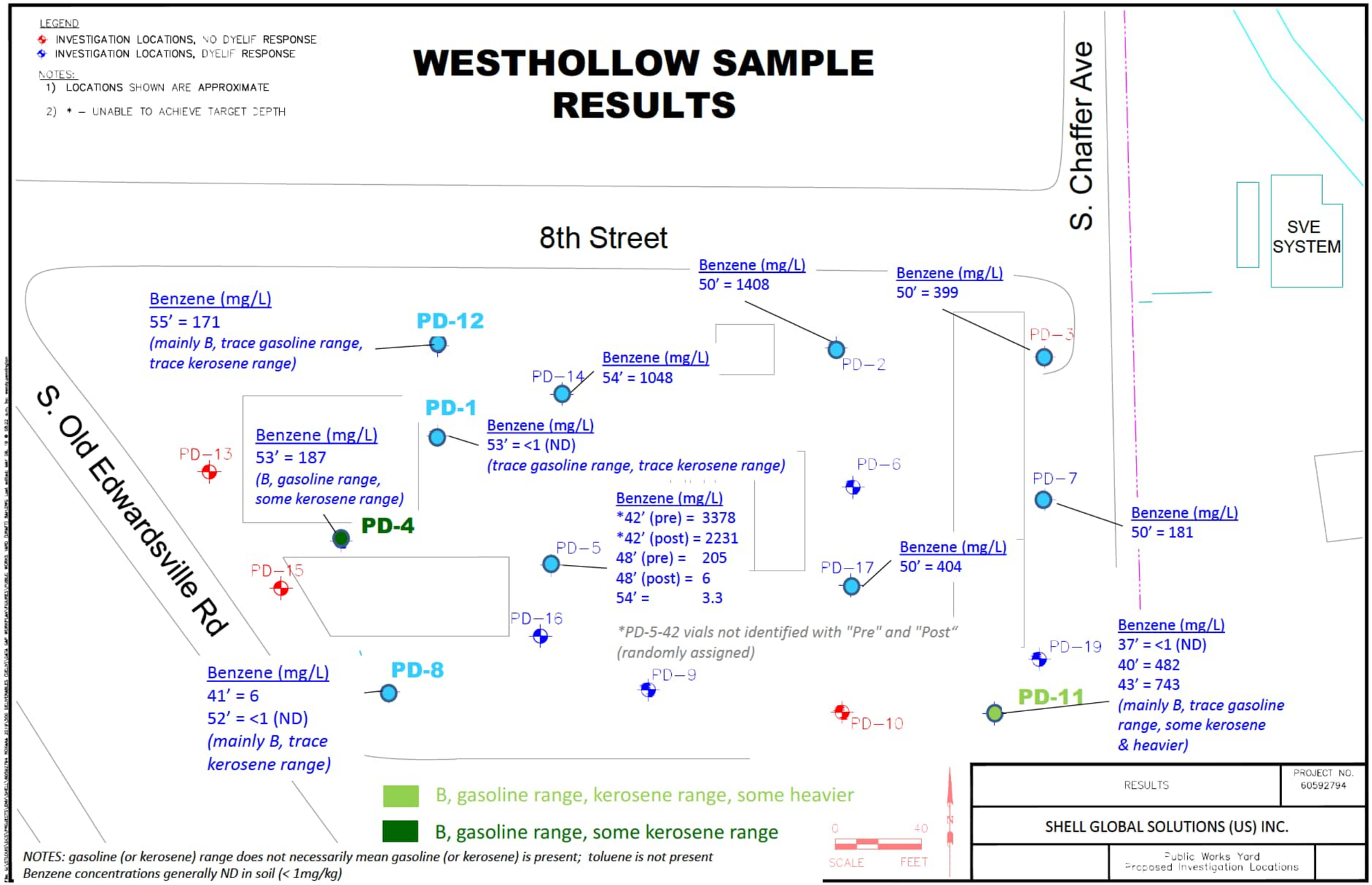
- separate phase(NAPL) not observed in liquid samples
- all samples extracted with methylene chloride upon arrival to the lab (entire sample extracted)

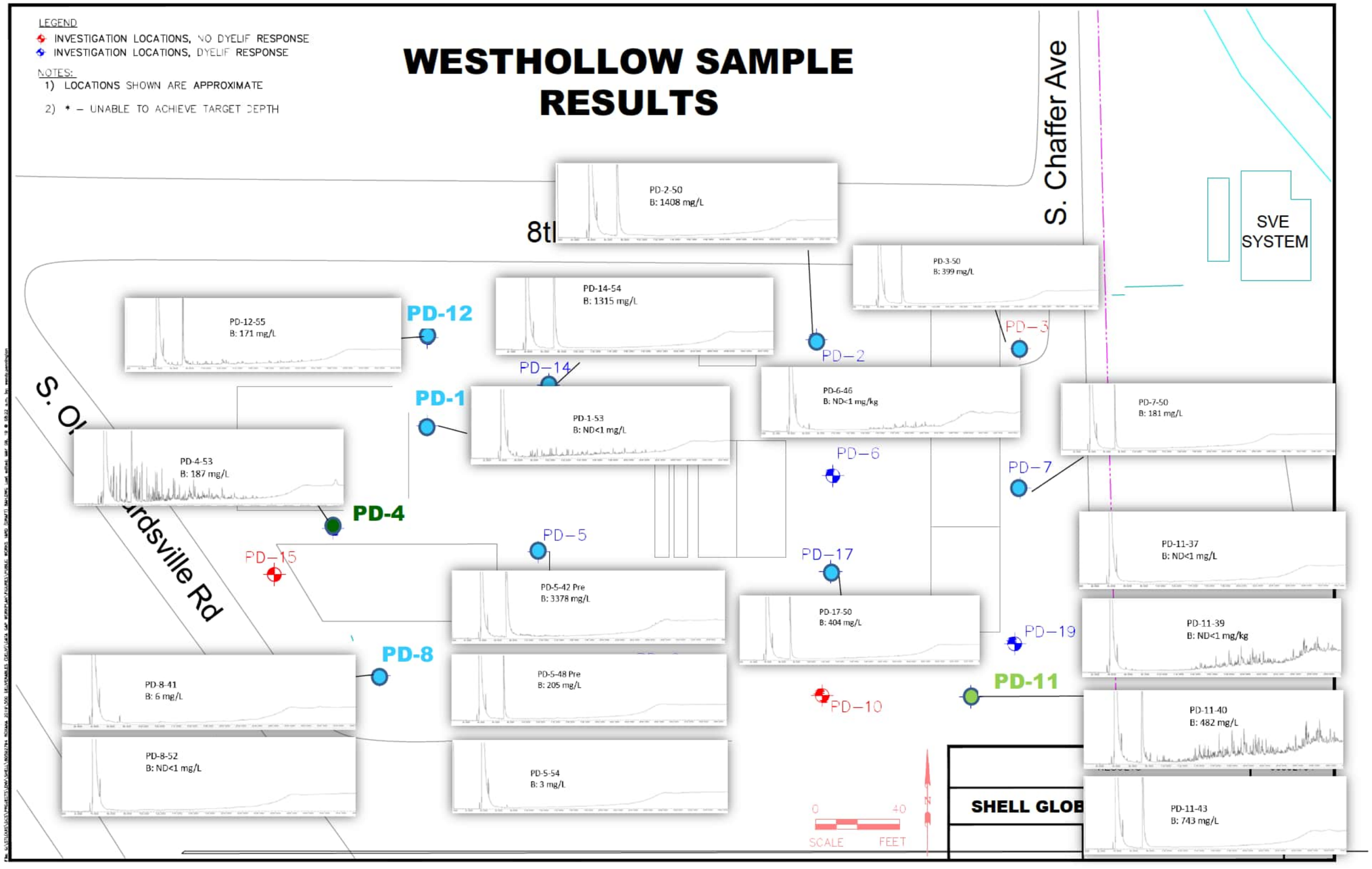
RESULTS

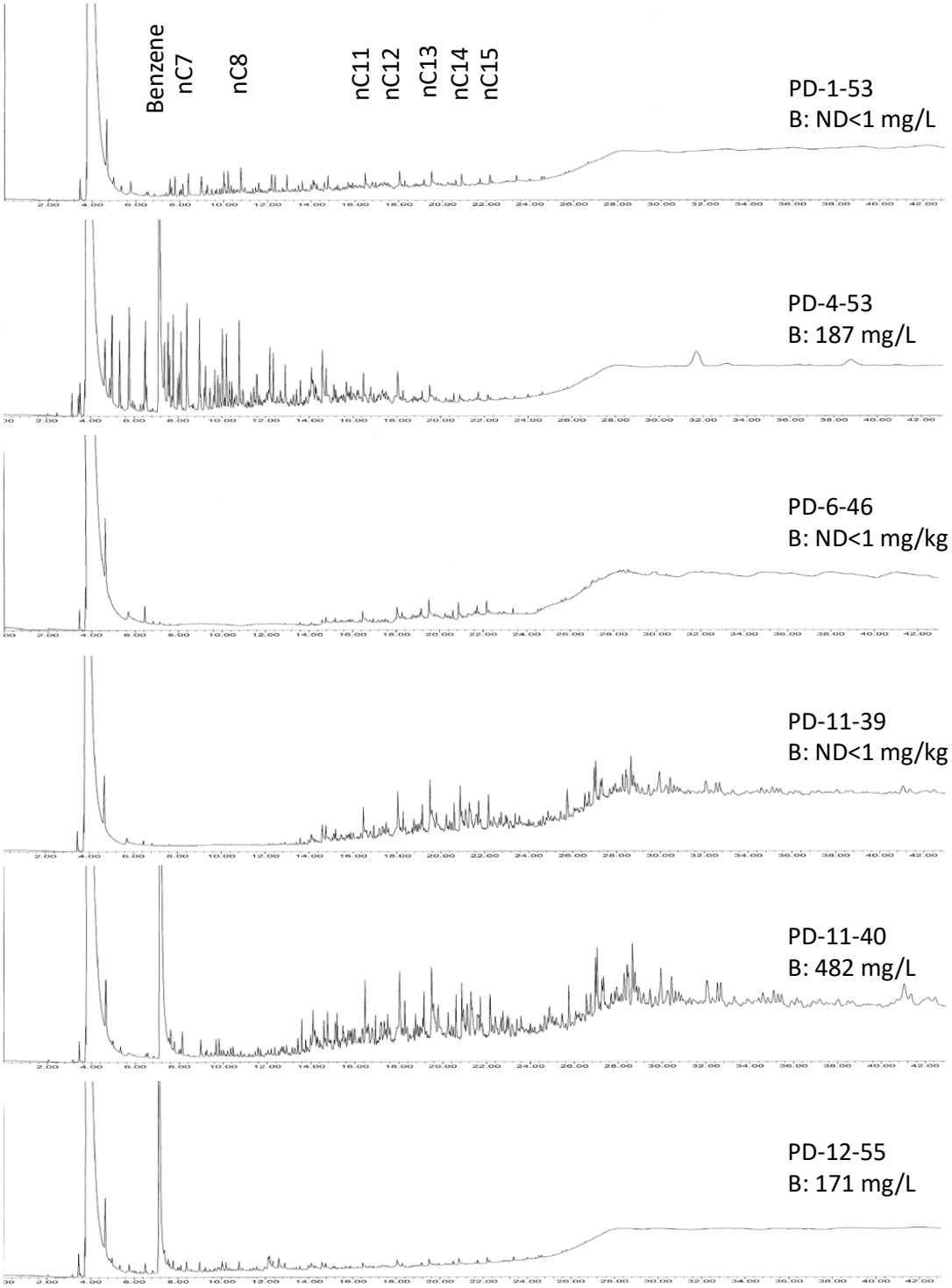
- 15 of 19 liquid samples contain benzene
- none of the 11 soil samples contained benzene above the reporting limit
- 4 liquid and 2 soil samples contain gasoline range and kerosene range material at low levels

CONTENTS

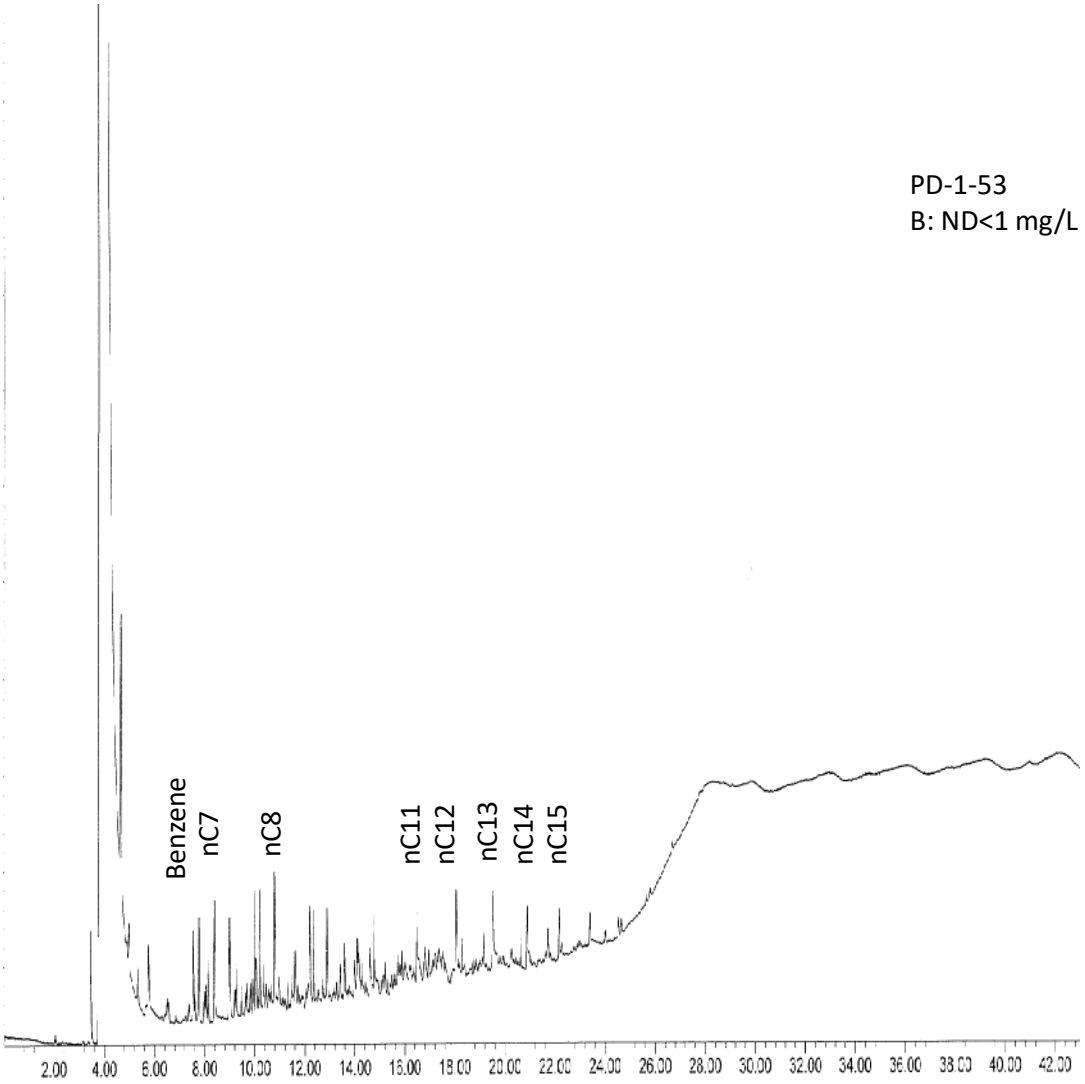
Page 2: Mapped benzene data
Page 3: Mapped chromatography
Page 4: Stacked chromatograms for samples (4 liquid, 2 soil) containing gasoline range material and kerosene range material
Pages 5-10: Individual chromatograms of samples containing gasoline range material and kerosene range material [PD 11-39 and PD 11-40 may also contain material heavier than kerosene]
Pages 11-13: Soil sample chromatographs
Pages 14-17: Liquid sample chromatographs.'
Pages 18-21: COCs

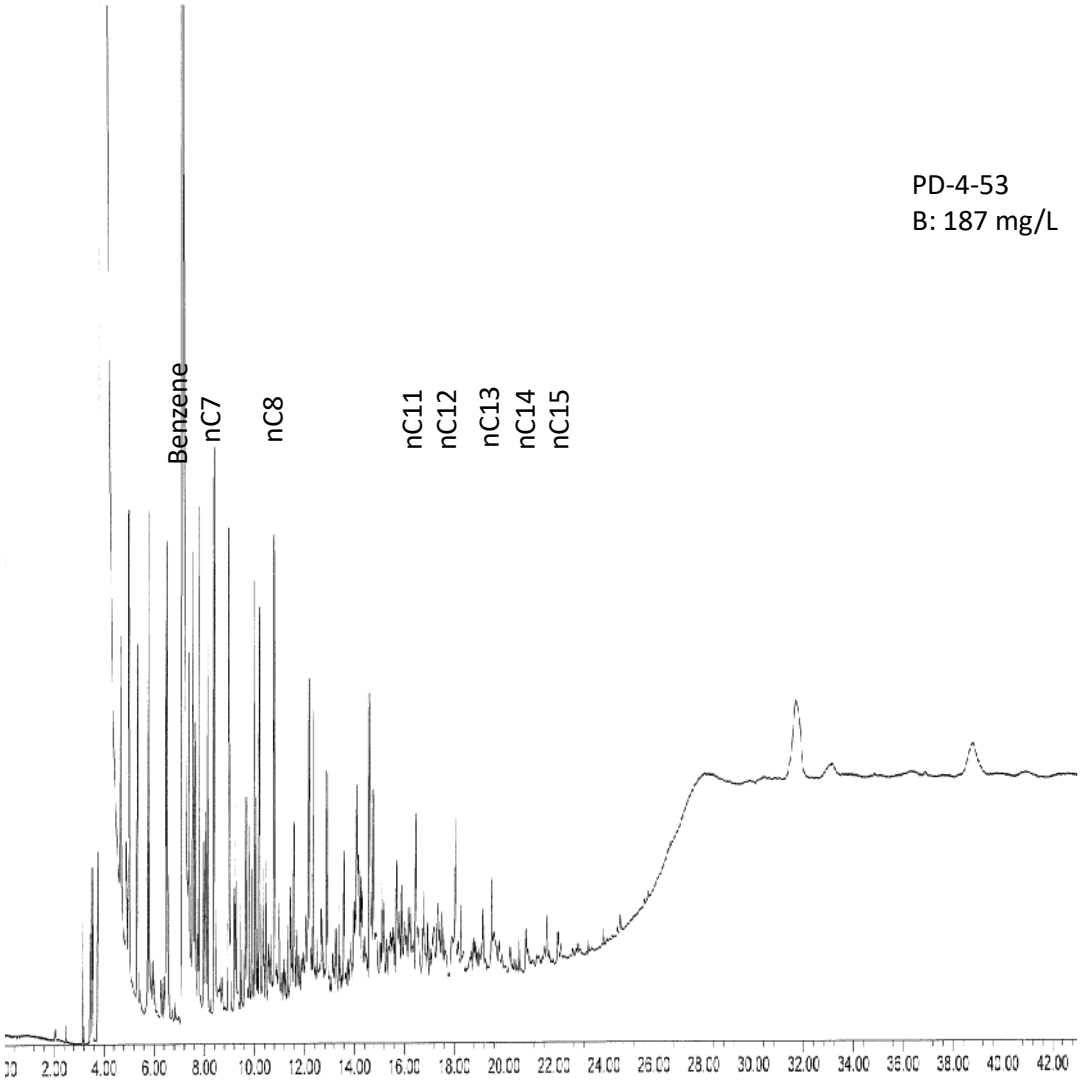

LEGEND
INVESTIGATION LOCATIONS, NO DYELIF RESPONSE
INVESTIGATION LOCATIONS, DYELIF RESPONSE
NOTES:
1) LOCATIONS SHOWN ARE APPROXIMATE
2) * – UNABLE TO ACHIEVE TARGET DEPTH
WESTHOLLOW SAMPLE RESULTS
8th Street
S. Chaffer Ave
S. Old Edwardsville Rd
SVE SYSTEM
Benzene (mg/L)
55' = 171
(mainly B, trace gasoline range, trace kerosene range)
PD-12
Benzene (mg/L)
50' = 1408
PD-2
Benzene (mg/L)
50' = 399
PD-3
PD-14
Benzene (mg/L)
54' = 1048
PD-1
Benzene (mg/L)
53' = <1 (ND)
(trace gasoline range, trace kerosene range)
PD-13
Benzene (mg/L)
53' = 187
(B, gasoline range, some kerosene range)
PD-4
PD-6
PD-7
Benzene (mg/L)
50' = 181
PD-5
Benzene (mg/L)
*42' (pre) = 3378
*42' (post) = 2231
48' (pre) = 205
48' (post) = 6
54' = 3.3
PD-17
Benzene (mg/L)
50' = 404
PD-15
PD-16
*PD-5-42 vials not identified with "Pre" and "Post" (randomly assigned)
PD-19
Benzene (mg/L)
37' = <1 (ND)
40' = 482
43' = 743
(mainly B, trace gasoline range, some kerosene & heavier)
PD-11
Benzene (mg/L)
41' = 6
52' = <1 (ND)
(mainly B, trace kerosene range)
PD-8
PD-9
PD-10
B, gasoline range, kerosene range, some heavier
B, gasoline range, some kerosene range
NOTES: gasoline (or kerosene) range does not necessarily mean gasoline (or kerosene) is present; toluene is not present
Benzene concentrations generally ND in soil (< 1mg/kg)
0
40
SCALE
FEET
N
RESULTS
PROJECT NO. 60592794
SHELL GLOBAL SOLUTIONS (US) INC.
Public Works Yard
Proposed Investigation Locations


LEGEND
INVESTIGATION LOCATIONS, NO DYELIF RESPONSE
INVESTIGATION LOCATIONS, DYELIF RESPONSE
NOTES:
1) LOCATIONS SHOWN ARE APPROXIMATE
2) * – UNABLE TO ACHIEVE TARGET DEPTH
WESTHOLLOW SAMPLE RESULTS
S. Chaffer Ave
SVE SYSTEM
8tl
PD-2-50
B: 1408 mg/L
PD-3-50
B: 399 mg/L
PD-12-55
B: 171 mg/L
PD-12
PD-14-54
B: 1315 mg/L
PD-14
PD-2
PD-3
PD-1
PD-1-53
B: ND<1 mg/L
PD-6-46
B: ND<1 mg/kg
PD-7-50
B: 181 mg/L
PD-4-53
B: 187 mg/L
PD-4
PD-6
PD-7
PD-5
PD-15
PD-5-42 Pre
B: 3378 mg/L
PD-17
PD-17-50
B: 404 mg/L
PD-11-37
B: ND<1 mg/L
PD-19
PD-11-39
B: ND<1 mg/kg
PD-8
PD-8-41
B: 6 mg/L
PD-5-48 Pre
B: 205 mg/L
PD-11
PD-10
PD-11-40
B: 482 mg/L
PD-8-52
B: ND<1 mg/L
PD-5-54
B: 3 mg/L
PD-11-43
B: 743 mg/L
0
40
SCALE
FEET
SHELL GLOB


Benzene
nC7
nC8
nC11
nC12
nC13
nC14
nC15
PD-1-53
B: ND<1 mg/L
PD-4-53
B: 187 mg/L
PD-6-46
B: ND<1 mg/kg
PD-11-39
B: ND<1 mg/kg
PD-11-40
B: 482 mg/L
PD-12-55
B: 171 mg/L

PD-1-53
B: ND<1 mg/L




PD-4-53
B: 187 mg/L
Benzene
nC7
nC8
nC11
nC12
nC13
nC14
nC15
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
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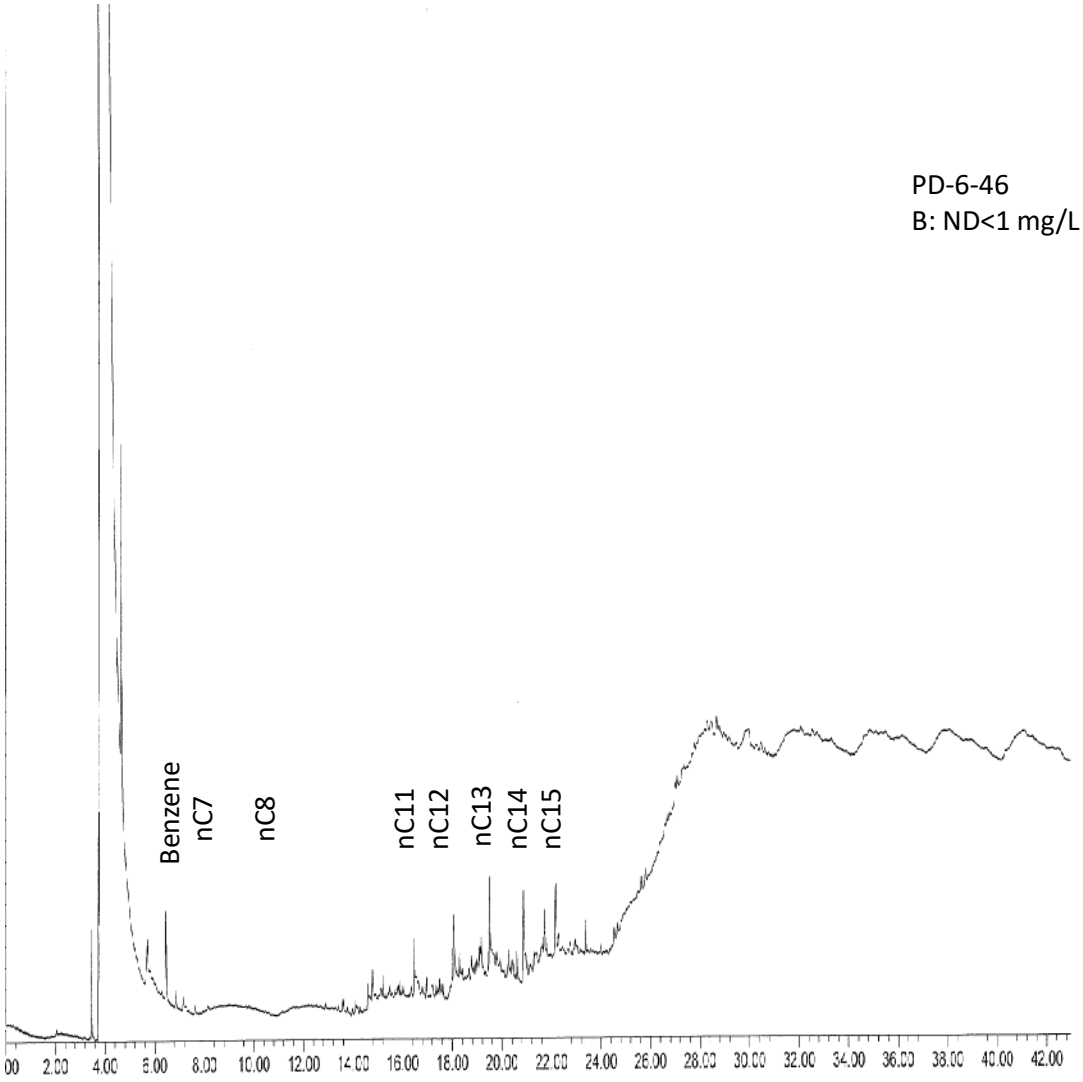
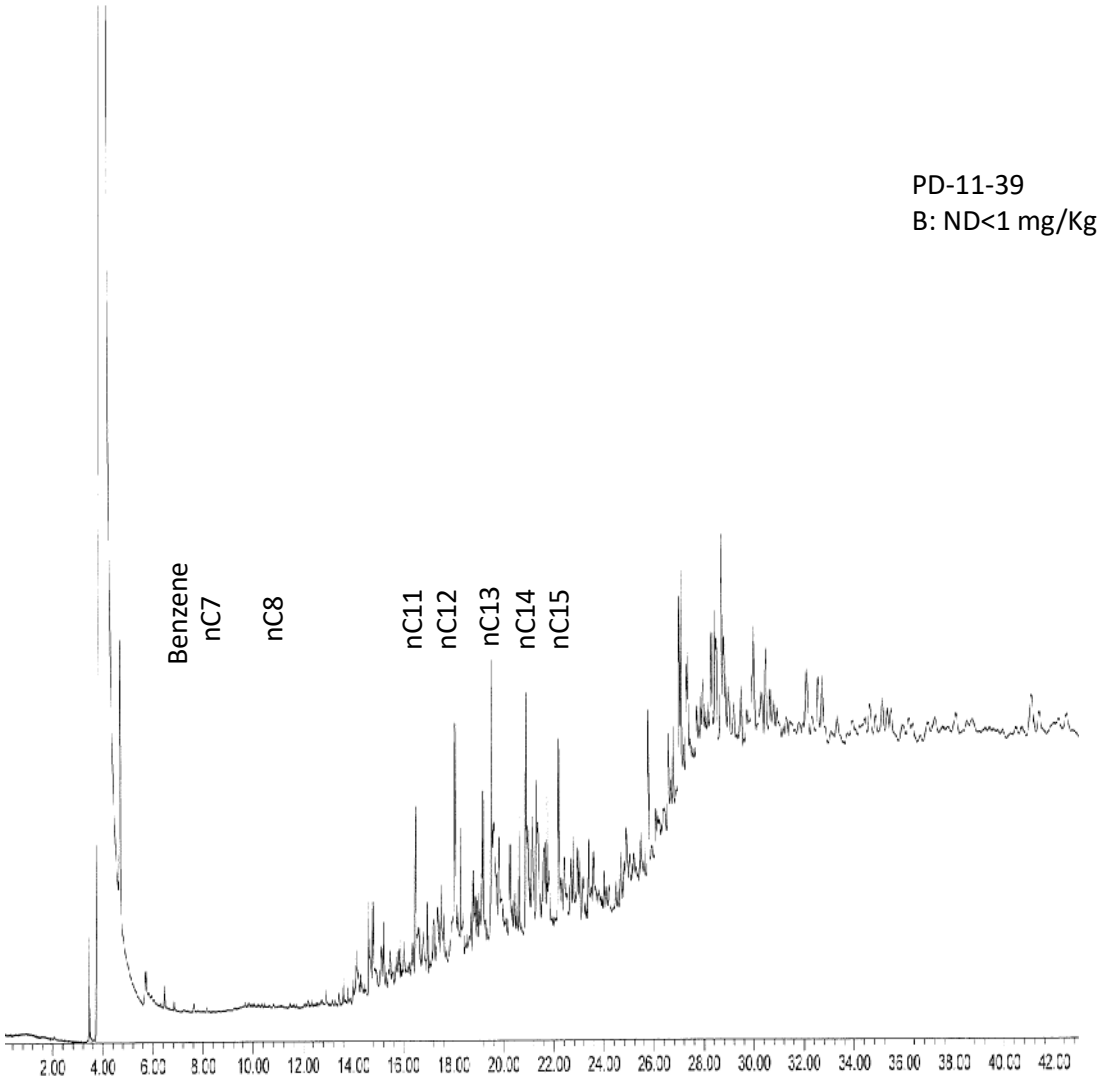
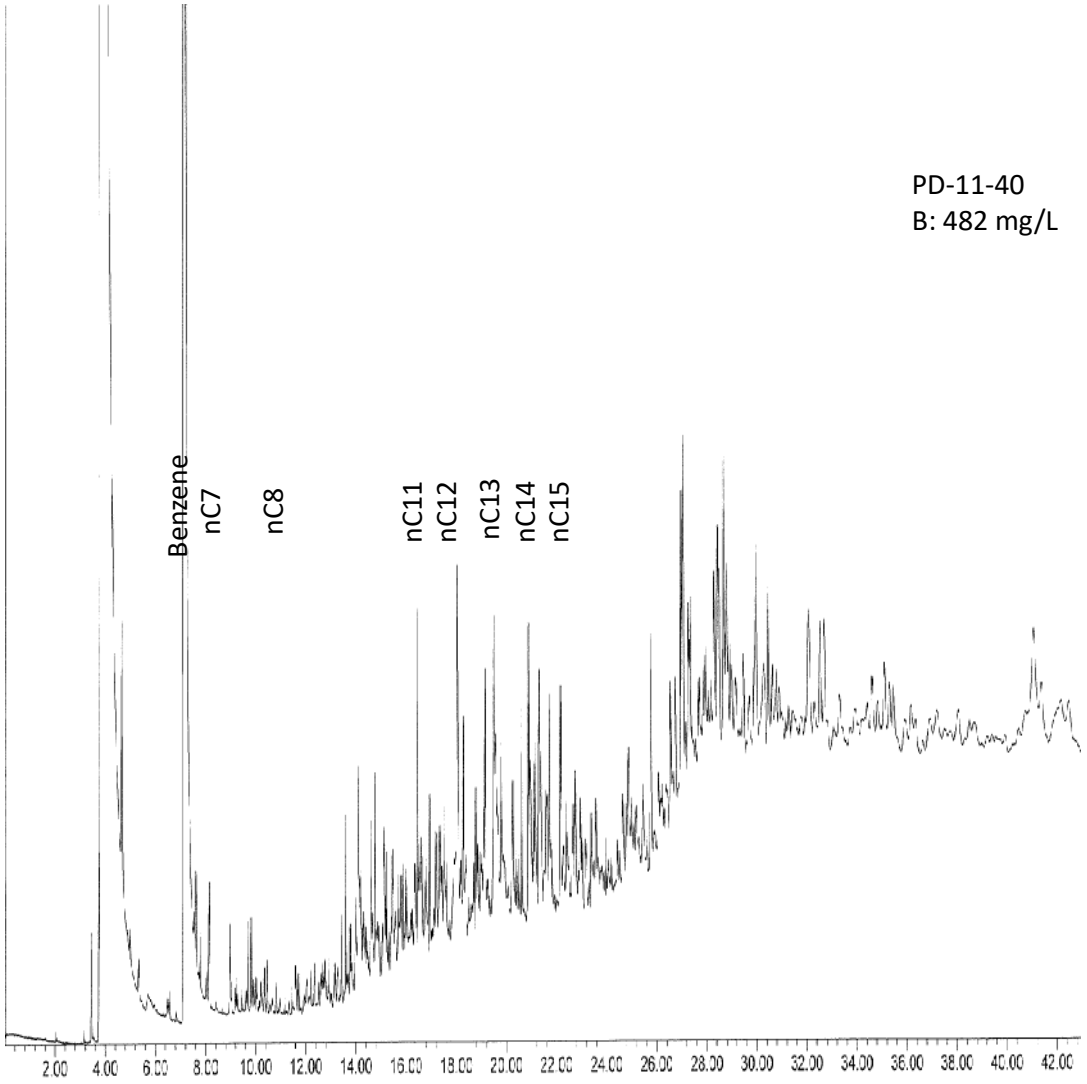
40.00
42.00


PD-6-46
B: ND<1 mg/L
Benzene
nC7
nC8
nC11
nC12
nC13
nC14
nC15
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
22.00
24.00
26.00
28.00
30.00
32.00
34.00
36.00
38.00
40.00
42.00

PD-11-39
B: ND<1 mg/Kg




PD-11-40
B: 482 mg/L
Benzene
nC7
nC8
nC11
nC12
nC13
nC14
nC15
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
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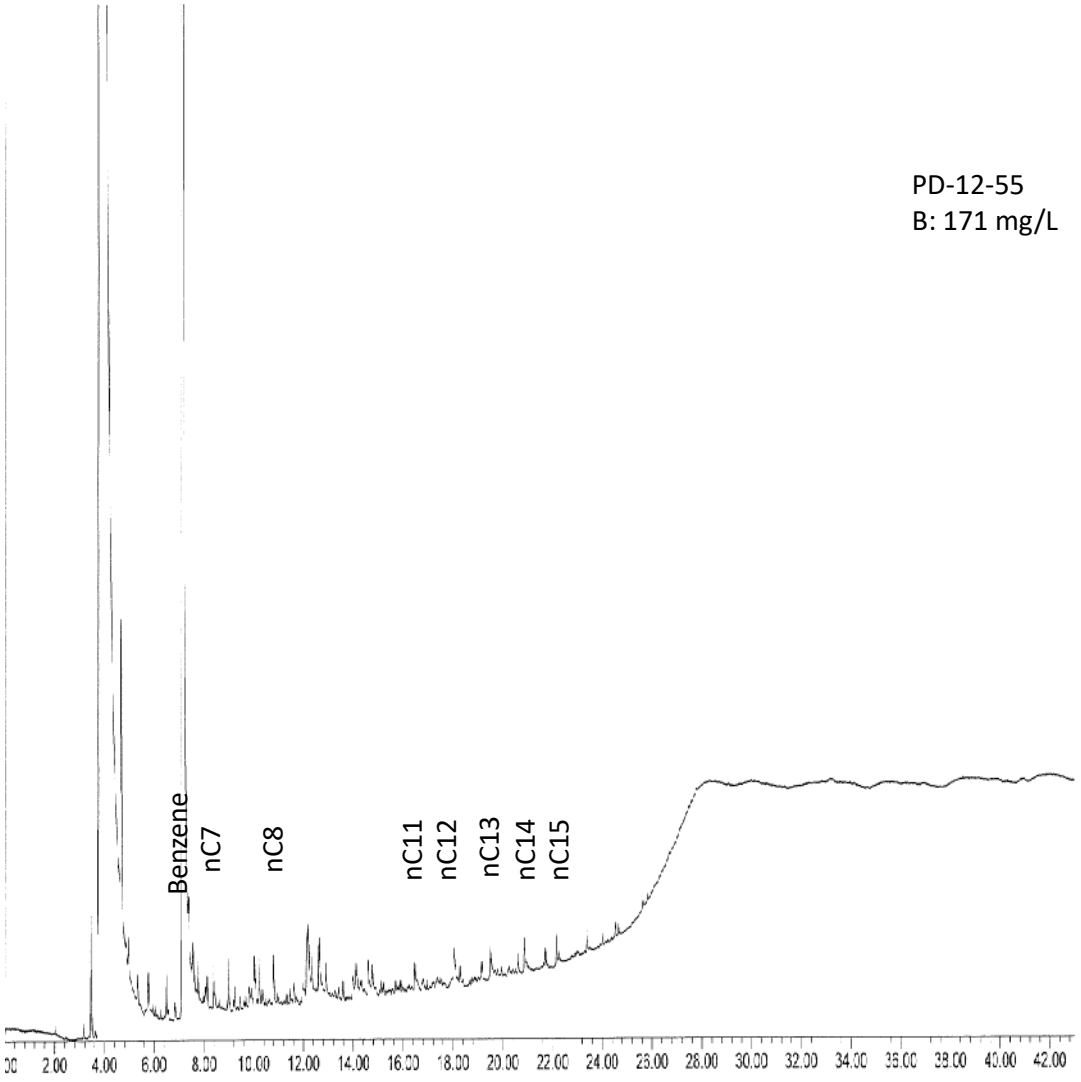
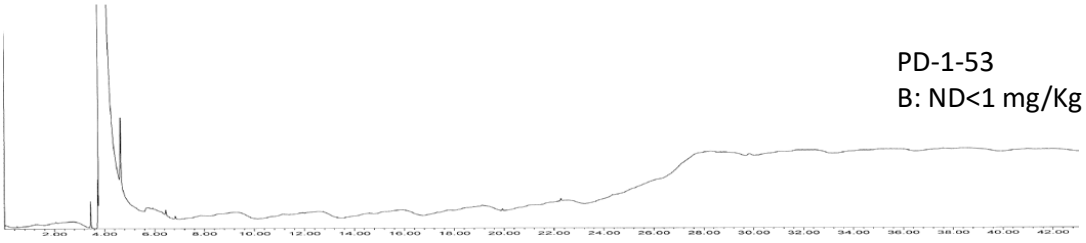
36.00
38.00
40.00
42.00

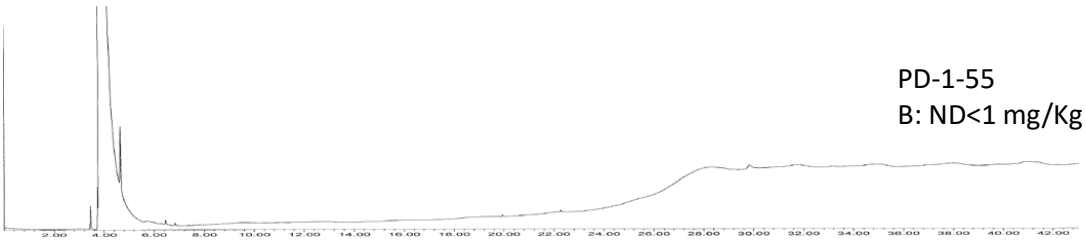

PD-12-55
B: 171 mg/L
Benzene
nC7
nC8
nC11
nC12
nC13
nC14
nC15
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
22.00
24.00
26.00
28.00
30.00
32.00
34.00
36.00
38.00
40.00
42.00

Soil Samples

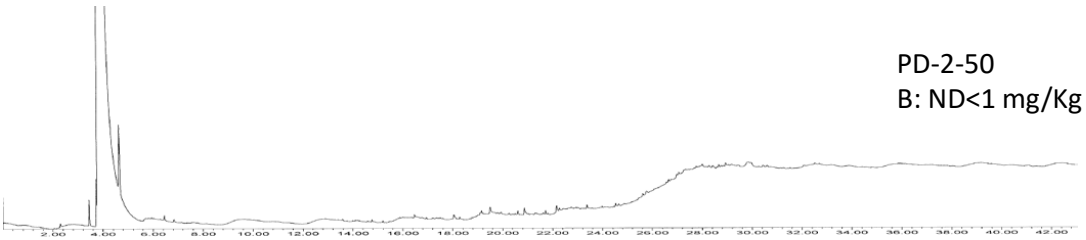
No trace of hydrocarbons, except for PD-6 (Pages 2 and 7)



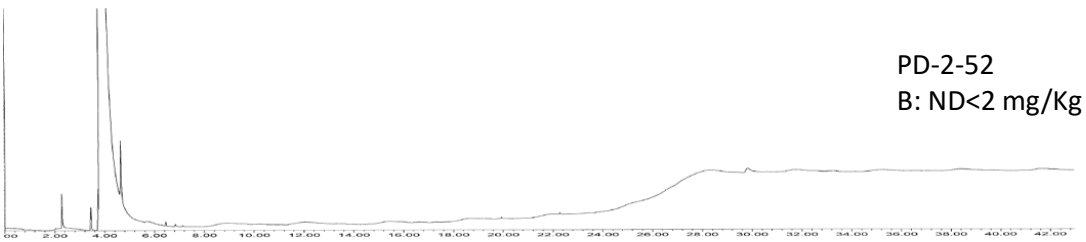
PD-1-53
B: ND<1 mg/Kg



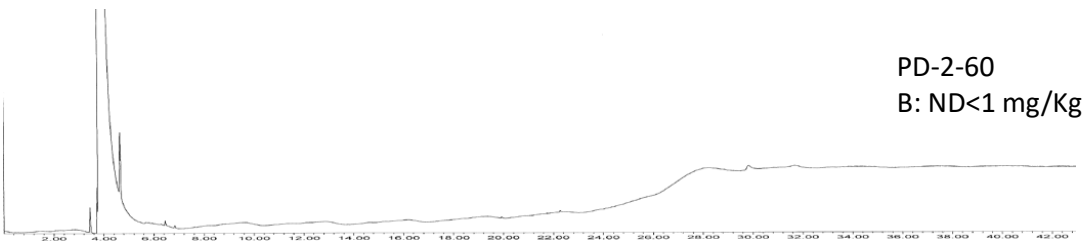
PD-1-55
B: ND<1 mg/Kg



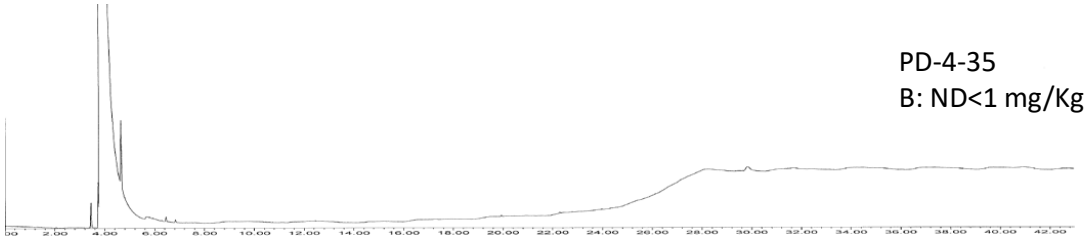
PD-2-50
B: ND<1 mg/Kg



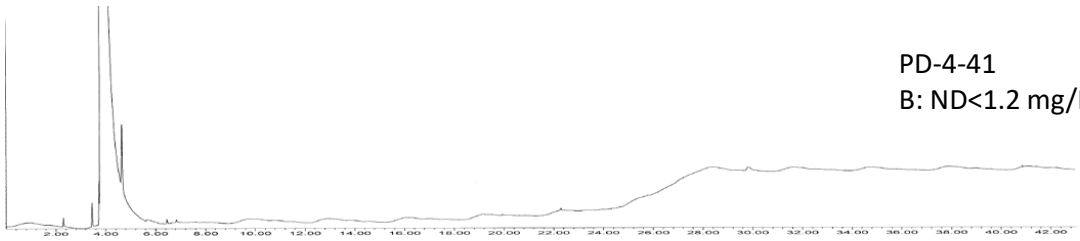
PD-2-52
B: ND<2 mg/Kg



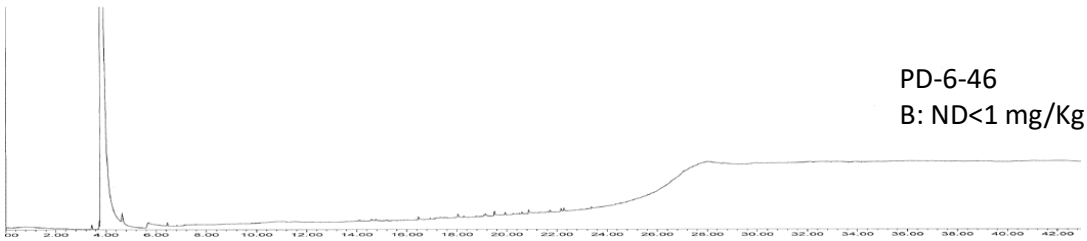
PD-2-60
B: ND<1 mg/Kg



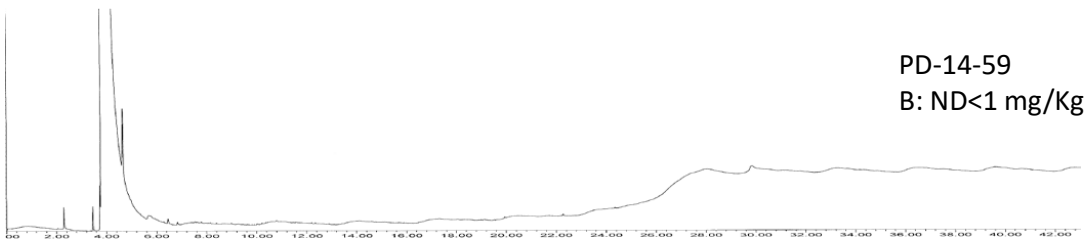
PD-4-35
B: ND<1 mg/Kg



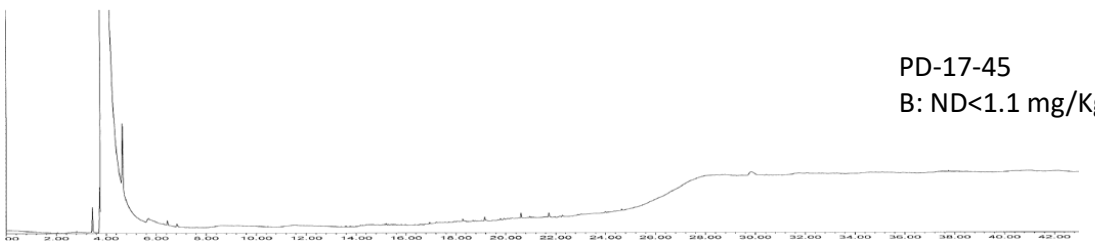
PD-4-41
B: ND<1.2 mg/Kg



PD-6-46
B: ND<1 mg/Kg



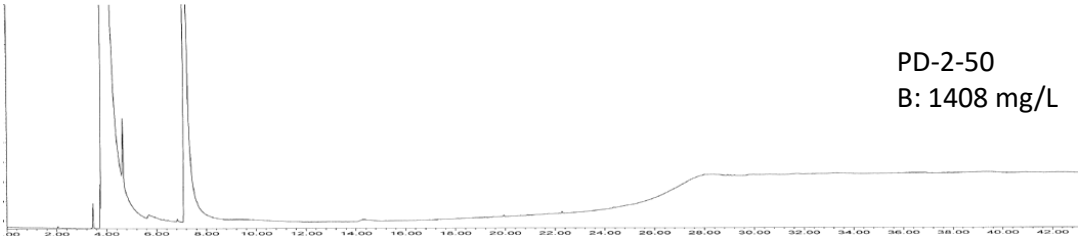
PD-14-59
B: ND<1 mg/Kg

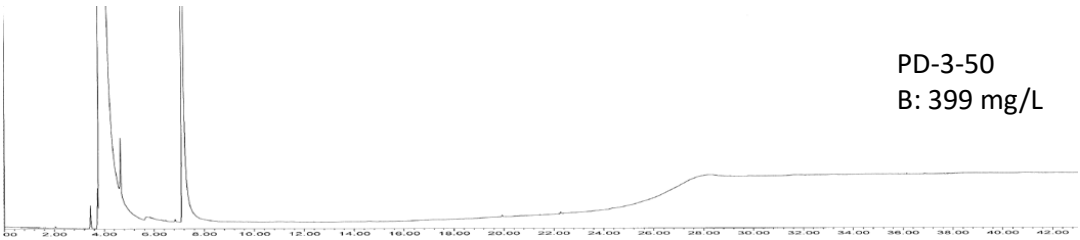


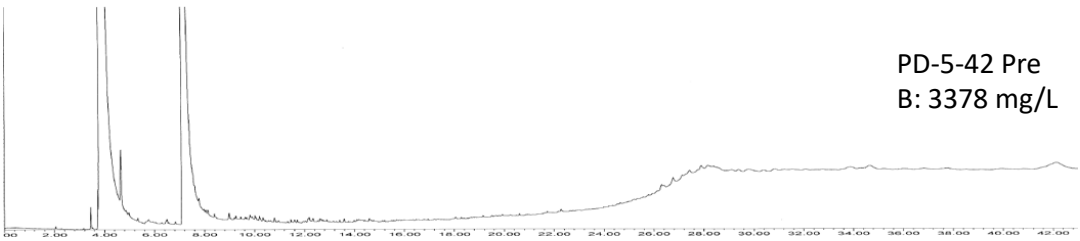
PD-17-45
B: ND<1.1 mg/Kg

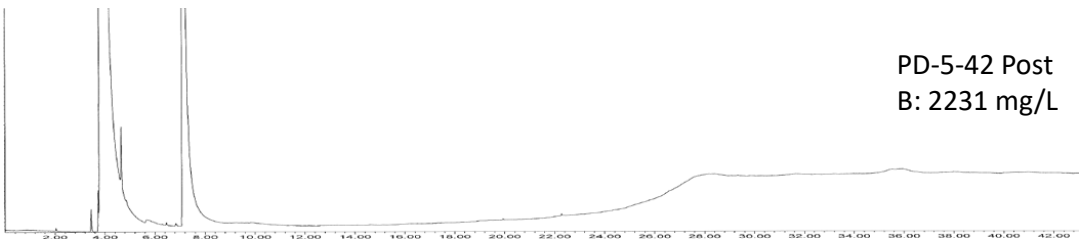
Liquid Samples

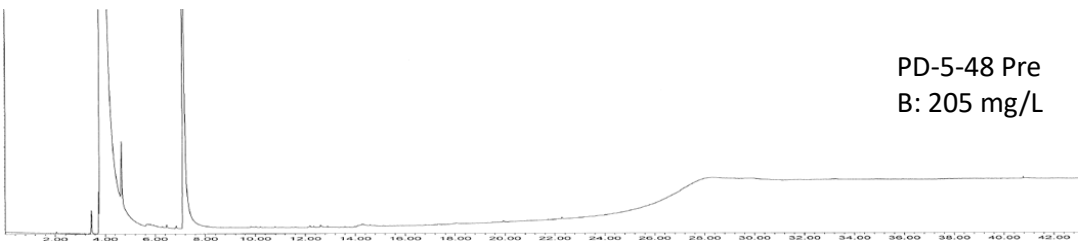
Primarily contain benzene
(Refer to pages 3-9 for five samples containing gasoline range and kerosene range material.)

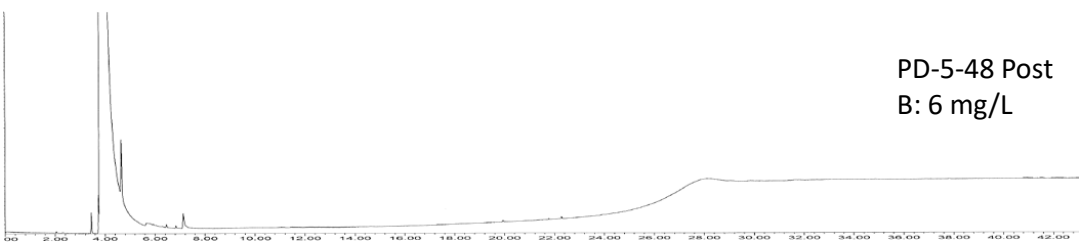

PD-2-50
B: 1408 mg/L

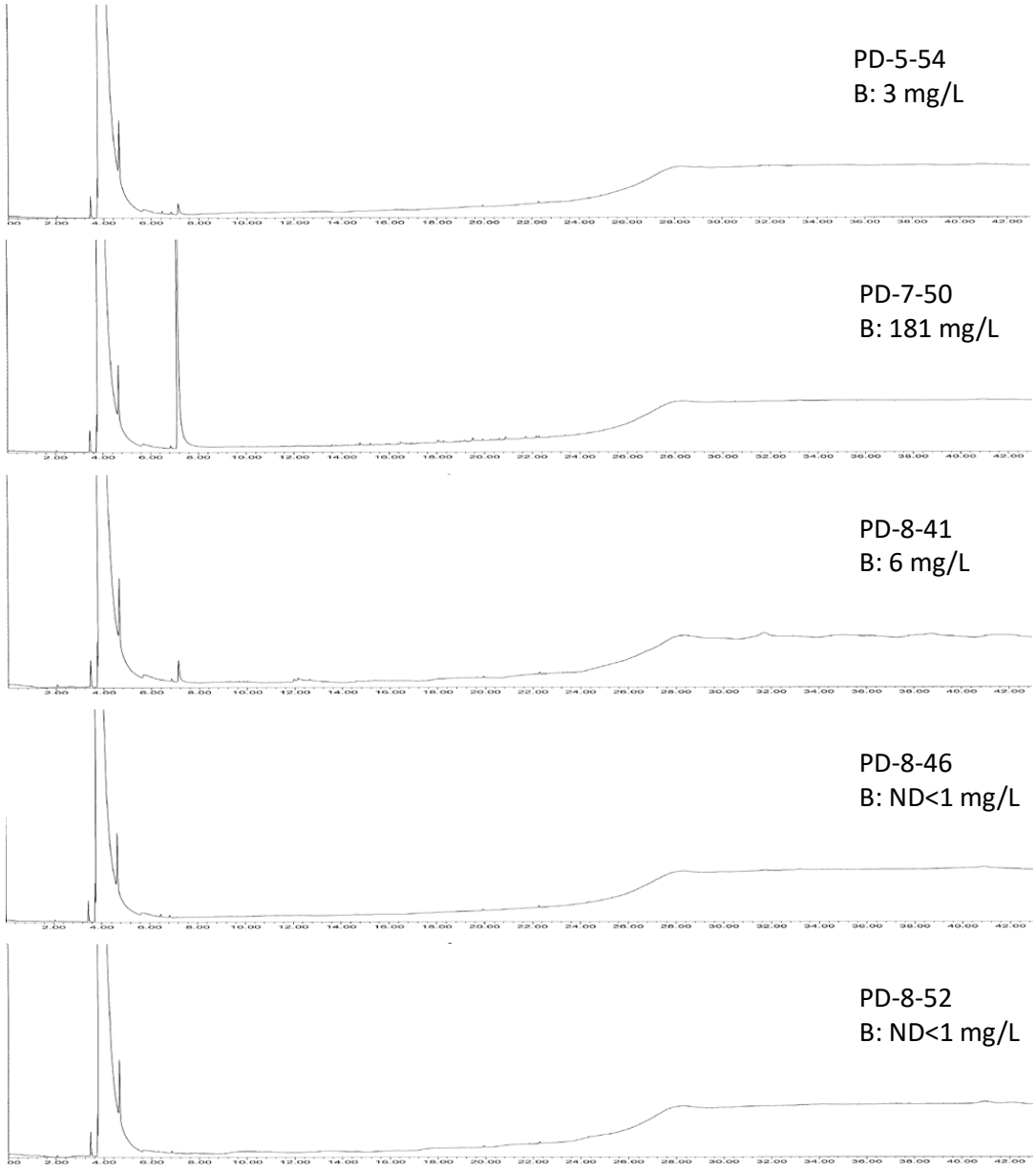

PD-3-50
B: 399 mg/L

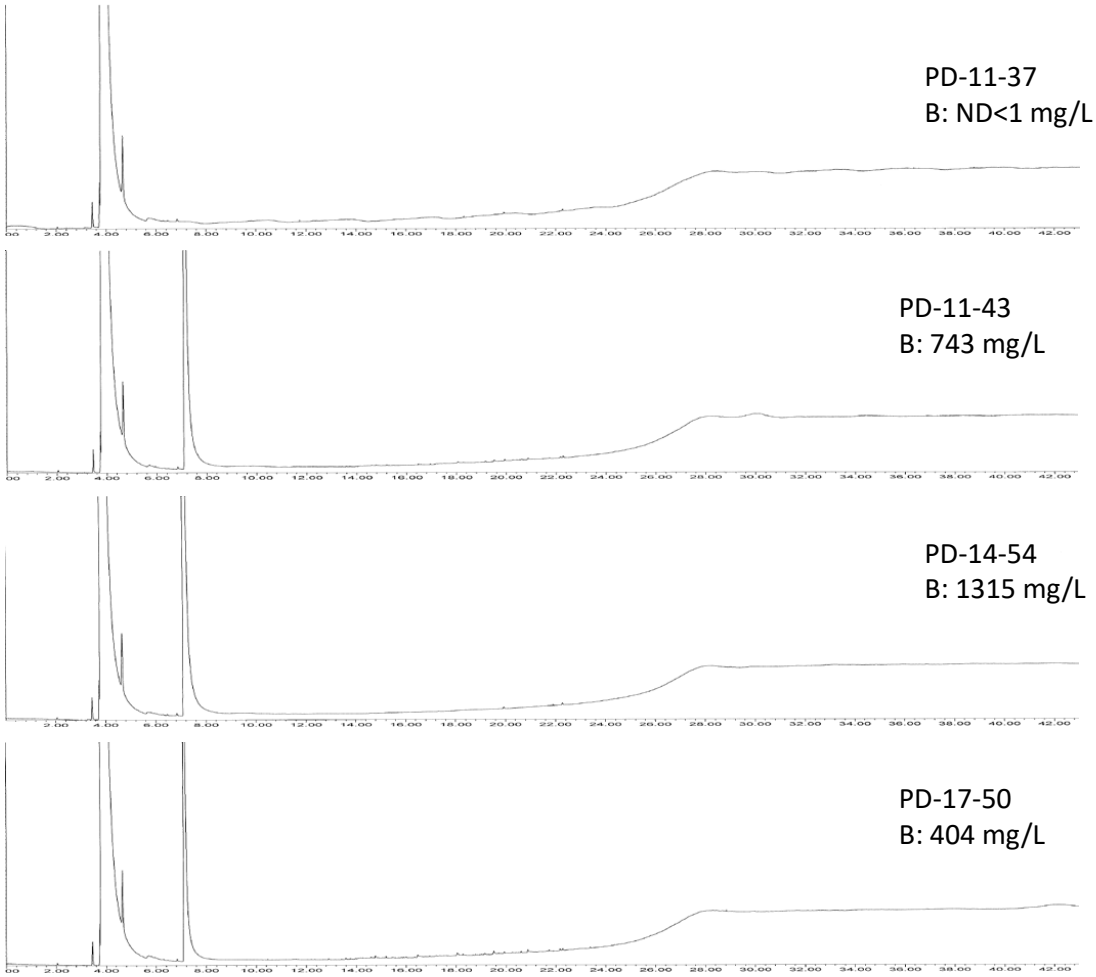

PD-5-42 Pre
B: 3378 mg/L

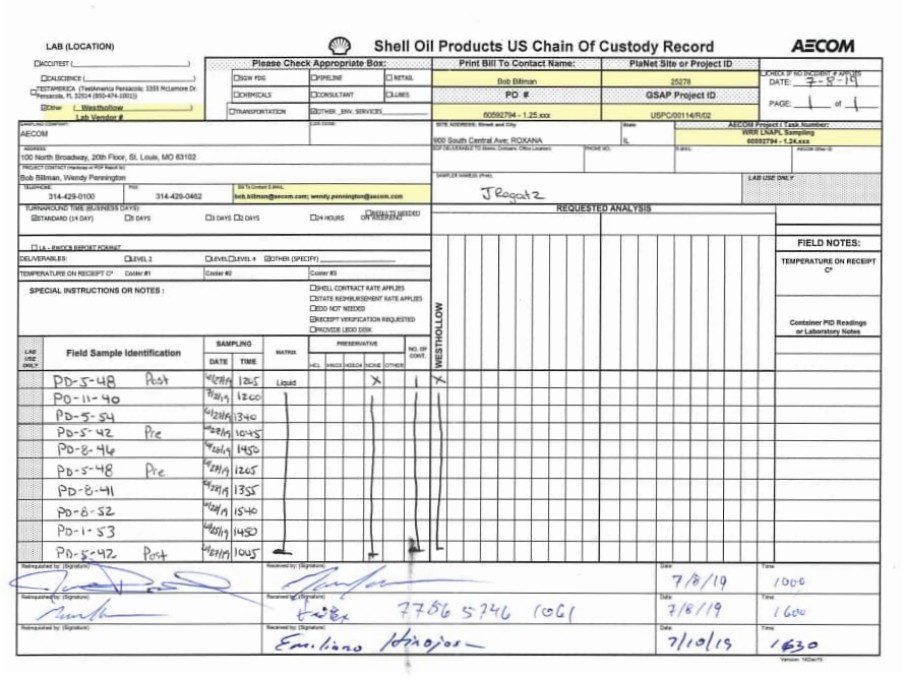

PD-5-42 Post
B: 2231 mg/L


PD-5-48 Pre
B: 205 mg/L


PD-5-48 Post
B: 6 mg/L


PD-5-54
B: 3 mg/L
PD-7-50
B: 181 mg/L
PD-8-41
B: 6 mg/L
PD-8-46
B: ND<1 mg/L
PD-8-52
B: ND<1 mg/L


PD-11-37
B: ND<1 mg/L
PD-11-43
B: 743 mg/L
PD-14-54
B: 1315 mg/L
PD-17-50
B: 404 mg/L



LAB (LOCATION)

☐ ACCUTEST ( )
☐ ALSCIENCE ( )
☐ TESTAMERICA (Testamerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☑ Other (Westhollow) Lab Vendor #

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:			Print Bill To Contact Name:	PlaNet Site or Project ID	
☐ SGW FDS	☐ PIPELINE	☐ RETAIL	Bob Billman	25278	☐ CHECK IF NO INCIDENT # APPLIES DATE: 7-8-19
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES	PO #	GSAP Project ID	PAGE: 1 of 1
☐ TRANSPORTATION	☑ OTHER _ ENV. SERVICES		60592794 - 1.25.xxx	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS, Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: WRR LNAPL Sampling 60592794 - 1.24.xxx
ADDRESS: 100 North Broadway, 20th Floor, St. Louis, MO 63102
PROJECT CONTACT (Hardcopy or PDF Report to): Bob Billman, Wendy Pennington
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact Email: bob.billman@aecom.com; wendy.pennington@aecom.com
SAMPLER NAMES (Print): JRegatz
LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☑ STANDARD (14 DAY) ☐ 8 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RUSH TO NEEDED ON REQUEST

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 2 ☐ LEVEL ☐ LEVEL 4 ☑ OTHER (SPECIFY) _____

TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
☐ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ DO NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

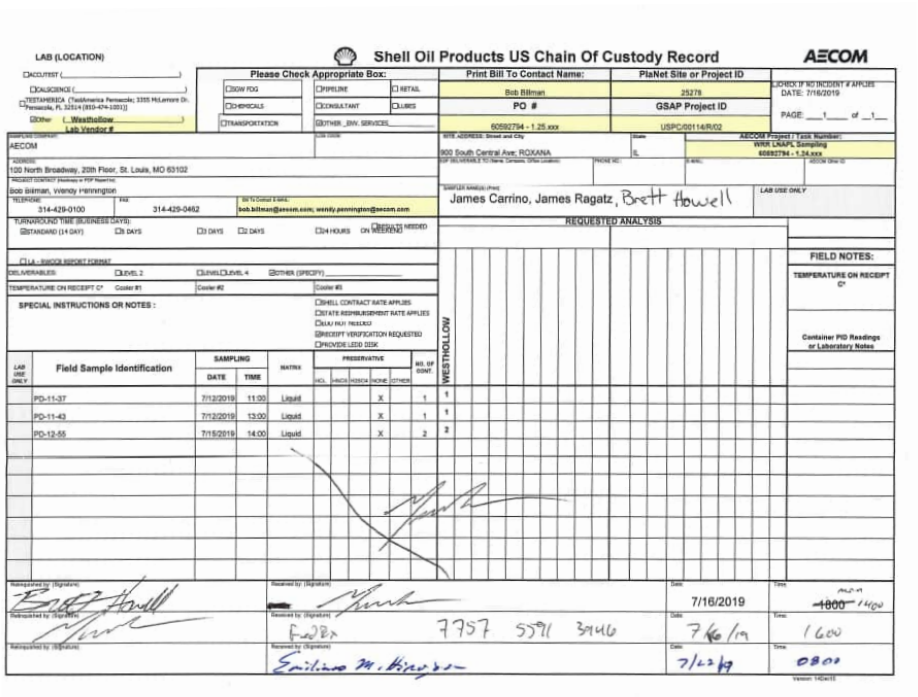
REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	PRESERVATIVE HNO3	PRESERVATIVE H2SO4	PRESERVATIVE NONE	PRESERVATIVE OTHER	NO. OF CONT.	WESTHOLLOW
	PD-5-48 Post	6/27/19	1205	Liquid				X		1	X
	PD-11-40	6/27/19	1200								
	PD-5-54	6/27/19	1340								
	PD-5-42 Pre	6/27/19	1045								
	PD-8-46	6/27/19	1450								
	PD-5-48 Pre	6/27/19	1205								
	PD-8-41	6/27/19	1355								
	PD-8-52	6/27/19	1540								
	PD-1-53	6/27/19	1450								
	PD-5-42 Post	6/27/19	1045								

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	[signature]	7/8/19	1000
[signature]	[signature] 7786 5746 1061	7/8/19	1600
	Emiliano Hinojosa	7/10/19	1630

Version: 140ec15



LAB (LOCATION)

☐ACCUTEST (_____)
☐ALSCIENCE (_____)
☐TESTAMERICA (Testamerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☒Other (WestholLow Lab Vendor #)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:		
☐SOW FOG	☐PIPELINE	☐RETAIL
☐CHEMICALS	☐CONSULTANT	☐LUBES
☐TRANSPORTATION	☒OTHER _SHV. SERVICES_____	

Print Bill To Contact Name:	PlaNet Site or Project ID
Bob Bilman	25278
PO #	GSAP Project ID
60592794 - 1.25.xxx	USPC/00114/R/02

LICHECK IF NO INCIDENT # APPLIES
DATE: 7/16/2019
PAGE: ___1___ of __1__

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: WRR LNAPL Sampling 60592794 - 1.24.xxx
ADDRESS: 100 North Broadway, 20th Floor, St. Louis, MO 63102
PROJECT CONTACT (Hardcopy or PDF Report to): Bob Bilman, Wendy Pennington
TELEPHONE: 314-429-0100
FAX: 314-429-0462
BIL To Contact & Mail: bob.bilman@aecom.com; wendy.pennington@aecom.com
TOP SELVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
AECOM Office ID:
SAMPLER NAME(S) (Print): James Carrino, James Ragatz, Brett Howell
LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☒STANDARD (14 DAY) ☐8 DAYS ☐3 DAYS ☐2 DAYS ☐24 HOURS ☐RESULTS NEEDED ON WEEKEND

☐LA - SWOCR REPORT FORMAT
DELIVERABLES: ☐LEVEL 2 ☐LEVEL 3 ☐LEVEL 4 ☒OTHER (SPECIFY)_____
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
☐SHELL CONTRACT RATE APPLIES
☐STATE REIMBURSEMENT RATE APPLIES
☐LUFT RUN RESULTS
☒RECEIPT VERIFICATION REQUESTED
☐PROVIDE LEDD DISK

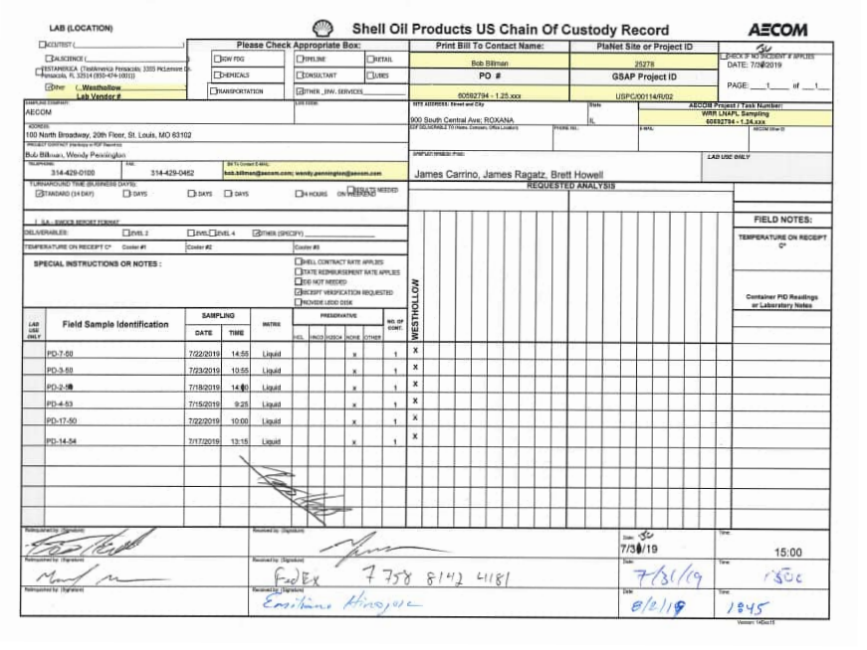
REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	WESTHOLLOW
	PD-11-37	7/12/2019	11:00	Liquid				X		1	1
	PD-11-43	7/12/2019	13:00	Liquid				X		1	1
	PD-12-55	7/15/2019	14:00	Liquid				X		2	2

Relinquished by (Signature)	Received by (Signature)	Date	Time
Brett Howell	[signature]	7/16/2019	~~1800~~ 1400
[signature]	FedEx 7757 5591 3946	7/16/19	1600
	Emiliano M. Hinojosa	7/22/19	0800

Version: 14Oct15



LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:

Print Bill To Contact Name: Bob Billman

PlaNet Site or Project ID: 25278

PO #: 60592794 - 1.25.xxx

GSAP Project ID: USPC/00114/R/02

DATE: 7/30/2019

PAGE: 1 of 1

AECOM

100 North Broadway, 20th Floor, St. Louis, MO 63102

Bob Billman, Wendy Pennington

314-429-0100 314-429-0462

bob.billman@aecom.com; wendy.pennington@aecom.com

900 South Central Ave; ROXANA IL

WRR LNAPL Sampling

60592794 - 1.24.xxx

James Carrino, James Ragatz, Brett Howell

REQUESTED ANALYSIS

WESTHOLLOW

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container P/D Readings or Laboratory Notes

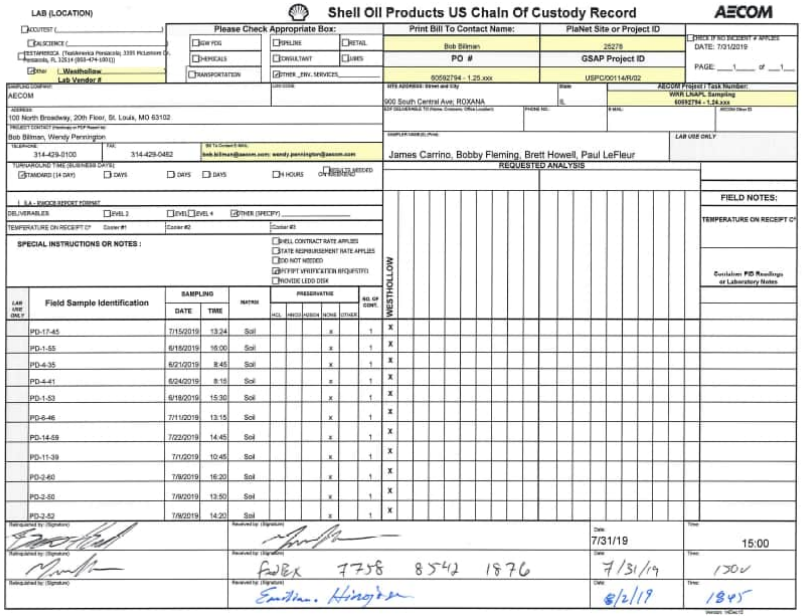
SPECIAL INSTRUCTIONS OR NOTES :

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE	NO. OF CONT.	
	PD-7-50	7/22/2019	14:55	Liquid	x	1	x
	PD-3-50	7/23/2019	10:55	Liquid	x	1	x
	PD-2-50	7/18/2019	14:00	Liquid	x	1	x
	PD-4-53	7/15/2019	9:25	Liquid	x	1	x
	PD-17-50	7/22/2019	10:00	Liquid	x	1	x
	PD-14-54	7/17/2019	13:15	Liquid	x	1	x

Relinquished by (Signature) — Received by (Signature) — Date: 7/30/19 — Time: 15:00

Relinquished by (Signature) — Received by (Signature): FedEx 7758 8142 4181 — Date: 7/31/19 — Time: 1500

Relinquished by (Signature) — Received by (Signature): Emiliano Hinojosa — Date: 8/1/19 — Time: 1845



LAB (LOCATION)

☐ ACCUTEST ( )
☐ AS SCIENCE ( )
☐ ESTAPHERICA (Tuskaloosa Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other ( ) Westhollow Lab Vendor #

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:
☐ SW PCG ☐ SPILLING ☐ RETAIL
☐ HERBICIDES ☐ CONSULTANT ☐ LUBES
☐ TRANSPORTATION ☐ OTHER_ENV. SERVICES

Print Bill To Contact Name:	PlaNet Site or Project ID
Bob Billman	25278
PO #	GSAP Project ID
60592794 - 1.25.xxx	USPC/00114/R/02

☐ CHECK IF NO SECURITY # APPLIES
DATE: 7/31/2019
PAGE: ___1___ of ___1___

SAMPLING COMPANY: AECOM	LAB CODE:
ADDRESS: 100 North Broadway, 20th Floor, St. Louis, MO 63102	
PROJECT CONTACT (Hardcopy or PDF Report to): Bob Billman, Wendy Pennington	
TELEPHONE: 314-429-0100	FAX: 314-429-0482
BILL TO CONTACT E-MAIL: bob.billman@aecom.com; wendy.pennington@aecom.com	
TURNAROUND TIME (BUSINESS DAYS): ☑ STANDARD (14 DAY) ☐ DAYS ☐ DAYS ☐ DAYS ☐ 4 HOURS ☐ RESULTS NEEDED ON WEEKEND	
I. S.A. - ENDICE REPORT FORMAT	
DELIVERABLES: ☐ EVEL 2 ☐ EVEL ☐ EVEL 4 ☑ OTHER (SPECIFY)	
TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3	

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: WWR LNAPL Sampling 60592794 - 1.24.xxx
SAMPLER CARRIER (S) (Print): James Carrino, Bobby Fleming, Brett Howell, Paul LeFleur
LAB USE ONLY

REQUESTED ANALYSIS

SPECIAL INSTRUCTIONS OR NOTES:
☐ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ DO NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Exclusive: PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	WESTHOLLOW
	PD-17-45	7/15/2019	13:24	Soil				x		1	X
	PD-1-55	6/18/2019	16:00	Soil				x		1	X
	PD-4-35	6/21/2019	8:45	Soil				x		1	X
	PD-4-41	6/24/2019	8:15	Soil				x		1	X
	PD-1-53	6/18/2019	15:30	Soil				x		1	X
	PD-6-46	7/11/2019	13:15	Soil				x		1	X
	PD-14-59	7/22/2019	14:45	Soil				x		1	X
	PD-11-39	7/1/2019	10:45	Soil				x		1	X
	PD-2-60	7/9/2019	16:20	Soil				x		1	X
	PD-2-50	7/9/2019	13:50	Soil				x		1	X
	PD-2-52	7/9/2019	14:20	Soil				x		1	X

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	[signature]	7/31/19	15:00
[signature]	FedEx 7758 8542 1876	7/31/19	1500
[signature]	Emiliano Hinojosa	8/2/19	1845

Version: HCAC10

Appendix D

2022-2023 Pre-SEE Soil Analytical Results

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,1,1,2-Tetrachloroethane			1,1,1-Trichloroethane			1,1,2,2-Tetrachloroethane			1,1,2-Trichloroethane			1,1-Dichloroethane			1,1-Dichloroethene			1,1-Dichloropropene			1,2,3-Trichlorobenzene		
Screening Criteria (mg/kg)							2						0.02			23			0.06								
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.0053	U		< 0.0053	UF1		< 0.0053	UF1		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,1,1,2-Tetrachloroethane			1,1,1-Trichloroethane			1,1,2,2-Tetrachloroethane			1,1,2-Trichloroethane			1,1-Dichloroethane			1,1-Dichloroethene			1,1-Dichloropropene			1,2,3-Trichlorobenzene		
Screening Criteria (mg/kg)							2						0.02			23			0.06								
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.144	U		< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U	
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.122	U		< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U	
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0051	U		< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0020	U	
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 0.534	U		< 0.534	U		< 1.34	U		< 0.534	U		< 0.534	U		< 0.534	U		< 0.534	U	
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0047	U		< 0.0019	U	UJ	< 0.0019	U		< 0.0019	U		< 0.0019	U	
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		< 0.268	U		< 0.268	U		< 0.671	U		< 0.268	U		< 0.268	U		< 0.268	U		< 0.268	U	
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 2.31	U		< 2.31	U		< 5.78	U		< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 2.12	U		< 2.12	U		< 5.31	U		< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U	
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.15	U		< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U	
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U		< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.152	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 0.46	U		< 0.46	U		< 1.15	U		< 0.46	U		< 0.46	U		< 0.46	U		< 0.46	U	
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U	UJ	< 0.0607	U	UJ	< 0.0607	U	UJ	< 0.152	U	UJ	< 0.0607	U	UJ	< 0.0607	U		< 0.0607	U		< 0.0607	U	
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.13	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0048	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U	
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.145	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U	
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U		< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.154	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.155	U		< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U	
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U	UJ	< 0.692	U	UJ	< 0.692	U	UJ	< 1.73	U	UJ	< 0.692	U	UJ	< 0.692	U		< 0.692	U		< 0.692	U	
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0047	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U	
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.131	U		< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U	
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		< 0.446	U		< 0.446	U		< 1.12	U		< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U	
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 0.379	U		< 0.379	U		< 0.948	U		< 0.379	U		< 0.379	U		< 0.379	U		< 0.379	U	
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 0.125	U		< 0.125	U		< 0.313	U		< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U	
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 1.13	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.12	U		< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0059	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 0.498	U		< 0.498	U		< 1.24	U		< 0.498	U		< 0.498	U		< 0.498	U		< 0.498	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 2.32	U		< 2.32	U		< 5.81	U		< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0029	U		< 0.0029	U		< 0.0072	U		< 0.0029	U		< 0.0029	U		< 0.0029	U		< 0.0029	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 0.893	U		< 0.893	U		< 2.23	U		< 0.893	U		< 0.893	U		< 0.893	U		< 0.893	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 0.42	U		< 0.42	U		< 1.05	U		< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U	UJ	< 0.535	U	UJ	< 0.535	U	UJ	< 1.34	U	UJ	< 0.535	U	UJ	< 0.535	U		< 0.535	U		< 0.535	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U	UJ	< 0.0597	U	UJ	< 0.0597	U	UJ	< 0.149	U	UJ	< 0.0597	U	UJ	< 0.0597	U		< 0.0597	U		< 0.0597	U	
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U	UJ	< 0.0021	U	UJ	< 0.0021	U	UJ	< 0.0053	U	UJ	< 0.0021	U	UJ	< 0.0021	U		< 0.0021	U		< 0.0021	U	
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 0.122	U		< 0.122	U		< 0.304	U		< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 4.54	U		< 4.54	U		< 11.3	U		< 4.54	U		< 4.54	U		< 4.54	U		< 4.54	U	
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 1.12	U		< 1.12	U		< 2.81	U		< 1.12	U		< 1.12	U		< 1.12	U		< 1.12	U	
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 0.482	U		< 0.482	U		< 1.21	U		< 0.482	U		< 0.482	U		< 0.482	U		< 0.482	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 0.449	U		< 0.449	U		< 1.12	U		< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 3.59	U		< 3.59	U		< 8.97	U		< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 0.139	U		< 0.139	U		< 0.347	U		< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.23	U		< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.0920	U	
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 20.3	U		< 20.3	U		< 50.7	U		< 20.3	U		< 20.3	U		< 20.3	U		< 20.3	U	
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.165	U		< 0.0658	U	UJ	< 0.0658	U		< 0.0658	U		< 0.0658	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 0.0570	U		< 0.0570	U		< 0.142	U		< 0.0570	U	UJ	< 0.0570	U		< 0.0570	U		< 0.0570	U	
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 0.216	U		< 0.216	U		< 0.539	U		< 0.216	U		< 0.216	U		< 0.216	U		< 0.216	U	
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 0.0539	U		< 0.0539	U		< 0.135	U		< 0.0539	U		< 0.0539	U		< 0.0539	U		< 0.0539	U	
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 1.05	U		< 1.05	U		< 2.62	U		< 1.05	U		< 1.05	U		< 1.05	U		< 1.05	U	
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.128	U		< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.0510	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 0.0516	U		< 0.0516	U		< 0.129	U		< 0.0516	U		< 0.0516	U		< 0.0516	U		< 0.0516	U	
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 1.89	U		< 1.89	U		< 4.71	U		< 1.89	U		< 1.89	U		< 1.89	U		< 1.89	U	
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 0.0575	U		< 0.0575	U		< 0.144	U		< 0.0575	U		< 0.0575	U		< 0.0575	U		< 0.0575	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 0.126	U		< 0.126	U		< 0.316	U		< 0.126	U		< 0.126	SU	R	< 0.126	U		< 0.126	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.125	U		< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.0501	U	
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		< 0.0579	U		< 0.0579	U	UJ	< 0.145	U		< 0.0579	U		< 0.0579	U		< 0.0579	U		< 0.0579	U	
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		< 0.0460	U		< 0.0460	U	UJ	< 0.115	U		< 0.0460	U		< 0.0460	U		< 0.0460	U		< 0.0460	U	
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		< 0.447	U		< 0.447	U	UJ	< 1.12	U		< 0.447	U		< 0.447	U		< 0.447	U		< 0.447	U	

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,1,1,2-Tetrachloroethane			1,1,1-Trichloroethane			1,1,2,2-Tetrachloroethane			1,1,2-Trichloroethane			1,1-Dichloroethane			1,1-Dichloroethene			1,1-Dichloropropene			1,2,3-Trichlorobenzene		
Screening Criteria (mg/kg)							2						0.02			23			0.06								
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0056	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 0.442	U		< 0.442	U		< 1.1	U		< 0.442	U		< 0.442	U		< 0.442	U		< 0.442	U	
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 0.444	U		< 0.444	U		< 1.11	U		< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U	
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0060	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U	
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 0.377	U		< 0.377	U		< 0.942	U		< 0.377	U		< 0.377	U		< 0.377	U		< 0.377	U	
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 21.7	U		< 21.7	U		< 54.2	U		< 21.7	U		< 21.7	U		< 21.7	U		< 21.7	U	
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 12.3	U		< 12.3	U		< 30.7	U		< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U	
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 1.41	U		< 1.41	U		< 3.52	U		< 1.41	U		< 1.41	U		< 1.41	U		< 1.41	U	
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 0.218	U		< 0.218	U		< 0.545	U		< 0.218	U		< 0.218	U		< 0.218	U		< 0.218	U	
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.192	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.13	U		< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 0.423	U		< 0.423	U		< 1.06	U		< 0.423	U		< 0.423	U		< 0.423	U		< 0.423	U	
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 0.481	U		< 0.481	U		< 1.2	U		< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 0.88	U		< 0.88	U		< 2.2	U		< 0.88	U		< 0.88	U		< 0.88	U		< 0.88	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 2.29	U		< 2.29	U		< 5.72	U		< 2.29	U		< 2.29	U		< 2.29	U		< 2.29	U	
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 2.33	U		< 2.33	U		< 5.83	U		< 2.33	U		< 2.33	U		< 2.33	U		< 2.33	U	
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.145	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U	
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 0.474	U		< 0.474	U		< 1.18	U		< 0.474	U		< 0.474	U		< 0.474	U		< 0.474	U	
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 0.443	U		< 0.443	U		< 1.11	U		< 0.443	U		< 0.443	U		< 0.443	U		< 0.443	U	
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 0.453	U		< 0.453	U		< 1.13	U		< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 0.421	U		< 0.421	U		< 1.05	U		< 0.421	U		< 0.421	U		< 0.421	U		< 0.421	U	
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 0.449	U		< 0.449	U		< 1.12	U		< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U	
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 5.13	U		< 5.13	U		< 12.8	U		< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U	UJ	< 0.0698	U	UJ	< 0.0698	U	UJ	< 0.174	U	UJ	< 0.0698	U	UJ	< 0.0698	U		< 0.0698	U		< 0.0698	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 0.29	U		< 0.29	U		< 0.725	U		< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U	
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.158	U		< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U	
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 0.836	U		< 0.836	U		< 2.09	U		< 0.836	U		< 0.836	U		< 0.836	U		< 0.836	U	
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0057	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U	
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U	UJ	< 0.0020	U	UJ	< 0.0020	U	UJ	< 0.0051	U	UJ	< 0.0020	U	UJ	< 0.0020	U		< 0.0020	U		< 0.0020	U	
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U	UJ	< 0.0022	U	UJ	< 0.0022	U	UJ	< 0.0054	U	UJ	< 0.0022	U	UJ	< 0.0022	U		< 0.0022	U		< 0.0022	U	
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 0.512	U		< 0.512	U		< 1.28	U		< 0.512	U	UJ	< 0.512	U		< 0.512	U		< 0.512	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 0.469	U		< 0.469	U		< 1.17	U		< 0.469	U	UJ	< 0.469	U		< 0.469	U		< 0.469	U	
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 0.444	U		< 0.444	U		< 1.11	U		< 0.444	U	UJ	< 0.444	U		< 0.444	U		< 0.444	U	
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 12.4	U		< 12.4	U		< 30.9	U		< 12.4	U		< 12.4	U		< 12.4	U		< 12.4	U	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 12	U		< 12	U		< 30	U		< 12	U		< 12	U		< 12	U		< 12	U	
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0051	U		< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0020	U	
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 0.44	U		< 0.44	U		< 1.1	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 0.627	U		< 0.627	U		< 1.57	U		< 0.627	U		< 0.627	U		< 0.627	U		< 0.627	U	
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 2.31	U		< 2.31	U		< 5.77	U		< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U	
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0059	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U	
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 0.489	U		< 0.489	U		< 1.22	U		< 0.489	U		< 0.489	U		< 0.489	U		< 0.489	U	
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 10.3	U		< 10.3	U		< 25.9	U		< 10.3	U		< 10.3	U		< 10.3	U		< 10.3	U	
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		< 0.551	U		< 0.551	U	UJ	< 1.38	U		< 0.551	U		< 0.551	U		< 0.551	U		< 0.551	U	
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 0.0963	U		< 0.0963	U	UJ	< 0.241	U		< 0.0963	U		< 0.0963	U		< 0.0963	U		< 0.0963	U	
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 23.8	U		< 23.8	U		< 59.5	U		< 23.8	U		< 23.8	U		< 23.8	U		< 23.8	U	
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 0.477	U		< 0.477	U		< 1.19	U		< 0.477	U		< 0.477	U		< 0.477	U		< 0.477	U	
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 0.997	U		< 0.997	U		< 2.49	U		< 0.997	U		< 0.997	U		< 0.997	U		< 0.997	U	
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		< 0.0980	U		< 0.0980	U	UJ	< 0.245	U		< 0.0980	U		< 0.0980	U		< 0.0980	U		< 0.0980	U	
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0054	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U	
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0059	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U	
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 4.57	U		< 4.57	U		< 11.4	U		< 4.57	U		< 4.57	U		< 4.57	U		< 4.57	U	
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 9.71	U		< 9.71	U		< 24.3	U		< 9.71	U		< 9.71	U		< 9.71	U		< 9.71	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 24.7	U		< 24.7	U		< 61.8	U		< 24.7	U		< 24.7	U		< 24.7	U		< 24.7	U	
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0046	U		< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U	
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0053	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U	
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.172	U		< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.0689	U	
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 4.56	U		< 4.56	U		< 11.4	U		< 4.56	U		< 4.56	U		< 4.56	U		< 4.56	U	
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 1.07	U		< 1.07	U		< 2.66	U		< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U	

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,2,3-Trichloropropane			1,2,4-Trichlorobenzene			1,2,4-Trimethylbenzene			1,2-Dibromoethane (EDB)			1,2-Dichlorobenzene			1,2-Dichloroethane			1,2-Dichloropropane			1,3,5-Trimethylbenzene		
Screening Criteria (mg/kg)							5									17			0.02			8					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	UF1F2		< 0.0053	U		< 0.0053	U		--			< 0.0053	UF1*+		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 13	U		< 13	U		--			< 13	U*+		< 13	U		< 13	U		< 13	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 3.6	U		< 3.6	U		--			< 3.6	U		9.1			< 3.6	U		< 3.6	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.0046	U		< 0.0046	U		--			< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		--			< 0.0054	U*+		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	--			< 0.38	U*+	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 0.55	U	UJ	0.98		J	--			< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	0.29	J	J
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 0.37	U	UJ	1.8		J	--			< 0.37	U*+	UJ	< 0.37	U	UJ	< 0.37	U	UJ	0.52		J
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 12	U	UJ	16		J	--			< 12	U*+	UJ	< 12	U	UJ	< 12	U	UJ	5.9	J	J
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.0043	U	UJ	0.2		J	--			< 0.0043	U*+	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	0.067		J
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		--			< 0.0054	U*+		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	--			< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	--			< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.0057	U		< 0.0057	U		--			< 0.0057	U*+		< 0.0057	U		< 0.0057	U		< 0.0057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	--			< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	--			< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.0060	U		< 0.0060	U		--			< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.0052	U		< 0.0052	U		--			< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.0055	U		< 0.0055	U		--			< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.0058	U		< 0.0058	U		--			< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		--			< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.01	U		< 0.01	U		--			< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		--			< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.0081	U		< 0.0081	U		--			< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.0072	U		< 0.0072	U		--			< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		--			< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.0036	U		< 0.0036	U		--			< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.0058	U		< 0.0058	U		--			< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		--			< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		--			< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.0061	U		< 0.0061	U		--			< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.0059	U		< 0.0059	U		--			< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		--			< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		--			< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.0098	U		< 0.0098	U		--			< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		--			< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.0049	U		< 0.0049	U		--			< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		--			< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		--			< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.0055	U		< 0.0055	U		--			< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.0051	U		< 0.0051	U		--			< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.0052	U		< 0.0052	U		--			< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		--			< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.0051	U		< 0.0051	U		--			< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		--			< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		--			< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	--			< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	--			< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	--			< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,2,3-Trichloropropane			1,2,4-Trichlorobenzene			1,2,4-Trimethylbenzene			1,2-Dibromoethane (EDB)			1,2-Dichlorobenzene			1,2-Dichloroethane			1,2-Dichloropropane			1,3,5-Trimethylbenzene		
Screening Criteria (mg/kg)							5									17			0.02			8					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U		--			< 0.0577	U		< 0.0577	U	
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U		--			< 0.0487	U		< 0.0487	U	
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0020	U		--			< 0.0020	U		< 0.0020	U	
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 0.534	U		**0.66**			< 0.534	U		< 0.534	U		--			< 0.534	U		< 0.534	U	
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0019	U		**0.0021**			< 0.0019	U		< 0.0019	U		--			< 0.0019	U		< 0.0019	U	
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		< 0.268	U		**8.44**			< 0.268	U		< 0.268	U		--			< 0.268	U		**1.27**		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U		--			< 2.31	U		< 2.31	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U		--			< 2.12	U		< 2.12	U	
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U		--			< 0.0601	U		< 0.0601	U	
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	--			< 0.0608	U	UJ	< 0.0608	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 0.46	U		**38**			< 0.46	U		< 0.46	U		--			< 0.46	U		< 0.46	U	
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U	UJ	< 0.0607	U		< 0.0607	U		< 0.0607	U	UJ	< 0.0607	U		--			< 0.0607	U	UJ	< 0.0607	U	
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	--			< 0.0518	U	UJ	< 0.0518	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		--			< 0.0019	U		< 0.0019	U	
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		--			< 0.0581	U		< 0.0581	U	
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	--			< 0.0616	U	UJ	< 0.0616	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U		--			< 0.0620	U		< 0.0620	U	
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U	UJ	< 0.692	U		< 0.692	U		< 0.692	U	UJ	< 0.692	U		--			< 0.692	U	UJ	< 0.692	U	
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		--			< 0.0019	U		< 0.0019	U	
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U		--			< 0.0523	U		< 0.0523	U	
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U		--			< 0.446	U		< 0.446	U	
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 0.379	U		**1.92**			< 0.379	U		< 0.379	U		--			< 0.379	U		< 0.379	U	
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U		--			< 0.125	U		< 0.125	U	
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	--			< 0.452	U	UJ	< 0.452	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U		--			< 0.0481	U		< 0.0481	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		--			< 0.0024	U		< 0.0024	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 0.498	U		**1.12**			< 0.498	U		< 0.498	U		--			< 0.498	U		< 0.498	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U		--			< 2.32	U		< 2.32	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0029	U		**0.0051**			< 0.0029	U		< 0.0029	U		--			< 0.0029	U		< 0.0029	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 0.893	U		**1.32**			< 0.893	U		< 0.893	U		--			< 0.893	U		< 0.893	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U		--			< 0.42	U		< 0.42	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U	UJ	< 0.535	U		**3.07**			< 0.535	U	UJ	< 0.535	U		--			< 0.535	U	UJ	< 0.535	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U	UJ	< 0.0597	U		**3.49**			< 0.0597	U	UJ	< 0.0597	U		--			< 0.0597	U	UJ	**0.55**		
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U	UJ	< 0.0021	U		**0.141**			< 0.0021	U	UJ	< 0.0021	U		--			< 0.0021	U	UJ	**0.0366**		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U		--			< 0.122	U		< 0.122	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 4.54	U		**10.8**			< 4.54	U		< 4.54	U		--			< 4.54	U		**4**	J	
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 1.12	U		**22.2**			< 1.12	U		< 1.12	U		--			< 1.12	U		**7.55**		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 0.482	U		< 0.482	U		< 0.482	U		< 0.482	U		--			< 0.482	U		< 0.482	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U		--			< 0.449	U		< 0.449	U	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U		--			< 3.59	U		< 3.59	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U		--			< 0.139	U		< 0.139	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.0920	U		--			< 0.0920	U		< 0.0920	U	
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 20.3	U		**129**			< 20.3	U		< 20.3	U		--			< 20.3	U		**44.8**		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.0658	U		--			< 0.0658	U		< 0.0658	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 0.0570	U		**0.166**			< 0.0570	U		< 0.0570	U		--			< 0.0570	U		< 0.0570	U	
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 0.216	U		**6.2**			< 0.216	U		< 0.216	U		--			< 0.216	U		**1.9**		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 0.0539	U		**0.049**	J		< 0.0539	U		< 0.0539	U		--			< 0.0539	U		**0.014**	J	
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 1.05	U		**200**			< 1.05	U		< 1.05	U		--			< 1.05	U		**70.4**		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.0510	U		--			< 0.0510	U		< 0.0510	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 0.0516	U		**0.236**			< 0.0516	U		< 0.0516	U		--			< 0.0516	U		**0.0596**		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 1.89	U		**15.3**			< 1.89	U		< 1.89	U		--			< 1.89	U		**8.54**		
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 0.0575	U		< 23	U		< 0.0575	U		< 0.0575	U		--			< 0.0575	U		< 23	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 0.126	U		< 0.126	U		< 0.126	U		< 0.126	U		--			< 0.126	U		< 0.126	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 0.0501	U		**2.53**			< 0.0501	U		< 0.0501	U		--			< 0.0501	U		**1.06**		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U	UJ	< 0.0579	U		**8.78**			< 0.0579	U		< 0.0579	U		--			< 0.0579	U		**2.52**		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U	UJ	< 0.0460	U		**0.213**			< 0.0460	U		< 0.0460	U		--			< 0.0460	U		< 0.0460	U	
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U	UJ	< 0.447	U		**209**			< 0.447	U		< 0.447	U		--			< 0.447	U		**72.7**		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,2,3-Trichloropropane			1,2,4-Trichlorobenzene			1,2,4-Trimethylbenzene			1,2-Dibromoethane (EDB)			1,2-Dichlorobenzene			1,2-Dichloroethane			1,2-Dichloropropane			1,3,5-Trimethylbenzene		
Screening Criteria (mg/kg)							5									17			0.02			8					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0022	U		0.0094			< 0.0022	U		< 0.0022	U		--			< 0.0022	U		< 0.0022	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 0.442	U		2.35		J	< 0.442	U		< 0.442	U		--			< 0.442	U		0.574		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 0.444	U		6.77		J	< 0.444	U		< 0.444	U		--			< 0.444	U		1.28		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0024	U		0.171			< 0.0024	U		< 0.0024	U		--			< 0.0024	U		0.0389		
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 0.377	U		8.88			< 0.377	U		< 0.377	U		--			< 0.377	U		5.01		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 21.7	U		104			< 21.7	U		< 21.7	U		--			< 21.7	U		31.3		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U		--			< 12.3	U		< 12.3	U	
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 1.41	U		26.1		J	< 1.41	U		< 1.41	U		--			< 1.41	U		3.4		J
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 0.218	U		8.28		J	< 0.218	U		< 0.218	U		--			< 0.218	U		1.01		J
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	--			< 0.0768	U	UJ	< 0.0768	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U		--			< 0.0519	U		< 0.0519	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 0.423	U		2.92			< 0.423	U		< 0.423	U		--			< 0.423	U		< 0.423	U	
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U		--			< 0.481	U		< 0.481	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 0.88	U		< 0.88	U		< 0.88	U		< 0.88	U		--			< 0.88	U		< 0.88	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 2.29	U		45.6			< 2.29	U		< 2.29	U		--			< 2.29	U		13.7		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 2.33	U		51.1			< 2.33	U		< 2.33	U		--			< 2.33	U		14.9		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 0.0581	U		0.334			< 0.0581	U		< 0.0581	U		--			< 0.0581	U		0.0869		
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 0.474	U		< 0.474	U	UJ	< 0.474	U		< 0.474	U		--			< 0.474	U		< 0.474	U	UJ
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 0.443	U		9.89		J	< 0.443	U		< 0.443	U		--			< 0.443	U		1.71		J
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U		--			< 0.453	U		< 0.453	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 0.421	U		2.8			< 0.421	U		< 0.421	U		--			< 0.421	U		0.674		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 0.449	U		2.29			< 0.449	U		< 0.449	U		--			< 0.449	U		0.579		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U		--			< 5.13	U		< 5.13	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U	UJ	< 0.0698	U		< 0.0698	U		< 0.0698	U	UJ	< 0.0698	U		--			< 0.0698	U	UJ	< 0.0698	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U		--			< 0.29	U		< 0.29	U	
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U		--			< 0.0633	U		< 0.0633	U	
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 0.836	U		2.63			< 0.836	U		< 0.836	U		--			< 0.836	U		< 0.836	U	
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		--			< 0.0023	U		< 0.0023	U	
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U	UJ	< 0.0020	U		0.0273			< 0.0020	U	UJ	< 0.0020	U		--			< 0.0020	U	UJ	0.0070		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U	UJ	< 0.0022	U		0.0264			< 0.0022	U	UJ	< 0.0022	U		--			< 0.0022	U	UJ	0.0068		
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 0.512	U		< 0.512	U		< 0.512	U		< 0.512	U		--			< 0.512	U		< 0.512	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 0.469	U		< 0.469	U		< 0.469	U		< 0.469	U		--			< 0.469	U		< 0.469	U	
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U		--			< 0.444	U		< 0.444	U	
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 12.4	U		4.1	J		< 12.4	U		< 12.4	U		--			< 12.4	U		< 12.4	U	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 12	U		< 12	U		< 12	U		< 12	U		--			< 12	U		< 12	U	
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0020	U		0.0097			< 0.0020	U		< 0.0020	U		--			< 0.0020	U		0.0037		
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 0.44	U		10.3			< 0.44	U		< 0.44	U		--			< 0.44	U		3.47		
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 0.627	U		23.1		J	< 0.627	U		< 0.627	U		--			< 0.627	U		8.18		J
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 2.31	U		13.2		J	< 2.31	U		< 2.31	U		--			< 2.31	U		4.53		J
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0024	U		0.0494			< 0.0024	U		< 0.0024	U		--			< 0.0024	U		0.0137		
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 0.489	U		6.64			< 0.489	U		< 0.489	U		--			< 0.489	U		2.18		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 10.3	U		< 10.3	U		< 10.3	U		< 10.3	U		--			< 10.3	U		< 10.3	U	
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U	UJ	< 0.551	U		1.27			< 0.551	U		< 0.551	U		--			< 0.551	U		0.34	J	
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 0.0963	U		0.144			< 0.0963	U		< 0.0963	U		--			< 0.0963	U		0.094	J	
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 23.8	U		23	J		< 23.8	U		< 23.8	U		--			< 23.8	U		8	J	
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 0.477	U		0.36	J		< 0.477	U		< 0.477	U		--			< 0.477	U		< 0.477	U	
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 0.997	U		0.68	J		< 0.997	U		< 0.997	U		--			< 0.997	U		< 0.997	U	
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U	UJ	< 0.0980	U		3.59			< 0.0980	U		< 0.0980	U		--			< 0.0980	U		1.12		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		--			< 0.0022	U		< 0.0022	U	
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		--			< 0.0023	U		< 0.0023	U	
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 4.57	U		134			< 4.57	U		< 4.57	U		--			< 4.57	U		33.8		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 9.71	U		33.7			< 9.71	U		< 9.71	U		--			< 9.71	U		< 9.71	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 24.7	U		49.9			< 24.7	U		< 24.7	U		--			< 24.7	U		< 24.7	U	
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U		--			< 0.0018	U		< 0.0018	U	
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		--			< 0.0021	U		< 0.0021	U	
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 0.0689	U		3.98			< 0.0689	U		< 0.0689	U		--			< 0.0689	U		1.23		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 4.56	U		26.6			< 4.56	U		< 4.56	U		--			< 4.56	U		7.21		
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U		--			< 1.07	U		< 1.07	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,3-Dichlorobenzene			1,3-Dichloropropane			1,4-Dichlorobenzene			1,4-Dioxane			1-Chlorohexane			1-Methylnaphthalene			2,2-Dichloropropane			2,4,5-Trichlorophenol		
Screening Criteria (mg/kg)										2															270		
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.33	UF1F2	UJ	< 0.0053	U		< 0.0066	U		< 0.0053	U		< 0.33	U	UJ
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 13	U		< 13	U		< 0.39	U		< 13	U		0.0030	J		< 13	U		< 0.39	U	UJ
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 3.6	U		< 3.6	U		< 0.4	U		< 3.6	U		0.012			< 3.6	U		< 0.4	U	UJ
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.39	U		< 0.0046	U		0.0012	J		< 0.0046	U		< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.35	U		< 0.0054	U		0.0016	J		< 0.0054	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U		< 0.38	U	UJ	0.019	B		< 0.38	U	UJ	< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.41	U		< 0.55	U	UJ	0.092	B		< 0.55	U	UJ	< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.41	U		< 0.37	U	UJ	0.09	B		< 0.37	U	UJ	< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 0.38	U		< 12	U	UJ	1.7			< 12	U	UJ	< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.34	U		< 0.0043	U	UJ	0.015			< 0.0043	U	UJ	< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.33	U		< 0.0054	U		< 0.0066	U		< 0.0054	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.37	UF1	UJ	< 0.0062	U	UJ	< 0.0074	U		< 0.0062	U	UJ	< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.0051	U	UJ	< 0.0068	U		< 0.0051	U	UJ	< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.34	U		< 0.0057	U		< 0.0067	U		< 0.0057	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.34	U		< 0.0069	U	UJ	< 0.0069	U		< 0.0069	U	UJ	< 0.34	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.0051	U	UJ	< 0.0067	U		< 0.0051	U	UJ	< 0.34	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.41	U		< 0.0060	U		< 0.0083	U		< 0.0060	U		< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.32	U		< 0.0052	U		< 0.0065	U		< 0.0052	U		< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.36	U		< 0.0055	U		< 0.0072	U		< 0.0055	U		< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.44	U		< 0.0053	U		< 0.0088	U		< 0.0053	U		< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.0053	U		< 0.0065	U		< 0.0053	U		< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.0058	U		< 0.0067	U		< 0.0058	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.0054	U		< 0.0067	U		< 0.0054	U		< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.35	U		< 0.0053	U		< 0.0069	U		< 0.0053	U		< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.01	U		< 0.01	U		< 0.33	U		< 0.01	U		< 0.0066	U		< 0.01	U		< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.0053	U		< 0.0068	U		< 0.0053	U		< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.0054	U		< 0.0069	U		< 0.0054	U		< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.33	U		< 0.0081	U		< 0.0067	U		< 0.0081	U		< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.36	U		< 0.0072	U		< 0.0071	U		< 0.0072	U		< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.36	U		< 0.0068	U		< 0.0071	U		< 0.0068	U		< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.41	U		< 0.0053	U		< 0.0083	U		< 0.0053	U		< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.34	U		< 0.0036	U		< 0.0068	U		< 0.0036	U		< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.34	UF1	UJ	< 0.0058	U		< 0.0067	U		< 0.0058	U		< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.34	UF1	UJ	< 0.0056	U		< 0.0067	U		< 0.0056	U		< 0.34	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U	UJ	< 0.0053	U		< 0.0067	U		< 0.0053	U		< 0.34	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.35	U	UJ	< 0.0062	U		< 0.0070	U		< 0.0062	U		< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U	UJ	< 0.0053	U		< 0.0069	U		< 0.0053	U		< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.35	U	UJ	< 0.0061	U		< 0.0069	U		< 0.0061	U		< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.37	U	UJ	< 0.0059	U		< 0.0074	U		< 0.0059	U		< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.35	U		< 0.0056	U		< 0.0070	U		< 0.0056	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.0056	U		< 0.0066	U		< 0.0056	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.0053	U		< 0.0067	U		< 0.0053	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.36	U		< 0.0098	U		< 0.0072	U		< 0.0098	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.0056	U		< 0.0067	U		< 0.0056	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.33	U		< 0.0049	U		< 0.0067	U		< 0.0049	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.0053	U		< 0.0068	U		< 0.0053	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.34	U		< 0.0062	U		< 0.0069	U		< 0.0062	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.35	U		< 0.0055	U		0.0014	J		< 0.0055	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.33	U		< 0.0051	U		< 0.0065	U		< 0.0051	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.34	U		< 0.0052	U		< 0.0068	U		< 0.0052	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.0054	U		< 0.0067	U		< 0.0054	U		< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.34	U		< 0.0051	U		< 0.0068	U		< 0.0051	U		< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.0056	U		< 0.0069	U		< 0.0056	U		< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.0056	U		< 0.0068	U		< 0.0056	U		< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.35	U	UJ	< 0.0074	U	UJ	0.0013	J		< 0.0074	U	UJ	< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.34	U	UJ	< 0.0085	U	UJ	< 0.0067	U		< 0.0085	U	UJ	< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U	UJ	< 0.0051	U	UJ	< 0.0068	U		< 0.0051	U	UJ	< 0.34	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,3-Dichlorobenzene			1,3-Dichloropropane			1,4-Dichlorobenzene			1,4-Dioxane			1-Chlorohexane			1-Methylnaphthalene			2,2-Dichloropropane			2,4,5-Trichlorophenol		
Screening Criteria (mg/kg)										2															270		
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.0577	U		< 0.0577	U		--			--			--			< 0.0577	U		--		
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.0487	U		< 0.0487	U		--			--			--			< 0.0487	U		--		
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		--			--			--			< 0.0020	U		--		
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 0.534	U		< 0.534	U		--			--			--			< 0.534	U		--		
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		--			--			--			< 0.0019	U		--		
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		< 0.268	U		< 0.268	U		--			--			--			< 0.268	U		--		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 2.31	U		< 2.31	U		--			--			--			< 2.31	U		--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 2.12	U		< 2.12	U		--			--			--			< 2.12	U		--		
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 0.0601	U		< 0.0601	U		--			--			--			< 0.0601	U		--		
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	--			--			--			< 0.0608	U	UJ	--		
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 0.46	U		< 0.46	U		--			--			--			< 0.46	U		--		
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		< 0.0607	U	UJ	< 0.0607	U		--			--			--			< 0.0607	U	UJ	--		
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	--			--			--			< 0.0518	U	UJ	--		
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		--			--			--			< 0.0019	U		--		
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		--			--			--			< 0.0581	U		--		
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	--			--			--			< 0.0616	U	UJ	--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.0620	U		< 0.0620	U		--			--			--			< 0.0620	U		--		
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		< 0.692	U	UJ	< 0.692	U		--			--			--			< 0.692	U	UJ	--		
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		--			--			--			< 0.0019	U		--		
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.0523	U		< 0.0523	U		--			--			--			< 0.0523	U		--		
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		< 0.446	U		< 0.446	U		--			--			--			< 0.446	U		--		
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 0.379	U		< 0.379	U		--			--			--			< 0.379	U		--		
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 0.125	U		< 0.125	U		--			--			--			< 0.125	U		--		
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	--			--			--			< 0.452	U	UJ	--		
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 0.0481	U		< 0.0481	U		--			--			--			< 0.0481	U		--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		--			--			--			< 0.0024	U		--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 0.498	U		< 0.498	U		--			--			--			< 0.498	U		--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 2.32	U		< 2.32	U		--			--			--			< 2.32	U		--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0029	U		< 0.0029	U		--			--			--			< 0.0029	U		--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 0.893	U		< 0.893	U		--			--			--			< 0.893	U		--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 0.42	U		< 0.42	U		--			--			--			< 0.42	U		--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		< 0.535	U	UJ	< 0.535	U		--			--			--			< 0.535	U	UJ	--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		< 0.0597	U	UJ	< 0.0597	U		--			--			--			< 0.0597	U	UJ	--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U		< 0.0021	U	UJ	< 0.0021	U		--			--			--			< 0.0021	U	UJ	--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 0.122	U		< 0.122	U		--			--			--			< 0.122	U		--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 4.54	U		< 4.54	U		--			--			--			< 4.54	U		--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 1.12	U		< 1.12	U		--			--			--			< 1.12	U		--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 0.482	U		< 0.482	U		--			--			--			< 0.482	U		--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 0.449	U		< 0.449	U		--			--			--			< 0.449	U		--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 3.59	U		< 3.59	U		--			--			--			< 3.59	U		--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 0.139	U		< 0.139	U		--			--			--			< 0.139	U		--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 0.0920	U		< 0.0920	U		--			--			--			< 0.0920	U		--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 20.3	U		< 20.3	U		--			--			--			< 20.3	U		--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.0658	U		< 0.0658	U		--			--			--			< 0.0658	U		--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 0.0570	U		< 0.0570	U		--			--			--			< 0.0570	U		--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 0.216	U		< 0.216	U		--			--			--			< 0.216	U		--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 0.0539	U		< 0.0539	U		--			--			--			< 0.0539	U		--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 1.05	U		< 1.05	U		--			--			--			< 1.05	U		--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.0510	U		< 0.0510	U		--			--			--			< 0.0510	U		--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 0.0516	U		< 0.0516	U		--			--			--			< 0.0516	U		--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 1.89	U		< 1.89	U		--			--			--			< 1.89	U		--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 0.0575	U		< 0.0575	U		--			--			--			< 0.0575	U		--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 0.126	U		< 0.126	U		--			--			--			< 0.126	U		--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 0.0501	U		< 0.0501	U		--			--			--			< 0.0501	U		--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		< 0.0579	U		< 0.0579	U		--			--			--			< 0.0579	U		--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		< 0.0460	U		< 0.0460	U		--			--			--			< 0.0460	U		--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		< 0.447	U		< 0.447	U		--			--			--			< 0.447	U		--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				1,3-Dichlorobenzene			1,3-Dichloropropane			1,4-Dichlorobenzene			1,4-Dioxane			1-Chlorohexane			1-Methylnaphthalene			2,2-Dichloropropane			2,4,5-Trichlorophenol		
Screening Criteria (mg/kg)										2															270		
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		--			--			--			< 0.0022	U		--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 0.442	U		< 0.442	U		--			--			--			< 0.442	U		--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 0.444	U		< 0.444	U		--			--			--			< 0.444	U		--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		--			--			--			< 0.0024	U		--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 0.377	U		< 0.377	U		--			--			--			< 0.377	U		--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 21.7	U		< 21.7	U		--			--			--			< 21.7	U		--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 12.3	U		< 12.3	U		--			--			--			< 12.3	U		--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 1.41	U		< 1.41	U		--			--			--			< 1.41	U		--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 0.218	U		< 0.218	U		--			--			--			< 0.218	U		--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	--			--			--			< 0.0768	U	UJ	--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.0519	U		< 0.0519	U		--			--			--			< 0.0519	U		--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 0.423	U		< 0.423	U		--			--			--			< 0.423	U		--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 0.481	U		< 0.481	U		--			--			--			< 0.481	U		--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 0.88	U		< 0.88	U		--			--			--			< 0.88	U		--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 2.29	U		< 2.29	U		--			--			--			< 2.29	U		--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 2.33	U		< 2.33	U		--			--			--			< 2.33	U		--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		--			--			--			< 0.0581	U		--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 0.474	U		< 0.474	U		--			--			--			< 0.474	U		--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 0.443	U		< 0.443	U		--			--			--			< 0.443	U		--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 0.453	U		< 0.453	U		--			--			--			< 0.453	U		--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 0.421	U		< 0.421	U		--			--			--			< 0.421	U		--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 0.449	U		< 0.449	U		--			--			--			< 0.449	U		--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 5.13	U		< 5.13	U		--			--			--			< 5.13	U		--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		< 0.0698	U	UJ	< 0.0698	U		--			--			--			< 0.0698	U	UJ	--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 0.29	U		< 0.29	U		--			--			--			< 0.29	U		--		
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.0633	U		< 0.0633	U		--			--			--			< 0.0633	U		--		
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 0.836	U		< 0.836	U		--			--			--			< 0.836	U		--		
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		--			--			--			< 0.0023	U		--		
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		< 0.0020	U	UJ	< 0.0020	U		--			--			--			< 0.0020	U	UJ	--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		< 0.0022	U	UJ	< 0.0022	U		--			--			--			< 0.0022	U	UJ	--		
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 0.512	U		< 0.512	U		--			--			--			< 0.512	U	UJ	--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 0.469	U		< 0.469	U		--			--			--			< 0.469	U		--		
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 0.444	U		< 0.444	U		--			--			--			< 0.444	U		--		
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 12.4	U		< 12.4	U		--			--			--			< 12.4	U		--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 12	U		< 12	U		--			--			--			< 12	U		--		
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		--			--			--			< 0.0020	U		--		
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 0.44	U		< 0.44	U		--			--			--			< 0.44	U		--		
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 0.627	U		< 0.627	U		--			--			--			< 0.627	U		--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 2.31	U		< 2.31	U		--			--			--			< 2.31	U		--		
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		--			--			--			< 0.0024	U		--		
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 0.489	U		< 0.489	U		--			--			--			< 0.489	U		--		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 10.3	U		< 10.3	U		--			--			--			< 10.3	U		--		
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		< 0.551	U		< 0.551	U		--			--			--			< 0.551	U		--		
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 0.0963	U		< 0.0963	U		--			--			--			< 0.0963	U		--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 23.8	U		< 23.8	U		--			--			--			< 23.8	U		--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 0.477	U		< 0.477	U		--			--			--			< 0.477	U		--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 0.997	U		< 0.997	U		--			--			--			< 0.997	U		--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		< 0.0980	U		< 0.0980	U		--			--			--			< 0.0980	U		--		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		--			--			--			< 0.0022	U		--		
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		--			--			--			< 0.0023	U		--		
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 4.57	U		< 4.57	U		--			--			--			< 4.57	U		--		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 9.71	U		< 9.71	U		--			--			--			< 9.71	U		--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 24.7	U		< 24.7	U		--			--			--			< 24.7	U		--		
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0018	U		< 0.0018	U		--			--			--			< 0.0018	U		--		
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0021	U		< 0.0021	U		--			--			--			< 0.0021	U		--		
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 0.0689	U		< 0.0689	U		--			--			--			< 0.0689	U		--		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 4.56	U		< 4.56	U		--			--			--			< 4.56	U		--		
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 1.07	U		< 1.07	U		--			--			--			< 1.07	U		--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2,4,6-Trichlorophenol			2,4-Dichlorophenol			2,4-Dimethylphenol			2,4-Dinitrophenol			2,4-Dinitrotoluene			2,6-Dinitrotoluene			2-Butanone (MEK)			2-Chloroethylvinylether		
Screening Criteria (mg/kg)				0.2			1			9			0.2			0.0008			0.0007								
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.33	U		< 0.33	U		< 0.33	U		< 1	UF1	UJ	< 0.33	U	UJ	< 0.33	U	UJ	< 0.027	U		< 0.011	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.39	U		< 0.39	U		< 0.39	U		< 1.2	U		< 0.39	U	UJ	< 0.39	U	UJ	< 66	U		< 27	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.4	U		< 0.4	U		< 0.4	U		< 1.2	U		< 0.4	U	UJ	< 0.4	U	UJ	< 18	U		< 14	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.39	U		< 0.39	U		< 0.39	U		< 1.2	U		< 0.39	U	UJ	< 0.39	U	UJ	< 0.023	U		< 0.0093	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.35	U		< 0.35	U		< 0.35	U		< 1	U		< 0.35	U		< 0.35	U		< 0.027	U		< 0.011	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U		< 0.38	U		< 0.38	U		< 1.1	U		< 0.38	U		< 0.38	U		< 1.9	U	UJ	< 0.75	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.41	U		< 0.41	U		< 0.41	U		< 1.2	U		< 0.41	U		< 0.41	U		< 2.7	U	UJ	< 1.1	U	UJ
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.41	U		< 0.41	U		< 0.41	U		< 1.2	U		< 0.41	U		< 0.41	U		< 1.9	U	UJ	< 0.75	U	UJ
SB-102	SB102-55-120622	55	12/6/2022	< 0.38	U		< 0.38	U		< 0.38	U		< 1.1	U		< 0.38	U		< 0.38	U		< 58	U	UJ	< 23	U	UJ
SB-102	SB102-72-120622	72	12/6/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.022	U	UJ	< 0.0086	U	UJ
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.33	U		< 0.33	U		< 0.33	U		< 0.99	U		< 0.33	U		< 0.33	U		< 0.027	U		< 0.011	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.37	U		< 0.37	U		< 0.37	U		< 1.1	UF2		< 0.37	U		< 0.37	U		< 0.031	U	UJ	< 0.012	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U	UJ	< 0.01	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.028	U		< 0.011	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.034	U	UJ	< 0.01	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.026	U	UJ	< 0.0096	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.41	U		< 0.41	U		< 0.41	U		< 1.2	U		< 0.41	U		< 0.41	U		< 0.03	U		< 0.012	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.32	U		< 0.32	U		< 0.32	U		< 0.97	U		< 0.32	U		< 0.32	U		< 0.026	U		< 0.01	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.36	U		< 0.36	U		< 0.36	U		< 1.1	U		< 0.36	U		< 0.36	U		< 0.027	U		< 0.011	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.44	U		< 0.44	U		< 0.44	U		< 1.3	U		< 0.44	U		< 0.44	U		< 0.027	U		< 0.011	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.33	U		< 0.33	U		< 0.33	U		< 0.98	U		< 0.33	U		< 0.33	U		< 0.026	U		< 0.011	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.029	U		< 0.012	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U		< 0.027	U		< 0.011	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.35	U		< 0.35	U		< 0.35	U		< 1	U		< 0.35	U	UJ	< 0.35	U		< 0.026	U		< 0.011	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.33	U		< 0.33	U		< 0.33	U		< 0.99	U		< 0.33	U	UJ	< 0.33	U		< 0.051	U		< 0.02	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U		< 0.011	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.027	U		< 0.011	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.33	U		< 0.33	U		< 0.33	U		< 1	U		< 0.33	U		< 0.33	U		< 0.04	U		< 0.016	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.36	U		< 0.36	U		< 0.36	U		< 1.1	U		< 0.36	U		< 0.36	U		< 0.036	U		< 0.014	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.36	U		< 0.36	U		< 0.36	U		< 1.1	U		< 0.36	U		< 0.36	U		< 0.034	U		< 0.014	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.41	U		< 0.41	U		< 0.41	U		< 1.2	U		< 0.41	U		< 0.41	U		< 0.026	U		< 0.011	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.018	U		< 0.0072	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	UF2		< 0.34	U		< 0.34	U		< 0.029	U		< 0.012	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	UF1	UJ	< 0.34	U		< 0.34	U		< 0.028	U		< 0.011	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U		< 0.011	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.35	U		< 0.35	U		< 0.35	U		< 1.1	U		< 0.35	U		< 0.35	U		< 0.031	U		< 0.012	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U		< 0.011	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.35	U		< 0.35	U		< 0.35	U		< 1	U		< 0.35	U		< 0.35	U		< 0.03	U		< 0.012	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.37	U		< 0.37	U		< 0.37	U		< 1.1	U		< 0.37	U		< 0.37	U		< 0.03	U		< 0.012	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.35	U		< 0.35	U		< 0.35	U		< 1.1	U		< 0.35	U		< 0.35	U		< 0.028	U		< 0.011	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.33	U		< 0.33	U		< 0.33	U		< 0.99	U		< 0.33	U		< 0.33	U		< 0.028	U		< 0.011	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.33	U		< 0.33	U		< 0.33	U		< 1	U		< 0.33	U		< 0.33	U		< 0.027	U		< 0.011	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.36	U		< 0.36	U		< 0.36	U		< 1.1	U		< 0.36	U		< 0.36	U		< 0.049	U		< 0.02	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.33	U		< 0.33	U		< 0.33	U		< 1	U		< 0.33	U		< 0.33	U		< 0.028	U		< 0.011	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.33	U		< 0.33	U		< 0.33	U		< 1	U		< 0.33	U		< 0.33	U		< 0.024	U		< 0.0098	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U		< 0.011	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.031	U		< 0.012	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.35	U		< 0.35	U		< 0.35	U		< 1.1	U		< 0.35	U		< 0.35	U		< 0.027	U		< 0.011	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.33	U		< 0.33	U		< 0.33	U		< 0.98	UF1F2	UJ	< 0.33	U		< 0.33	U		< 0.025	U		< 0.01	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U		< 0.01	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.027	U		< 0.011	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.025	U		< 0.01	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.028	U		< 0.011	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.028	U		< 0.011	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.35	U		< 0.35	U		< 0.35	U		< 1	U		< 0.35	U		< 0.35	U		< 0.037	U	UJ	< 0.015	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.043	U	UJ	< 0.017	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.34	U		< 0.34	U		< 0.34	U		< 1	U		< 0.34	U		< 0.34	U		< 0.026	U	UJ	< 0.01	U	UJ

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2,4,6-Trichlorophenol			2,4-Dichlorophenol			2,4-Dimethylphenol			2,4-Dinitrophenol			2,4-Dinitrotoluene			2,6-Dinitrotoluene			2-Butanone (MEK)			2-Chloroethylvinylether		
Screening Criteria (mg/kg)				0.2			1			9			0.2			0.0008			0.0007								
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			--			--			--			--			--			< 0.721	U		--		
SB-103	SB103-43-051723	43	5/17/2023	--			--			--			--			--			--			< 0.609	U		--		
SB-103	SB103-58-051723	58	5/17/2023	--			--			--			--			--			--			< 0.0254	U		--		
SB-103	SB103-68-051323	68	5/17/2023	--			--			--			--			--			--			< 6.68	U		--		
SB-103	SB103-77-052423	77	5/24/2023	--			--			--			--			--			--			**0.0574**			--		
SB-104	SB104-42-062023	42	6/20/2023	--			--			--			--			--			--			< 3.35	U		--		
SB-104	SB104-57-062023	57	6/20/2023	--			--			--			--			--			--			< 28.9	U		--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			--			--			--			--			--			< 26.6	U		--		
SB-104	SB104-65-062023	65	6/20/2023	--			--			--			--			--			--			< 0.751	U		--		
SB-104	SB104-78-062023	78	6/20/2023	--			--			--			--			--			--			< 0.76	U	UJ	--		
SB-105	SB105-40-062023	40	6/20/2023	--			--			--			--			--			--			< 5.75	U		--		
SB-105	SB105-55-062023	55	6/20/2023	--			--			--			--			--			--			< 0.759	U		--		
SB-105	SB105-67-062023	67	6/20/2023	--			--			--			--			--			--			< 0.648	U	UJ	--		
SB-105	SB105-73-062023	73	6/20/2023	--			--			--			--			--			--			< 0.0239	U		--		
SB-106	SB106-39-061923	39	6/19/2023	--			--			--			--			--			--			< 0.726	U		--		
SB-106	SB106-45-061923	45	6/19/2023	--			--			--			--			--			--			< 0.77	U	UJ	--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			--			--			--			--			--			< 0.775	U		--		
SB-106	SB106-58-061923	58	6/19/2023	--			--			--			--			--			--			< 8.65	U		--		
SB-106	SB106-68-061923	68	6/19/2023	--			--			--			--			--			--			< 0.0233	U		--		
SB-106	SB106-77-061923	77	6/19/2023	--			--			--			--			--			--			< 0.653	U		--		
SB-107	SB107-15-061723	15	6/17/2023	--			--			--			--			--			--			< 5.58	U		--		
SB-107	SB107-39-061723	39	6/17/2023	--			--			--			--			--			--			< 4.74	U		--		
SB-107	SB107-58-061723	58	6/17/2023	--			--			--			--			--			--			< 1.57	U		--		
SB-107	SB107-67-061723	67	6/17/2023	--			--			--			--			--			--			< 5.65	U	UJ	--		
SB-107	SB107-78-061723	78	6/17/2023	--			--			--			--			--			--			< 0.601	U		--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			--			--			--			--			--			< 0.0294	U		--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			--			--			--			--			--			< 6.22	U		--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			--			--			--			--			--			< 29	U		--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			--			--			--			--			--			< 0.0358	U		--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			--			--			--			--			--			< 11.2	U		--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			--			--			--			--			--			< 5.25	U		--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			--			--			--			--			--			< 6.69	U		--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			--			--			--			--			--			< 0.746	U		--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			--			--			--			--			--			< 0.0265	U		--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			--			--			--			--			--			< 1.52	U		--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			--			--			--			--			--			< 56.7	U		--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			--			--			--			--			--			< 14	U		--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			--			--			--			--			--			< 6.03	U		--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			--			--			--			--			--			< 5.61	U		--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			--			--			--			--			--			< 44.9	U		--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			--			--			--			--			--			< 1.74	U		--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			--			--			--			--			--			< 1.15	U		--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			--			--			--			--			--			< 254	U		--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			--			--			--			--			--			< 0.823	U		--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			--			--			--			--			--			< 0.712	U		--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			--			--			--			--			--			< 2.69	U		--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			--			--			--			--			--			< 0.673	U		--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			--			--			--			--			--			< 13.1	U		--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			--			--			--			--			--			< 0.638	U		--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			--			--			--			--			--			< 0.645	U		--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			--			--			--			--			--			< 23.6	U		--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			--			--			--			--			--			< 0.718	U		--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			--			--			--			--			--			< 1.58	U		--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			--			--			--			--			--			< 0.626	U		--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			--			--			--			--			--			< 0.724	U		--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			--			--			--			--			--			< 0.575	U		--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			--			--			--			--			--			< 5.59	U		--		

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2,4,6-Trichlorophenol			2,4-Dichlorophenol			2,4-Dimethylphenol			2,4-Dinitrophenol			2,4-Dinitrotoluene			2,6-Dinitrotoluene			2-Butanone (MEK)			2-Chloroethylvinylether		
Screening Criteria (mg/kg)				0.2			1			9			0.2			0.0008			0.0007								
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			--			--			--			--			--			< 0.0278	U		--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			--			--			--			--			--			< 5.52	U		--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			--			--			--			--			--			< 5.54	U		--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			--			--			--			--			--			< 0.0301	U		--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			--			--			--			--			--			< 4.71	U		--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			--			--			--			--			--			< 271	U		--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			--			--			--			--			--			< 153	U		--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			--			--			--			--			--			< 17.6	U		--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			--			--			--			--			--			< 2.72	U		--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			--			--			--			--			--			< 0.96	U	UJ	--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			--			--			--			--			--			< 0.649	U		--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			--			--			--			--			--			< 5.28	U		--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			--			--			--			--			--			< 6.02	U		--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			--			--			--			--			--			< 11	U		--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			--			--			--			--			--			< 28.6	U		--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			--			--			--			--			--			< 29.1	U		--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			--			--			--			--			--			< 0.727	U		--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			--			--			--			--			--			< 5.92	U		--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			--			--			--			--			--			< 5.53	U		--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			--			--			--			--			--			< 5.67	U		--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			--			--			--			--			--			< 5.27	U		--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			--			--			--			--			--			< 5.61	U		--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			--			--			--			--			--			< 64.1	U		--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			--			--			--			--			--			< 0.872	U		--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			--			--			--			--			--			< 3.62	U		--		
T-AB2	TAB2-48-061523	48	6/15/2023	--			--			--			--			--			--			< 0.791	U		--		
T-AB2	TAB2-59-061523	59	6/15/2023	--			--			--			--			--			--			< 10.5	U		--		
T-BG2	TBG2-48-071123	48	7/11/2023	--			--			--			--			--			--			< 0.0283	U		--		
T-BG2	TBG2-59-071123	59	7/11/2023	--			--			--			--			--			--			< 0.0253	U		--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			--			--			--			--			--			< 0.0269	U		--		
X-AD2	XAD2-49-052323	49	5/23/2023	--			--			--			--			--			--			< 6.41	U		--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			--			--			--			--			--			< 5.87	U		--		
X-AD2	XAD2-58-052323	58	5/23/2023	--			--			--			--			--			--			< 5.54	U		--		
X-AE4	XAE4-40-030223	40	3/2/2023	--			--			--			--			--			--			< 155	U		--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			--			--			--			--			--			< 150	U		--		
X-AE4	XAE4-48-030223	48	3/2/2023	--			--			--			--			--			--			< 0.0254	U		--		
X-AE4	XAE4-52-030223	52	3/2/2023	--			--			--			--			--			--			< 5.5	U		--		
X-AF6	XAF6-40-022723	40	2/27/2023	--			--			--			--			--			--			< 7.84	U		--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			--			--			--			--			--			< 28.9	U		--		
X-AF6	XAF6-47-022723	47	2/27/2023	--			--			--			--			--			--			< 0.0294	U		--		
X-AF6	XAF6-58-022723	58	2/27/2023	--			--			--			--			--			--			< 6.11	U		--		
X-AG5	XAG5-40-031823	40	3/18/2023	--			--			--			--			--			--			< 129	U		--		
X-AG5	XAG5-49-031823	49	3/18/2023	--			--			--			--			--			--			< 6.88	U		--		
X-AG5	XAG5-56-031823	56	3/18/2023	--			--			--			--			--			--			< 1.2	U		--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			--			--			--			--			--			< 298	U		--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			--			--			--			--			--			< 5.97	U		--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			--			--			--			--			--			< 12.5	U		--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			--			--			--			--			--			< 1.23	U		--		
X-BB2	XBB2-4-030123	4	3/1/2023	--			--			--			--			--			--			0.026	J		--		
X-BB2	XBB2-9-030123	9	3/1/2023	--			--			--			--			--			--			0.0300			--		
X-BB2	XBB2-38-051823	38	5/18/2023	--			--			--			--			--			--			< 57.2	U		--		
X-BB2	XBB2-47-051823	47	5/18/2023	--			--			--			--			--			--			< 121	U		--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			--			--			--			--			--			< 309	U		--		
X-BC3	XBC3-4-022423	4	2/24/2023	--			--			--			--			--			--			< 0.0230	U		--		
X-BC3	XBC3-9-022423	9	2/24/2023	--			--			--			--			--			--			< 0.0264	U		--		
X-BC3	XBC3-38-062123	38	6/21/2023	--			--			--			--			--			--			< 0.862	U		--		
X-BC3	XBC3-47-062123	47	6/21/2023	--			--			--			--			--			--			< 57.1	U		--		
X-BC3	XBC3-58-062123	58	6/21/2023	--			--			--			--			--			--			< 13.3	U		--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2-Chloronaphthalene			2-Chlorophenol			2-Chlorotoluene			2-Hexanone			2-Methyl-4,6-dinitrophenol			2-Methylnaphthalene			2-Methylphenol			2-Nitroaniline		
Screening Criteria (mg/kg)																						15				
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-101	SB101-20-120722	20	12/7/2022	< 0.33	U		< 0.33	U		< 0.0053	U		< 0.027	U		< 0.33	U	UJ	< 0.0066	JB	U	< 0.33	U		< 0.33	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.39	U		< 0.39	U		< 13	U		< 66	U		< 0.39	U	UJ	< 0.0077	JB	U	< 0.39	U		< 0.39	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.4	U		< 0.4	U		< 3.6	U		< 18	U		< 0.4	U	UJ	0.025	B		< 0.4	U		< 0.4	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.39	U		< 0.39	U		< 0.0046	U		< 0.023	U		< 0.39	U		< 0.0078	JB	U	< 0.39	U		< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.35	U		< 0.35	U		< 0.0054	U		< 0.027	U		< 0.35	U*-	UJ	0.0027	J		< 0.35	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U		< 0.38	U		< 0.38	U	UJ	< 1.9	U	UJ	< 0.38	U		< 0.0076	JB	U	< 0.38	U		< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	< 0.41	U		< 0.41	U		< 0.55	U	UJ	< 2.7	U	UJ	< 0.41	U		0.14	B		< 0.41	U		< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.41	U		< 0.41	U		< 0.37	U	UJ	< 1.9	U	UJ	< 0.41	U		0.15	B		< 0.41	U		< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	< 0.38	U		< 0.38	U		< 12	U	UJ	< 58	U	UJ	< 0.38	U		4.7	B		< 0.38	U		< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	< 0.34	U		< 0.34	U		< 0.0043	U	UJ	< 0.022	U	UJ	< 0.34	U		0.025	B		< 0.34	U		< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.33	U		< 0.33	U		< 0.0054	U		< 0.027	U		< 0.33	U*-	UJ	0.0020	J		< 0.33	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.37	U		< 0.37	U		< 0.0062	U	UJ	< 0.031	U	UJ	< 0.37	UF2		< 0.0074	U		< 0.37	U		< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.34	U		< 0.34	U		< 0.0051	U	UJ	< 0.026	U	UJ	< 0.34	U		< 0.0068	JB	U	< 0.34	U		< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.34	U		< 0.34	U		< 0.0057	U		< 0.028	U		< 0.34	U*-	UJ	< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.34	U		< 0.34	U		< 0.0069	U	UJ	< 0.034	U	UJ	< 0.34	U	UJ	< 0.0069	JB	U	< 0.34	U		< 0.34	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.34	U		< 0.34	U		< 0.0051	U	UJ	< 0.026	U	UJ	< 0.34	U	UJ	< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.41	U		< 0.41	U		< 0.0060	U		< 0.03	U		< 0.41	U		< 0.0083	JB	U	< 0.41	U		< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.32	U		< 0.32	U		< 0.0052	U		< 0.026	U		< 0.32	U		< 0.0065	JB	U	< 0.32	U		< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.36	U		< 0.36	U		< 0.0055	U		< 0.027	U		< 0.36	U		< 0.0072	U		< 0.36	U		< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.44	U		< 0.44	U		< 0.0053	U		< 0.027	U		< 0.44	U		< 0.0088	U		< 0.44	U		< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.33	U		< 0.33	U		< 0.0053	U		< 0.026	U		< 0.33	U		< 0.0065	U		< 0.33	U		< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.34	U		< 0.34	U		< 0.0058	U		< 0.029	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.34	U		< 0.34	U		< 0.0054	U		< 0.027	U		< 0.34	U		< 0.0067	JB	U	< 0.34	U		< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.35	U		< 0.35	U		< 0.0053	U		< 0.026	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.33	U		< 0.33	U		< 0.01	U		< 0.051	U		< 0.33	U		< 0.0066	JB	U	< 0.33	U		< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.026	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.34	U		< 0.34	U		< 0.0054	U		< 0.027	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.33	U		< 0.33	U		< 0.0081	U		< 0.04	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.36	U		< 0.36	U		< 0.0072	U		< 0.036	U		< 0.36	U		< 0.0071	U		< 0.36	U		< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.36	U		< 0.36	U		< 0.0068	U		< 0.034	U		< 0.36	U		< 0.0071	U		< 0.36	U		< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.41	U		< 0.41	U		< 0.0053	U		< 0.026	U		< 0.41	U		< 0.0083	U		< 0.41	U		< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.34	U		< 0.34	U		< 0.0036	U		< 0.018	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.34	U		< 0.34	U		< 0.0058	U		< 0.029	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.34	U		< 0.34	U		< 0.0056	U		< 0.028	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.026	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.35	U		< 0.35	U		< 0.0062	U		< 0.031	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.026	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.35	U		< 0.35	U		< 0.0061	U		< 0.03	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.37	U		< 0.37	U		< 0.0059	U		< 0.03	U		< 0.37	U		< 0.0074	U		< 0.37	U		< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.35	U		< 0.35	U		< 0.0056	U		< 0.028	U		< 0.35	U		0.0019	J		< 0.35	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.33	U		< 0.33	U		< 0.0056	U		< 0.028	U		< 0.33	U		< 0.0066	U		< 0.33	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.33	U		< 0.33	U		< 0.0053	U		< 0.027	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.36	U		< 0.36	U		< 0.0098	U		< 0.049	U		< 0.36	U		< 0.0072	U		< 0.36	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.33	U		< 0.33	U		< 0.0056	U		< 0.028	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.33	U		< 0.33	U		< 0.0049	U		< 0.024	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.026	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.34	U		< 0.34	U		< 0.0062	U		< 0.031	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.35	U		< 0.35	U		< 0.0055	U		< 0.027	U		< 0.35	U		0.0029	J		< 0.35	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.33	U		< 0.33	U		< 0.0051	U		< 0.025	U		< 0.33	UF2		0.0018	J		< 0.33	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.34	U		< 0.34	U		< 0.0052	U		< 0.026	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.34	U		< 0.34	U		< 0.0054	U		< 0.027	U		< 0.34	U	UJ	< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.34	U		< 0.34	U		< 0.0051	U		< 0.025	U		< 0.34	U	UJ	< 0.0068	U		< 0.34	U		< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.34	U		< 0.34	U		< 0.0056	U		< 0.028	U		< 0.34	U	UJ	< 0.0069	U		< 0.34	U		< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.34	U		< 0.34	U		< 0.0056	U		< 0.028	U		< 0.34	U	UJ	< 0.0068	U		< 0.34	U		< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.35	U		< 0.35	U		< 0.0074	U	UJ	< 0.037	U	UJ	< 0.35	U		0.0025	J		< 0.35	U		< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.34	U		< 0.34	U		< 0.0085	U	UJ	< 0.043	U	UJ	< 0.34	U		< 0.0067	U		< 0.34	U		< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.34	U		< 0.34	U		< 0.0051	U	UJ	< 0.026	U	UJ	< 0.34	U		< 0.0068	U		< 0.34	U		< 0.34	U	

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2-Chloronaphthalene			2-Chlorophenol			2-Chlorotoluene			2-Hexanone			2-Methyl-4,6-dinitrophenol			2-Methylnaphthalene			2-Methylphenol			2-Nitroaniline		
Screening Criteria (mg/kg)																						15					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			--			< 0.0577	U		< 0.721	U		--			--			--			--		
SB-103	SB103-43-051723	43	5/17/2023	--			--			< 0.0487	U		< 0.609	U		--			--			--			--		
SB-103	SB103-58-051723	58	5/17/2023	--			--			< 0.0020	U		< 0.0254	U		--			--			--			--		
SB-103	SB103-68-051323	68	5/17/2023	--			--			< 0.534	U		< 6.68	U		--			--			--			--		
SB-103	SB103-77-052423	77	5/24/2023	--			--			< 0.0019	U		< 0.0235	U		--			--			--			--		
SB-104	SB104-42-062023	42	6/20/2023	--			--			< 0.268	U		< 3.35	U		--			--			--			--		
SB-104	SB104-57-062023	57	6/20/2023	--			--			< 2.31	U		< 28.9	U		--			--			--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			--			< 2.12	U		< 26.6	U		--			--			--			--		
SB-104	SB104-65-062023	65	6/20/2023	--			--			< 0.0601	U		< 0.751	U		--			--			--			--		
SB-104	SB104-78-062023	78	6/20/2023	--			--			< 0.0608	U	UJ	< 0.76	U	UJ	--			--			--			--		
SB-105	SB105-40-062023	40	6/20/2023	--			--			< 0.46	U		< 5.75	U		--			--			--			--		
SB-105	SB105-55-062023	55	6/20/2023	--			--			< 0.0607	U		< 0.759	U		--			--			--			--		
SB-105	SB105-67-062023	67	6/20/2023	--			--			< 0.0518	U	UJ	< 0.648	U	UJ	--			--			--			--		
SB-105	SB105-73-062023	73	6/20/2023	--			--			< 0.0019	U		< 0.0239	U		--			--			--			--		
SB-106	SB106-39-061923	39	6/19/2023	--			--			< 0.0581	U		< 0.726	U		--			--			--			--		
SB-106	SB106-45-061923	45	6/19/2023	--			--			< 0.0616	U	UJ	< 0.77	U	UJ	--			--			--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			--			< 0.0620	U		< 0.775	U		--			--			--			--		
SB-106	SB106-58-061923	58	6/19/2023	--			--			< 0.692	U		< 8.65	U		--			--			--			--		
SB-106	SB106-68-061923	68	6/19/2023	--			--			< 0.0019	U		< 0.0233	U		--			--			--			--		
SB-106	SB106-77-061923	77	6/19/2023	--			--			< 0.0523	U		< 0.653	U		--			--			--			--		
SB-107	SB107-15-061723	15	6/17/2023	--			--			< 0.446	U		< 5.58	U		--			--			--			--		
SB-107	SB107-39-061723	39	6/17/2023	--			--			< 0.379	U		< 4.74	U		--			--			--			--		
SB-107	SB107-58-061723	58	6/17/2023	--			--			< 0.125	U		< 1.57	U		--			--			--			--		
SB-107	SB107-67-061723	67	6/17/2023	--			--			< 0.452	U	UJ	< 5.65	U	UJ	--			--			--			--		
SB-107	SB107-78-061723	78	6/17/2023	--			--			< 0.0481	U		< 0.601	U		--			--			--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			--			< 0.0024	U		< 0.0294	U		--			--			--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			--			< 0.498	U		< 6.22	U		--			--			--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			--			< 2.32	U		< 29	U		--			--			--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			--			< 0.0029	U		< 0.0358	U		--			--			--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			--			< 0.893	U		< 11.2	U		--			--			--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			--			< 0.42	U		< 5.25	U		--			--			--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			--			< 0.535	U		< 6.69	U		--			--			--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			--			< 0.0597	U		< 0.746	U		--			--			--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			--			< 0.0021	U		< 0.0265	U		--			--			--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			--			< 0.122	U		< 1.52	U		--			--			--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			--			< 4.54	U		< 56.7	U		--			--			--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			--			< 1.12	U		< 14	U		--			--			--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			--			< 0.482	U		< 6.03	U		--			--			--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			--			< 0.449	U		< 5.61	U		--			--			--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			--			< 3.59	U		< 44.9	U		--			--			--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			--			< 0.139	U		< 1.74	U		--			--			--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			--			< 0.0920	U		< 1.15	U		--			--			--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			--			< 20.3	U		< 254	U		--			--			--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			--			< 0.0658	U		< 0.823	U		--			--			--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			--			< 0.0570	U		< 0.712	U		--			--			--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			--			< 0.216	U		< 2.69	U		--			--			--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			--			< 0.0539	U		< 0.673	U		--			--			--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			--			< 1.05	U		< 13.1	U		--			--			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			--			< 0.0510	U		< 0.638	U		--			--			--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			--			< 0.0516	U		< 0.645	U		--			--			--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			--			< 1.89	U		< 23.6	U		--			--			--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			--			< 0.0575	U		< 0.718	U		--			--			--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			--			< 0.126	U		< 1.58	U		--			--			--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			--			< 0.0501	U		< 0.626	U		--			--			--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			--			< 0.0579	U		< 0.724	U		--			--			--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			--			< 0.0460	U		< 0.575	U		--			--			--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			--			< 0.447	U		< 5.59	U		--			--			--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2-Chloronaphthalene			2-Chlorophenol			2-Chlorotoluene			2-Hexanone			2-Methyl-4,6-dinitrophenol			2-Methylnaphthalene			2-Methylphenol			2-Nitroaniline		
Screening Criteria (mg/kg)																						15					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			--			< 0.0022	U		< 0.0278	U		--			--			--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			--			< 0.442	U		< 5.52	U		--			--			--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			--			< 0.444	U		< 5.54	U		--			--			--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			--			< 0.0024	U		< 0.0301	U		--			--			--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			--			< 0.377	U		< 4.71	U		--			--			--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			--			< 21.7	U		< 271	U		--			--			--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			--			< 12.3	U		< 153	U		--			--			--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			--			< 1.41	U		< 17.6	U		--			--			--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			--			< 0.218	U		< 2.72	U		--			--			--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			--			< 0.0768	U	UJ	< 0.96	U	UJ	--			--			--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			--			< 0.0519	U		< 0.649	U		--			--			--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			--			< 0.423	U		< 5.28	U		--			--			--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			--			< 0.481	U		< 6.02	U		--			--			--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			--			< 0.88	U		< 11	U		--			--			--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			--			< 2.29	U		< 28.6	U		--			--			--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			--			< 2.33	U		< 29.1	U		--			--			--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			--			< 0.0581	U		< 0.727	U		--			--			--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			--			< 0.474	U		< 5.92	U		--			--			--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			--			< 0.443	U		< 5.53	U		--			--			--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			--			< 0.453	U		< 5.67	U		--			--			--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			--			< 0.421	U		< 5.27	U		--			--			--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			--			< 0.449	U		< 5.61	U		--			--			--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			--			< 5.13	U		< 64.1	U		--			--			--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			--			< 0.0698	U		< 0.872	U		--			--			--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			--			< 0.29	U		< 3.62	U		--			--			--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	--			--			< 0.0633	U		< 0.791	U		--			--			--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	--			--			< 0.836	U		< 10.5	U		--			--			--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	--			--			< 0.0023	U		< 0.0283	U		--			--			--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	--			--			< 0.0020	U		< 0.0253	U		--			--			--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			--			< 0.0022	U		< 0.0269	U		--			--			--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	--			--			< 0.512	U		< 6.41	U		--			--			--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			--			< 0.469	U		< 5.87	U		--			--			--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	--			--			< 0.444	U		< 5.54	U		--			--			--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	--			--			< 12.4	U		< 155	U		--			--			--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			--			< 12	U		< 150	U		--			--			--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	--			--			< 0.0020	U		< 0.0254	U		--			--			--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	--			--			< 0.44	U		< 5.5	U		--			--			--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	--			--			< 0.627	U		< 7.84	U		--			--			--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			--			< 2.31	U		< 28.9	U		--			--			--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	--			--			< 0.0024	U		< 0.0294	U		--			--			--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	--			--			< 0.489	U		< 6.11	U		--			--			--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	--			--			< 10.3	U		< 129	U		--			--			--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	--			--			< 0.551	U		< 6.88	U		--			--			--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	--			--			< 0.0963	U		< 1.2	U		--			--			--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			--			< 23.8	U		< 298	U		--			--			--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			--			< 0.477	U		< 5.97	U		--			--			--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			--			< 0.997	U		< 12.5	U		--			--			--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			--			< 0.0980	U		< 1.23	U	UJ	--			--			--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	--			--			< 0.0022	U		< 0.0272	U		--			--			--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	--			--			< 0.0023	U		0.0026	J		--			--			--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	--			--			< 4.57	U		< 57.2	U		--			--			--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	--			--			< 9.71	U		< 121	U		--			--			--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			--			< 24.7	U		< 309	U		--			--			--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	--			--			< 0.0018	U		< 0.0230	U		--			--			--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	--			--			< 0.0021	U		< 0.0264	U		--			--			--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	--			--			0.339			< 0.862	U		--			--			--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	--			--			< 4.56	U		< 57.1	U		--			--			--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	--			--			< 1.07	U		< 13.3	U		--			--			--			--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2-Nitrophenol			3&4-Methylphenol			3,3-Dichlorobenzidine			3-Nitroaniline			4-Bromophenyl phenyl ether			4-Chloro-3-methylphenol			4-Chloroaniline			4-Chlorophenyl phenyl ether		
Screening Criteria (mg/kg)										0.007												0.7					
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-101	SB101-20-120722	20	12/7/2022	< 0.33	UF1	UJ	< 0.66	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.39	U	UJ	< 0.77	U		< 0.39	U*+		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.4	U	UJ	< 0.8	U		< 0.4	U*+		< 0.4	U		< 0.4	U		< 0.4	U		< 0.4	U		< 0.4	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.39	U	UJ	< 0.78	U		< 0.39	UF1*+		< 0.39	U*+		< 0.39	U		< 0.39	U	UJ	< 0.39	U		< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.35	U		< 0.69	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U		< 0.76	U		< 0.38	U*+		< 0.38	U		< 0.38	U		< 0.38	U		< 0.38	U		< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	< 0.41	U		< 0.82	U		< 0.41	U*+		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.41	U		< 0.83	U		< 0.41	U*+		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	< 0.38	U		< 0.76	U		< 0.38	U*+		< 0.38	U		< 0.38	U		< 0.38	U		1.4			< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	< 0.34	U		< 0.69	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.33	U		< 0.66	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.37	UF1	UJ	< 0.74	U		< 0.37	U*+		< 0.37	UF2*+		< 0.37	U		< 0.37	U		< 0.37	UF1	UJ	< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.34	U		< 0.68	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.34	U		< 0.67	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.34	U	UJ	< 0.69	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.34	U	UJ	< 0.67	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.41	U		< 0.83	U		< 0.41	U*+		< 0.41	U*+		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.32	U		< 0.65	U		< 0.32	U*+		< 0.32	U*+		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.36	U		< 0.72	U		< 0.36	U*+		< 0.36	U*+		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.44	U		< 0.88	U		< 0.44	U*+		< 0.44	U*+		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.33	U		< 0.65	U		< 0.33	U*+		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.34	U		< 0.67	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.34	U	UJ	< 0.67	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.35	U	UJ	< 0.69	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.33	U	UJ	< 0.66	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.34	U		< 0.68	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.34	U		< 0.69	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.33	U		< 0.67	U		< 0.33	U*+		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.36	U		< 0.71	U		< 0.36	U*+		< 0.36	U*+		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.36	U	UJ	< 0.71	U		< 0.36	U*+		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U*1		< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.41	U	UJ	< 0.83	U		< 0.41	U*+		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U*1		< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.34	U	UJ	< 0.68	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U*1		< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.34	U		< 0.67	U		< 0.34	UF1*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.34	U		< 0.67	U		< 0.34	U*+F1		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.34	U		< 0.67	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.35	U		< 0.7	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.34	U		< 0.69	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.35	U		< 0.69	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.37	U		< 0.74	U		< 0.37	U*+		< 0.37	U		< 0.37	U		< 0.37	U		< 0.37	U		< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.35	U		< 0.7	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.33	U		< 0.66	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.33	U		< 0.67	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.36	U		< 0.72	U		< 0.36	U*+		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.33	U		< 0.67	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.33	U		< 0.67	U		< 0.33	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.34	U		< 0.68	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.34	U		< 0.69	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.35	U		< 0.71	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.33	U		< 0.65	U		< 0.33	U*+F1		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.34	U		< 0.68	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.34	U	UJ	< 0.67	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.34	U	UJ	< 0.68	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.34	U	UJ	< 0.69	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.34	U	UJ	< 0.68	U		< 0.34	U*+		< 0.34	U*+		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.35	U		< 0.7	U		< 0.35	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.34	U		< 0.67	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.34	U		< 0.68	U		< 0.34	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2-Nitrophenol			3&4-Methylphenol			3,3-Dichlorobenzidine			3-Nitroaniline			4-Bromophenyl phenyl ether			4-Chloro-3-methylphenol			4-Chloroaniline			4-Chlorophenyl phenyl ether		
Screening Criteria (mg/kg)										0.007												0.7					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-43-051723	43	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-58-051723	58	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-68-051323	68	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-77-052423	77	5/24/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-42-062023	42	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-57-062023	57	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-65-062023	65	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-78-062023	78	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-40-062023	40	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-55-062023	55	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-67-062023	67	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-73-062023	73	6/20/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-39-061923	39	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-45-061923	45	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-58-061923	58	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-68-061923	68	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-77-061923	77	6/19/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-15-061723	15	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-39-061723	39	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-58-061723	58	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-67-061723	67	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-78-061723	78	6/17/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			--			--			--			--			--			--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			--			--			--			--			--			--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			--			--			--			--			--			--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			--			--			--			--			--			--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			--			--			--			--			--			--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			--			--			--			--			--			--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			--			--			--			--			--			--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			--			--			--			--			--			--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			--			--			--			--			--			--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			--			--			--			--			--			--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			--			--			--			--			--			--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			--			--			--			--			--			--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			--			--			--			--			--			--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			--			--			--			--			--			--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			--			--			--			--			--			--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			--			--			--			--			--			--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			--			--			--			--			--			--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			--			--			--			--			--			--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			--			--			--			--			--			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			--			--			--			--			--			--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			--			--			--			--			--			--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			--			--			--			--			--			--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			--			--			--			--			--			--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			--			--			--			--			--			--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			--			--			--			--			--			--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			--			--			--			--			--			--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			--			--			--			--			--			--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			--			--			--			--			--			--			--		

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				2-Nitrophenol			3&4-Methylphenol			3,3-Dichlorobenzidine			3-Nitroaniline			4-Bromophenyl phenyl ether			4-Chloro-3-methylphenol			4-Chloroaniline			4-Chlorophenyl phenyl ether		
Screening Criteria (mg/kg)										0.007												0.7					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			--			--			--			--			--			--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			--			--			--			--			--			--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			--			--			--			--			--			--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			--			--			--			--			--			--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			--			--			--			--			--			--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			--			--			--			--			--			--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			--			--			--			--			--			--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			--			--			--			--			--			--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			--			--			--			--			--			--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			--			--			--			--			--			--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			--			--			--			--			--			--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			--			--			--			--			--			--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			--			--			--			--			--			--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			--			--			--			--			--			--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			--			--			--			--			--			--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			--			--			--			--			--			--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			--			--			--			--			--			--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			--			--			--			--			--			--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			--			--			--			--			--			--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			--			--			--			--			--			--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			--			--			--			--			--			--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	--			--			--			--			--			--			--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	--			--			--			--			--			--			--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	--			--			--			--			--			--			--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	--			--			--			--			--			--			--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			--			--			--			--			--			--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	--			--			--			--			--			--			--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			--			--			--			--			--			--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	--			--			--			--			--			--			--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	--			--			--			--			--			--			--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	--			--			--			--			--			--			--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	--			--			--			--			--			--			--			--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				4-Chlorotoluene			4-Methyl-2-Pentanone (MIBK)			4-Nitroaniline			4-Nitrophenol			Acenaphthene			Acenaphthylene			Acetone			Acrolein		
Screening Criteria (mg/kg)																570						25					
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	UF1		< 0.027	U		< 0.33	U		< 0.33	UF1		< 0.0066	U		< 0.0066	U		< 0.027	U		< 0.053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 66	U		< 0.39	U		< 0.39	U		< 0.0077	U		0.0018	J		< 66	U		< 130	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 18	U		< 0.4	U		< 0.4	U		< 0.0080	U		< 0.0080	U		< 18	U		< 36	U*+	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.023	U		< 0.39	U		< 0.39	U		< 0.0078	U		< 0.0078	U		< 0.023	U		< 0.046	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.027	U		< 0.35	U		< 0.35	U		0.0011	J		0.0018	J		< 0.027	U		< 0.054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 1.9	U	UJ	< 0.38	U		< 0.38	U		0.0069	J		< 0.0076	JB	U	< 1.9	U	UJ	< 3.8	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 2.7	U	UJ	< 0.41	U		< 0.41	U		0.014			< 0.0080	JB	U	< 2.7	U	UJ	< 5.5	U	UJ
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 1.9	U	UJ	< 0.41	U		< 0.41	U		0.014			< 0.0081	JB	U	< 1.9	U	UJ	< 3.7	U	UJ
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 58	U	UJ	< 0.38	U		< 0.38	U		0.021			0.012			< 58	U	UJ	< 120	U	UJ
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.022	U	UJ	< 0.34	U		< 0.34	U		< 0.0069	U		< 0.0069	U		< 0.022	U	UJ	< 0.043	U	UJ
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.027	U		< 0.33	U		< 0.33	U		0.0020	J		0.0017	J		< 0.027	U		< 0.054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.031	U	UJ	< 0.37	UF2		< 0.37	UF2		< 0.0074	U		< 0.0074	U		< 0.031	U	UJ	< 0.062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.026	U	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.026	U	UJ	< 0.051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.028	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.028	U		< 0.057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.034	U	UJ	< 0.34	U		< 0.34	U		< 0.0069	U		< 0.0069	U		< 0.034	U	UJ	< 0.069	U*+	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.026	U	UJ	< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.026	U	UJ	< 0.051	U*+	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.03	U		< 0.41	U		< 0.41	U		< 0.0083	U		< 0.0083	U		< 0.03	U		< 0.06	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.026	U		< 0.32	U		< 0.32	U		< 0.0065	U		< 0.0065	U		< 0.026	U		< 0.052	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.027	U		< 0.36	U		< 0.36	U		< 0.0072	U		< 0.0072	U		< 0.027	U		< 0.055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.027	U		< 0.44	U		< 0.44	U		< 0.0088	U		< 0.0088	U		< 0.027	U		< 0.053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.026	U		< 0.33	U		< 0.33	U		< 0.0065	U		< 0.0065	U		< 0.026	U		< 0.053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.029	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.029	U		< 0.058	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.027	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.027	U		< 0.054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.026	U		< 0.35	U		< 0.35	U		< 0.0069	U		< 0.0069	U		< 0.026	U		< 0.053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.051	U		< 0.33	U		< 0.33	U		< 0.0066	U		< 0.0066	U		< 0.051	U		< 0.1	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.026	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.026	U		< 0.053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.027	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.0069	U		< 0.027	U		< 0.054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.04	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.0067	U		< 0.04	U		< 0.081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.036	U		< 0.36	U		< 0.36	U		< 0.0071	U		< 0.0071	U		< 0.036	U		< 0.072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.034	U		< 0.36	U		< 0.36	U		< 0.0071	U		< 0.0071	U		< 0.034	U		< 0.068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.026	U		< 0.41	U		< 0.41	U		< 0.0083	U		< 0.0083	U		< 0.026	U		< 0.053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.018	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.018	U		< 0.036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.029	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.029	U		< 0.058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.028	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.028	U		< 0.056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.026	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.026	U		< 0.053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.031	U		< 0.35	U		< 0.35	U		< 0.0070	U		< 0.0070	U		< 0.031	U		< 0.062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.026	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.0069	U		< 0.026	U		< 0.053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.03	U		< 0.35	U		< 0.35	U		< 0.0069	U		< 0.0069	U		< 0.03	U		< 0.061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.03	U		< 0.37	U		< 0.37	U		< 0.0074	U		< 0.0074	U		< 0.03	U		< 0.059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.028	U		< 0.35	U		< 0.35	U		< 0.0070	U		< 0.0070	U		< 0.028	U		< 0.056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.028	U		< 0.33	U		< 0.33	U		< 0.0066	U		< 0.0066	U		< 0.028	U		< 0.056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.027	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.0067	U		< 0.027	U		< 0.053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.049	U		< 0.36	U		< 0.36	U		< 0.0072	U		< 0.0072	U		< 0.049	U		< 0.098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.028	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.0067	U		< 0.028	U		< 0.056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.024	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.0067	U		< 0.024	U		< 0.049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.026	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.026	U		< 0.053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.031	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.0069	U		< 0.031	U		< 0.062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.027	U		< 0.35	U		< 0.35	U		< 0.0071	U		< 0.0071	U		< 0.027	U		< 0.055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.025	U		< 0.33	U		< 0.33	U		< 0.0065	U		< 0.0065	U		< 0.025	U		< 0.051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.026	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.026	U		< 0.052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.027	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.027	U		< 0.054	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.025	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.025	U		< 0.051	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.028	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.0069	U		< 0.028	U		< 0.056	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.028	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.028	U		< 0.056	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.037	U	UJ	< 0.35	U		< 0.35	U		< 0.0070	U		< 0.0070	U		< 0.037	U	UJ	< 0.074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.043	U	UJ	< 0.34	U		< 0.34	U		< 0.0067	U		< 0.0067	U		< 0.043	U	UJ	< 0.085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.026	U	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.0068	U		< 0.026	U	UJ	< 0.051	U	UJ

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				4-Chlorotoluene			4-Methyl-2-Pentanone (MIBK)			4-Nitroaniline			4-Nitrophenol			Acenaphthene			Acenaphthylene			Acetone			Acrolein		
Screening Criteria (mg/kg)																570						25					
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.721	U		--			--			--			--			< 0.721	U	UJ	< 1.44	U	
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.609	U		--			--			--			--			< 0.609	U	UJ	< 1.22	U	
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0254	U		--			--			--			--			0.0547		J	< 0.0508	U	
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 6.68	U		--			--			--			--			< 6.68	U	UJ	< 13.4	U	
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0235	U		--			--			--			--			0.213		J	< 0.0469	U	
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		< 3.35	U		--			--			--			--			< 3.35	U	UJ	< 6.71	U	
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 28.9	U		--			--			--			--			< 28.9	U		< 57.8	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 26.6	U		--			--			--			--			< 26.6	U		< 53.1	U	
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 0.751	U		--			--			--			--			< 0.751	U	UJ	< 1.5	U	
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 0.76	U	UJ	--			--			--			--			< 0.76	U	UJ	< 1.52	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 5.75	U		--			--			--			--			< 5.75	U		< 11.5	U	
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		< 0.759	U		--			--			--			--			< 0.759	U		< 1.52	U	
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.648	U	UJ	--			--			--			--			< 0.648	U	UJ	< 1.3	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0239	U		--			--			--			--			< 0.0239	U	UJ	< 0.0477	U	
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 0.726	U		--			--			--			--			< 0.726	U		< 1.45	U	
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 0.77	U	UJ	--			--			--			--			< 0.77	U	UJ	< 1.54	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.775	U		--			--			--			--			< 0.775	U	UJ	< 1.55	U	
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		< 8.65	U		--			--			--			--			< 8.65	U		< 17.3	U	
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0233	U		--			--			--			--			0.0822		J	< 0.0466	U	
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.653	U		--			--			--			--			< 0.653	U	UJ	< 1.31	U	
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		< 5.58	U		--			--			--			--			< 5.58	U		< 11.2	U	
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 4.74	U		--			--			--			--			< 4.74	U		< 9.48	U	
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 1.57	U		--			--			--			--			< 1.57	U		< 3.13	U	
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 5.65	U	UJ	--			--			--			--			< 5.65	U	UJ	< 11.3	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 0.601	U		--			--			--			--			< 0.601	U		< 1.2	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0294	U		--			--			--			--			0.111		J	< 0.0588	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 6.22	U		--			--			--			--			< 6.22	U	UJ	< 12.4	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 29	U		--			--			--			--			< 29	U	UJ	< 58.1	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0358	U		--			--			--			--			0.0944		J	< 0.0715	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 11.2	U		--			--			--			--			22.7		J	< 22.3	U	UJ
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 5.25	U		--			--			--			--			< 5.25	U	UJ	< 10.5	U	UJ
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		< 6.69	U		--			--			--			--			< 6.69	U		< 13.4	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		< 0.746	U		--			--			--			--			< 0.746	U		< 1.49	U	
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U		< 0.0265	U		--			--			--			--			0.167			< 0.0530	U	
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 1.52	U		--			--			--			--			< 1.52	U	UJ	< 3.04	U	UJ
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 56.7	U		--			--			--			--			34	J	J	< 113	U	
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 14	U		--			--			--			--			< 14	U	UJ	< 28.1	U	UJ
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 6.03	U		--			--			--			--			< 6.03	U	UJ	< 12.1	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 5.61	U		--			--			--			--			< 5.61	U	UJ	< 11.2	U	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 44.9	U		--			--			--			--			< 44.9	U	UJ	< 89.7	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 1.74	U		--			--			--			--			1	BJ	J	< 3.47	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 1.15	U		--			--			--			--			< 1.15	U		< 2.3	U	
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 254	U		--			--			--			--			160	BJ	J	< 507	U	
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.823	U		--			--			--			--			< 0.823	U		< 1.65	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 0.712	U		--			--			--			--			< 0.712	U		< 1.42	U	
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 2.69	U		--			--			--			--			< 2.69	U		< 5.39	U	UJ
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 0.673	U		--			--			--			--			< 0.673	U		< 1.35	U	UJ
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 13.1	U		--			--			--			--			97.1			< 26.2	U	UJ
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.638	U		--			--			--			--			< 0.638	U		< 1.28	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 0.645	U		--			--			--			--			< 0.645	U		< 1.29	U	
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 23.6	U		--			--			--			--			29.4		J	< 47.1	U	
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 0.718	U		--			--			--			--			< 0.718	U		< 1.44	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 1.58	U		--			--			--			--			< 1.58	U		< 3.16	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 0.626	U		--			--			--			--			< 0.626	U		< 1.25	U	
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		< 0.724	U		--			--			--			--			< 0.724	U		< 1.45	U	UJ
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		< 0.575	U		--			--			--			--			< 0.575	U		< 1.15	U	UJ
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		< 5.59	U		--			--			--			--			< 5.59	U		< 11.2	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				4-Chlorotoluene			4-Methyl-2-Pentanone (MIBK)			4-Nitroaniline			4-Nitrophenol			Acenaphthene			Acenaphthylene			Acetone			Acrolein		
Screening Criteria (mg/kg)																570						25					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0278	U		--			--			--			--			0.0599		J	< 0.0555	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 5.52	U		--			--			--			--			< 5.52	BU	UJ	< 11	U	
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 5.54	U		--			--			--			--			< 5.54	BU	UJ	< 11.1	U	
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0301	U		--			--			--			--			0.0931		J	< 0.0603	U	
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 4.71	U		--			--			--			--			1.4	BJ		< 9.42	U	
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 271	U		--			--			--			--			91	BJ		< 542	U	
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 153	U		--			--			--			--			49	BJ		< 307	U	
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 17.6	U		--			--			--			--			< 17.6	U	UJ	< 35.2	U	
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 2.72	U		--			--			--			--			< 2.72	U	UJ	< 5.45	U	
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.96	U	UJ	--			--			--			--			< 0.96	U	UJ	< 1.92	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.649	U		--			--			--			--			< 0.649	U	UJ	< 1.3	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 5.28	U		--			--			--			--			1.7	J	J	< 10.6	U	
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 6.02	U		--			--			--			--			< 6.02	U		< 12	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 11	U		--			--			--			--			< 11	U		< 22	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 28.6	U		--			--			--			--			< 28.6	U		< 57.2	U	
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 29.1	U		--			--			--			--			< 29.1	U		< 58.3	U	
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 0.727	U		--			--			--			--			< 0.727	U		< 1.45	U	
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 5.92	U		--			--			--			--			< 5.92	U	UJ	< 11.8	U	
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 5.53	U		--			--			--			--			< 5.53	U	UJ	< 11.1	U	
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 5.67	U		--			--			--			--			< 5.67	U	UJ	< 11.3	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 5.27	U		--			--			--			--			< 5.27	U	UJ	< 10.5	U	
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 5.61	U		--			--			--			--			< 5.61	U	UJ	< 11.2	U	
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 64.1	U		--			--			--			--			< 64.1	U	UJ	< 128	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		< 0.872	U		--			--			--			--			2.95		J	< 1.74	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 3.62	U		--			--			--			--			5.75		J	< 7.25	U	
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.791	U		--			--			--			--			1.93		J	< 1.58	U	
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 10.5	U		--			--			--			--			< 10.5	U	UJ	< 20.9	U	
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0283	U		--			--			--			--			< 0.0283	U	UJ	< 0.0565	U	
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		< 0.0253	U		--			--			--			--			< 0.0253	U	UJ	< 0.0507	U	
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		< 0.0269	U		--			--			--			--			< 0.0269	U	UJ	< 0.0538	U	
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 6.41	U		--			--			--			--			< 6.41	U		< 12.8	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 5.87	U		--			--			--			--			< 5.87	U		< 11.7	U	
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 5.54	U		--			--			--			--			< 5.54	U		< 11.1	U	
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 155	U		--			--			--			--			< 155	U		< 309	U	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 150	U		--			--			--			--			48	J		< 300	U	
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0254	U		--			--			--			--			0.0766			< 0.0507	U	
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 5.5	U		--			--			--			--			< 5.5	U		< 11	U	
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 7.84	U		--			--			--			--			4.5	J		< 15.7	U	
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 28.9	U		--			--			--			--			< 28.9	U		< 57.7	U	
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0294	U		--			--			--			--			0.025	J		< 0.0588	U	
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 6.11	U		--			--			--			--			3.2	J		< 12.2	U	
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 129	U		--			--			--			--			< 129	BU		< 259	U	
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		< 6.88	U	UJ	--			--			--			--			1.8	J		< 13.8	U	UJ
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 1.2	U		--			--			--			--			< 1.2	U		< 2.41	U	
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 298	U		--			--			--			--			< 298	U		< 595	U	
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 5.97	U		--			--			--			--			< 5.97	U		< 11.9	U	
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 12.5	U		--			--			--			--			< 12.5	U		< 24.9	U	
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		< 1.23	U		--			--			--			--			0.38	J	J	< 2.45	U	UJ
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0272	U		--			--			--			--			0.112			< 0.0545	U	
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0293	U		--			--			--			--			0.128			< 0.0585	U	
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 57.2	U		--			--			--			--			< 57.2	U	UJ	< 114	U	
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 121	U		--			--			--			--			< 121	U	UJ	< 243	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 309	U		--			--			--			--			< 309	U	UJ	< 618	U	
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0230	U		--			--			--			--			< 0.0230	U		< 0.0460	U	
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0264	U		--			--			--			--			0.0365		J	< 0.0528	U	
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 0.862	U		--			--			--			--			< 0.862	U		< 1.72	U	UJ
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 57.1	U		--			--			--			--			< 57.1	U	UJ	< 114	U	
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 13.3	U		--			--			--			--			< 13.3	U	UJ	< 26.6	U	

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Acrylonitrile			Aniline			Anthracene			Azobenzene			Benzene			Benzenethiol			Benzo(a)anthracene			Benzo(a)pyrene		
Screening Criteria (mg/kg)										12000						0.03						0.9			0.09		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.021	U		< 0.33	U	UJ	< 0.0066	JB	U	< 0.33	U		< 0.0053	U		< 0.33	U		< 0.0066	JB	U	< 0.0066	JB	U
SB-101	SB101-48-120722	48	12/7/2022	< 53	U		< 0.39	U	UJ	< 0.0077	U		< 0.39	U		730			< 0.39	U		< 0.0077	JB	U	< 0.0077	JB	U
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 14	U		< 0.4	U	UJ	< 0.0080	U		< 0.4	U		280			< 0.4	U		< 0.0080	JB	U	< 0.0080	JB	U
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.019	U		< 0.39	U	UJ	< 0.0078	U		< 0.39	U		0.97			< 0.39	U		< 0.0078	U		< 0.0078	JB	U
SB-102	SB102-10-120522	10	12/5/2022	< 0.022	U		< 0.35	U		< 0.0069	JB	U	< 0.35	U		< 0.0054	U		< 0.35	U		< 0.0069	JB	U	< 0.0069	JB	U
SB-102	SB102-42-120622	42	12/6/2022	< 1.5	U	UJ	< 0.38	U		0.013	B		< 0.38	U		8.5		J	< 0.38	U		0.0062	J		0.0041	J	
SB-102	SB102-52-120622	52	12/6/2022	< 2.2	U	UJ	< 0.41	U		< 0.0080	U		< 0.41	U		12		J	< 0.41	U		0.0022	J		< 0.0080	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 1.5	U	UJ	< 0.41	U		< 0.0081	U		< 0.41	U		17		J	< 0.41	U		0.0019	J		< 0.0081	U	
SB-102	SB102-55-120622	55	12/6/2022	< 46	U	UJ	< 0.38	U		< 0.0076	U		< 0.38	U		610		J	< 0.38	U		< 0.0076	JB	U	< 0.0076	JB	U
SB-102	SB102-72-120622	72	12/6/2022	< 0.017	U	UJ	< 0.34	U		< 0.0069	U		< 0.34	U		3.7		J	< 0.34	U		< 0.0069	JB	U	< 0.0069	JB	U
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.021	U		< 0.33	U		< 0.0066	JB	U	< 0.33	U		< 0.0054	U		< 0.33	U		0.048	B		0.062	B	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.025	U	UJ	< 0.37	U		< 0.0074	U		< 0.37	UF1	UJ	< 0.0062	U	UJ	< 0.37	U*1		< 0.0074	JB	U	< 0.0074	JB	U
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.02	U	UJ	< 0.34	U		0.0011	J		< 0.34	U	UJ	< 0.0051	U	UJ	< 0.34	U*1		< 0.0068	JB	U	< 0.0068	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.023	U		< 0.34	U		< 0.0067	JB	U	< 0.34	U		< 0.0057	U		< 0.34	U		< 0.0080	B	U	< 0.0088	B	U
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.027	U	UJ	< 0.34	U	UJ	< 0.0069	U		< 0.34	U		< 0.0069	U	UJ	< 0.34	U		< 0.0069	JB	U	< 0.0069	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.02	U	UJ	< 0.34	U	UJ	< 0.0067	U		< 0.34	U		0.0021	J	J	< 0.34	U		< 0.0067	U		< 0.0067	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.024	U		< 0.41	U		< 0.0083	U		< 0.41	U	UJ	< 0.0060	U		< 0.41	U*1		< 0.0083	JB	U	< 0.0083	JB	U
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.021	U		< 0.32	U		< 0.0065	U		< 0.32	U	UJ	< 0.0052	U		< 0.32	U*1		< 0.0065	JB	U	< 0.0065	JB	U
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.022	U		< 0.36	U		0.0011	J		< 0.36	U	UJ	< 0.0055	U		< 0.36	U*1		< 0.0072	U		< 0.0072	JB	U
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.021	U		< 0.44	U		< 0.0088	U		< 0.44	U	UJ	< 0.0053	U		< 0.44	U*1		< 0.0088	U		< 0.0088	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.021	U		< 0.33	U		< 0.0065	U		< 0.33	U	UJ	< 0.0053	U		< 0.33	U*1		< 0.0065	JB	U	< 0.0065	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.023	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.34	U*1		< 0.0067	JB	U	< 0.0067	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.021	U		< 0.34	U		0.0015	J		< 0.34	U		< 0.0054	U		< 0.34	U		< 0.0067	JB	U	< 0.0067	JB	U
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.021	U		< 0.35	U		0.0019	J		< 0.35	U		< 0.0053	U		< 0.35	U		< 0.0069	JB	U	< 0.0069	JB	U
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.041	U		< 0.33	U		< 0.0066	U		< 0.33	U		< 0.01	U		< 0.33	U		< 0.0066	U		< 0.0066	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.021	U		< 0.34	U		< 0.0068	U		< 0.34	U	UJ	< 0.0053	U		< 0.34	U*1		< 0.0068	JB	U	< 0.0068	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.022	U		< 0.34	U		0.0011	J		< 0.34	U	UJ	< 0.0054	U		< 0.34	U*1		< 0.0069	JB	U	< 0.0069	JB	U
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.032	U		< 0.33	U		< 0.0067	U		< 0.33	U	UJ	< 0.0081	U		< 0.33	U*1		< 0.0067	JB	U	< 0.0067	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.029	U		< 0.36	U		< 0.0071	U		< 0.36	U	UJ	< 0.0072	U		< 0.36	U*1		< 0.0071	JB	U	< 0.0071	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.027	U		< 0.36	U		< 0.0071	U		< 0.36	U	UJ	< 0.0068	U		< 0.36	U*1		< 0.0071	JB	U	< 0.0071	JB	U
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.021	U		< 0.41	U		0.0028	J		< 0.41	U	UJ	< 0.0053	U		< 0.41	U*1		< 0.0083	JB	U	< 0.0083	JB	U
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.014	U		< 0.34	U		0.0011	J		< 0.34	U	UJ	< 0.0036	U		< 0.34	U*1		< 0.0068	JB	U	< 0.0068	JB	U
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.023	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.34	U*-*1	UJ	0.0023	J		< 0.0067	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.022	U		< 0.34	U	UJ	< 0.0067	JB	U	< 0.34	U		< 0.0056	U		< 0.34	U		< 0.0067	JB	U	0.0044	J	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.021	U		< 0.34	U	UJ	< 0.0067	JB	U	< 0.34	U		< 0.0053	U		< 0.34	U		< 0.0067	JB	U	< 0.0067	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.025	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0062	U		< 0.35	U*-*1	UJ	< 0.0070	U		< 0.0070	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.021	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0053	U		< 0.34	U*-*1	UJ	< 0.0069	U		< 0.0069	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.024	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.0061	U		< 0.35	U*-*1	UJ	< 0.0069	U		< 0.0069	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.024	U		< 0.37	U		< 0.0074	U		< 0.37	U		< 0.0059	U		< 0.37	U*-*1	UJ	< 0.0074	U		< 0.0074	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.022	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0056	U		< 0.35	U		< 0.0070	JB	U	< 0.0070	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.023	U		< 0.33	U		< 0.0066	U		< 0.33	U		< 0.0056	U		< 0.33	U		< 0.0066	U		< 0.0066	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.021	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0053	U		< 0.33	U		< 0.0067	U		< 0.0067	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.039	U		< 0.36	U		< 0.0072	U		< 0.36	U		< 0.0098	U		< 0.36	U		< 0.0072	U		< 0.0072	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.022	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0056	U		< 0.33	U		< 0.0067	U		< 0.0067	JB	U
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.02	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0049	U		< 0.33	U		< 0.0067	JB	U	< 0.0067	JB	U
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.021	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0053	U		< 0.34	U		< 0.0068	U		< 0.0068	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.025	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0062	U		< 0.34	U		< 0.0069	U		< 0.0069	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.022	U		< 0.35	U		< 0.0071	U		< 0.35	U		< 0.0055	U		< 0.35	U		< 0.0071	U		< 0.0071	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.02	U		< 0.33	U		< 0.0065	U		< 0.33	U		< 0.0051	U		< 0.33	U		< 0.0065	JB	U	< 0.0065	JB	U
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.021	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0052	U		< 0.34	U		< 0.0068	JB	U	< 0.0068	JB	U
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.021	U		< 0.34	U	UJ	< 0.0067	U		< 0.34	U		< 0.0054	U		< 0.34	U		< 0.0067	U		< 0.0067	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.02	U		< 0.34	U	UJ	< 0.0068	U		< 0.34	U		< 0.0051	U		< 0.34	U		< 0.0068	U		< 0.0068	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.022	U		< 0.34	U	UJ	< 0.0069	U		< 0.34	U		< 0.0056	U		< 0.34	U		< 0.0069	U		< 0.0069	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.022	U		< 0.34	U	UJ	< 0.0068	U		< 0.34	U		< 0.0056	U		< 0.34	U		< 0.0068	U		< 0.0068	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.03	U	UJ	< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0074	U	UJ	< 0.35	U*-*1	UJ	0.0032	J		< 0.0070	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.034	U	UJ	< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0085	U	UJ	< 0.34	U*-*1	UJ	< 0.0067	U		< 0.0067	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.02	U	UJ	< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0051	U	UJ	< 0.34	U*-*1	UJ	< 0.0068	U		< 0.0068	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Acrylonitrile			Aniline			Anthracene			Azobenzene			Benzene			Benzenethiol			Benzo(a)anthracene			Benzo(a)pyrene		
Screening Criteria (mg/kg)										12000						0.03						0.9			0.09		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.144	U		--			--			--			< 0.0288	U		--			--			--		
SB-103	SB103-43-051723	43	5/17/2023	< 0.122	U		--			--			--			< 0.0244	U		--			--			--		
SB-103	SB103-58-051723	58	5/17/2023	< 0.0051	U		--			--			--			0.0345			--			--			--		
SB-103	SB103-68-051323	68	5/17/2023	< 1.34	U		--			--			--			1030			--			--			--		
SB-103	SB103-77-052423	77	5/24/2023	< 0.0047	U		--			--			--			0.0081			--			--			--		
SB-104	SB104-42-062023	42	6/20/2023	< 0.671	U		--			--			--			14			--			--			--		
SB-104	SB104-57-062023	57	6/20/2023	< 5.78	U		--			--			--			149			--			--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 5.31	U		--			--			--			197			--			--			--		
SB-104	SB104-65-062023	65	6/20/2023	< 0.15	U		--			--			--			0.382			--			--			--		
SB-104	SB104-78-062023	78	6/20/2023	< 0.152	U	UJ	--			--			--			< 0.0304	U	UJ	--			--			--		
SB-105	SB105-40-062023	40	6/20/2023	< 1.15	U		--			--			--			< 0.23	U		--			--			--		
SB-105	SB105-55-062023	55	6/20/2023	0.451			--			--			--			471			--			--			--		
SB-105	SB105-67-062023	67	6/20/2023	< 0.13	U	UJ	--			--			--			0.27			--			--			--		
SB-105	SB105-73-062023	73	6/20/2023	< 0.0048	U		--			--			--			0.0077			--			--			--		
SB-106	SB106-39-061923	39	6/19/2023	< 0.145	U		--			--			--			< 0.0291	U		--			--			--		
SB-106	SB106-45-061923	45	6/19/2023	< 0.154	U	UJ	--			--			--			< 0.0308	U	UJ	--			--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.155	U		--			--			--			< 0.0310	U		--			--			--		
SB-106	SB106-58-061923	58	6/19/2023	< 1.73	U		--			--			--			1530			--			--			--		
SB-106	SB106-68-061923	68	6/19/2023	< 0.0047	U		--			--			--			0.0419			--			--			--		
SB-106	SB106-77-061923	77	6/19/2023	< 0.131	U		--			--			--			0.0598			--			--			--		
SB-107	SB107-15-061723	15	6/17/2023	< 1.12	U		--			--			--			< 0.223	U		--			--			--		
SB-107	SB107-39-061723	39	6/17/2023	< 0.948	U		--			--			--			< 0.19	U		--			--			--		
SB-107	SB107-58-061723	58	6/17/2023	< 0.313	U		--			--			--			7.37			--			--			--		
SB-107	SB107-67-061723	67	6/17/2023	< 1.13	U	UJ	--			--			--			51.4			--			--			--		
SB-107	SB107-78-061723	78	6/17/2023	< 0.12	U		--			--			--			0.0305			--			--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0059	U		--			--			--			0.0103			--			--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 1.24	U		--			--			--			502			--			--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 5.81	U		--			--			--			119			--			--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0072	U		--			--			--			152			--			--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 2.23	U		--			--			--			271			--			--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 1.05	U		--			--			--			147			--			--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 1.34	U		--			--			--			2240			--			--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	0.181			--			--			--			2460			--			--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0053	U		--			--			--			65.8			--			--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.304	U		--			--			--			2.02			--			--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 11.3	U		--			--			--			1720			--			--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 2.81	U		--			--			--			45.9			--			--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 1.21	U		--			--			--			46.4			--			--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 1.12	U		--			--			--			405			--			--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 8.97	U		--			--			--			296			--			--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.347	U		--			--			--			0.063	BJ		--			--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.23	U		--			--			--			33.8	B		--			--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 50.7	U		--			--			--			1630	B		--			--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.165	U		--			--			--			0.538			--			--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.142	U		--			--			--			20.3			--			--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.539	U		--			--			--			4330			--			--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.135	U		--			--			--			296			--			--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 2.62	U		--			--			--			882			--			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.128	U		--			--			--			0.012	J		--			--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.129	U		--			--			--			27.7			--			--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 4.71	U		--			--			--			< 0.943	U		--			--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	0.742			--			--			--			1570			--			--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.316	U		--			--			--			2.84	S	J	--			--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	1.42			--			--			--			0.0686			--			--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.145	U		--			--			--			505			--			--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.115	U		--			--			--			17.6			--			--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 1.12	U		--			--			--			36.5			--			--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Acrylonitrile			Aniline			Anthracene			Azobenzene			Benzene			Benzenethiol			Benzo(a)anthracene			Benzo(a)pyrene		
Screening Criteria (mg/kg)										12000						0.03						0.9			0.09		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0056	U		--			--			--			0.406			--			--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 1.1	U		--			--			--			7.19		J	--			--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 1.11	U		--			--			--			24.2		J	--			--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0060	U		--			--			--			269			--			--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.942	U		--			--			--			0.085	J		--			--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 54.2	U		--			--			--			2550			--			--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 30.7	U		--			--			--			35.8			--			--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 3.52	U		--			--			--			421		J	--			--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.545	U		--			--			--			142		J	--			--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.192	U	UJ	--			--			--			< 0.0384	U	UJ	--			--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.13	U		--			--			--			0.937			--			--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 1.06	U		--			--			--			< 0.211	U		--			--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 1.2	U		--			--			--			52.4			--			--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 2.2	U		--			--			--			263			--			--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 5.72	U		--			--			--			< 1.14	U		--			--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 5.83	U		--			--			--			37.8			--			--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.145	U		--			--			--			2.48			--			--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 1.18	U		--			--			--			1.16		J	--			--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 1.11	U		--			--			--			2.47		J	--			--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 1.13	U		--			--			--			146			--			--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 1.05	U		--			--			--			88.3			--			--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 1.12	U		--			--			--			84.1			--			--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 12.8	U		--			--			--			194			--			--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.174	U		--			--			--			0.298			--			--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.725	U		--			--			--			15.6			--			--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.158	U		--			--			--			2.55			--			--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	< 2.09	U		--			--			--			22.1			--			--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0057	U		--			--			--			0.0120			--			--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0051	U		--			--			--			53.8			--			--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0054	U		--			--			--			69.9			--			--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	< 1.28	U		--			--			--			302		J	--			--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 1.17	U		--			--			--			517		J	--			--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	< 1.11	U		--			--			--			177			--			--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	< 30.9	U		--			--			--			2630	B		--			--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 30	U		--			--			--			2210	B		--			--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0051	U		--			--			--			53.2			--			--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	< 1.1	U		--			--			--			36.1			--			--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	< 1.57	U		--			--			--			6990		J	--			--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 5.77	U		--			--			--			2050		J	--			--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0059	U		--			--			--			48.3			--			--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	< 1.22	U		--			--			--			6.23			--			--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	< 25.9	U		--			--			--			122			--			--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	< 1.38	U		--			--			--			352			--			--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.241	U		--			--			--			0.543			--			--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 59.5	U		--			--			--			2330			--			--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 1.19	U		--			--			--			36.8		J	--			--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 2.49	U		--			--			--			97.1		J	--			--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.245	U		--			--			--			0.457			--			--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0054	U		--			--			--			0.0018			--			--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0059	U		--			--			--			0.0014			--			--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	< 11.4	U		--			--			--			114			--			--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	< 24.3	U		--			--			--			419		J	--			--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 61.8	U		--			--			--			1820		J	--			--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0046	U		--			--			--			0.0048			--			--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0053	U		--			--			--			< 0.0011	U		--			--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.172	U		--			--			--			< 0.0345	U		--			--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	< 11.4	U		--			--			--			641			--			--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	< 2.66	U		--			--			--			62.8			--			--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Benzo(b)fluoranthene			Benzo(g-h-i)perylene			Benzo(k)fluoranthene			Benzoic acid			Benzyl alcohol			Bis(2-chloroethoxy)methane			Bis(2-chloroethyl)ether			bis(2-Chloroisopropyl)ether		
Screening Criteria (mg/kg)				0.9						9			400									0.0004					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0066	JB	U	< 0.0066	U		< 0.0066	JB	U	< 1	UF1	R	< 0.33	U		< 0.33	UF1	UJ	< 0.33	U		< 0.33	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.0077	JB	U	< 0.0077	U		< 0.0077	JB	U	< 1.2	U		< 0.39	U		< 0.39	U	UJ	< 0.39	U		< 0.39	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.0080	JB	U	< 0.0080	U		< 0.0080	JB	U	< 1.2	U		< 0.4	U		< 0.4	U	UJ	< 0.4	U		< 0.4	U	
SB-101A	SB101A-67-121922	67	12/19/2022	0.0037	J		< 0.0078	U		< 0.0078	U		< 1.2	UF2F1	UJ	< 0.39	U		< 0.39	U	UJ	< 0.39	U	UJ	< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0069	JB	U	< 0.0069	U		< 0.0069	U		< 1	U		< 0.35	U		< 0.35	U	UJ	< 0.35	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	0.0052	J		< 0.0076	U		0.0026	J		0.41	J		< 0.38	U		< 0.38	U		< 0.38	U		< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	< 0.0080	U		< 0.0080	U		< 0.0080	U		< 1.2	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.0081	U		< 0.0081	U		< 0.0081	U		< 1.2	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	< 0.0076	JB	U	< 0.0076	U		< 0.0076	JB	U	< 1.1	U		< 0.38	U		< 0.38	U		< 0.38	U		< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	< 0.0069	JB	U	< 0.0069	U		< 0.0069	JB	U	< 1	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	0.069	B		0.046			0.029	B		< 0.99	U		< 0.33	U		< 0.33	U	UJ	< 0.33	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	0.0045	J		< 0.0074	U		0.0045	JF2	J	< 1.1	UF1F2	UJ	< 0.37	UF1	UJ	< 0.37	UF1	UJ	< 0.37	U	UJ	< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	0.0032	J		< 0.0068	U		0.0030	J		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.011	B	U	< 0.0067	U		< 0.0070	B	U	< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	JB	U	< 0.0069	U		< 0.0069	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0067	JB	U	< 0.0067	U		< 0.0067	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	0.0037	J		< 0.0083	U		0.0034	J		< 1.2	U		< 0.41	U		< 0.41	U	UJ	< 0.41	U	UJ	< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	0.0019	J		< 0.0065	U		0.0018	J		< 0.97	U		< 0.32	U		< 0.32	U	UJ	< 0.32	U	UJ	< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0072	U		< 0.0072	U		< 0.0072	U		< 1.1	U		< 0.36	U		< 0.36	U	UJ	< 0.36	U	UJ	< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	0.0022	J		< 0.0088	U		0.0019	J		< 1.3	U		< 0.44	U		< 0.44	U	UJ	< 0.44	U	UJ	< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0065	U		< 0.0065	U		< 0.0065	U		< 0.98	U		< 0.33	U		< 0.33	U	UJ	< 0.33	U	UJ	< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0067	U		< 0.0067	U		< 0.0067	U		< 1	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0067	JB	U	< 0.0067	U		< 0.0067	JB	U	< 1	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0069	JB	U	< 0.0069	U		< 0.0069	JB	U	< 1	U		< 0.35	U		< 0.35	U	UJ	< 0.35	U	UJ	< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.0066	U		< 0.0066	U		< 0.0066	U		< 0.99	U		< 0.33	U		< 0.33	U	UJ	< 0.33	U	UJ	< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	0.0023	J		< 0.0069	U		0.0021	J		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0067	U		< 0.0067	U		< 0.0067	U		< 1	U		< 0.33	U		< 0.33	U	UJ	< 0.33	U	UJ	< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0071	U		< 0.0071	U		< 0.0071	U		< 1.1	U		< 0.36	U		< 0.36	U	UJ	< 0.36	U	UJ	< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	0.0032	J		< 0.0071	U		< 0.0071	U		< 1.1	U		< 0.36	U	UJ	< 0.36	U	UJ	< 0.36	U	UJ	< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	0.0077	J		< 0.0083	U		0.0060	J		< 1.2	U		< 0.41	U	UJ	< 0.41	U	UJ	< 0.41	U	UJ	< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	0.0026	J		< 0.0068	U		0.0024	J		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	0.0037	J		< 0.0067	U		< 0.0067	U		< 1	UF2F1	UJ	< 0.34	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	0.0055	J		< 0.0067	U		0.0053	J		< 1	UF1	UJ	< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	UF1	UJ
SVP-08-30	SVP08-30-010923	30	1/9/2023	0.0064	J		< 0.0067	U		0.0059	J		< 1	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	0.0024	J		< 0.0070	U		0.0026	J		< 1.1	U		< 0.35	U		< 0.35	U		< 0.35	U	UJ	< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0069	U		< 0.0069	U		< 0.0069	U		< 1	U		< 0.34	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0069	U		< 0.0069	U		< 0.0069	U		< 1	U		< 0.35	U		< 0.35	U		< 0.35	U	UJ	< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0074	U		< 0.0074	U		< 0.0074	U		< 1.1	U		< 0.37	U		< 0.37	U		< 0.37	U	UJ	< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0070	JB	U	< 0.0070	U		< 0.0070	JB	U	< 1.1	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0066	U		< 0.0066	U		< 0.0066	U		0.55	J		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0067	U		< 0.0067	U		< 0.0067	U		< 1	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0072	U		< 0.0072	U		< 0.0072	U		< 1.1	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0067	U		< 0.0067	U		< 0.0067	U		< 1	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0067	JB	U	< 0.0067	U		< 0.0073	B	U	< 1	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 1	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0069	U		< 0.0069	U		< 0.0069	U		< 1	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0071	U		< 0.0071	U		< 0.0071	U		< 1.1	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0065	JB	U	< 0.0065	U		< 0.0065	JB	U	0.56	JF1F2	J	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0068	JB	U	< 0.0068	U		< 0.0068	JB	U	0.57	J		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0067	U		< 0.0067	U		< 0.0067	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0069	U		< 0.0069	U		< 0.0069	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 1	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	UJ	< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0070	U		< 0.0070	U		< 0.0070	U		< 1	U		< 0.35	U		< 0.35	U		< 0.35	U	UJ	< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0067	U		< 0.0067	U		< 0.0067	U		0.38	J		< 0.34	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 1	U		< 0.34	U		< 0.34	U		< 0.34	U	UJ	< 0.34	U	

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Benzo(b)fluoranthene			Benzo(g-h-i)perylene			Benzo(k)fluoranthene			Benzoic acid			Benzyl alcohol			Bis(2-chloroethoxy)methane			Bis(2-chloroethyl)ether			bis(2-Chloroisopropyl)ether		
Screening Criteria (mg/kg)				0.9						9			400									0.0004					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-43-051723	43	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-58-051723	58	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-68-051323	68	5/17/2023	--			--			--			--			--			--			--			--		
SB-103	SB103-77-052423	77	5/24/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-42-062023	42	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-57-062023	57	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-65-062023	65	6/20/2023	--			--			--			--			--			--			--			--		
SB-104	SB104-78-062023	78	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-40-062023	40	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-55-062023	55	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-67-062023	67	6/20/2023	--			--			--			--			--			--			--			--		
SB-105	SB105-73-062023	73	6/20/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-39-061923	39	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-45-061923	45	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-58-061923	58	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-68-061923	68	6/19/2023	--			--			--			--			--			--			--			--		
SB-106	SB106-77-061923	77	6/19/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-15-061723	15	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-39-061723	39	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-58-061723	58	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-67-061723	67	6/17/2023	--			--			--			--			--			--			--			--		
SB-107	SB107-78-061723	78	6/17/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			--			--			--			--			--			--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			--			--			--			--			--			--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			--			--			--			--			--			--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			--			--			--			--			--			--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			--			--			--			--			--			--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			--			--			--			--			--			--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			--			--			--			--			--			--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			--			--			--			--			--			--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			--			--			--			--			--			--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			--			--			--			--			--			--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			--			--			--			--			--			--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			--			--			--			--			--			--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			--			--			--			--			--			--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			--			--			--			--			--			--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			--			--			--			--			--			--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			--			--			--			--			--			--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			--			--			--			--			--			--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			--			--			--			--			--			--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			--			--			--			--			--			--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			--			--			--			--			--			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			--			--			--			--			--			--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			--			--			--			--			--			--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			--			--			--			--			--			--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			--			--			--			--			--			--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			--			--			--			--			--			--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			--			--			--			--			--			--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			--			--			--			--			--			--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			--			--			--			--			--			--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			--			--			--			--			--			--			--		

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Benzo(b)fluoranthene			Benzo(g-h-i)perylene			Benzo(k)fluoranthene			Benzoic acid			Benzyl alcohol			Bis(2-chloroethoxy)methane			Bis(2-chloroethyl)ether			bis(2-Chloroisopropyl)ether		
Screening Criteria (mg/kg)				0.9						9			400									0.0004					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			--			--			--			--			--			--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			--			--			--			--			--			--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			--			--			--			--			--			--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			--			--			--			--			--			--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			--			--			--			--			--			--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			--			--			--			--			--			--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			--			--			--			--			--			--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			--			--			--			--			--			--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			--			--			--			--			--			--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			--			--			--			--			--			--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			--			--			--			--			--			--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			--			--			--			--			--			--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			--			--			--			--			--			--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			--			--			--			--			--			--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			--			--			--			--			--			--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			--			--			--			--			--			--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			--			--			--			--			--			--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			--			--			--			--			--			--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			--			--			--			--			--			--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			--			--			--			--			--			--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			--			--			--			--			--			--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			--			--			--			--			--			--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	--			--			--			--			--			--			--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	--			--			--			--			--			--			--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	--			--			--			--			--			--			--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	--			--			--			--			--			--			--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			--			--			--			--			--			--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	--			--			--			--			--			--			--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			--			--			--			--			--			--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	--			--			--			--			--			--			--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	--			--			--			--			--			--			--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	--			--			--			--			--			--			--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	--			--			--			--			--			--			--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	--			--			--			--			--			--			--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			--			--			--			--			--			--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	--			--			--			--			--			--			--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	--			--			--			--			--			--			--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	--			--			--			--			--			--			--			--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Bis(2-ethylhexyl)phthalate			Bromobenzene			Bromochloromethane			Bromodichloromethane			Bromoform			Bromomethane			Butylbenzylphthalate			Carbon Disulfide		
Screening Criteria (mg/kg)				46									0.6			0.8			0.2			930			32		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	UF1		< 0.0053	U		< 0.33	U		< 0.0053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.39	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 0.39	U		< 13	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.4	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U*+		< 0.4	U		< 3.6	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.39	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.39	U		< 0.0046	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.35	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.35	U		< 0.0054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U		< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U		< 0.38	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.41	U		< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.41	U		< 0.55	U	UJ
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.41	U		< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.41	U		< 0.37	U	UJ
SB-102	SB102-55-120622	55	12/6/2022	< 0.38	U		< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 0.38	U		< 12	U	UJ
SB-102	SB102-72-120622	72	12/6/2022	< 0.34	U		< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.34	U		0.00057	J	J
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.33	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.33	U		< 0.0054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.37	U		< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.37	U		< 0.0062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.0051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.34	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.34	U		< 0.0057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.34	U		< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U*+	UJ	< 0.34	U		< 0.0069	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U*+	UJ	< 0.34	U		< 0.0051	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.41	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.41	U		< 0.0060	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.32	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.32	U		< 0.0052	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.36	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.36	U		< 0.0055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.44	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.44	U		< 0.0053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.0053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.0058	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.0054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.35	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.35	U		< 0.0053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.33	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.33	U		< 0.01	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.0053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.0054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.33	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.33	U		< 0.0081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.36	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.36	U		< 0.0072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.36	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.36	U		< 0.0068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.41	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.41	U		< 0.0053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.34	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.34	U		< 0.0036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.0058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.0056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.0053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.35	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.35	U		< 0.0062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.0053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.35	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.35	U		< 0.0061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.37	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.37	U		< 0.0059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.35	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.35	U		< 0.0056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.0056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.0053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.36	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.36	U		< 0.0098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.0056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.33	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.33	U		< 0.0049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.0053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.34	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.34	U		< 0.0062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.35	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.35	U		< 0.0055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.33	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.33	U		< 0.0051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.34	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.34	U		< 0.0052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.0054	U	UJ
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.34	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.34	U		< 0.0051	U	UJ
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.0056	U	UJ
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.0056	U	UJ
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.35	U		< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.35	U		< 0.0074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.34	U		< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.34	U		< 0.0085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.0051	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Bis(2-ethylhexyl)phthalate			Bromobenzene			Bromochloromethane			Bromodichloromethane			Bromoform			Bromomethane			Butylbenzylphthalate			Carbon Disulfide		
Screening Criteria (mg/kg)				46									0.6			0.8			0.2			930			32		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.144	U		< 0.288	U		--			< 0.0577	U	
SB-103	SB103-43-051723	43	5/17/2023	--			< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.122	U		< 0.244	U		--			< 0.0487	U	
SB-103	SB103-58-051723	58	5/17/2023	--			< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0051	U		< 0.0102	U	UJ	--			< 0.0020	U	
SB-103	SB103-68-051323	68	5/17/2023	--			< 0.534	U		< 0.534	U		< 0.534	U		< 1.34	U		< 2.67	U		--			< 0.534	U	
SB-103	SB103-77-052423	77	5/24/2023	--			< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0047	U		< 0.0094	U		--			< 0.0019	U	
SB-104	SB104-42-062023	42	6/20/2023	--			< 0.268	U		< 0.268	U		< 0.268	U		< 0.671	U		< 1.34	U		--			< 0.268	U	
SB-104	SB104-57-062023	57	6/20/2023	--			< 2.31	U		< 2.31	U		< 2.31	U		< 5.78	U		< 11.6	U		--			< 2.31	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			< 2.12	U		< 2.12	U		< 2.12	U		< 5.31	U		< 10.6	U		--			< 2.12	U	
SB-104	SB104-65-062023	65	6/20/2023	--			< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.15	U		< 0.3	U		--			< 0.0601	U	
SB-104	SB104-78-062023	78	6/20/2023	--			< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.152	U	UJ	< 0.304	U	UJ	--			< 0.0608	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	--			< 0.46	U		< 0.46	U		< 0.46	U		< 1.15	U		< 2.3	U	UJ	--			< 0.46	U	
SB-105	SB105-55-062023	55	6/20/2023	--			< 0.0607	U		< 0.0607	U	UJ	< 0.0607	U	UJ	< 0.152	U		< 0.304	U	UJ	--			< 0.0607	U	
SB-105	SB105-67-062023	67	6/20/2023	--			< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.13	U	UJ	< 0.259	U	UJ	--			< 0.0518	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	--			< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0048	U		< 0.0095	U		--			< 0.0019	U	
SB-106	SB106-39-061923	39	6/19/2023	--			< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.145	U		< 0.291	U		--			< 0.0581	U	
SB-106	SB106-45-061923	45	6/19/2023	--			< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.154	U	UJ	< 0.308	U	UJ	--			< 0.0616	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.155	U		< 0.31	U		--			< 0.0620	U	
SB-106	SB106-58-061923	58	6/19/2023	--			< 0.692	U		< 0.692	U	UJ	< 0.692	U	UJ	< 1.73	U		< 3.46	U	UJ	--			< 0.692	U	
SB-106	SB106-68-061923	68	6/19/2023	--			< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0047	U		< 0.0093	U		--			< 0.0019	U	
SB-106	SB106-77-061923	77	6/19/2023	--			< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.131	U		< 0.261	U		--			< 0.0523	U	
SB-107	SB107-15-061723	15	6/17/2023	--			< 0.446	U		< 0.446	U		< 0.446	U		< 1.12	U		< 2.23	U	UJ	--			< 0.446	U	
SB-107	SB107-39-061723	39	6/17/2023	--			< 0.379	U		< 0.379	U		< 0.379	U		< 0.948	U		< 1.9	U	UJ	--			< 0.379	U	
SB-107	SB107-58-061723	58	6/17/2023	--			< 0.125	U		< 0.125	U		< 0.125	U		< 0.313	U		< 0.627	U		--			< 0.125	U	
SB-107	SB107-67-061723	67	6/17/2023	--			< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 1.13	U	UJ	< 2.26	U	UJ	--			< 0.452	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	--			< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.12	U		< 0.24	U		--			< 0.0481	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0059	U		< 0.0118	U		--			< 0.0024	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			< 0.498	U		< 0.498	U		< 0.498	U		< 1.24	U		< 2.49	U		--			< 0.498	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			< 2.32	U		< 2.32	U		< 2.32	U		< 5.81	U		< 11.6	U		--			< 2.32	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			< 0.0029	U		< 0.0029	U		< 0.0029	U		< 0.0072	U		< 0.0143	U		--			< 0.0029	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			< 0.893	U		< 0.893	U		< 0.893	U		< 2.23	U		< 4.46	U	UJ	--			< 0.893	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			< 0.42	U		< 0.42	U		< 0.42	U		< 1.05	U		< 2.1	U	UJ	--			< 0.42	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			< 0.535	U		< 0.535	U	UJ	< 0.535	U	UJ	< 1.34	U		< 2.67	U	UJ	--			< 0.535	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			< 0.0597	U		< 0.0597	U	UJ	< 0.0597	U	UJ	< 0.149	U		< 0.298	U	UJ	--			< 0.0597	U	
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			< 0.0021	U		< 0.0021	U	UJ	< 0.0021	U	UJ	< 0.0053	U		< 0.0106	U	UJ	--			< 0.0021	U	
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			< 0.122	U		< 0.122	U		< 0.122	U		< 0.304	U		< 0.609	U		--			< 0.122	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			< 4.54	U		< 4.54	U		< 4.54	U		< 11.3	U		< 22.7	U		--			< 4.54	U	
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			< 1.12	U		< 1.12	U		< 1.12	U		< 2.81	U		< 5.61	U		--			< 1.12	U	
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			< 0.482	U		< 0.482	U		< 0.482	U		< 1.21	U		< 2.41	U		--			< 0.482	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			< 0.449	U		< 0.449	U		< 0.449	U		< 1.12	U		< 2.24	U		--			< 0.449	U	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			< 3.59	U		< 3.59	U		< 3.59	U		< 8.97	U		< 17.9	U		--			< 3.59	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			< 0.139	U		< 0.139	U		< 0.139	U		< 0.347	U		< 0.694	U		--			< 0.139	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.23	U		< 0.46	U	UJ	--			< 0.0920	U	
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			< 20.3	U		< 20.3	U		< 20.3	U		< 50.7	U		< 101	U		--			< 20.3	U	
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.165	U		< 0.329	U		--			< 0.0658	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			< 0.0570	U		< 0.0570	U		< 0.0570	U		< 0.142	U		< 0.285	U		--			< 0.0570	U	
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			< 0.216	U		< 0.216	U		< 0.216	U		< 0.539	U		< 1.08	U		--			< 0.216	U	
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			< 0.0539	U		< 0.0539	U		< 0.0539	U		< 0.135	U		< 0.269	U		--			< 0.0539	U	
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			< 1.05	U		< 1.05	U		< 1.05	U		< 2.62	U		< 5.24	U		--			< 1.05	U	
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.128	U		< 0.255	U	UJ	--			< 0.0510	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			< 0.0516	U		< 0.0516	U		< 0.0516	U		< 0.129	U		< 0.258	U	UJ	--			< 0.0516	U	
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			< 1.89	U		< 1.89	U		< 1.89	U		< 4.71	U		< 9.43	U	UJ	--			< 1.89	U	
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			< 0.0575	U		< 0.0575	U		< 0.0575	U		< 0.144	U		< 0.287	U		--			< 0.0575	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			< 0.126	U		< 0.126	U		< 0.126	U		< 0.316	U		< 0.631	U		--			< 0.126	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.125	U		< 0.25	U		--			< 0.0501	U	
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			< 0.0579	U		< 0.0579	U		< 0.0579	U		< 0.145	U		< 0.29	U		--			< 0.0579	U	
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			< 0.0460	U		< 0.0460	U		< 0.0460	U		< 0.115	U		< 0.23	U		--			< 0.0460	U	
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			< 0.447	U		< 0.447	U		< 0.447	U		< 1.12	U		< 2.23	U		--			< 0.447	U	

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Appendix D
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				Bis(2-ethylhexyl)phthalate			Bromobenzene			Bromochloromethane			Bromodichloromethane			Bromoform			Bromomethane			Butylbenzylphthalate			Carbon Disulfide		
Screening Criteria (mg/kg)				46									0.6			0.8			0.2			930			32		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0056	U		< 0.0111	U		--			< 0.0022	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			< 0.442	U		< 0.442	U		< 0.442	U		< 1.1	U		< 2.21	U	UJ	--			< 0.442	U	
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			< 0.444	U		< 0.444	U		< 0.444	U		< 1.11	U		< 2.22	U	UJ	--			< 0.444	U	
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0060	U		< 0.0121	U		--			< 0.0024	U	
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			< 0.377	U		< 0.377	U		< 0.377	U		< 0.942	U		< 1.88	U		--			< 0.377	U	
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			< 21.7	U		< 21.7	U		< 21.7	U		< 54.2	U		< 108	U		--			< 21.7	U	
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			< 12.3	U		< 12.3	U		< 12.3	U		< 30.7	U		< 61.4	U	UJ	--			< 12.3	U	
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			< 1.41	U		< 1.41	U		< 1.41	U		< 3.52	U		< 7.04	U		--			< 1.41	U	
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			< 0.218	U		< 0.218	U		< 0.218	U		< 0.545	U		< 1.09	U		--			< 0.218	U	
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.192	U	UJ	< 0.384	U	UJ	--			< 0.0768	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.13	U		< 0.26	U		--			< 0.0519	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			< 0.423	U		< 0.423	U		< 0.423	U		< 1.06	U		< 2.11	U	UJ	--			< 0.423	U	
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			< 0.481	U		< 0.481	U		< 0.481	U		< 1.2	U		< 2.41	U	UJ	--			< 0.481	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			< 0.88	U		< 0.88	U		< 0.88	U		< 2.2	U		< 4.4	U	UJ	--			< 0.88	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			< 2.29	U		< 2.29	U		< 2.29	U		< 5.72	U		< 11.4	U	UJ	--			< 2.29	U	
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			< 2.33	U		< 2.33	U		< 2.33	U		< 5.83	U		< 11.7	U	UJ	--			< 2.33	U	
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.145	U		< 0.291	U		--			< 0.0581	U	
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			< 0.474	U		< 0.474	U		< 0.474	U		< 1.18	U		< 2.37	U		--			< 0.474	U	
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			< 0.443	U		< 0.443	U		< 0.443	U		< 1.11	U		< 2.21	U		--			< 0.443	U	
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			< 0.453	U		< 0.453	U		< 0.453	U		< 1.13	U		< 2.27	U		--			< 0.453	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			< 0.421	U		< 0.421	U		< 0.421	U		< 1.05	U		< 2.11	U		--			< 0.421	U	
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			< 0.449	U		< 0.449	U		< 0.449	U		< 1.12	U		< 2.25	U		--			< 0.449	U	
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			< 5.13	U		< 5.13	U		< 5.13	U		< 12.8	U		< 25.6	U		--			< 5.13	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			< 0.0698	U		< 0.0698	U	UJ	< 0.0698	U	UJ	< 0.174	U		< 0.349	U	UJ	--			< 0.0698	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			< 0.29	U		< 0.29	U		< 0.29	U		< 0.725	U		< 1.45	U		--			< 0.29	U	
T-AB2	TAB2-48-061523	48	6/15/2023	--			< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.158	U		< 0.316	U		--			< 0.0633	U	
T-AB2	TAB2-59-061523	59	6/15/2023	--			< 0.836	U		< 0.836	U		< 0.836	U		< 2.09	U		< 4.18	U	UJ	--			< 0.836	U	
T-BG2	TBG2-48-071123	48	7/11/2023	--			< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0057	U		< 0.0113	U		--			< 0.0023	U	
T-BG2	TBG2-59-071123	59	7/11/2023	--			< 0.0020	U		< 0.0020	U	UJ	< 0.0020	U	UJ	< 0.0051	U		< 0.0101	U	UJ	--			< 0.0020	U	
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			< 0.0022	U		< 0.0022	U	UJ	< 0.0022	U	UJ	< 0.0054	U		< 0.0108	U	UJ	--			< 0.0022	U	
X-AD2	XAD2-49-052323	49	5/23/2023	--			< 0.512	U		< 0.512	U		< 0.512	U		< 1.28	U		< 2.56	U		--			< 0.512	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			< 0.469	U		< 0.469	U		< 0.469	U		< 1.17	U		< 2.35	U		--			< 0.469	U	
X-AD2	XAD2-58-052323	58	5/23/2023	--			< 0.444	U		< 0.444	U		< 0.444	U		< 1.11	U		< 2.22	U		--			< 0.444	U	
X-AE4	XAE4-40-030223	40	3/2/2023	--			< 12.4	U		< 12.4	U		< 12.4	U		< 30.9	U		< 61.8	U		--			< 12.4	U	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			< 12	U		< 12	U		< 12	U		< 30	U		< 60.1	U		--			< 12	U	
X-AE4	XAE4-48-030223	48	3/2/2023	--			< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0051	U		< 0.0101	U		--			< 0.0020	U	
X-AE4	XAE4-52-030223	52	3/2/2023	--			< 0.44	U		< 0.44	U		< 0.44	U		< 1.1	U		< 2.2	U		--			< 0.44	U	
X-AF6	XAF6-40-022723	40	2/27/2023	--			< 0.627	U		< 0.627	U		< 0.627	U		< 1.57	U		< 3.14	U	UJ	--			< 0.627	U	
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			< 2.31	U		< 2.31	U		< 2.31	U		< 5.77	U		< 11.5	U		--			< 2.31	U	
X-AF6	XAF6-47-022723	47	2/27/2023	--			< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0059	U		< 0.0118	U	UJ	--			< 0.0024	U	
X-AF6	XAF6-58-022723	58	2/27/2023	--			< 0.489	U		< 0.489	U		< 0.489	U		< 1.22	U		< 2.44	U		--			< 0.489	U	
X-AG5	XAG5-40-031823	40	3/18/2023	--			< 10.3	U		< 10.3	U		< 10.3	U		< 25.9	U		< 51.7	U		--			< 10.3	U	
X-AG5	XAG5-49-031823	49	3/18/2023	--			< 0.551	U		< 0.551	U		< 0.551	U		< 1.38	U		< 2.75	U		--			< 0.551	U	
X-AG5	XAG5-56-031823	56	3/18/2023	--			< 0.0963	U		< 0.0963	U		< 0.0963	U		< 0.241	U		< 0.482	U		--			< 0.0963	U	
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			< 23.8	U		< 23.8	U		< 23.8	U		< 59.5	U		< 119	U		--			< 23.8	U	
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			< 0.477	U		< 0.477	U		< 0.477	U		< 1.19	U		< 2.39	U		--			< 0.477	U	
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			< 0.997	U		< 0.997	U		< 0.997	U		< 2.49	U		< 4.98	U		--			< 0.997	U	
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			< 0.0980	U		< 0.0980	U		< 0.0980	U		< 0.245	U		< 0.49	U	UJ	--			< 0.0980	U	
X-BB2	XBB2-4-030123	4	3/1/2023	--			< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0054	U		< 0.0109	U		--			< 0.0022	U	
X-BB2	XBB2-9-030123	9	3/1/2023	--			< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0059	U		< 0.0117	U		--			< 0.0023	U	
X-BB2	XBB2-38-051823	38	5/18/2023	--			< 4.57	U		< 4.57	U		< 4.57	U		< 11.4	U		< 22.9	U	UJ	--			< 4.57	U	
X-BB2	XBB2-47-051823	47	5/18/2023	--			< 9.71	U		< 9.71	U		< 9.71	U		< 24.3	U		< 48.5	U	UJ	--			< 9.71	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			< 24.7	U		< 24.7	U		< 24.7	U		< 61.8	U		< 124	U	UJ	--			< 24.7	U	
X-BC3	XBC3-4-022423	4	2/24/2023	--			< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0046	U		< 0.0092	U		--			**0.0052**		
X-BC3	XBC3-9-022423	9	2/24/2023	--			< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0053	U		< 0.0106	U		--			< 0.0021	U	
X-BC3	XBC3-38-062123	38	6/21/2023	--			< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.172	U		< 0.345	U		--			< 0.0689	U	
X-BC3	XBC3-47-062123	47	6/21/2023	--			< 4.56	U		< 4.56	U		< 4.56	U		< 11.4	U		< 22.8	U		--			< 4.56	U	
X-BC3	XBC3-58-062123	58	6/21/2023	--			< 1.07	U		< 1.07	U		< 1.07	U		< 2.66	U		< 5.33	U		--			< 1.07	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Carbon Tetrachloride			Chlorobenzene			Chlorodibromomethane			Chloroethane			Chloroform			Chloromethane			Chrysene			cis-1,2-Dichloroethene		
Screening Criteria (mg/kg)				0.07			1			0.4						0.3						88			0.4		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0066	JB	UJ	< 0.0053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 0.0077	JB	UJ	< 13	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 0.0080	JB	UJ	< 3.6	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0078	U		< 0.0046	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0069	JB	UJ	< 0.0054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	0.0050	J		< 0.38	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.0080	U		< 0.55	U	UJ
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.0081	U		< 0.37	U	UJ
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 0.0076	JB	UJ	< 12	U	UJ
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.0043	U	UJ	0.0073		J	< 0.0043	U	UJ	< 0.0069	JB	UJ	< 0.0043	U	UJ
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		0.047	B		< 0.0054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	0.0017	J		< 0.0062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	0.0015	J		< 0.0051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0077	B	UJ	< 0.0057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U		< 0.0069	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0067	U		< 0.0051	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		0.0023	J		< 0.0060	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0065	U		< 0.0052	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0072	U		< 0.0055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0088	U		< 0.0053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		0.0055			< 0.0053	U		< 0.0065	U		< 0.0053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		0.0063			< 0.0058	U		< 0.0067	U		< 0.0058	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0067	JB	UJ	< 0.0054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0069	JB	UJ	< 0.0053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.0066	U		< 0.01	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0068	U		< 0.0053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		0.0015	J		< 0.0054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0067	U		< 0.0081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0071	U		< 0.0072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		0.0020	J		< 0.0068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		0.0070	J		< 0.0053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		0.0015	J		< 0.0036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		0.0019	J		< 0.0058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		0.0052	J		< 0.0056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		0.0055	J		< 0.0053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0070	U		< 0.0062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0069	U		< 0.0053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0069	U		< 0.0061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0074	U		< 0.0059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0070	JB	UJ	< 0.0056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0066	U		< 0.0056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0067	U		< 0.0053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0072	U		< 0.0098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0067	U		< 0.0056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0084	B	UJ	< 0.0049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0068	U		< 0.0053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0069	U		< 0.0062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0071	U		< 0.0055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0065	JB	UJ	< 0.0051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0068	U		< 0.0052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0067	U		< 0.0054	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0068	U		< 0.0051	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0069	U		< 0.0056	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0068	U		< 0.0056	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	0.0016	J		< 0.0074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0067	U		< 0.0085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0068	U		< 0.0051	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Carbon Tetrachloride			Chlorobenzene			Chlorodibromomethane			Chloroethane			Chloroform			Chloromethane			Chrysene			cis-1,2-Dichloroethene		
Screening Criteria (mg/kg)				0.07			1			0.4						0.3						88			0.4		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.288	U		< 0.0577	U		< 0.288	U		--			< 0.0577	U	
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.244	U		< 0.0487	U		< 0.244	U		--			< 0.0487	U	
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0102	U	UJ	< 0.0020	U		< 0.0102	U		--			< 0.0020	U	
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 0.534	U		< 0.534	U		< 2.67	U		< 0.534	U		< 2.67	U		--			< 0.534	U	
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0094	U		< 0.0019	U		< 0.0094	U		--			< 0.0019	U	UJ
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		< 0.268	U		< 0.268	U		< 1.34	U		< 0.268	U		< 1.34	U		--			< 0.268	U	
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 2.31	U		< 2.31	U		< 11.6	U		< 2.31	U		< 11.6	U		--			< 2.31	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 2.12	U		< 2.12	U		< 10.6	U		< 2.12	U		< 10.6	U		--			< 2.12	U	
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.3	U		< 0.0601	U		< 0.3	U		--			< 0.0601	U	
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.304	U	UJ	< 0.0608	U	UJ	< 0.304	U	UJ	--			< 0.0608	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 0.46	U		< 0.46	U		< 2.3	U		< 0.46	U		< 2.3	U		--			< 0.46	U	
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		< 0.0607	U		< 0.0607	U	UJ	< 0.304	U	UJ	< 0.0607	U		< 0.304	U	UJ	--			< 0.0607	U	
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.259	U	UJ	< 0.0518	U	UJ	< 0.259	U	UJ	--			< 0.0518	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0095	U		< 0.0019	U		< 0.0095	U		--			< 0.0019	U	
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.291	U		< 0.0581	U		< 0.291	U		--			< 0.0581	U	
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.308	U	UJ	< 0.0616	U	UJ	< 0.308	U	UJ	--			< 0.0616	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.31	U		< 0.0620	U		< 0.31	U		--			< 0.0620	U	
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		< 0.692	U		< 0.692	U	UJ	< 3.46	U	UJ	< 0.692	U		< 3.46	U	UJ	--			< 0.692	U	
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0093	U		< 0.0019	U		< 0.0093	U		--			< 0.0019	U	
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.261	U		< 0.0523	U		< 0.261	U		--			< 0.0523	U	
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		**0.697**			< 0.446	U		< 2.23	U		< 0.446	U		< 2.23	U		--			< 0.446	U	
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 0.379	U		< 0.379	U		< 1.9	U		< 0.379	U		< 1.9	U		--			< 0.379	U	
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 0.125	U		< 0.125	U		< 0.627	U		< 0.125	U		< 0.627	U		--			< 0.125	U	
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 2.26	U	UJ	< 0.452	U	UJ	< 2.26	U	UJ	--			< 0.452	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.24	U		< 0.0481	U		< 0.24	U		--			< 0.0481	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0118	U		< 0.0024	U		< 0.0118	U		--			< 0.0024	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 0.498	U		< 0.498	U		< 2.49	U		< 0.498	U		< 2.49	U		--			< 0.498	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 2.32	U		< 2.32	U		< 11.6	U		< 2.32	U		< 11.6	U		--			< 2.32	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0029	U		< 0.0029	U		< 0.0143	U		< 0.0029	U		< 0.0143	U		--			< 0.0029	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 0.893	U		< 0.893	U		< 4.46	U	UJ	< 0.893	U		< 4.46	U	UJ	--			< 0.893	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 0.42	U		< 0.42	U		< 2.1	U	UJ	< 0.42	U		< 2.1	U	UJ	--			< 0.42	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		< 0.535	U		< 0.535	U	UJ	< 2.67	U	UJ	< 0.535	U		< 2.67	U	UJ	--			< 0.535	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		< 0.0597	U		< 0.0597	U	UJ	< 0.298	U	UJ	< 0.0597	U		< 0.298	U	UJ	--			< 0.0597	U	
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U		< 0.0021	U		< 0.0021	U	UJ	< 0.0106	U	UJ	< 0.0021	U		< 0.0106	U	UJ	--			< 0.0021	U	
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 0.122	U		< 0.122	U		< 0.609	U	UJ	< 0.122	U		< 0.609	U	UJ	--			< 0.122	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 4.54	U		< 4.54	U		< 22.7	U		< 4.54	U		< 22.7	U		--			< 4.54	U	
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 1.12	U		< 1.12	U		< 5.61	U	UJ	< 1.12	U		< 5.61	U	UJ	--			< 1.12	U	
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 0.482	U		< 0.482	U		< 2.41	U		< 0.482	U		< 2.41	U		--			< 0.482	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 0.449	U		< 0.449	U		< 2.24	U		< 0.449	U		**0.49**	J		--			< 0.449	U	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 3.59	U		< 3.59	U		< 17.9	U		< 3.59	U		< 17.9	U		--			< 3.59	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 0.139	U		< 0.139	U		< 0.694	U		< 0.139	U		**0.15**	J		--			< 0.139	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.46	U		< 0.0920	U		< 0.46	U	UJ	--			< 0.0920	U	
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 20.3	U		< 20.3	U		< 101	U		< 20.3	U		< 101	U		--			< 20.3	U	
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.329	U		< 0.0658	U		< 0.329	U		--			< 0.0658	U	UJ
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 0.0570	U		< 0.0570	U		< 0.285	U		< 0.0570	U		< 0.285	U		--			< 0.0570	U	UJ
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 0.216	U		< 0.216	U		< 1.08	U		< 0.216	U		< 1.08	U		--			< 0.216	U	
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 0.0539	U		< 0.0539	U		< 0.269	U		< 0.0539	U		< 0.269	U		--			< 0.0539	U	
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 1.05	U		< 1.05	U		< 5.24	U		< 1.05	U		< 5.24	U		--			< 1.05	U	
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.255	U		< 0.0510	U		< 0.255	U	UJ	--			< 0.0510	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 0.0516	U		< 0.0516	U		< 0.258	U		< 0.0516	U		**0.21**	J	J	--			< 0.0516	U	
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 1.89	U		< 1.89	U		< 9.43	U		< 1.89	U		< 9.43	U	UJ	--			< 1.89	U	
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 0.0575	U		< 0.0575	U		< 0.287	U		< 0.0575	U		< 0.287	U		--			< 0.0575	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 0.126	U		< 0.126	U		< 0.631	U		< 0.126	U		< 0.631	U		--			< 0.126	U	UJ
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.25	U		< 0.0501	U		< 0.25	U		--			< 0.0501	U	
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		< 0.0579	U		< 0.0579	U		< 0.29	U		< 0.0579	U		< 0.29	U	UJ	--			< 0.0579	U	
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		< 0.0460	U		< 0.0460	U		< 0.23	U		< 0.0460	U		< 0.23	U	UJ	--			< 0.0460	U	
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		< 0.447	U		< 0.447	U		< 2.23	U		< 0.447	U		< 2.23	U	UJ	--			< 0.447	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Carbon Tetrachloride			Chlorobenzene			Chlorodibromomethane			Chloroethane			Chloroform			Chloromethane			Chrysene			cis-1,2-Dichloroethene		
Screening Criteria (mg/kg)				0.07			1			0.4						0.3						88			0.4		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0111	U		< 0.0022	U		< 0.0111	U		--			< 0.0022	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 0.442	U		< 0.442	U		< 2.21	U	UJ	< 0.442	U		< 2.21	U		--			< 0.442	U	
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 0.444	U		< 0.444	U		< 2.22	U	UJ	< 0.444	U		< 2.22	U		--			< 0.444	U	
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0121	U		< 0.0024	U		< 0.0121	U		--			< 0.0024	U	
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 0.377	U		< 0.377	U		< 1.88	U		< 0.377	U		< 1.88	U		--			< 0.377	U	
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 21.7	U		< 21.7	U		< 108	U		< 21.7	U		< 108	U		--			< 21.7	U	
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 12.3	U		< 12.3	U		< 61.4	U		< 12.3	U		< 61.4	U		--			< 12.3	BU	
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 1.41	U		< 1.41	U		< 7.04	U		< 1.41	U		< 7.04	U		--			< 1.41	U	
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 0.218	U		< 0.218	U		< 1.09	U		< 0.218	U		< 1.09	U		--			< 0.218	U	
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.384	U	UJ	< 0.0768	U	UJ	< 0.384	U	UJ	--			< 0.0768	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.26	U		< 0.0519	U		< 0.26	U		--			< 0.0519	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 0.423	U		< 0.423	U		< 2.11	U		< 0.423	U		< 2.11	U		--			< 0.423	BU	
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 0.481	U		< 0.481	U		< 2.41	U		< 0.481	U		< 2.41	U		--			< 0.481	BU	
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 0.88	U		< 0.88	U		< 4.4	U		< 0.88	U		< 4.4	U		--			< 0.88	BU	
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 2.29	U		< 2.29	U		< 11.4	U		< 2.29	U		< 11.4	U		--			< 2.29	U	
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 2.33	U		< 2.33	U		< 11.7	U		< 2.33	U		< 11.7	U		--			< 2.33	U	
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.291	U		< 0.0581	U		< 0.291	U		--			< 0.0581	U	
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 0.474	U		< 0.474	U		< 2.37	U		< 0.474	U		< 2.37	U		--			< 0.474	U	
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 0.443	U		< 0.443	U		< 2.21	U		< 0.443	U		< 2.21	U		--			< 0.443	U	
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 0.453	U		< 0.453	U		< 2.27	U		< 0.453	U		< 2.27	U		--			< 0.453	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 0.421	U		< 0.421	U		< 2.11	U		< 0.421	U		< 2.11	U		--			< 0.421	U	
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 0.449	U		< 0.449	U		< 2.25	U		< 0.449	U		< 2.25	U		--			< 0.449	U	
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 5.13	U		< 5.13	U		< 25.6	U		< 5.13	U		< 25.6	U		--			< 5.13	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		< 0.0698	U		< 0.0698	U	UJ	< 0.349	U	UJ	< 0.0698	U		**0.602**		J	--			< 0.0698	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 0.29	U		< 0.29	U		< 1.45	U		< 0.29	U		< 1.45	U	UJ	--			< 0.29	U	
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.316	U		< 0.0633	U		**0.575**			--			< 0.0633	U	
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 0.836	U		< 0.836	U		< 4.18	U		< 0.836	U		< 4.18	U		--			< 0.836	U	
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0113	U		< 0.0023	U		< 0.0113	U	UJ	--			< 0.0023	U	
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U	UJ	< 0.0101	U	UJ	< 0.0020	U		< 0.0101	U	UJ	--			< 0.0020	U	
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U	UJ	< 0.0108	U	UJ	< 0.0022	U		< 0.0108	U	UJ	--			< 0.0022	U	
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 0.512	U		< 0.512	U		< 2.56	U		< 0.512	U		< 2.56	U		--			< 0.512	U	UJ
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 0.469	U		< 0.469	U		< 2.35	U		< 0.469	U		< 2.35	U		--			< 0.469	U	UJ
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 0.444	U		< 0.444	U		< 2.22	U		< 0.444	U		< 2.22	U		--			< 0.444	U	UJ
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 12.4	U		< 12.4	U		< 61.8	U		< 12.4	U		< 61.8	U		--			< 12.4	U	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 12	U		< 12	U		< 60.1	U		< 12	U		< 60.1	U		--			< 12	U	
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0101	U		< 0.0020	U		< 0.0101	U		--			< 0.0020	U	
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 0.44	U		< 0.44	U		< 2.2	U		**0.18**	J		< 2.2	U	UJ	--			< 0.44	U	
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 0.627	U		< 0.627	U		< 3.14	U		< 0.627	U		< 3.14	U		--			**0.32**	J	
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 2.31	U		< 2.31	U		< 11.5	U		< 2.31	U		< 11.5	U		--			< 2.31	U	
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0118	U		< 0.0024	U		< 0.0118	U		--			**0.0008**	J	
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 0.489	U		< 0.489	U		< 2.44	U		< 0.489	U		< 2.44	U		--			< 0.489	U	
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 10.3	U		< 10.3	U		< 51.7	U		< 10.3	U		< 51.7	U		--			< 10.3	U	
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		< 0.551	U		< 0.551	U		< 2.75	U		< 0.551	U		< 2.75	U	UJ	--			< 0.551	U	
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 0.0963	U		< 0.0963	U		< 0.482	U		< 0.0963	U		< 0.482	U		--			< 0.0963	U	
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 23.8	U		< 23.8	U		< 119	U		< 23.8	U		< 119	U		--			< 23.8	U	
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 0.477	U		< 0.477	U		< 2.39	U		< 0.477	U		< 2.39	U		--			< 0.477	U	
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 0.997	U		< 0.997	U		< 4.98	U		< 0.997	U		< 4.98	U		--			< 0.997	U	
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		< 0.0980	U		< 0.0980	U		< 0.49	U	UJ	< 0.0980	U		**0.3**	J		--			< 0.0980	U	
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0109	U		< 0.0022	U		< 0.0109	U		--			< 0.0022	U	
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0117	U		< 0.0023	U		< 0.0117	U		--			< 0.0023	U	
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 4.57	U		< 4.57	U		< 22.9	U	UJ	< 4.57	U		< 22.9	U		--			< 4.57	U	
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 9.71	U		< 9.71	U		< 48.5	U	UJ	< 9.71	U		< 48.5	U		--			< 9.71	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 24.7	U		< 24.7	U		< 124	U	UJ	< 24.7	U		< 124	U		--			< 24.7	U	
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0092	U	UJ	< 0.0018	U		< 0.0092	U		--			< 0.0018	U	
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0106	U	UJ	< 0.0021	U		< 0.0106	U		--			< 0.0021	U	
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.345	U		< 0.0689	U		< 0.345	U		--			< 0.0689	U	
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 4.56	U		< 4.56	U		< 22.8	U		< 4.56	U		< 22.8	U		--			< 4.56	U	
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 1.07	U		< 1.07	U		< 5.33	U		< 1.07	U		< 5.33	U		--			< 1.07	U	

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				cis-1,3-Dichloropropene			Dibenz(a,h)acridine			Dibenzo(a-h)anthracene			Dibenzofuran			Dibromomethane			Dichlorodifluoromethane			Diethylphthalate			Dimethylphthalate		
Screening Criteria (mg/kg)										0.09												470					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.33	U		< 0.0066	U		< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.33	U*+	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 0.39	U		< 0.0077	U		< 0.39	U		< 13	U		< 13	U		< 0.39	U		< 0.39	U*+	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 0.4	U		< 0.0080	U		< 0.4	U		< 3.6	U		< 3.6	U		< 0.4	U		< 0.4	U*+	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.39	U		< 0.0078	U		< 0.39	U	UJ	< 0.0046	U		< 0.0046	U		< 0.39	U		< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.0054	U		< 0.0054	U		< 0.35	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 0.38	U		< 0.0076	U		< 0.38	U		< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U		< 0.38	U*+	
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 0.41	U		< 0.0080	U		< 0.41	U		< 0.55	U	UJ	< 0.55	U	UJ	< 0.41	U		< 0.41	U*+	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 0.41	U		< 0.0081	U		< 0.41	U		< 0.37	U	UJ	< 0.37	U	UJ	< 0.41	U		< 0.41	U*+	
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 0.38	U		< 0.0076	U		< 0.38	U		< 12	U	UJ	< 12	U	UJ	< 0.38	U		< 0.38	U*+	
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0043	U	UJ	< 0.0043	U	UJ	< 0.34	U		< 0.34	U*+	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.33	U		0.012			< 0.33	U		< 0.0054	U		< 0.0054	U		< 0.33	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.37	U		< 0.0074	U		< 0.37	U		< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.37	U		< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0057	U		< 0.0057	U		< 0.34	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.34	U		< 0.34	U*+	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.34	U*+	
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.41	U		< 0.0083	U		< 0.41	U		< 0.0060	U		< 0.0060	U		< 0.41	U		< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.32	U		< 0.0065	U		< 0.32	U		< 0.0052	U		< 0.0052	U		< 0.32	U		< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.36	U		< 0.0072	U		< 0.36	U		< 0.0055	U		< 0.0055	U		< 0.36	U		< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.44	U		< 0.0088	U		< 0.44	U		< 0.0053	U		< 0.0053	U		< 0.44	U		< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.33	U		< 0.0065	U		< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.34	U*-	UJ	< 0.0067	U		< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.35	U*-	UJ	< 0.0069	U		< 0.35	U		< 0.0053	U		< 0.0053	U		< 0.35	U		< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.33	U*-	UJ	< 0.0066	U		< 0.33	U		< 0.01	U		< 0.01	U		< 0.33	U		< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0081	U		< 0.0081	U		< 0.33	U		< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.36	U		< 0.0071	U		< 0.36	U		< 0.0072	U		< 0.0072	U		< 0.36	U		< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.36	U		< 0.0071	U		< 0.36	U		< 0.0068	U		< 0.0068	U		< 0.36	U		< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.41	U		< 0.0083	U		< 0.41	U		< 0.0053	U		< 0.0053	U		< 0.41	U		< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0036	U		< 0.0036	U		< 0.34	U		< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.34	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0062	U		< 0.0062	U		< 0.35	U		< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.0061	U		< 0.0061	U		< 0.35	U		< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.37	U		< 0.0074	U		< 0.37	U		< 0.0059	U		< 0.0059	U		< 0.37	U		< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.35	U*-	UJ	< 0.0070	U		< 0.35	U		< 0.0056	U		< 0.0056	U		< 0.35	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.33	U*-	UJ	< 0.0066	U		< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.33	U*-	UJ	< 0.0067	U		< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.36	U*-	UJ	< 0.0072	U		< 0.36	U		< 0.0098	U		< 0.0098	U		< 0.36	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.33	U*-	UJ	< 0.0067	U		< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.33	U*-	UJ	0.0040	J		< 0.33	U		< 0.0049	U		< 0.0049	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.34	U*-	UJ	< 0.0068	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.34	U*-	UJ	< 0.0069	U		< 0.34	U		< 0.0062	U		< 0.0062	U		< 0.34	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.35	U*-	UJ	< 0.0071	U		< 0.35	U		< 0.0055	U		< 0.0055	U		< 0.35	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.33	U*-	UJ	< 0.0065	U		< 0.33	U		< 0.0051	U		< 0.0051	U		< 0.33	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.34	U*-	UJ	< 0.0068	U		< 0.34	U		< 0.0052	U		< 0.0052	U		< 0.34	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.34	U		< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0051	U		< 0.0051	U		< 0.34	U		< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.35	U		< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.34	U		< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.34	U	

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				cis-1,3-Dichloropropene			Dibenz(a,h)acridine			Dibenzo(a-h)anthracene			Dibenzofuran			Dibromomethane			Dichlorodifluoromethane			Diethylphthalate			Dimethylphthalate		
Screening Criteria (mg/kg)										0.09												470					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		--			--			--			< 0.0577	U		< 0.288	U		--			--		
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		--			--			--			< 0.0487	U		< 0.244	U		--			--		
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		--			--			--			< 0.0020	U		< 0.0102	U		--			--		
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		--			--			--			< 0.534	U		< 2.67	U		--			--		
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		--			--			--			< 0.0019	U		< 0.0094	U		--			--		
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		--			--			--			< 0.268	U		< 1.34	U		--			--		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		--			--			--			< 2.31	U		< 11.6	U	UJ	--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		--			--			--			< 2.12	U		< 10.6	U	UJ	--			--		
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		--			--			--			< 0.0601	U		< 0.3	U		--			--		
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	--			--			--			< 0.0608	U	UJ	< 0.304	U	UJ	--			--		
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		--			--			--			< 0.46	U		< 2.3	U		--			--		
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		--			--			--			< 0.0607	U	UJ	< 0.304	U	UJ	--			--		
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	--			--			--			< 0.0518	U	UJ	< 0.259	U	UJ	--			--		
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		--			--			--			< 0.0019	U		< 0.0095	U		--			--		
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		--			--			--			< 0.0581	U		< 0.291	U	UJ	--			--		
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	--			--			--			< 0.0616	U	UJ	< 0.308	U	UJ	--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		--			--			--			< 0.0620	U		< 0.31	U		--			--		
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		--			--			--			< 0.692	U	UJ	< 3.46	U	UJ	--			--		
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		--			--			--			< 0.0019	U		< 0.0093	U		--			--		
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		--			--			--			< 0.0523	U		< 0.261	U		--			--		
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		--			--			--			< 0.446	U		< 2.23	U	UJ	--			--		
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		--			--			--			< 0.379	U		< 1.9	U	UJ	--			--		
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		--			--			--			< 0.125	U		< 0.627	U	UJ	--			--		
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	--			--			--			< 0.452	U	UJ	< 2.26	U	UJ	--			--		
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		--			--			--			< 0.0481	U		< 0.24	U	UJ	--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		--			--			--			< 0.0024	U		< 0.0118	U	UJ	--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		--			--			--			< 0.498	U		< 2.49	U	UJ	--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		--			--			--			< 2.32	U		< 11.6	U	UJ	--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		--			--			--			< 0.0029	U		< 0.0143	U	UJ	--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		--			--			--			< 0.893	U		< 4.46	U	UJ	--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		--			--			--			< 0.42	U		< 2.1	U	UJ	--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		--			--			--			< 0.535	U	UJ	< 2.67	U	UJ	--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		--			--			--			< 0.0597	U	UJ	< 0.298	U	UJ	--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U		--			--			--			< 0.0021	U	UJ	< 0.0106	U	UJ	--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		--			--			--			< 0.122	U		< 0.609	U		--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		--			--			--			< 4.54	U		< 22.7	U	UJ	--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		--			--			--			< 1.12	U		< 5.61	U		--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		--			--			--			< 0.482	U		< 2.41	U	UJ	--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		--			--			--			< 0.449	U		< 2.24	U	UJ	--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		--			--			--			< 3.59	U		< 17.9	U	UJ	--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		--			--			--			< 0.139	U		< 0.694	U		--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		--			--			--			< 0.0920	U		< 0.46	U	UJ	--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		--			--			--			< 20.3	U		< 101	U		--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		--			--			--			< 0.0658	U		< 0.329	U		--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		--			--			--			< 0.0570	U		< 0.285	U		--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		--			--			--			< 0.216	U		< 1.08	U		--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		--			--			--			< 0.0539	U		< 0.269	U		--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		--			--			--			< 1.05	U		< 5.24	U		--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		--			--			--			< 0.0510	U		< 0.255	U		--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		--			--			--			< 0.0516	U		< 0.258	U		--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		--			--			--			< 1.89	U		< 9.43	U		--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		--			--			--			< 0.0575	U		< 0.287	U		--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		--			--			--			< 0.126	U		< 0.631	U		--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		--			--			--			< 0.0501	U		< 0.25	U		--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		--			--			--			< 0.0579	U		< 0.29	U		--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		--			--			--			< 0.0460	U		< 0.23	U		--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		--			--			--			< 0.447	U		< 2.23	U		--			--		

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				cis-1,3-Dichloropropene			Dibenz(a,h)acridine			Dibenzo(a-h)anthracene			Dibenzofuran			Dibromomethane			Dichlorodifluoromethane			Diethylphthalate			Dimethylphthalate		
Screening Criteria (mg/kg)										0.09												470					
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		--			--			--			< 0.0022	U		< 0.0111	U	UJ	--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		--			--			--			< 0.442	U		< 2.21	U		--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		--			--			--			< 0.444	U		< 2.22	U		--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		--			--			--			< 0.0024	U		< 0.0121	U		--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		--			--			--			< 0.377	U		< 1.88	U		--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		--			--			--			< 21.7	U		< 108	U		--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		--			--			--			< 12.3	U		< 61.4	U		--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		--			--			--			< 1.41	U		< 7.04	U	UJ	--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		--			--			--			< 0.218	U		< 1.09	U	UJ	--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	--			--			--			< 0.0768	U	UJ	< 0.384	U	UJ	--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		--			--			--			< 0.0519	U		< 0.26	U		--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		--			--			--			< 0.423	U		< 2.11	U		--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		--			--			--			< 0.481	U		< 2.41	U		--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		--			--			--			< 0.88	U		< 4.4	U		--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		--			--			--			< 2.29	U		< 11.4	U	UJ	--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		--			--			--			< 2.33	U		< 11.7	U	UJ	--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		--			--			--			< 0.0581	U		< 0.291	U	UJ	--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		--			--			--			< 0.474	U		< 2.37	U	UJ	--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		--			--			--			< 0.443	U		< 2.21	U	UJ	--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		--			--			--			< 0.453	U		< 2.27	U	UJ	--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		--			--			--			< 0.421	U		< 2.11	U	UJ	--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		--			--			--			< 0.449	U		< 2.25	U	UJ	--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		--			--			--			< 5.13	U		< 25.6	U	UJ	--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		--			--			--			< 0.0698	U	UJ	< 0.349	U	UJ	--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		--			--			--			< 0.29	U		< 1.45	U		--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		--			--			--			< 0.0633	U		< 0.316	U		--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		--			--			--			< 0.836	U		< 4.18	U	UJ	--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		--			--			--			< 0.0023	U		< 0.0113	U	UJ	--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		--			--			--			< 0.0020	U	UJ	< 0.0101	U	UJ	--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		--			--			--			< 0.0022	U	UJ	< 0.0108	U	UJ	--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		--			--			--			< 0.512	U		< 2.56	U		--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		--			--			--			< 0.469	U		< 2.35	U		--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		--			--			--			< 0.444	U		< 2.22	U		--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		--			--			--			< 12.4	U		< 61.8	U		--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		--			--			--			< 12	U		< 60.1	U		--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		--			--			--			< 0.0020	U		< 0.0101	U		--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		--			--			--			< 0.44	U		< 2.2	U		--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		--			--			--			< 0.627	U		< 3.14	U		--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		--			--			--			< 2.31	U		< 11.5	U		--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		--			--			--			< 0.0024	U		< 0.0118	U		--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		--			--			--			< 0.489	U		< 2.44	U		--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		--			--			--			< 10.3	U		< 51.7	U		--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		--			--			--			< 0.551	U		< 2.75	U		--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		--			--			--			< 0.0963	U		< 0.482	U		--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		--			--			--			< 23.8	U		< 119	U		--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		--			--			--			< 0.477	U		< 2.39	U		--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		--			--			--			< 0.997	U		< 4.98	U		--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		--			--			--			< 0.0980	U		< 0.49	U	UJ	--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		--			--			--			< 0.0022	U		< 0.0109	U		--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		--			--			--			< 0.0023	U		< 0.0117	U		--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		--			--			--			< 4.57	U		< 22.9	U		--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		--			--			--			< 9.71	U		< 48.5	U		--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		--			--			--			< 24.7	U		< 124	U		--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		--			--			--			< 0.0018	U		< 0.0092	U		--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		--			--			--			< 0.0021	U		< 0.0106	U		--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		--			--			--			< 0.0689	U		< 0.345	U		--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		--			--			--			< 4.56	U		< 22.8	U		--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		--			--			--			< 1.07	U		< 5.33	U	UJ	--			--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Di-n-butylphthalate			Di-n-octylphthalate			Ethyl methacrylate			Ethylbenzene			Fluoranthene			Fluorene			Freon 11 (Trichlorofluoromethane)			Hexachlorobenzene		
Screening Criteria (mg/kg)				2300			1600						13			3100			560						0.4		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.33	U		< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0066	JB	U	< 0.0066	U		< 0.0053	U		< 0.33	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.39	U		< 0.39	U		< 13	U		< 13	U		< 0.0077	JB	U	< 0.0077	U		< 13	U		< 0.39	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.4	U		< 0.4	U		< 3.6	U		< 3.6	U		< 0.0080	JB	U	< 0.0080	U		< 3.6	U*+		< 0.4	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.39	U		< 0.39	U	UJ	< 0.0046	U		< 0.0046	U		< 0.0078	JB	U	< 0.0078	U		< 0.0046	U		< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.35	U		< 0.35	U		< 0.0054	U		< 0.0054	U		< 0.0069	JB	U	< 0.0069	U		< 0.0054	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U		< 0.38	U		< 0.38	U	UJ	< 0.38	U	UJ	0.021	B		0.016			< 0.38	U	UJ	< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	< 0.41	U		< 0.41	U		< 0.55	U	UJ	2.2		J	< 0.0080	JB	U	0.0091			< 0.55	U	UJ	< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.41	U		< 0.41	U		< 0.37	U	UJ	2.4		J	< 0.0081	JB	U	0.0082			< 0.37	U	UJ	< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	< 0.38	U		< 0.38	U		< 12	U	UJ	11	J	J	0.012	B		0.032			< 12	U	UJ	< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	< 0.34	U		< 0.34	U		< 0.0043	U	UJ	0.12		J	< 0.0069	JB	U	< 0.0069	U		< 0.0043	U	UJ	< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.33	U		< 0.33	U		< 0.0054	U		< 0.0054	U		0.031	B		0.0013	J		< 0.0054	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.37	U		< 0.37	U		< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0074	U		< 0.0074	U		< 0.0062	U	UJ	< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.34	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	0.0023	J		< 0.0068	U		< 0.0051	U	UJ	< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.34	U		< 0.34	U		< 0.0057	U		< 0.0057	U		< 0.0075	B	U	< 0.0067	U		< 0.0057	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.34	U		< 0.34	U		< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	JB	U	< 0.0069	U		< 0.0069	U*+	UJ	< 0.34	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.34	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0067	U		< 0.0067	U		< 0.0051	U*+	UJ	< 0.34	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	0.046	J		< 0.41	U		< 0.0060	U		< 0.0060	U		0.0036	J		< 0.0083	U		< 0.0060	U		< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.32	U		< 0.32	U		< 0.0052	U		< 0.0052	U		0.0017	J		< 0.0065	U		< 0.0052	U		< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.36	U		< 0.36	U		< 0.0055	U		< 0.0055	U		0.0021	J		< 0.0072	U		< 0.0055	U		< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.44	U		< 0.44	U		< 0.0053	U		< 0.0053	U		< 0.0088	U		< 0.0088	U		< 0.0053	U		< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.33	U		< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0065	U		< 0.0065	U		< 0.0053	U		< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.34	U		< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.0067	U		< 0.0067	U		< 0.0058	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.34	U		< 0.34	U		< 0.0054	U		< 0.0054	U		0.0023	J		< 0.0067	U		< 0.0054	U		< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.35	U		< 0.35	U		< 0.0053	U		< 0.0053	U		0.0040	J		< 0.0069	U		< 0.0053	U		< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.33	U		< 0.33	U		< 0.01	U		< 0.01	U		< 0.0066	U		< 0.0066	U		< 0.01	U		< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0068	U		< 0.0068	U		< 0.0053	U		< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.34	U		< 0.34	U		< 0.0054	U		< 0.0054	U		0.0026	J		< 0.0069	U		< 0.0054	U		< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.33	U		< 0.33	U		< 0.0081	U		< 0.0081	U		< 0.0067	U		< 0.0067	U		< 0.0081	U		< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.36	U		< 0.36	U		< 0.0072	U		< 0.0072	U		0.0019	J		< 0.0071	U		< 0.0072	U		< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.36	U		< 0.36	U		< 0.0068	U		< 0.0068	U		0.0039	J		< 0.0071	U		< 0.0068	U		< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.41	U		< 0.41	U		< 0.0053	U		< 0.0053	U		0.011			< 0.0083	U		< 0.0053	U		< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.34	U		< 0.34	U		< 0.0036	U		< 0.0036	U		0.0030	J		< 0.0068	U		< 0.0036	U		< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.34	U		< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.0067	U		< 0.0067	U		< 0.0058	U		< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.34	U		< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.0067	JB	U	< 0.0067	U		< 0.0056	U		< 0.34	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0067	JB	U	< 0.0067	U		< 0.0053	U		< 0.34	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.35	U		< 0.35	U		< 0.0062	U		< 0.0062	U		< 0.0070	U		< 0.0070	U		< 0.0062	U		< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0069	U		< 0.0069	U		< 0.0053	U		< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.35	U		< 0.35	U		< 0.0061	U		< 0.0061	U		< 0.0069	U		< 0.0069	U		< 0.0061	U		< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.37	U		< 0.37	U		< 0.0059	U		< 0.0059	U		< 0.0074	U		< 0.0074	U		< 0.0059	U		< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.35	U		< 0.35	U		< 0.0056	U		< 0.0056	U		< 0.0070	JB	U	< 0.0070	U		< 0.0056	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.33	U		< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.0066	U		< 0.0066	U		< 0.0056	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.33	U		< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0067	U		< 0.0067	U		< 0.0053	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.36	U		< 0.36	U		< 0.0098	U		< 0.0098	U		< 0.0072	U		< 0.0072	U		< 0.0098	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.33	U		< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.0067	U		< 0.0067	U		< 0.0056	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.33	U		< 0.33	U		< 0.0049	U		< 0.0049	U		< 0.0067	JB	U	< 0.0067	U		< 0.0049	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.34	U		< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0068	U		< 0.0068	U		< 0.0053	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.34	U		< 0.34	U		< 0.0062	U		< 0.0062	U		< 0.0069	U		< 0.0069	U		< 0.0062	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.35	U		< 0.35	U		< 0.0055	U		< 0.0055	U		< 0.0071	JB	U	< 0.0071	U		< 0.0055	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.33	U		< 0.33	U		< 0.0051	U		< 0.0051	U		< 0.0065	U		< 0.0065	U		< 0.0051	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.34	U		< 0.34	U		< 0.0052	U		< 0.0052	U		< 0.0068	U		< 0.0068	U		< 0.0052	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.34	U		< 0.34	U	UJ	< 0.0054	U		< 0.0054	U		< 0.0067	JB	U	< 0.0067	U		< 0.0054	U		< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.34	U		< 0.34	U	UJ	< 0.0051	U		< 0.0051	U		< 0.0068	U		< 0.0068	U		< 0.0051	U		< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.34	U		< 0.34	U	UJ	< 0.0056	U		< 0.0056	U		< 0.0069	JB	U	< 0.0069	U		< 0.0056	U		< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.34	U		< 0.34	U	UJ	< 0.0056	U		< 0.0056	U		< 0.0068	JB	U	< 0.0068	U		< 0.0056	U		< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.35	U		< 0.35	U		< 0.0074	U	UJ	< 0.0074	U	UJ	0.0034	J		< 0.0070	U		< 0.0074	U	UJ	< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.34	U		< 0.34	U		< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0067	U		< 0.0067	U		< 0.0085	U	UJ	< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.34	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0068	U		< 0.0068	U		< 0.0051	U	UJ	< 0.34	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Di-n-butylphthalate			Di-n-octylphthalate			Ethyl methacrylate			Ethylbenzene			Fluoranthene			Fluorene			Freon 11 (Trichlorofluoromethane)			Hexachlorobenzene		
Screening Criteria (mg/kg)				2300			1600						13			3100			560						0.4		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			--			< 0.0577	U		< 0.0577	U		--			--			< 0.144	U		--		
SB-103	SB103-43-051723	43	5/17/2023	--			--			< 0.0487	U		< 0.0487	U		--			--			< 0.122	U		--		
SB-103	SB103-58-051723	58	5/17/2023	--			--			< 0.0020	U		< 0.0020	U		--			--			< 0.0051	U		--		
SB-103	SB103-68-051323	68	5/17/2023	--			--			< 0.534	U		< 0.534	U		--			--			< 1.34	U		--		
SB-103	SB103-77-052423	77	5/24/2023	--			--			< 0.0019	U		0.0020			--			--			< 0.0047	U		--		
SB-104	SB104-42-062023	42	6/20/2023	--			--			< 0.268	U		1.85			--			--			< 0.671	U		--		
SB-104	SB104-57-062023	57	6/20/2023	--			--			< 2.31	U		< 2.31	U		--			--			< 5.78	U		--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			--			< 2.12	U		< 2.12	U		--			--			< 5.31	U		--		
SB-104	SB104-65-062023	65	6/20/2023	--			--			< 0.0601	U		< 0.0601	U		--			--			< 0.15	U		--		
SB-104	SB104-78-062023	78	6/20/2023	--			--			< 0.0608	U	UJ	< 0.0608	U	UJ	--			--			< 0.152	U	UJ	--		
SB-105	SB105-40-062023	40	6/20/2023	--			--			< 0.46	U		< 0.46	U		--			--			< 1.15	U		--		
SB-105	SB105-55-062023	55	6/20/2023	--			--			< 0.0607	U		< 0.0607	U		--			--			< 0.152	U	UJ	--		
SB-105	SB105-67-062023	67	6/20/2023	--			--			< 0.0518	U	UJ	< 0.0518	U	UJ	--			--			< 0.13	U	UJ	--		
SB-105	SB105-73-062023	73	6/20/2023	--			--			< 0.0019	U		< 0.0019	U		--			--			< 0.0048	U		--		
SB-106	SB106-39-061923	39	6/19/2023	--			--			< 0.0581	U		< 0.0581	U		--			--			< 0.145	U		--		
SB-106	SB106-45-061923	45	6/19/2023	--			--			< 0.0616	U	UJ	< 0.0616	U	UJ	--			--			< 0.154	U	UJ	--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			--			< 0.0620	U		< 0.0620	U		--			--			< 0.155	U		--		
SB-106	SB106-58-061923	58	6/19/2023	--			--			< 0.692	U		< 0.692	U		--			--			< 1.73	U	UJ	--		
SB-106	SB106-68-061923	68	6/19/2023	--			--			< 0.0019	U		< 0.0019	U		--			--			< 0.0047	U		--		
SB-106	SB106-77-061923	77	6/19/2023	--			--			< 0.0523	U		< 0.0523	U		--			--			< 0.131	U		--		
SB-107	SB107-15-061723	15	6/17/2023	--			--			< 0.446	U		< 0.446	U		--			--			< 1.12	U		--		
SB-107	SB107-39-061723	39	6/17/2023	--			--			< 0.379	U		< 0.379	U		--			--			< 0.948	U		--		
SB-107	SB107-58-061723	58	6/17/2023	--			--			< 0.125	U		< 0.125	U		--			--			< 0.313	U		--		
SB-107	SB107-67-061723	67	6/17/2023	--			--			< 0.452	U	UJ	< 0.452	U	UJ	--			--			< 1.13	U	UJ	--		
SB-107	SB107-78-061723	78	6/17/2023	--			--			< 0.0481	U		< 0.0481	U		--			--			< 0.12	U		--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			--			< 0.0024	U		0.0033			--			--			< 0.0059	U		--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			--			< 0.498	U		0.953			--			--			< 1.24	U		--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			--			< 2.32	U		< 2.32	U		--			--			< 5.81	U		--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			--			< 0.0029	U		0.0118			--			--			< 0.0072	U		--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			--			< 0.893	U		2.15			--			--			< 2.23	U		--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			--			< 0.42	U		< 0.42	U		--			--			< 1.05	U		--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			--			< 0.535	U		3			--			--			< 1.34	U	UJ	--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			--			< 0.0597	U		4.16			--			--			< 0.149	U	UJ	--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			--			< 0.0021	U		0.183			--			--			< 0.0053	U	UJ	--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			--			< 0.122	U		< 0.122	U		--			--			< 0.304	U		--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			--			< 4.54	U		22.9			--			--			< 11.3	U		--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			--			< 1.12	U		13.6			--			--			< 2.81	U		--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			--			< 0.482	U		0.15	J		--			--			< 1.21	U		--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			--			< 0.449	U		0.18	J		--			--			< 1.12	U		--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			--			< 3.59	U		< 3.59	U		--			--			< 8.97	U		--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			--			< 0.139	U		< 0.139	U		--			--			< 0.347	U		--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			--			< 0.0920	U		0.092	J		--			--			< 0.23	U		--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			--			< 20.3	U		97.9			--			--			< 50.7	U		--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			--			< 0.0658	U		< 0.0658	U		--			--			< 0.165	U		--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			--			< 0.0570	U		0.127			--			--			< 0.142	U		--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			--			< 0.216	U		5.24			--			--			< 0.539	U		--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			--			< 0.0539	U		0.115			--			--			< 0.135	U		--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			--			< 1.05	U		139			--			--			< 2.62	U		--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			--			< 0.0510	U		< 0.0510	U		--			--			< 0.128	U		--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			--			< 0.0516	U		0.175			--			--			< 0.129	U		--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			--			< 1.89	U		3.98			--			--			< 4.71	U		--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			--			< 0.0575	U		< 23	U		--			--			< 0.144	U		--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			--			< 0.126	U		< 0.126	U		--			--			< 0.316	U		--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			--			< 0.0501	U		1.8			--			--			< 0.125	U		--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			--			< 0.0579	U		8.32			--			--			< 0.145	U		--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			--			< 0.0460	U		0.274			--			--			< 0.115	U		--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			--			< 0.447	U		178			--			--			< 1.12	U		--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Di-n-butylphthalate			Di-n-octylphthalate			Ethyl methacrylate			Ethylbenzene			Fluoranthene			Fluorene			Freon 11 (Trichlorofluoromethane)			Hexachlorobenzene		
Screening Criteria (mg/kg)				2300			1600						13			3100			560						0.4		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			--			< 0.0022	U		0.0055			--			--			< 0.0056	U		--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			--			< 0.442	U		< 0.442	U		--			--			< 1.1	U		--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			--			< 0.444	U		0.75			--			--			< 1.11	U		--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			--			< 0.0024	U		0.0662			--			--			< 0.0060	U		--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			--			< 0.377	U		1.83			--			--			< 0.942	U		--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			--			< 21.7	U		39.5			--			--			< 54.2	U		--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			--			< 12.3	U		< 12.3	U		--			--			< 30.7	U		--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			--			< 1.41	U		< 1.41	U		--			--			< 3.52	U		--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			--			< 0.218	U		0.375			--			--			< 0.545	U		--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			--			< 0.0768	U	UJ	< 0.0768	U	UJ	--			--			< 0.192	U	UJ	--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			--			< 0.0519	U		< 0.0519	U		--			--			< 0.13	U		--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			--			< 0.423	U		< 0.423	U		--			--			< 1.06	U		--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			--			< 0.481	U		< 0.481	U		--			--			< 1.2	U		--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			--			< 0.88	U		< 0.88	U		--			--			< 2.2	U		--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			--			< 2.29	U		15.3			--			--			< 5.72	U		--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			--			< 2.33	U		16.4			--			--			< 5.83	U		--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			--			< 0.0581	U		0.0724			--			--			< 0.145	U		--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			--			< 0.474	U		< 0.474	U		--			--			< 1.18	U		--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			--			< 0.443	U		< 0.443	U		--			--			< 1.11	U		--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			--			< 0.453	U		< 0.453	U		--			--			< 1.13	U		--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			--			< 0.421	U		0.913			--			--			< 1.05	U		--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			--			< 0.449	U		0.826			--			--			< 1.12	U		--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			--			< 5.13	U		< 5.13	U		--			--			< 12.8	U		--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			--			< 0.0698	U		< 0.0698	U		--			--			< 0.174	U	UJ	--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			--			< 0.29	U		< 0.29	U		--			--			< 0.725	U		--		
T-AB2	TAB2-48-061523	48	6/15/2023	--			--			< 0.0633	U		< 0.0633	U		--			--			< 0.158	U		--		
T-AB2	TAB2-59-061523	59	6/15/2023	--			--			< 0.836	U		2.1			--			--			< 2.09	U		--		
T-BG2	TBG2-48-071123	48	7/11/2023	--			--			< 0.0023	U		< 0.0023	U		--			--			< 0.0057	U		--		
T-BG2	TBG2-59-071123	59	7/11/2023	--			--			< 0.0020	U		0.0146			--			--			< 0.0051	U	UJ	--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			--			< 0.0022	U		0.0133			--			--			< 0.0054	U	UJ	--		
X-AD2	XAD2-49-052323	49	5/23/2023	--			--			< 0.512	U		< 0.512	U		--			--			< 1.28	U		--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			--			< 0.469	U		< 0.469	U		--			--			< 1.17	U		--		
X-AD2	XAD2-58-052323	58	5/23/2023	--			--			< 0.444	U		< 0.444	U		--			--			< 1.11	U		--		
X-AE4	XAE4-40-030223	40	3/2/2023	--			--			< 12.4	U		3.8	J		--			--			< 30.9	U		--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			--			< 12	U		2.2	J		--			--			< 30	U		--		
X-AE4	XAE4-48-030223	48	3/2/2023	--			--			< 0.0020	U		0.0214			--			--			< 0.0051	U		--		
X-AE4	XAE4-52-030223	52	3/2/2023	--			--			< 0.44	U		7.08			--			--			< 1.1	U		--		
X-AF6	XAF6-40-022723	40	2/27/2023	--			--			< 0.627	U		22.6		J	--			--			< 1.57	U		--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			--			< 2.31	U		10.8		J	--			--			< 5.77	U		--		
X-AF6	XAF6-47-022723	47	2/27/2023	--			--			< 0.0024	U		0.0547			--			--			< 0.0059	U		--		
X-AF6	XAF6-58-022723	58	2/27/2023	--			--			< 0.489	U		3.33			--			--			< 1.22	U		--		
X-AG5	XAG5-40-031823	40	3/18/2023	--			--			< 10.3	U		< 10.3	U		--			--			< 25.9	U		--		
X-AG5	XAG5-49-031823	49	3/18/2023	--			--			< 0.551	U		2.4			--			--			< 1.38	U		--		
X-AG5	XAG5-56-031823	56	3/18/2023	--			--			< 0.0963	U		0.17			--			--			< 0.241	U		--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			--			< 23.8	U		16	J		--			--			< 59.5	U		--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			--			< 0.477	U		0.621			--			--			< 1.19	U		--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			--			< 0.997	U		1.78			--			--			< 2.49	U		--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			--			< 0.0980	U		3.33			--			--			< 0.245	U		--		
X-BB2	XBB2-4-030123	4	3/1/2023	--			--			< 0.0022	U		0.0025			--			--			< 0.0054	U		--		
X-BB2	XBB2-9-030123	9	3/1/2023	--			--			< 0.0023	U		0.0016	J		--			--			< 0.0059	U		--		
X-BB2	XBB2-38-051823	38	5/18/2023	--			--			< 4.57	U		17.9			--			--			< 11.4	U		--		
X-BB2	XBB2-47-051823	47	5/18/2023	--			--			< 9.71	U		< 9.71	U		--			--			< 24.3	U		--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			--			< 24.7	U		< 24.7	U		--			--			< 61.8	U		--		
X-BC3	XBC3-4-022423	4	2/24/2023	--			--			< 0.0018	U		< 0.0018	U		--			--			< 0.0046	U		--		
X-BC3	XBC3-9-022423	9	2/24/2023	--			--			< 0.0021	U		< 0.0021	U		--			--			< 0.0053	U		--		
X-BC3	XBC3-38-062123	38	6/21/2023	--			--			< 0.0689	U		0.622			--			--			< 0.172	U		--		
X-BC3	XBC3-47-062123	47	6/21/2023	--			--			< 4.56	U		< 4.56	U		--			--			< 11.4	U		--		
X-BC3	XBC3-58-062123	58	6/21/2023	--			--			< 1.07	U		< 1.07	U		--			--			< 2.66	U		--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Hexachlorobutadiene			Hexachlorocyclopentadiene			Hexachloroethane			Indene			Indeno(1,2,3,c,d)pyrene			Isophorone			Isopropylbenzene (Cumene)			m,p-Xylene		
Screening Criteria (mg/kg)							10			0.5						0.9			8						150		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U*+		< 0.33	UF1	UJ	< 0.33	U		< 0.33	U		< 0.0066	U		< 0.33	UF1	UJ	< 0.0053	U		< 0.0053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U*+		< 0.39	U	UJ	< 0.39	U		< 0.39	U		< 0.0077	U		< 0.39	U		< 13	U		< 13	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 0.4	U	UJ	< 0.4	U		< 0.4	U		< 0.0080	U		< 0.4	U		< 3.6	U		< 3.6	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.39	U	UJ	< 0.39	U		< 0.39	U		< 0.0078	U		< 0.39	U	UJ	< 0.0046	U		0.0016	J	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U*+		< 0.35	U	UJ	< 0.35	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.0054	U		< 0.0054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U*+	UJ	< 0.38	U		< 0.38	U		< 0.38	U		< 0.0076	U		< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 0.41	U		< 0.41	U		< 0.41	U		< 0.0080	U		< 0.41	U		0.077	J	J	4.3		J
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U*+	UJ	< 0.41	U		< 0.41	U		< 0.41	U		< 0.0081	U		< 0.41	U		0.12	J	J	4.8		J
SB-102	SB102-55-120622	55	12/6/2022	< 12	U*+	UJ	< 0.38	U		< 0.38	U		< 0.38	U		< 0.0076	U		< 0.38	U		< 12	U	UJ	20		J
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U*+	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.34	U		0.0091		J	0.23		J
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U*+		< 0.33	U	UJ	< 0.33	U		< 0.33	U		0.042			< 0.33	U		< 0.0054	U		< 0.0054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.37	UF1*1	UJ	< 0.37	U		< 0.37	U		< 0.0074	U		< 0.37	UF1	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.34	U*1	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U*+		< 0.34	U	UJ	< 0.34	U		< 0.34	U		0.0024	J		< 0.34	U		< 0.0057	U		< 0.0057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0069	U	UJ	< 0.0069	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.41	U*1	UJ	< 0.41	U		< 0.41	U		< 0.0083	U		< 0.41	U	UJ	< 0.0060	U		< 0.0060	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.32	U*1	UJ	< 0.32	U		< 0.32	U		< 0.0065	U		< 0.32	U	UJ	< 0.0052	U		0.0015	J	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.36	U*1	UJ	< 0.36	U		< 0.36	U		< 0.0072	U		< 0.36	U	UJ	< 0.0055	U		< 0.0055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.44	U*1	UJ	< 0.44	U		< 0.44	U		< 0.0088	U		< 0.44	U	UJ	< 0.0053	U		< 0.0053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.33	U*1	UJ	< 0.33	U		< 0.33	U		< 0.0065	U		< 0.33	U	UJ	< 0.0053	U		< 0.0053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.34	U*1		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0058	U		0.0021	J	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U	UJ	< 0.0054	U		< 0.0054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.35	U	UJ	< 0.35	U		< 0.35	U		< 0.0069	U		< 0.35	U	UJ	< 0.0053	U		< 0.0053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.33	U	UJ	< 0.33	U		< 0.33	U		< 0.0066	U		< 0.33	U	UJ	< 0.01	U		< 0.01	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.34	U*1	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U	UJ	< 0.0053	U		< 0.0053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.34	U*1	UJ	< 0.34	U		< 0.34	U		< 0.0069	U		< 0.34	U	UJ	< 0.0054	U		< 0.0054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.33	U*1	UJ	< 0.33	U		< 0.33	U		< 0.0067	U		< 0.33	U	UJ	< 0.0081	U		< 0.0081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.36	U*1	UJ	< 0.36	U		< 0.36	U		< 0.0071	U		< 0.36	U	UJ	< 0.0072	U		< 0.0072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.36	U*1	UJ	< 0.36	U		< 0.36	U		< 0.0071	U		< 0.36	U	UJ	< 0.0068	U		< 0.0068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.41	U*1	UJ	< 0.41	U		< 0.41	U		< 0.0083	U		< 0.41	U	UJ	< 0.0053	U		< 0.0053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.34	U*1	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U	UJ	< 0.0036	U		< 0.0036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.0058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0056	U		< 0.0056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0053	U		< 0.0053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0062	U		< 0.0062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0053	U		< 0.0053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.0069	U		< 0.35	U		< 0.0061	U		< 0.0061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.37	U		< 0.37	U		< 0.37	U		< 0.0074	U		< 0.37	U		< 0.0059	U		< 0.0059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0056	U		< 0.0056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.0066	U		< 0.33	U		< 0.0056	U		< 0.0056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0053	U		< 0.0053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.0072	U		< 0.36	U		< 0.0098	U		< 0.0098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0056	U		< 0.0056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.0067	U		< 0.33	U		< 0.0049	U		< 0.0049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0053	U		< 0.0053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0069	U		< 0.34	U		< 0.0062	U		< 0.0062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.0071	U		< 0.35	U		< 0.0055	U		< 0.0055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.0065	U		< 0.33	U		< 0.0051	U		< 0.0051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0052	U		< 0.0052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U*+		< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U	UJ	< 0.0054	U		< 0.0054	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U*+		< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U	UJ	< 0.0051	U		< 0.0051	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U*+		< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0069	U		< 0.34	U	UJ	< 0.0056	U		< 0.0056	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U*+		< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U	UJ	< 0.0056	U		< 0.0056	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.35	U		< 0.35	U		< 0.35	U		< 0.0070	U		< 0.35	U		< 0.0074	U	UJ	< 0.0074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.0067	U		< 0.34	U		< 0.0085	U	UJ	< 0.0085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.0068	U		< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Hexachlorobutadiene			Hexachlorocyclopentadiene			Hexachloroethane			Indene			Indeno(1,2,3,c,d)pyrene			Isophorone			Isopropylbenzene (Cumene)			m,p-Xylene		
Screening Criteria (mg/kg)							10			0.5						0.9			8						150		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		--			--			--			--			--			< 0.0577	U		< 0.115	U	
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		--			--			--			--			--			< 0.0487	U		< 0.0974	U	
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		--			--			--			--			--			< 0.0020	U		< 0.0041	U	
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		--			--			--			--			--			< 0.534	U		< 1.07	U	
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		--			--			--			--			--			< 0.0019	U		< 0.0038	U	
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		--			--			--			--			--			0.661			4.64		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		--			--			--			--			--			< 2.31	U		< 4.63	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		--			--			--			--			--			< 2.12	U		< 4.25	U	
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		--			--			--			--			--			< 0.0601	U		0.26		
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	--			--			--			--			--			< 0.0608	U	UJ	< 0.122	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		--			--			--			--			--			2.65			< 0.92	U	
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		--			--			--			--			--			0.203			< 0.121	U	
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	--			--			--			--			--			< 0.0518	U	UJ	< 0.104	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		--			--			--			--			--			< 0.0019	U		< 0.0038	U	
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		--			--			--			--			--			< 0.0581	U		< 0.116	U	
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	--			--			--			--			--			< 0.0616	U	UJ	< 0.123	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		--			--			--			--			--			< 0.0620	U		< 0.124	U	
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		--			--			--			--			--			1.5			1.45		
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		--			--			--			--			--			< 0.0019	U		< 0.0037	U	
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		--			--			--			--			--			< 0.0523	U		< 0.105	U	
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		--			--			--			--			--			< 0.446	U		< 0.893	U	
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		--			--			--			--			--			1.17			< 0.759	U	
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		--			--			--			--			--			< 0.125	U		< 0.251	U	
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	--			--			--			--			--			< 0.452	U	UJ	< 0.904	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		--			--			--			--			--			< 0.0481	U		< 0.0962	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		--			--			--			--			--			< 0.0024	U		< 0.0047	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		--			--			--			--			--			< 0.498	U		1.44		
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		--			--			--			--			--			< 2.32	U		< 4.65	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		--			--			--			--			--			< 0.0029	U		0.0215		
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		--			--			--			--			--			< 0.893	U		< 1.79	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		--			--			--			--			--			< 0.42	U		< 0.841	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		--			--			--			--			--			< 0.535	U		2.72		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		--			--			--			--			--			0.357			3.36		
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U		--			--			--			--			--			0.0085			0.319		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		--			--			--			--			--			< 0.122	U		< 0.243	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		--			--			--			--			--			2.3	J		32.8		
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		--			--			--			--			--			1.2			35.8		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		--			--			--			--			--			< 0.482	U		< 0.965	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		--			--			--			--			--			< 0.449	U		0.36	J	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		--			--			--			--			--			< 3.59	U		< 7.18	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		--			--			--			--			--			< 0.139	U		< 0.278	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		--			--			--			--			--			< 0.0920	U		0.12	J	
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		--			--			--			--			--			6.8	J		270		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		--			--			--			--			--			< 0.0658	U		< 0.132	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		--			--			--			--			--			< 0.0570	U		0.264		
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		--			--			--			--			--			0.442			14.8		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		--			--			--			--			--			< 0.0539	U		0.172		
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		--			--			--			--			--			13.2			364		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		--			--			--			--			--			< 0.0510	U		< 0.102	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		--			--			--			--			--			0.14			0.244		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		--			--			--			--			--			3.02			8.36		
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		--			--			--			--			--			1.25			< 46	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		--			--			--			--			--			< 0.126	U		< 0.253	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		--			--			--			--			--			0.541			1.76		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		--			--			--			--			--			0.553			22.3		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		--			--			--			--			--			0.02	J		0.418		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		--			--			--			--			--			14.2			455		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Hexachlorobutadiene			Hexachlorocyclopentadiene			Hexachloroethane			Indene			Indeno(1,2,3,c,d)pyrene			Isophorone			Isopropylbenzene (Cumene)			m,p-Xylene		
Screening Criteria (mg/kg)							10			0.5						0.9			8						150		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		--			--			--			--			--			< 0.0022	U		< 0.0044	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		--			--			--			--			--			< 0.442	U		< 0.883	U	
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		--			--			--			--			--			0.661		J	1.45		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		--			--			--			--			--			0.0081			0.145		
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		--			--			--			--			--			0.18	J		14.8		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		--			--			--			--			--			9.2	J		101		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		--			--			--			--			--			< 12.3	U		< 24.6	U	
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		--			--			--			--			--			2.4			< 2.82	U	
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		--			--			--			--			--			0.891			< 0.436	U	
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	--			--			--			--			--			< 0.0768	U	UJ	< 0.154	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		--			--			--			--			--			< 0.0519	U		< 0.104	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		--			--			--			--			--			0.36	J		< 0.846	U	
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		--			--			--			--			--			< 0.481	U		< 0.963	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		--			--			--			--			--			< 0.88	U		< 1.76	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		--			--			--			--			--			< 2.29	U		65.6		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		--			--			--			--			--			4.62			13.7		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		--			--			--			--			--			< 0.0581	U		0.122		
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		--			--			--			--			--			< 0.474	U		< 0.948	U	
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		--			--			--			--			--			0.591			< 0.885	U	
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		--			--			--			--			--			< 0.453	U		< 0.907	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		--			--			--			--			--			< 0.421	U		1.74		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		--			--			--			--			--			< 0.449	U		1.64		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		--			--			--			--			--			< 5.13	U		< 10.3	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		--			--			--			--			--			< 0.0698	U		< 0.14	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		--			--			--			--			--			< 0.29	U		< 0.58	U	
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		--			--			--			--			--			< 0.0633	U		< 0.127	U	
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		--			--			--			--			--			< 0.836	U		5		
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		--			--			--			--			--			< 0.0023	U		< 0.0045	U	
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		--			--			--			--			--			< 0.0020	U		0.0342		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		--			--			--			--			--			< 0.0022	U		0.0311		
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		--			--			--			--			--			< 0.512	U		< 1.02	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		--			--			--			--			--			< 0.469	U		< 0.939	U	
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		--			--			--			--			--			< 0.444	U		< 0.887	U	
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		--			--			--			--			--			< 12.4	U		10	J	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		--			--			--			--			--			< 12	U		< 24	U	
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		--			--			--			--			--			0.0030		J	0.0360		
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		--			--			--			--			--			0.543			16.5		
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		--			--			--			--			--			1.65			50.5		J
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		--			--			--			--			--			0.86	J		24.6		J
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		--			--			--			--			--			0.0058			0.0712		
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		--			--			--			--			--			0.29	J		9.1		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		--			--			--			--			--			< 10.3	U		< 20.7	U	
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		--			--			--			--			--			< 0.551	U		4.99		
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		--			--			--			--			--			0.063	J		0.429		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		--			--			--			--			--			< 23.8	U		46	J	
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		--			--			--			--			--			< 0.477	U		1.07		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		--			--			--			--			--			< 0.997	U		3.02		
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		--			--			--			--			--			0.228			6.29		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		--			--			--			--			--			< 0.0022	U		< 0.0044	U	
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		--			--			--			--			--			< 0.0023	U		< 0.0047	U	
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		--			--			--			--			--			6.43			20.8		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		--			--			--			--			--			< 9.71	U		< 19.4	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		--			--			--			--			--			< 24.7	U		< 49.4	U	
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		--			--			--			--			--			< 0.0018	U		< 0.0037	U	
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		--			--			--			--			--			< 0.0021	U		< 0.0042	U	
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		--			--			--			--			--			0.15			2.7		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		--			--			--			--			--			< 4.56	U		< 9.13	U	
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		--			--			--			--			--			< 1.07	U		< 2.13	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Methyl Tert-butyl Ether (MTBE)			Dichloromethane (Methylene chloride)			Naphthalene			n-Butylbenzene			Nitrobenzene			N-Nitrosodimethylamine			N-Nitrosodiphenylamine			N-Nitrosodipropylamine		
Screening Criteria (mg/kg)							0.02			12						0.1						1			0.00005		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U*+		< 0.33	UF1	UJ	< 0.33	U		< 0.33	U		< 0.33	U	
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 40	U		< 13	U		< 13	U*+		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 11	U		< 3.6	U		< 3.6	U		< 0.4	U		< 0.4	U		< 0.4	U		< 0.4	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.014	U		< 0.0046	U		< 0.0046	U		< 0.39	U	UJ	< 0.39	U		< 0.39	U	UJ	< 0.39	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.016	U		< 0.0054	U		< 0.0054	U*+		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 1.1	U	UJ	< 0.38	U	UJ	< 0.38	U*+	UJ	< 0.38	U		< 0.38	U		< 0.38	U		< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 1.6	U	UJ	0.37	J	J	0.16	J	J	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 1.1	U	UJ	0.62		J	0.26	J*+	J	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 35	U	UJ	< 12	U	UJ	< 12	U*+	UJ	< 0.38	U		< 0.38	U		< 0.38	U		< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.013	U	UJ	0.022		J	< 0.26	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.016	U		< 0.0054	U		< 0.0054	U*+		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.019	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.37	UF1	UJ	< 0.37	U		< 0.37	U	UJ	< 0.37	U	
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.015	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.017	U		< 0.0057	U		< 0.0057	U*+		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.021	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.015	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.018	U		< 0.0060	U		< 0.0060	U		< 0.41	U	UJ	< 0.41	U		< 0.41	U	UJ	< 0.41	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.015	U		< 0.0052	U		< 0.0052	U		< 0.32	U	UJ	< 0.32	U		< 0.32	U	UJ	< 0.32	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.016	U		< 0.0055	U		< 0.0055	U		< 0.36	U	UJ	< 0.36	U		< 0.36	U	UJ	< 0.36	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.44	U	UJ	< 0.44	U		< 0.44	U	UJ	< 0.44	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.33	U	UJ	< 0.33	U		< 0.33	U	UJ	< 0.33	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.017	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.016	U		< 0.0054	U		< 0.0054	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.35	U	UJ	< 0.35	U		< 0.35	U		< 0.35	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.03	U		< 0.01	U		< 0.01	U		< 0.33	U	UJ	< 0.33	U		< 0.33	U		< 0.33	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.016	U		< 0.0054	U		< 0.0054	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.024	U		< 0.0081	U		< 0.0081	U		< 0.33	U	UJ	< 0.33	U		< 0.33	U	UJ	< 0.33	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.021	U		< 0.0072	U		< 0.0072	U		< 0.36	U	UJ	< 0.36	U		< 0.36	U	UJ	< 0.36	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.021	U		< 0.0068	U		< 0.0068	U		< 0.36	U	UJ	< 0.36	U		< 0.36	U	UJ	< 0.36	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.41	U	UJ	< 0.41	U		< 0.41	U	UJ	< 0.41	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.011	U		< 0.0036	U		< 0.0036	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.017	U		< 0.0058	U		< 0.0058	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.017	U		< 0.0056	U		< 0.0056	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	UJ
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	UJ
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.019	U		< 0.0062	U		< 0.0062	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.018	U		< 0.0061	U		< 0.0061	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.018	U		< 0.0059	U		< 0.0059	U		< 0.37	U		< 0.37	U		< 0.37	U		< 0.37	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.017	U		< 0.0056	U		< 0.0056	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.017	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.029	U		< 0.0098	U		< 0.0098	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.017	U		< 0.0056	U		< 0.0056	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.015	U		< 0.0049	U		< 0.0049	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.016	U		< 0.0053	U		< 0.0053	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.019	U		< 0.0062	U		< 0.0062	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.016	U		< 0.0055	U		< 0.0055	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.015	U		< 0.0051	U		< 0.0051	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.016	U		< 0.0052	U		< 0.0052	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.016	U		< 0.0054	U		< 0.0054	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.015	U		< 0.0051	U		< 0.0051	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.017	U		< 0.0056	U		< 0.0056	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.017	U		< 0.0056	U		< 0.0056	U		< 0.34	U	UJ	< 0.34	U		< 0.34	U	UJ	< 0.34	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.022	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.026	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.015	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Methyl Tert-butyl Ether (MTBE)			Dichloromethane (Methylene chloride)			Naphthalene			n-Butylbenzene			Nitrobenzene			N-Nitrosodimethylamine			N-Nitrosodiphenylamine			N-Nitrosodipropylamine		
Screening Criteria (mg/kg)							0.02			12						0.1						1			0.00005		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.288	U		< 0.144	U		< 0.0577	U		--			--			--			--		
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.244	U		< 0.122	U		< 0.0487	U		--			--			--			--		
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0102	U		< 0.0051	U		< 0.0020	U		--			--			--			--		
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 2.67	U		< 1.34	U		< 0.534	U		--			--			--			--		
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0094	U		< 0.0047	U		< 0.0019	U		--			--			--			--		
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		1.45			< 0.671	U		< 0.268	U		--			--			--			--		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 11.6	U		< 5.78	U		< 2.31	U		--			--			--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 10.6	U		< 5.31	U		< 2.12	U		--			--			--			--		
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 0.3	U		< 0.15	U		< 0.0601	U		--			--			--			--		
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 0.304	U	UJ	< 0.152	U	UJ	< 0.0608	U	UJ	--			--			--			--		
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 2.3	U		< 1.15	U		1.83			--			--			--			--		
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		< 0.304	U		< 0.152	U		< 0.0607	U		--			--			--			--		
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.259	U	UJ	< 0.13	U	UJ	< 0.0518	U	UJ	--			--			--			--		
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0095	U		< 0.0048	U		< 0.0019	U		--			--			--			--		
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		0.399			< 0.145	U		< 0.0581	U		--			--			--			--		
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 0.308	U	UJ	< 0.154	U	UJ	< 0.0616	U	UJ	--			--			--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.31	U		< 0.155	U		< 0.0620	U		--			--			--			--		
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		< 3.46	U		< 1.73	U		< 0.692	U		--			--			--			--		
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0093	U		< 0.0047	U		< 0.0019	U		--			--			--			--		
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.261	U		< 0.131	U		< 0.0523	U		--			--			--			--		
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		< 2.23	U		< 1.12	U		0.69			--			--			--			--		
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 1.9	U		< 0.948	U		0.85			--			--			--			--		
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		0.65			< 0.313	U		< 0.125	U		--			--			--			--		
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 2.26	U	UJ	< 1.13	U	UJ	< 0.452	U	UJ	--			--			--			--		
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		0.322			< 0.12	U		< 0.0481	U		--			--			--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0118	U		< 0.0059	U		< 0.0024	U		--			--			--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 2.49	U		< 1.24	U		< 0.498	U		--			--			--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 11.6	U		< 5.81	U		< 2.32	U		--			--			--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0143	U		< 0.0072	U		< 0.0029	U		--			--			--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 4.46	U	UJ	< 2.23	U		< 0.893	U		--			--			--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 2.1	U	UJ	< 1.05	U		< 0.42	U		--			--			--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		< 2.67	U		< 1.34	U		< 0.535	U		--			--			--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		< 0.298	U		0.709		J	0.211			--			--			--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	0.0051			< 0.0106	U		0.0555		J	0.0050			--			--			--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 0.609	U		< 0.304	U		< 0.122	U		--			--			--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 22.7	U	UJ	3.2	J		1.9	J		--			--			--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 5.61	U		2.85			3.59			--			--			--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 2.41	U	UJ	< 1.21	U		< 0.482	U		--			--			--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 2.24	U	UJ	< 1.12	U		< 0.449	U		--			--			--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 17.9	U	UJ	< 8.97	U		< 3.59	U		--			--			--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 0.694	U		< 0.347	U		< 0.139	U		--			--			--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 0.46	U		< 0.23	U		< 0.0920	U		--			--			--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 101	U		16	J		16	J		--			--			--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.329	U	UJ	< 0.165	U	UJ	< 0.0658	U		--			--			--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 0.285	U	UJ	< 0.142	U	UJ	< 0.0570	U		--			--			--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 1.08	U		0.947			0.401			--			--			--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 0.269	U		0.018	J		< 0.0539	U		--			--			--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 5.24	U		27.6			15.8			--			--			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.255	U		< 0.128	U		< 0.0510	U		--			--			--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 0.258	U		0.11	J		0.128		J	--			--			--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 9.43	U		1.1	J		9.66		J	--			--			--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 0.287	U		3.52			1.8		J	--			--			--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 0.631	U		< 0.316	U		< 0.126	U		--			--			--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 0.25	U		0.522			1.22		J	--			--			--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		< 0.29	U		1.15			1.22			--			--			--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		< 0.23	U		0.185			0.018	J		--			--			--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		< 2.23	U		32.4			18.3			--			--			--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Methyl Tert-butyl Ether (MTBE)			Dichloromethane (Methylene chloride)			Naphthalene			n-Butylbenzene			Nitrobenzene			N-Nitrosodimethylamine			N-Nitrosodiphenylamine			N-Nitrosodipropylamine		
Screening Criteria (mg/kg)							0.02			12						0.1						1			0.00005		
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0111	U		< 0.0056	U		< 0.0022	U		--			--			--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 2.21	U		< 1.1	U		< 0.442	U		--			--			--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 2.22	U		< 1.11	U		0.475		J	--			--			--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0121	U		0.0511			< 0.0024	U		--			--			--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 1.88	U		0.5	J		< 0.377	U		--			--			--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 108	U		14	J		16	J		--			--			--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 61.4	U		< 30.7	U		< 12.3	U		--			--			--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 7.04	U		< 3.52	U		4.58		J	--			--			--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 1.09	U		< 0.545	U		1.28		J	--			--			--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.384	U	UJ	< 0.192	U	UJ	< 0.0768	U	UJ	--			--			--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.26	U		< 0.13	U		< 0.0519	U		--			--			--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 2.11	U		1.45			0.27	J		--			--			--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 2.41	U		< 1.2	U		< 0.481	U		--			--			--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 4.4	U		< 2.2	U		< 0.88	U		--			--			--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 11.4	U		< 5.72	U		2.84			--			--			--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 11.7	U		7.87			7.24			--			--			--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		0.409			< 0.145	U		0.0616			--			--			--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 2.37	U		< 1.18	U		< 0.474	U		--			--			--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 2.21	U		< 1.11	U		< 0.443	U		--			--			--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 2.27	U		< 1.13	U		< 0.453	U		--			--			--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 2.11	U		< 1.05	U		0.514			--			--			--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 2.25	U		< 1.12	U		< 0.449	U		--			--			--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 25.6	U		< 12.8	U		< 5.13	U		--			--			--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		< 0.349	U		< 0.174	U		< 0.0698	U	UJ	--			--			--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 1.45	U		< 0.725	U		< 0.29	U	UJ	--			--			--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.316	U		< 0.158	U		< 0.0633	U		--			--			--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 4.18	U		< 2.09	U		< 0.836	U		--			--			--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0113	U		< 0.0057	U		< 0.0023	U		--			--			--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		< 0.0101	U		0.0180			0.0029			--			--			--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		< 0.0108	U		0.0189			0.0030			--			--			--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 2.56	U	UJ	< 1.28	U		< 0.512	U		--			--			--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 2.35	U		< 1.17	U		< 0.469	U		--			--			--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 2.22	U		< 1.11	U		< 0.444	U		--			--			--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 61.8	U		< 30.9	U		< 12.4	U		--			--			--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 60.1	U		< 30	U		< 12	U		--			--			--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0101	U		0.0142			0.0054		J	--			--			--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 2.2	U		1.12			1.4			--			--			--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 3.14	U		3.81			2.71			--			--			--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 11.5	U		2.2	J		0.95	J		--			--			--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0118	U		0.0264			0.0110			--			--			--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 2.44	U		0.93	J		0.46	J		--			--			--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 51.7	U		< 25.9	U		< 10.3	U		--			--			--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		< 2.75	U		0.85	J		< 0.551	U		--			--			--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 0.482	U		0.11	J		0.078	J		--			--			--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 119	U		< 59.5	U		< 23.8	U		--			--			--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 2.39	U		0.39	J		< 0.477	U		--			--			--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 4.98	U		0.86	J		< 0.997	U		--			--			--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		< 0.49	U		0.858			0.49			--			--			--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0109	U		< 0.0054	U		< 0.0022	U		--			--			--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0117	U		< 0.0059	U		< 0.0023	U		--			--			--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 22.9	U		14.1			8.37		J	--			--			--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 48.5	U		< 24.3	U		< 9.71	U		--			--			--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 124	U		< 61.8	U		< 24.7	U		--			--			--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0092	U		< 0.0046	U		< 0.0018	U		--			--			--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0106	U		< 0.0053	U		< 0.0021	U		--			--			--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 0.345	U		0.627			0.727			--			--			--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 22.8	U		< 11.4	U		< 4.56	U		--			--			--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 5.33	U		< 2.66	U		< 1.07	U		--			--			--			--		

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				n-Propylbenzene			o-Xylene			Pentachlorophenol			Phenanthrene			Phenol			p-Isopropyltoluene			Pyrene			Pyridine		
Screening Criteria (mg/kg)							190			0.03						100						2300					
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.0053	U		< 0.66	U		< 0.0066	U		< 0.33	U		< 0.0053	U		0.0013	J		< 0.33	UF1	UJ
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 13	U		< 0.77	U		0.0034	J		0.31	J		< 13	U		0.0042	J		< 0.39	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 3.6	U		< 0.8	U		0.0020	J		0.69			< 3.6	U		0.0047	J		< 0.4	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.0046	U		< 0.78	U		< 0.0078	U		< 0.39	U		< 0.0046	U		0.0015	J		< 0.39	U	UJ
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.69	U		< 0.0069	U		< 0.35	U		< 0.0054	U		< 0.0069	JB	U	< 0.35	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 0.38	U	UJ	< 0.76	U		0.044			0.17	J		< 0.38	U	UJ	0.016			< 0.38	U	
SB-102	SB102-52-120622	52	12/6/2022	0.29	J	J	1.2		J	< 0.82	U		0.0066	J		< 0.41	U		< 0.55	U	UJ	0.0015	J		< 0.41	U	
SB-102	SB102-52-120622-DUP	52	12/6/2022	0.41		J	1.1		J	< 0.83	U		0.0053	J		< 0.41	U		< 0.37	U	UJ	< 0.0081	U		< 0.41	U	
SB-102	SB102-55-120622	55	12/6/2022	4	J	J	6.1	J	J	< 0.76	U		0.062			1.3			< 12	U	UJ	0.011			< 0.38	U	
SB-102	SB102-72-120622	72	12/6/2022	0.045		J	0.038		J	< 0.69	U		0.0013	J		0.074	J		0.0035	J	J	0.0019	J		< 0.34	U	
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.0054	U		< 0.66	U		0.0067	B		< 0.33	U		< 0.0054	U		0.024	B		< 0.33	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.74	UF2		< 0.0074	U		< 0.37	U		< 0.0062	U	UJ	< 0.0074	U		< 0.37	UF1	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.68	U		0.0011	J		< 0.34	U		< 0.0051	U	UJ	0.0017	J		< 0.34	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.0057	U		< 0.67	U		< 0.0067	JB	U	< 0.34	U		< 0.0057	U		< 0.0067	JB	U	< 0.34	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.69	U		< 0.0069	U		< 0.34	U		< 0.0069	U	UJ	< 0.0069	U		< 0.34	U	
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.67	U		< 0.0067	U		< 0.34	U		< 0.0051	U	UJ	< 0.0067	U		< 0.34	U	
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.0060	U		< 0.83	U		0.0018	J		< 0.41	U		< 0.0060	U		0.0026	J		< 0.41	U	UJ
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.0052	U		< 0.65	U		< 0.0065	U		< 0.32	U		< 0.0052	U		< 0.0065	U		< 0.32	U	UJ
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.0055	U		< 0.72	U		< 0.0072	U		< 0.36	U		< 0.0055	U		0.0012	J		< 0.36	U	UJ
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.88	U		< 0.0088	U		< 0.44	U		< 0.0053	U		< 0.0088	U		< 0.44	U	UJ
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.0053	U		< 0.65	U		< 0.0065	U		< 0.33	U		< 0.0053	U		< 0.0065	U		< 0.33	U	UJ
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.0058	U		< 0.67	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.0067	U		< 0.34	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.0054	U		< 0.67	U	UJ	< 0.0067	U		< 0.34	U		< 0.0054	U		0.0012	J		< 0.34	U	UJ
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.0053	U		< 0.69	U	UJ	0.0024	J		< 0.35	U		< 0.0053	U		0.0036	J		< 0.35	U	UJ
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.01	U		< 0.66	U	UJ	< 0.0066	U		< 0.33	U		< 0.01	U		< 0.0066	U		< 0.33	U	UJ
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.68	U		< 0.0068	U		< 0.34	U		< 0.0053	U		< 0.0068	U		< 0.34	U	UJ
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.0054	U		< 0.69	U		0.0010	J		< 0.34	U		< 0.0054	U		0.0018	J		< 0.34	U	UJ
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.0081	U		< 0.67	U		< 0.0067	U		< 0.33	U		< 0.0081	U		< 0.0067	U		< 0.33	U	UJ
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.0072	U		< 0.71	U		< 0.0071	U		< 0.36	U		< 0.0072	U		0.0011	J		< 0.36	U	UJ
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.0068	U		< 0.71	U		< 0.0071	U		< 0.36	U		< 0.0068	U		0.0034	J		< 0.36	U	UJ
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.0053	U		< 0.83	U		0.0025	J		< 0.41	U		< 0.0053	U		0.0091			< 0.41	U	UJ
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.0036	U		< 0.68	U		0.0010	J		< 0.34	U		< 0.0036	U		0.0021	J		< 0.34	U	UJ
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.0058	U		< 0.67	U		< 0.0067	U		< 0.34	U		< 0.0058	U		< 0.0067	U		< 0.34	UF1	UJ
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.0056	U		< 0.67	U		< 0.0067	U		< 0.34	U		< 0.0056	U		< 0.0067	JB	U	< 0.34	UF1	UJ
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.0053	U		< 0.67	U		0.0024	J		< 0.34	U		< 0.0053	U		< 0.0067	JB	U	< 0.34	U	UJ
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.0062	U		< 0.7	U		< 0.0070	U		< 0.35	U		< 0.0062	U		< 0.0070	U		< 0.35	U	UJ
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.0053	U		< 0.69	U		< 0.0069	U		< 0.34	U		< 0.0053	U		< 0.0069	U		< 0.34	U	UJ
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.0061	U		< 0.69	U		< 0.0069	U		< 0.35	U		< 0.0061	U		< 0.0069	U		< 0.35	U	UJ
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.0059	U		< 0.74	U		< 0.0074	U		< 0.37	U		< 0.0059	U		< 0.0074	U		< 0.37	U	UJ
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.7	U		< 0.0070	U		< 0.35	U		< 0.0056	U		< 0.0070	JB	U	< 0.35	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.0056	U		< 0.66	U		< 0.0066	U		< 0.33	U		< 0.0056	U		< 0.0066	U		< 0.33	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.0053	U		< 0.67	U		< 0.0067	U		< 0.33	U		< 0.0053	U		< 0.0067	U		< 0.33	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.0098	U		< 0.72	U		< 0.0072	U		< 0.36	U		< 0.0098	U		< 0.0072	U		< 0.36	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.0056	U		< 0.67	U		< 0.0067	U		< 0.33	U		< 0.0056	U		< 0.0067	U		< 0.33	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.0049	U		< 0.67	U		< 0.0067	U		< 0.33	U		< 0.0049	U		< 0.0067	JB	U	< 0.33	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.0053	U		< 0.68	U		< 0.0068	U		< 0.34	U		< 0.0053	U		< 0.0068	U		< 0.34	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.0062	U		< 0.69	U		< 0.0069	U		< 0.34	U		< 0.0062	U		< 0.0069	U		< 0.34	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.0055	U		< 0.71	U		< 0.0071	U		< 0.35	U		< 0.0055	U		< 0.0071	U		< 0.35	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.0051	U		0.12	J		< 0.0065	U		< 0.33	U		< 0.0051	U		< 0.0065	U		< 0.33	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.0052	U		< 0.68	U		< 0.0068	U		< 0.34	U		< 0.0052	U		< 0.0068	U		< 0.34	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.0054	U		< 0.67	U	UJ	< 0.0067	U		< 0.34	U	UJ	< 0.0054	U		0.0015	J		< 0.34	U	UJ
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.0051	U		< 0.68	U	UJ	< 0.0068	U		< 0.34	U	UJ	< 0.0051	U		< 0.0068	U		< 0.34	U	UJ
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.69	U	UJ	< 0.0069	U		< 0.34	U	UJ	< 0.0056	U		< 0.0069	U		< 0.34	U	UJ
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.0056	U		< 0.68	U	UJ	< 0.0068	U		< 0.34	U	UJ	< 0.0056	U		< 0.0068	U		< 0.34	U	UJ
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.7	U		0.0030	J		< 0.35	U		< 0.0074	U	UJ	0.0041	J		< 0.35	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.67	U		< 0.0067	U		< 0.34	U		< 0.0085	U	UJ	< 0.0067	U		< 0.34	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.68	U		< 0.0068	U		< 0.34	U		< 0.0051	U	UJ	< 0.0068	U		< 0.34	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				n-Propylbenzene			o-Xylene			Pentachlorophenol			Phenanthrene			Phenol			p-Isopropyltoluene			Pyrene			Pyridine		
Screening Criteria (mg/kg)							190			0.03						100						2300					
Location	**Sample ID**	**Depth (ft bgs)**	**Sample Date**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**	**Result (mg/kg)**	**Lab Quals**	**AECOM Quals**
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 0.115	U		--			--			--			< 0.0577	U		--			--		
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 0.0974	U		--			--			--			< 0.0487	U		--			--		
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0041	U		--			--			--			< 0.0020	U		--			--		
SB-103	SB103-68-051323	68	5/17/2023	**1.19**			< 1.07	U		--			--			--			< 0.534	U		--			--		
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0038	U		--			--			--			< 0.0019	U		--			--		
SB-104	SB104-42-062023	42	6/20/2023	**1.02**			**1.36**			--			--			--			< 0.268	U		--			--		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 4.63	U		--			--			--			< 2.31	U		--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 4.25	U		--			--			--			< 2.12	U		--			--		
SB-104	SB104-65-062023	65	6/20/2023	**0.0997**			< 0.12	U		--			--			--			< 0.0601	U		--			--		
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 0.122	U	UJ	--			--			--			< 0.0608	U	UJ	--			--		
SB-105	SB105-40-062023	40	6/20/2023	**6.11**			< 0.92	U		--			--			--			< 0.46	U		--			--		
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		< 0.121	U		--			--			--			< 0.0607	U		--			--		
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 0.104	U	UJ	--			--			--			< 0.0518	U	UJ	--			--		
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0038	U		--			--			--			< 0.0019	U		--			--		
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 0.116	U		--			--			--			< 0.0581	U		--			--		
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 0.123	U	UJ	--			--			--			< 0.0616	U	UJ	--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 0.124	U		--			--			--			< 0.0620	U		--			--		
SB-106	SB106-58-061923	58	6/19/2023	**5.53**			< 1.38	U		--			--			--			< 0.692	U		--			--		
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0037	U		--			--			--			< 0.0019	U		--			--		
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 0.105	U		--			--			--			< 0.0523	U		--			--		
SB-107	SB107-15-061723	15	6/17/2023	**0.487**			< 0.893	U		--			--			--			< 0.446	U		--			--		
SB-107	SB107-39-061723	39	6/17/2023	**2.4**			< 0.759	U		--			--			--			< 0.379	U		--			--		
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 0.251	U		--			--			--			< 0.125	U		--			--		
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 0.904	U	UJ	--			--			--			< 0.452	U	UJ	--			--		
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 0.0962	U		--			--			--			< 0.0481	U		--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0047	U		--			--			--			< 0.0024	U		--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 0.995	U		--			--			--			< 0.498	U		--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 4.65	U		--			--			--			< 2.32	U		--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	**0.0059**			**0.0057**			--			--			--			< 0.0029	U		--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	**1.74**			< 1.79	U		--			--			--			< 0.893	U		--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 0.841	U		--			--			--			< 0.42	U		--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	**0.605**			< 1.07	U		--			--			--			< 0.535	U		--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	**0.691**			**1.09**			--			--			--			< 0.0597	U		--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	**0.0248**			**0.0873**			--			--			--			< 0.0021	U		--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 0.243	U		--			--			--			< 0.122	U		--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	**5.6**			**8.2**	J		--			--			--			< 4.54	U		--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	**4.7**			**12.5**			--			--			--			< 1.12	U		--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 0.965	U		--			--			--			< 0.482	U		--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 0.898	U		--			--			--			< 0.449	U		--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 7.18	U		--			--			--			< 3.59	U		--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 0.278	U		--			--			--			< 0.139	U		--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		**0.036**	J		--			--			--			< 0.0920	U		--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	**26.9**			**98.2**			--			--			--			< 20.3	U		--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 0.132	U		--			--			--			< 0.0658	U		--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		**0.189**			--			--			--			< 0.0570	U		--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	**1.34**			**5.61**			--			--			--			< 0.216	U		--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	**0.012**	J		**0.05**	J		--			--			--			< 0.0539	U		--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	**44.8**			**29.7**			--			--			--			**2.52**			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 0.102	U		--			--			--			< 0.0510	U		--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	**0.267**			**0.051**	J		--			--			--			**0.03**	J		--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	**10.5**			**1.4**	J		--			--			--			< 1.89	U		--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	**4.29**			< 46	U		--			--			--			**0.225**			--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	U		< 0.253	U		--			--			--			< 0.126	U		--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	**2.1**			< 0.1	U		--			--			--			**0.126**			--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	**1.68**			**5**	J		--			--			--			< 0.0579	U		--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	**0.0762**			**0.047**	J		--			--			--			< 0.0460	U		--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	**42.7**			**96.1**			--			--			--			**3.8**			--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				n-Propylbenzene			o-Xylene			Pentachlorophenol			Phenanthrene			Phenol			p-Isopropyltoluene			Pyrene			Pyridine		
Screening Criteria (mg/kg)							190			0.03						100						2300					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	0.0024			< 0.0044	U		--			--			--			< 0.0022	U		--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 0.883	U		--			--			--			< 0.442	U		--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	1.41			< 0.887	U		--			--			--			< 0.444	U		--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	0.0156			0.0634			--			--			--			< 0.0024	U		--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	0.582			5.43			--			--			--			< 0.377	U		--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	19	J		21	J		--			--			--			< 21.7	U		--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	U		< 24.6	U		--			--			--			< 12.3	U		--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	7.37		J	< 2.82	U		--			--			--			4.96		J	--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	2.66		J	< 0.436	U		--			--			--			1.87		J	--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 0.154	U	UJ	--			--			--			< 0.0768	U	UJ	--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 0.104	U		--			--			--			< 0.0519	U		--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	0.837			< 0.846	U		--			--			--			0.26	J		--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 0.963	U		--			--			--			< 0.481	U		--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 1.76	U		--			--			--			< 0.88	U		--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	7.77			19			--			--			--			< 2.29	U		--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	9			< 4.66	U		--			--			--			4.72			--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 0.116	U		--			--			--			< 0.0581	U		--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	0.969			< 0.948	U		--			--			--			< 0.474	U		--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	1.29			< 0.885	U		--			--			--			< 0.443	U		--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 0.907	U		--			--			--			< 0.453	U		--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	0.563			< 0.843	U		--			--			--			< 0.421	U		--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	0.46			< 0.898	U		--			--			--			< 0.449	U		--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 10.3	U		--			--			--			< 5.13	U		--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		< 0.14	U		--			--			--			< 0.0698	U		--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 0.58	U		--			--			--			< 0.29	U		--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 0.127	U		--			--			--			< 0.0633	U		--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 1.67	U		--			--			--			< 0.836	U		--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0045	U		--			--			--			< 0.0023	U		--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	0.0045			0.0079			--			--			--			< 0.0020	U		--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	0.0043			0.0074			--			--			--			< 0.0022	U		--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 1.02	U		--			--			--			< 0.512	U		--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 0.939	U		--			--			--			< 0.469	U		--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 0.887	U		--			--			--			< 0.444	U		--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		3.8	J		--			--			--			< 12.4	U		--			--		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		2	J		--			--			--			< 12	U		--			--		
X-AE4	XAE4-48-030223	48	3/2/2023	0.0105		J	0.0062			--			--			--			0.0007	J	J	--			--		
X-AE4	XAE4-52-030223	52	3/2/2023	2.16			1.73			--			--			--			0.14	J		--			--		
X-AF6	XAF6-40-022723	40	2/27/2023	5.2			16.3		J	--			--			--			< 0.627	U		--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	2.91			8.04		J	--			--			--			< 2.31	U		--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	0.0202			0.0159			--			--			--			< 0.0024	U		--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	1.24			2.97			--			--			--			< 0.489	U		--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 20.7	U		--			--			--			< 10.3	U		--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	0.42	J		0.64	J		--			--			--			< 0.551	U		--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	0.24			0.034	J		--			--			--			< 0.0963	U		--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		17	J		--			--			--			< 23.8	U		--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		0.081	J		--			--			--			< 0.477	U		--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		0.23	J		--			--			--			< 0.997	U		--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	0.798			0.324			--			--			--			< 0.0980	U		--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		0.0005	J		--			--			--			< 0.0022	U		--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0047	U		--			--			--			< 0.0023	U		--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	14.4			< 9.15	U		--			--			--			< 4.57	U		--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 19.4	U		--			--			--			< 9.71	U		--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 49.4	U		--			--			--			< 24.7	U		--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0037	U		--			--			--			< 0.0018	U		--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0042	U		--			--			--			< 0.0021	U		--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	0.574			0.488			--			--			--			< 0.0689	U		--			--		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 9.13	U		--			--			--			< 4.56	U		--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 2.13	U		--			--			--			< 1.07	U		--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Quinoline			sec-Butylbenzene			Styrene			tert-Butylbenzene			Tetrachloroethene			Toluene			trans-1,2-Dichloroethene			trans-1,3-Dichloropropene		
Screening Criteria (mg/kg)										4						0.06			12			0.7					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.33	U		< 0.0053	U		< 0.0053	UF1		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SB-101	SB101-48-120722	48	12/7/2022	< 0.39	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U		< 13	U	
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 0.4	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U		< 3.6	U	
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.39	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		< 0.0046	U		0.0017	J		< 0.0046	U		< 0.0046	U	
SB-102	SB102-10-120522	10	12/5/2022	< 0.35	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U		< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ	< 0.38	U	UJ
SB-102	SB102-52-120622	52	12/6/2022	< 0.41	U		< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	< 0.55	U	UJ	0.87		J	< 0.55	U	UJ	< 0.55	U	UJ
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.41	U		< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	< 0.37	U	UJ	0.94		J	< 0.37	U	UJ	< 0.37	U	UJ
SB-102	SB102-55-120622	55	12/6/2022	< 0.38	U		< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	< 12	U	UJ	13		J	< 12	U	UJ	< 12	U	UJ
SB-102	SB102-72-120622	72	12/6/2022	< 0.34	U		0.0066		J	< 0.0043	U	UJ	0.0030	J	J	< 0.0043	U	UJ	0.1		J	< 0.0043	U	UJ	< 0.0043	U	UJ
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.33	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.37	U		< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ	< 0.0062	U	UJ
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.34	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U		< 0.0057	U	
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.34	U		< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ	< 0.0069	U	UJ
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.41	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U		< 0.0060	U	
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.32	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		0.0017	J		< 0.0052	U		< 0.0052	U	
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.36	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U	
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.44	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		0.0022	J		< 0.0058	U		< 0.0058	U	
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.34	U	UJ	< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.35	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.33	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U		< 0.01	U	
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.33	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U		< 0.0081	U	
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.36	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U		< 0.0072	U	
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.36	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U		< 0.0068	U	
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.41	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.34	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U		< 0.0036	U	
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.34	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U		< 0.0058	U	
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.34	UF1	UJ	< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.35	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U	
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.35	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U		< 0.0061	U	
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.37	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U		< 0.0059	U	
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.35	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.33	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.36	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U		< 0.0098	U	
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.33	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.33	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U		< 0.0049	U	
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.34	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U		< 0.0053	U	
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.34	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U		< 0.0062	U	
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.35	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U		< 0.0055	U	
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.33	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U	
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.34	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U		< 0.0052	U	
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.34	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U		< 0.0054	U	
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.34	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U		< 0.0051	U	
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.34	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U		< 0.0056	U	
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.35	U		< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ	< 0.0074	U	UJ
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.34	U		< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ	< 0.0085	U	UJ
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.34	U		< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ	< 0.0051	U	UJ

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Quinoline			sec-Butylbenzene			Styrene			tert-Butylbenzene			Tetrachloroethene			Toluene			trans-1,2-Dichloroethene			trans-1,3-Dichloropropene		
Screening Criteria (mg/kg)										4						0.06			12			0.7					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U		< 0.0577	U	
SB-103	SB103-43-051723	43	5/17/2023	--			< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U		< 0.0487	U	
SB-103	SB103-58-051723	58	5/17/2023	--			< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0020	U		0.0039			< 0.0020	U		< 0.0020	U	
SB-103	SB103-68-051323	68	5/17/2023	--			< 0.534	U		< 0.534	U		< 0.534	U		< 0.534	U		< 0.534	U		< 0.534	U		< 0.534	U	
SB-103	SB103-77-052423	77	5/24/2023	--			< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U	UJ	< 0.0019	U		< 0.0019	U	
SB-104	SB104-42-062023	42	6/20/2023	--			< 0.268	U		< 0.268	U		< 0.268	U		< 0.268	U		< 0.268	U		< 0.268	U		< 0.268	U	
SB-104	SB104-57-062023	57	6/20/2023	--			< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U		< 2.12	U	
SB-104	SB104-65-062023	65	6/20/2023	--			< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U		< 0.0601	U	
SB-104	SB104-78-062023	78	6/20/2023	--			< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ	< 0.0608	U	UJ
SB-105	SB105-40-062023	40	6/20/2023	--			1.3			< 0.46	U		< 0.46	U		< 0.46	U		< 0.46	U		< 0.46	U		< 0.46	U	
SB-105	SB105-55-062023	55	6/20/2023	--			< 0.0607	U		< 0.0607	U		< 0.0607	U		< 0.0607	U		< 0.0607	U		< 0.0607	U		< 0.0607	U	
SB-105	SB105-67-062023	67	6/20/2023	--			< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ	< 0.0518	U	UJ
SB-105	SB105-73-062023	73	6/20/2023	--			< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		0.0026			< 0.0019	U		< 0.0019	U	
SB-106	SB106-39-061923	39	6/19/2023	--			< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U	
SB-106	SB106-45-061923	45	6/19/2023	--			< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ	< 0.0616	U	UJ
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U		< 0.0620	U	
SB-106	SB106-58-061923	58	6/19/2023	--			< 0.692	U		< 0.692	U		< 0.692	U		< 0.692	U		< 0.692	U		< 0.692	U		< 0.692	U	
SB-106	SB106-68-061923	68	6/19/2023	--			< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U		< 0.0019	U	
SB-106	SB106-77-061923	77	6/19/2023	--			< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U		< 0.0523	U	
SB-107	SB107-15-061723	15	6/17/2023	--			< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U		< 0.446	U	
SB-107	SB107-39-061723	39	6/17/2023	--			0.817			< 0.379	U		< 0.379	U		< 0.379	U		< 0.379	U		< 0.379	U		< 0.379	U	
SB-107	SB107-58-061723	58	6/17/2023	--			< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U		< 0.125	U	
SB-107	SB107-67-061723	67	6/17/2023	--			< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ	< 0.452	U	UJ
SB-107	SB107-78-061723	78	6/17/2023	--			< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U		< 0.0481	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		0.0034			< 0.0024	U		< 0.0024	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			< 0.498	U		< 0.498	U		< 0.498	U		< 0.498	U		< 0.498	U		< 0.498	U		< 0.498	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U		< 2.32	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			< 0.0029	U		< 0.0029	U		< 0.0029	U		< 0.0029	U		0.0170			< 0.0029	U		< 0.0029	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			< 0.893	U		< 0.893	U		< 0.893	U		< 0.893	U		< 0.893	U		< 0.893	U		< 0.893	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U		< 0.42	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			< 0.535	U		< 0.535	U		< 0.535	U		< 0.535	U		1.84			< 0.535	U		< 0.535	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			0.126			< 0.0597	U		< 0.0597	U		< 0.0597	U		2.78			< 0.0597	U		< 0.0597	U	
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		0.0560			< 0.0021	U		< 0.0021	U	
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U		< 0.122	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			< 4.54	U		< 4.54	U		< 4.54	U		< 4.54	U		5.49			< 4.54	U		< 4.54	U	
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			0.62	J		< 1.12	U		< 1.12	U		< 1.12	U		7.81			< 1.12	U		< 1.12	U	
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			< 0.482	U		< 0.482	U		< 0.482	U		< 0.482	U		0.2	J		< 0.482	U		< 0.482	U	
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U		0.17	J		< 0.449	U		< 0.449	U	
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U		< 3.59	U	
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U		< 0.139	U	
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			< 0.0920	U		< 0.0920	U		< 0.0920	U		< 0.0920	U		0.039	J		< 0.0920	U		< 0.0920	U	
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			< 20.3	U		< 20.3	U		< 20.3	U		< 20.3	U		27.6			< 20.3	U		< 20.3	U	
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.0658	U		< 0.0658	U	UJ	< 0.0658	U		< 0.0658	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			< 0.0570	U		< 0.0570	U		< 0.0570	U		< 0.0570	U		0.45		J	< 0.0570	U		< 0.0570	U	
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			0.18	J		< 0.216	U		< 0.216	U		< 0.216	U		33			< 0.216	U		< 0.216	U	
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			< 0.0539	U		< 0.0539	U		< 0.0539	U		< 0.0539	U		0.0902			< 0.0539	U		< 0.0539	U	
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			5.14			< 1.05	U		< 1.05	U		< 1.05	U		7.14			< 1.05	U		< 1.05	U	
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			0.017	J		< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.0510	U		< 0.0510	U	
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			0.138			< 0.0516	U		< 0.0516	U		< 0.0516	U		0.029	J		< 0.0516	U		< 0.0516	U	
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			1.98			< 1.89	U		< 1.89	U		< 1.89	U		< 1.89	U		< 1.89	U		< 1.89	U	
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			0.692			< 0.0575	U		< 0.0575	U		< 0.0575	U		< 23	U	UJ	< 0.0575	U		< 0.0575	U	
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			< 0.126	U		< 0.126	U		< 0.126	U		< 0.126	U		< 0.126	RU	UJ	< 0.126	U		< 0.126	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			0.296			< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.0501	U		< 0.0501	U	
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			0.268			< 0.0579	U		< 0.0579	U		< 0.0579	U		3.49			< 0.0579	U		< 0.0579	U	
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			< 0.0460	U		< 0.0460	U		< 0.0460	U		< 0.0460	U		0.0532			< 0.0460	U		< 0.0460	U	
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			5.66			2.98			3.62			< 0.447	U		15.9			< 0.447	U		< 0.447	U	

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Quinoline			sec-Butylbenzene			Styrene			tert-Butylbenzene			Tetrachloroethene			Toluene			trans-1,2-Dichloroethene			trans-1,3-Dichloropropene		
Screening Criteria (mg/kg)										4						0.06			12			0.7					
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			< 0.442	U		< 0.442	U		< 0.442	U		< 0.442	U		< 0.442	U		< 0.442	U		< 0.442	U	
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			0.721		J	< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U	
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			< 0.0024	U		< 0.0024	U		< 0.0024	U		< 0.0024	U		0.109			< 0.0024	U		< 0.0024	U	
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			< 0.377	U		< 0.377	U		< 0.377	U		< 0.377	U		7.89			< 0.377	U		< 0.377	U	
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			< 21.7	U		< 21.7	U		< 21.7	U		< 21.7	U		7.4	J		< 21.7	U		< 21.7	U	
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U		< 12.3	U	
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			5.23		J	< 1.41	U		5.02		J	< 1.41	U		< 1.41	U		< 1.41	U		< 1.41	U	
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			2		J	< 0.218	U		1.92		J	< 0.218	U		< 0.218	U		< 0.218	U		< 0.218	U	
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ	< 0.0768	U	UJ
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U		< 0.0519	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			0.26	J		< 0.423	U		0.31	J		< 0.423	U		< 0.423	U		< 0.423	U		< 0.423	U	
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U		< 0.481	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			< 0.88	U		< 0.88	U		< 0.88	U		< 0.88	U		0.2	J		< 0.88	U		< 0.88	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			< 2.29	U		< 2.29	U		< 2.29	U		< 2.29	U		< 2.29	U		< 2.29	U		< 2.29	U	
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			4.22			< 2.33	U		4.92			< 2.33	U		< 2.33	U		< 2.33	U		< 2.33	U	
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U		< 0.0581	U	
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			< 0.474	U		< 0.474	U		< 0.474	U		< 0.474	U		< 0.474	U		< 0.474	U		< 0.474	U	
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			< 0.443	U		< 0.443	U		< 0.443	U		< 0.443	U		< 0.443	U		< 0.443	U		< 0.443	U	
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U		< 0.453	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			< 0.421	U		< 0.421	U		< 0.421	U		< 0.421	U		< 0.421	U		< 0.421	U		< 0.421	U	
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U		< 0.449	U	
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U		< 5.13	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			< 0.0698	U		< 0.0698	U		< 0.0698	U		< 0.0698	U		< 0.0698	U		< 0.0698	U		< 0.0698	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U		< 0.29	U	
T-AB2	TAB2-48-061523	48	6/15/2023	--			< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U		< 0.0633	U	
T-AB2	TAB2-59-061523	59	6/15/2023	--			< 0.836	U		< 0.836	U		< 0.836	U		< 0.836	U		< 0.836	U		< 0.836	U		< 0.836	U	
T-BG2	TBG2-48-071123	48	7/11/2023	--			< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U	
T-BG2	TBG2-59-071123	59	7/11/2023	--			< 0.0020	U		< 0.0020	U		< 0.0020	U		< 0.0020	U		0.0117			< 0.0020	U		< 0.0020	U	
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		0.0108			< 0.0022	U		< 0.0022	U	
X-AD2	XAD2-49-052323	49	5/23/2023	--			< 0.512	U		< 0.512	U		< 0.512	U		< 0.512	U		1.29		J	< 0.512	U		< 0.512	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			< 0.469	U		< 0.469	U		< 0.469	U		< 0.469	U		2.78		J	< 0.469	U		< 0.469	U	
X-AD2	XAD2-58-052323	58	5/23/2023	--			< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U		< 0.444	U	UJ	< 0.444	U		< 0.444	U	
X-AE4	XAE4-40-030223	40	3/2/2023	--			< 12.4	U		< 12.4	U		< 12.4	U		< 12.4	U		7.2	J		< 12.4	U		< 12.4	U	
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			< 12	U		< 12	U		< 12	U		< 12	U		3	J		< 12	U		< 12	U	
X-AE4	XAE4-48-030223	48	3/2/2023	--			0.0017	J	J	< 0.0020	U		< 0.0020	U		< 0.0020	U		0.0099			< 0.0020	U		< 0.0020	U	
X-AE4	XAE4-52-030223	52	3/2/2023	--			0.26	J		< 0.44	U		< 0.44	U		< 0.44	U		0.21	J		< 0.44	U		< 0.44	U	
X-AF6	XAF6-40-022723	40	2/27/2023	--			0.938			< 0.627	U		< 0.627	U		< 0.627	U		7.35		J	< 0.627	U		< 0.627	U	
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			< 2.31	U		< 2.31	U		< 2.31	U		< 2.31	U		3.46		J	< 2.31	U		< 2.31	U	
X-AF6	XAF6-47-022723	47	2/27/2023	--			0.0026			< 0.0024	U		< 0.0024	U		< 0.0024	U		0.0168			< 0.0024	U		< 0.0024	U	
X-AF6	XAF6-58-022723	58	2/27/2023	--			0.15	J		< 0.489	U		< 0.489	U		< 0.489	U		0.49	J		< 0.489	U		< 0.489	U	
X-AG5	XAG5-40-031823	40	3/18/2023	--			< 10.3	U		< 10.3	U		< 10.3	U		< 10.3	U		2.6	J		< 10.3	U		< 10.3	U	
X-AG5	XAG5-49-031823	49	3/18/2023	--			< 0.551	U		< 0.551	U		< 0.551	U		< 0.551	U		0.39	J		< 0.551	U		< 0.551	U	
X-AG5	XAG5-56-031823	56	3/18/2023	--			< 0.0963	U		< 0.0963	U		< 0.0963	U		< 0.0963	U		0.071	J		< 0.0963	U		< 0.0963	U	
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			< 23.8	U		< 23.8	U		< 23.8	U		< 23.8	U		26.1			< 23.8	U		< 23.8	U	
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			< 0.477	U		< 0.477	U		< 0.477	U		< 0.477	U		0.22	J		< 0.477	U		< 0.477	U	
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			< 0.997	U		< 0.997	U		< 0.997	U		< 0.997	U		0.63	J		< 0.997	U		< 0.997	U	
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			0.1			< 0.0980	U		< 0.0980	U		< 0.0980	U		0.153	B		< 0.0980	U		< 0.0980	U	
X-BB2	XBB2-4-030123	4	3/1/2023	--			< 0.0022	U		< 0.0022	U		< 0.0022	U		< 0.0022	U		0.0031			< 0.0022	U		< 0.0022	U	
X-BB2	XBB2-9-030123	9	3/1/2023	--			< 0.0023	U		< 0.0023	U		< 0.0023	U		< 0.0023	U		0.0023	J		< 0.0023	U		< 0.0023	U	
X-BB2	XBB2-38-051823	38	5/18/2023	--			< 4.57	U		< 4.57	U		< 4.57	U		< 4.57	U		< 4.57	U		< 4.57	U		< 4.57	U	
X-BB2	XBB2-47-051823	47	5/18/2023	--			< 9.71	U		< 9.71	U		< 9.71	U		< 9.71	U		< 9.71	U		< 9.71	U		< 9.71	U	
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			< 24.7	U		< 24.7	U		< 24.7	U		< 24.7	U		< 24.7	U		< 24.7	U		< 24.7	U	
X-BC3	XBC3-4-022423	4	2/24/2023	--			< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U		< 0.0018	U	
X-BC3	XBC3-9-022423	9	2/24/2023	--			< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U		< 0.0021	U	
X-BC3	XBC3-38-062123	38	6/21/2023	--			0.193			< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.0689	U		< 0.0689	U	
X-BC3	XBC3-47-062123	47	6/21/2023	--			< 4.56	U		< 4.56	U		< 4.56	U		< 4.56	U		< 4.56	U		< 4.56	U		< 4.56	U	
X-BC3	XBC3-58-062123	58	6/21/2023	--			< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U		< 1.07	U	

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Trichloroethene			Vinyl Acetate			Vinyl Chloride			Xylenes, Total			Gasoline Range Organics (C6 - C10)			Gasoline Range Organics (C6 - C12)			Total Petroluem Hydrocarbons (Method 8015B OA-2)			Diesel Range Organics (C10 - C21)		
Screening Criteria (mg/kg)							170			0.01			150														
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	< 0.0053	U		< 0.027	U		< 0.0053	U		< 0.011	U		--			2.7	J		--			--		
SB-101	SB101-48-120722	48	12/7/2022	< 13	U		< 66	U		< 13	U		< 27	U		--			630			--			--		
SB-101	SB101-51.5-120722	51.5	12/7/2022	< 3.6	U		< 18	U		< 3.6	U*+		< 7.2	U		--			470			--			--		
SB-101A	SB101A-67-121922	67	12/19/2022	< 0.0046	U		< 0.023	U		< 0.0046	U		0.0020	J		--			3.4	J		--			--		
SB-102	SB102-10-120522	10	12/5/2022	< 0.0054	U		< 0.027	U		< 0.0054	U		< 0.011	U		--			--			--			--		
SB-102	SB102-42-120622	42	12/6/2022	< 0.38	U	UJ	< 1.9	U	UJ	< 0.38	U	UJ	< 0.75	U	UJ	--			12		J	--			--		
SB-102	SB102-52-120622	52	12/6/2022	< 0.55	U	UJ	< 2.7	U	UJ	< 0.55	U	UJ	5.4		J	--			100		J	--			--		
SB-102	SB102-52-120622-DUP	52	12/6/2022	< 0.37	U	UJ	< 1.9	U	UJ	< 0.37	U	UJ	5.9		J	--			110		J	--			--		
SB-102	SB102-55-120622	55	12/6/2022	< 12	U	UJ	< 58	U	UJ	< 12	U	UJ	26		J	--			110		J	--			--		
SB-102	SB102-72-120622	72	12/6/2022	< 0.0043	U	UJ	< 0.022	U	UJ	< 0.0043	U	UJ	0.26		J	--			2.5	J	J	--			--		
SVP-01-10	SVP01-10-120522	10	12/5/2022	< 0.0054	U		< 0.027	U		< 0.0054	U		< 0.011	U		--			--			--			--		
SVP-01-20	SVP01-20-120922	20	12/9/2022	< 0.0062	U	UJ	< 0.031	U	UJ	< 0.0062	U	UJ	< 0.012	U	UJ	--			--			--			--		
SVP-01-30	SVP01-30-120922	30	12/9/2022	< 0.0051	U	UJ	< 0.026	U	UJ	< 0.0051	U	UJ	< 0.01	U	UJ	--			--			--			--		
SVP-02-10	SVP02-10-120522	10	12/5/2022	< 0.0057	U		< 0.028	U		< 0.0057	U		< 0.011	U		--			--			--			--		
SVP-02-20	SVP02-20-120622	20	12/6/2022	< 0.0069	U	UJ	< 0.034	U	UJ	< 0.0069	U*+	UJ	< 0.014	U	UJ	--			--			--			--		
SVP-02-30	SVP02-30-120622	30	12/6/2022	< 0.0051	U	UJ	< 0.026	U	UJ	< 0.0051	U*+	UJ	< 0.01	U	UJ	--			--			--			--		
SVP-03-10	SVP03-10-121222	10	12/12/2022	< 0.0060	U		< 0.03	U		< 0.0060	U		< 0.012	U		--			--			--			--		
SVP-03-20	SVP03-20-121222	20	12/12/2022	< 0.0052	U		< 0.026	U		< 0.0052	U		< 0.01	U		--			--			--			--		
SVP-03-30	SVP03-30-121222	30	12/12/2022	< 0.0055	U		< 0.027	U		< 0.0055	U		< 0.011	U		--			--			--			--		
SVP-04-10	SVP04-10-121222	10	12/12/2022	< 0.0053	U		< 0.027	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-04-20	SVP04-20-121222	20	12/12/2022	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-04-30	SVP04-30-121222	30	12/12/2022	< 0.0058	U		< 0.029	U		< 0.0058	U		0.0027	J		--			--			--			--		
SVP-05-10	SVP05-10-121322	10	12/13/2022	< 0.0054	U		< 0.027	U		< 0.0054	U		< 0.011	U		--			--			--			--		
SVP-05-20	SVP05-20-121322	20	12/13/2022	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-05-30	SVP05-30-121322	30	12/13/2022	< 0.01	U		< 0.051	U		< 0.01	U		< 0.02	U		--			--			--			--		
SVP-06-10	SVP06-10-121422	10	12/14/2022	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-06-20	SVP06-20-121422	20	12/14/2022	< 0.0054	U		< 0.027	U		< 0.0054	U		< 0.011	U		--			--			--			--		
SVP-06-30	SVP06-30-121422	30	12/14/2022	< 0.0081	U		< 0.04	U		< 0.0081	U		< 0.016	U		--			--			--			--		
SVP-07-10	SVP07-10-121422	10	12/14/2022	< 0.0072	U		< 0.036	U		< 0.0072	U		< 0.014	U		--			--			--			--		
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	< 0.0068	U		< 0.034	U		< 0.0068	U		< 0.014	U		--			--			--			--		
SVP-07-20	SVP07-20-121422	20	12/14/2022	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-07-30	SVP07-30-121422	30	12/14/2022	< 0.0036	U		< 0.018	U		< 0.0036	U		< 0.0072	U		--			--			--			--		
SVP-08-10	SVP08-10-010623	10	1/6/2023	< 0.0058	U		< 0.029	U		< 0.0058	U		< 0.012	U		--			--			--			--		
SVP-08-20	SVP08-20-010923	20	1/9/2023	< 0.0056	U		< 0.028	U		< 0.0056	U		< 0.011	U		--			--			--			--		
SVP-08-30	SVP08-30-010923	30	1/9/2023	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-09-10	SVP09-10-010623	10	1/6/2023	< 0.0062	U		< 0.031	U		< 0.0062	U		< 0.012	U		--			--			--			--		
SVP-09-20	SVP09-20-010623	20	1/6/2023	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	< 0.0061	U		< 0.03	U		< 0.0061	U		< 0.012	U		--			--			--			--		
SVP-09-30	SVP09-30-010623	30	1/6/2023	< 0.0059	U		< 0.03	U		< 0.0059	U		< 0.012	U		--			--			--			--		
SVP-10-10	SVP10-10-010423	10	1/4/2023	< 0.0056	U		< 0.028	U		< 0.0056	U		< 0.011	U		--			--			--			--		
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	< 0.0056	U		< 0.028	U		< 0.0056	U		< 0.011	U		--			--			--			--		
SVP-10-20	SVP10-20-010423	20	1/4/2023	< 0.0053	U		< 0.027	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-10-30	SVP10-30-010423	30	1/4/2023	< 0.0098	U		< 0.049	U		< 0.0098	U		< 0.02	U		--			--			--			--		
SVP-11-10	SVP11-10-010323	10	1/3/2023	< 0.0056	U		< 0.028	U		< 0.0056	U		< 0.011	U		--			--			--			--		
SVP-11-20	SVP11-20-010323	20	1/3/2023	< 0.0049	U		< 0.024	U		< 0.0049	U		< 0.0098	U		--			--			--			--		
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	< 0.0053	U		< 0.026	U		< 0.0053	U		< 0.011	U		--			--			--			--		
SVP-11-30	SVP11-30-010323	30	1/3/2023	< 0.0062	U		< 0.031	U		< 0.0062	U		< 0.012	U		--			--			--			--		
SVP-12-10	SVP12-10-010323	10	1/3/2023	< 0.0055	U		< 0.027	U		< 0.0055	U		< 0.011	U		--			--			--			--		
SVP-12-20	SVP12-20-010323	20	1/3/2023	< 0.0051	U		< 0.025	U		< 0.0051	U		< 0.01	U		--			--			--			--		
SVP-12-30	SVP12-30-010323	30	1/3/2023	< 0.0052	U		< 0.026	U		< 0.0052	U		< 0.01	U		--			--			--			--		
SVP-13-10	SVP13-10-121622	10	12/16/2022	< 0.0054	U		< 0.027	U		< 0.0054	U		< 0.011	U		--			--			--			--		
SVP-13-20	SVP13-20-121622	20	12/16/2022	< 0.0051	U		< 0.025	U		< 0.0051	U		< 0.01	U		--			--			--			--		
SVP-13-30	SVP13-30-121622	30	12/16/2022	< 0.0056	U		< 0.028	U		< 0.0056	U		< 0.011	U		--			--			--			--		
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	< 0.0056	U		< 0.028	U		< 0.0056	U		< 0.011	U		--			--			--			--		
SVP-14-10	SVP14-10-010523	10	1/5/2023	< 0.0074	U	UJ	< 0.037	U	UJ	< 0.0074	U	UJ	< 0.015	U	UJ	--			--			--			--		
SVP-14-20	SVP14-20-010523	20	1/5/2023	< 0.0085	U	UJ	< 0.043	U	UJ	< 0.0085	U	UJ	< 0.017	U	UJ	--			--			--			--		
SVP-14-30	SVP14-30-010523	30	1/5/2023	< 0.0051	U	UJ	< 0.026	U	UJ	< 0.0051	U	UJ	< 0.01	U	UJ	--			--			--			--		

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Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Trichloroethene			Vinyl Acetate			Vinyl Chloride			Xylenes, Total			Gasoline Range Organics (C6 - C10)			Gasoline Range Organics (C6 - C12)			Total Petroluem Hydrocarbons (Method 8015B OA-2)			Diesel Range Organics (C10 - C21)		
Screening Criteria (mg/kg)							170			0.01			150														
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	< 0.0577	U		< 1.44	U		< 0.0577	U		< 0.231	U		45			--			< 83.3	U	UJ	789		
SB-103	SB103-43-051723	43	5/17/2023	< 0.0487	U		< 1.22	U		< 0.0487	U		< 0.195	U		15.4			--			< 84.3	U	UJ	86.2		
SB-103	SB103-58-051723	58	5/17/2023	< 0.0020	U		< 0.0508	U		< 0.0020	U		< 0.0081	U		< 0.508	U		--			< 5.72	U		< 13.4	U	
SB-103	SB103-68-051323	68	5/17/2023	< 0.534	U		< 13.4	U		< 0.534	U		< 2.14	U		789			--			< 20.7	U	UJ	29.5		
SB-103	SB103-77-052423	77	5/24/2023	< 0.0019	U		< 0.0469	U		< 0.0019	U		< 0.0075	U		< 0.469	U		--			< 11.7	U		< 27.3	U	
SB-104	SB104-42-062023	42	6/20/2023	< 0.268	U		< 6.71	U		< 0.268	U		6			108			--			< 6.28	U		17.1		
SB-104	SB104-57-062023	57	6/20/2023	< 2.31	U		< 57.8	U		< 2.31	U		< 9.25	U		< 578	U		--			7.02	#		< 14.9	U	
SB-104	SB104-57-062023-DUP	57	6/20/2023	< 2.12	U		< 53.1	U		< 2.12	U		< 8.5	U		< 531	U		--			16.8	#		20.6		
SB-104	SB104-65-062023	65	6/20/2023	< 0.0601	U		< 1.5	U		< 0.0601	U		0.29			< 15	U		--			< 5.78	U		< 14.4	U	
SB-104	SB104-78-062023	78	6/20/2023	< 0.0608	U	UJ	< 1.52	U	UJ	< 0.0608	U	UJ	< 0.243	U	UJ	< 15.2	U	UJ	--			< 5.42	U		< 13.0	U	
SB-105	SB105-40-062023	40	6/20/2023	< 0.46	U		< 11.5	U		< 0.46	U		< 1.84	U		185			--			206	#		206		
SB-105	SB105-55-062023	55	6/20/2023	< 0.0607	U		< 1.52	U		< 0.0607	U		< 0.243	U		209			--			< 6.69	U		< 15.1	U	
SB-105	SB105-67-062023	67	6/20/2023	< 0.0518	U	UJ	< 1.3	U	UJ	< 0.0518	U	UJ	< 0.207	U	UJ	< 13	U	UJ	--			< 10.8	U		< 14.3	U	
SB-105	SB105-73-062023	73	6/20/2023	< 0.0019	U		< 0.0477	U		< 0.0019	U		< 0.0076	U		< 0.477	U		--			< 5.66	U		< 13.9	U	
SB-106	SB106-39-061923	39	6/19/2023	< 0.0581	U		< 1.45	U		< 0.0581	U		< 0.232	U		< 14.5	U		--			< 6.31	U		< 15.6	U	
SB-106	SB106-45-061923	45	6/19/2023	< 0.0616	U	UJ	< 1.54	U	UJ	< 0.0616	U	UJ	< 0.246	U	UJ	< 15.4	U	UJ	--			< 154	U	UJ	46.1		
SB-106	SB106-45-061923-DUP	45	6/19/2023	< 0.0620	U		< 1.55	U		< 0.0620	U		< 0.248	U		19			--			< 146	U	UJ	47.8		
SB-106	SB106-58-061923	58	6/19/2023	< 0.692	U		< 17.3	U		< 0.692	U		< 2.77	U		1120			--			< 188	U	UJ	< 17.0	U	
SB-106	SB106-68-061923	68	6/19/2023	< 0.0019	U		< 0.0466	U		< 0.0019	U		< 0.0075	U		< 0.466	U		--			< 5.80	U		< 12.2	U	
SB-106	SB106-77-061923	77	6/19/2023	< 0.0523	U		< 1.31	U		< 0.0523	U		< 0.209	U		< 13.1	U		--			< 5.69	U		< 12.9	U	
SB-107	SB107-15-061723	15	6/17/2023	< 0.446	U		< 11.2	U		< 0.446	U		< 1.79	U		< 112	U		--			< 164	U	UJ	5040		
SB-107	SB107-39-061723	39	6/17/2023	< 0.379	U		< 9.48	U		< 0.379	U		< 1.52	U		122			--			1240	#		519		
SB-107	SB107-58-061723	58	6/17/2023	< 0.125	U		< 3.13	U		< 0.125	U		< 0.501	U		< 31.3	U		--			< 6.64	U		< 16.5	U	
SB-107	SB107-67-061723	67	6/17/2023	< 0.452	U	UJ	< 11.3	U	UJ	< 0.452	U	UJ	< 1.81	U	UJ	< 113	U	UJ	--			< 6.48	U		< 15.5	U	
SB-107	SB107-78-061723	78	6/17/2023	< 0.0481	U		< 1.2	U		< 0.0481	U		< 0.192	U		< 12	U		--			< 5.93	U		< 13.2	U	
SI-AA1	SIAA1-45-051123	45	5/11/2023	< 0.0024	U		< 0.0588	U		< 0.0024	U		< 0.0094	U		< 0.588	U		--			< 5.64	U		< 13.6	U	
SI-AA1	SIAA1-50-051123	50	5/11/2023	< 0.498	U		< 12.4	U		< 0.498	U		< 1.99	U		603			--			< 12.4	U	UJ	< 14.2	U	
SI-AA1	SIAA1-56-051123	56	5/11/2023	< 2.32	U		< 58.1	U		< 2.32	U		< 9.29	U		< 581	U		--			< 5.76	U		< 14.0	U	
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	< 0.0029	U		< 0.0715	U		< 0.0029	U		0.0272			< 960	U		--			< 5.68	U		< 13.9	U	
SI-AA3	SIAA3-45-051023	45	5/10/2023	< 0.893	U		< 22.3	U		< 0.893	U		< 3.57	U		549			--			< 103	U	UJ	< 115	U	
SI-AA3	SIAA3-56-051023	56	5/10/2023	< 0.42	U		< 10.5	U		< 0.42	U		< 1.68	U		225			--			< 6.05	U		< 14.0	U	
SI-AB0	SIAB0-48-061323	48	6/13/2023	< 0.535	U		< 13.4	U		< 0.535	U		3.57			1280			--			< 26.7	U		< 73.2	U	
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	< 0.0597	U		< 1.49	U		< 0.0597	U		4.45			< 11900	U		--			< 308	U	UJ	< 69.2	U	
SI-AB0	SIAB0-56-061323	56	6/13/2023	< 0.0021	U		< 0.0530	U		< 0.0021	U		0.406			< 11600	U		--			< 11.5	U		< 24.3	U	
SI-AC4	SIAC4-41-042523	41	4/25/2023	< 0.122	U		< 3.04	U		< 0.122	U		< 0.487	U		< 30.4	U		--			--			< 14.8	U	
SI-AC4	SIAC4-48-042523	48	4/25/2023	< 4.54	U		< 113	U		< 4.54	U		40.9			4150			--			--			41.6		
SI-AC4	SIAC4-56-042523	56	4/25/2023	< 1.12	U		< 28.1	U		< 1.12	U		48.3			851			--			--			24.7		
SI-AD3	SIAD3-47-042623	47	4/26/2023	< 0.482	U		< 12.1	U		< 0.482	U		< 1.93	U		--			--			--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	< 0.449	U		< 11.2	U		< 0.449	U		0.36	J		--			--			--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	< 3.59	U		< 89.7	U		< 3.59	U		< 14.4	U		--			--			--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	< 0.139	U		< 3.47	U		< 0.139	U		< 0.555	U		--			--			--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	< 0.0920	U		< 2.3	U		< 0.0920	U		0.15	J		--			--			--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	< 20.3	U		< 507	U		< 20.3	U		368			--			--			--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	< 0.0658	U		< 1.65	U		< 0.0658	U		< 0.263	U		< 16.5	U		--			< 11.6	U		< 26.5	U	
SI-AF2	SIAF2-49-051623	49	5/16/2023	< 0.0570	U		< 1.42	U		< 0.0570	U		0.453			39.6			--			< 5.80	U		< 14.2	U	
SI-AF3	SIAF3-41-031423	41	3/14/2023	< 0.216	U		< 5.39	U		< 0.216	U		20.4			--			--			--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	< 0.0539	U		< 1.35	U		< 0.0539	U		0.223			--			--			--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	< 1.05	U		< 26.2	U		< 1.05	U		394			--			--			--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	< 0.0510	U		< 1.28	U		< 0.0510	U		< 0.204	U		< 12.8	U		--			--			131		
SI-AG7	SIAG7-43-022023	43	2/20/2023	< 0.0516	U		< 1.29	U		< 0.0516	U		0.295			123			--			--			211		
SI-AG7	SIAG7-55-022123	55	2/21/2023	< 1.89	U		< 47.1	U		< 1.89	U		9.77			2160			--			--			431	S	J
SI-AI7	SIAI7-38-052023	38	5/20/2023	< 0.0575	U		< 1.44	U		< 0.0575	U		< 92	U		< 5750	U		--			< 11.4	U	UJ	353		
SI-AI7	SIAI7-48-052023	48	5/20/2023	< 0.126	SRU	UJ	< 3.16	U		< 0.126	U		< 0.505	U		< 31.6	U		--			< 11.1	U		< 28.1	U	
SI-AI7	SIAI7-55-052023	55	5/20/2023	< 0.0501	U		< 1.25	U		< 0.0501	U		1.81			264			--			< 5.74	U		15.2		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	< 0.0579	U		< 1.45	U		< 0.0579	U		27.4			870	J		--			--			63.7		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	< 0.0460	U		< 1.15	U		< 0.0460	U		0.465			19.9			--			--			< 13.0	U	
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	< 0.447	U		< 11.2	U		< 0.447	U		551			8650			--			--			390		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Trichloroethene			Vinyl Acetate			Vinyl Chloride			Xylenes, Total			Gasoline Range Organics (C6 - C10)			Gasoline Range Organics (C6 - C12)			Total Petroluem Hydrocarbons (Method 8015B OA-2)			Diesel Range Organics (C10 - C21)		
Screening Criteria (mg/kg)							170			0.01			150														
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	< 0.0022	U		< 0.0555	U		< 0.0022	U		< 0.0089	U		0.893			--			< 6.14	U		< 14.6	U	
SI-BC1	SIBC1-49-051323	49	5/13/2023	< 0.442	U		< 11	U		< 0.442	U		< 1.77	U		< 110	U		--			< 27.4	U	UJ	247		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	< 0.444	U		< 11.1	U		< 0.444	U		1.86			196			--			< 27.9	U	UJ	517		
SI-BC1	SIBC1-56-051323	56	5/13/2023	< 0.0024	U		< 0.0603	U		< 0.0024	U		0.209			377			--			< 12.3	U		< 26.5	U	
SI-BD2	SIBD2-46-032723	46	3/27/2023	< 0.377	U		< 9.42	U		< 0.377	U		20.2			--			--			--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	< 21.7	U		< 542	U		< 21.7	U		122			--			--			--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	< 12.3	BU		< 307	U		< 12.3	U		< 49.1	U		--			--			--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	< 1.41	U		< 35.2	U		< 1.41	U		< 5.63	U		1280		J	--			153	#		188		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	< 0.218	U		< 5.45	U		< 0.218	U		< 0.872	U		532		J	--			192	#		129		
SI-BD3	SIBD3-30-62223	30	6/22/2023	< 0.0768	U	UJ	< 1.92	U	UJ	< 0.0768	U	UJ	< 0.307	U	UJ	< 19.2	U	UJ	--			< 14.1	U	UJ	< 16.8	U	
SI-BD3	SIBD3-57-062223	57	6/22/2023	< 0.0519	U		< 1.3	U		< 0.0519	U		< 0.208	U		< 13	U		--			< 11.6	U	UJ	< 14.4	U	
SI-BE2	SIBE2-47-032923	47	3/29/2023	< 0.423	U		< 10.6	U		< 0.423	U		< 1.69	U		< 106	U		--			--			24.3		
SI-BE2	SIBE2-53-032923	53	3/29/2023	< 0.481	U		< 12	U		< 0.481	U		< 1.93	U		64	J		--			--			< 13.7	U	
SI-BE2	SIBE2-56-032923	56	3/29/2023	< 0.88	U		< 22	U		< 0.88	U		< 3.52	U		389			--			--			< 14.7	U	
SI-BE4	SIBE4-39-061523	39	6/15/2023	< 2.29	U		< 57.2	U		< 2.29	U		84.6			887			--			< 54.2	U	UJ	1200		
SI-BE4	SIBE4-49-061523	49	6/15/2023	< 2.33	U		< 58.3	U		< 2.33	U		13.7			941			--			2050	#		1400		
SI-BE4	SIBE4-55-061523	55	6/15/2023	< 0.0581	U		< 1.45	U		< 0.0581	U		< 0.233	U		< 14.5	U		--			< 11.2	U		< 26.5	U	
SI-BF1	SIBF1-48-051223	48	5/12/2023	< 0.474	U		< 11.8	U		< 0.474	U		< 1.9	U		< 118	U		--			< 24.4	U	UJ	105		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	< 0.443	U		< 11.1	U		< 0.443	U		< 1.77	U		< 111	U		--			< 10.9	U	UJ	106		
SI-BF1	SIBF1-56-051223	56	5/12/2023	< 0.453	U		< 11.3	U		< 0.453	U		< 1.81	U		230			--			< 6.01	U		< 28.7	U	
SI-BF3	SIBF3-48-062923	48	6/29/2023	< 0.421	U		< 10.5	U		< 0.421	U		2.04			--			--			--			148		J
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	< 0.449	U		< 11.2	U		< 0.449	U		1.93			--			--			--			40.1		J
SI-BF3	SIBF3-56-062923	56	6/29/2023	< 5.13	U		< 128	U		< 5.13	U		< 20.5	U		--			--			--			< 28.4	U	
SI-BH3	SIBH3-48-071423	48	7/14/2023	< 0.0698	U		< 1.74	U		< 0.0698	U		< 0.279	U		< 17.4	U		--			< 6.17	U		< 14.9	U	
SI-BH3	SIBH3-56-071123	56	7/14/2023	< 0.29	U		< 7.25	U		< 0.29	U		< 1.16	U		< 72.5	U		--			< 12.8	U		< 13.8	U	
T-AB2	TAB2-48-061523	48	6/15/2023	< 0.0633	U		< 1.58	U		< 0.0633	U		< 0.253	U		< 15.8	U		--			< 150	U	UJ	< 13.8	U	
T-AB2	TAB2-59-061523	59	6/15/2023	< 0.836	U		< 20.9	U		< 0.836	U		5.27			374			--			< 154	U	UJ	< 28.3	U	
T-BG2	TBG2-48-071123	48	7/11/2023	< 0.0023	U		< 0.0565	U		< 0.0023	U		< 0.0090	U		< 0.565	U		--			< 5.66	U		< 25.8	U	
T-BG2	TBG2-59-071123	59	7/11/2023	< 0.0020	U		< 0.0507	U		< 0.0020	U		0.0421			< 1020	U		--			< 5.78	U		< 13.2	U	
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	< 0.0022	U		< 0.0538	U		< 0.0022	U		0.0385			< 1070	U		--			< 5.80	U		< 13.3	U	
X-AD2	XAD2-49-052323	49	5/23/2023	< 0.512	U		< 12.8	U		< 0.512	U		< 2.05	U		443		J	--			< 4.90	U		< 25.2	U	
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	< 0.469	U		< 11.7	U		< 0.469	U		< 1.88	U		801		J	--			< 4.98	U		< 12.7	U	
X-AD2	XAD2-58-052323	58	5/23/2023	< 0.444	U		< 11.1	U		< 0.444	U		< 1.77	U		195			--			< 11.3	U		< 14.2	U	
X-AE4	XAE4-40-030223	40	3/2/2023	< 12.4	U		< 309	U		< 12.4	U		14	J		9420			--			--			45.2		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	< 12	U		< 300	U		< 12	U		< 48	U		5330			--			--			40.3		
X-AE4	XAE4-48-030223	48	3/2/2023	< 0.0020	U		< 0.0507	U		< 0.0020	U		0.0422			< 556	U		--			--			< 13.5	U	
X-AE4	XAE4-52-030223	52	3/2/2023	< 0.44	U		< 11	U		< 0.44	U		18.2			402			--			--			14.6		
X-AF6	XAF6-40-022723	40	2/27/2023	< 0.627	U		< 15.7	U		< 0.627	U		66.7		J	--			--			--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	< 2.31	U		< 57.7	U		< 2.31	U		32.7		J	--			--			--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	< 0.0024	U		< 0.0588	U		< 0.0024	U		0.0870			--			--			--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	< 0.489	U		< 12.2	U		< 0.489	U		12.1			--			--			--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	< 10.3	U		< 259	U		< 10.3	U		< 41.4	U		--			--			--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	< 0.551	U		< 13.8	U		< 0.551	U		5.62			--			--			--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	< 0.0963	U		< 2.41	U		< 0.0963	U		0.463			--			--			--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	< 23.8	U		< 595	U		< 23.8	U		63	J		--			--			--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	< 0.477	U		< 11.9	U		< 0.477	U		1.2	J		--			--			--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	< 0.997	U		< 24.9	U		< 0.997	U		3.2	J		--			--			--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	< 0.0980	U		< 2.45	U		< 0.0980	U		6.62			--			--			--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	< 0.0022	U		< 0.0545	U		< 0.0022	U		< 0.0087	U		< 0.545	U		--			--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	< 0.0023	U		< 0.0585	U		< 0.0023	U		< 0.0094	U		< 0.585	U		--			--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	< 4.57	U		< 114	U		< 4.57	U		21.6			1360			--			< 84.9	U	UJ	2090		
X-BB2	XBB2-47-051823	47	5/18/2023	< 9.71	U		< 243	U		< 9.71	U		< 38.8	U		< 2430	U		--			< 92.4	U	UJ	737		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	< 24.7	U		< 618	U		< 24.7	U		< 98.8	U		< 6180	U		--			< 174	U	UJ	1240		
X-BC3	XBC3-4-022423	4	2/24/2023	< 0.0018	U		< 0.0460	U		< 0.0018	U		< 0.0074	U		< 0.46	U		--			--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	< 0.0021	U		< 0.0528	U		< 0.0021	U		< 0.0084	U		< 0.528	U		--			--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	< 0.0689	U		< 1.72	U		< 0.0689	U		3.19			106			--			< 20.8	U	UJ	39.5		
X-BC3	XBC3-47-062123	47	6/21/2023	< 4.56	U		< 114	U		< 4.56	U		< 18.3	U		1630			--			500	#		481		J
X-BC3	XBC3-58-062123	58	6/21/2023	< 1.07	U		< 26.6	U		< 1.07	U		< 4.26	U		< 266	U		--			< 5.92	U		< 14.8	U	

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Diesel Range Organics (C10 - C28)			Oil Range Organics (C21 - C35)		
Screening Criteria (mg/kg)									
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-101	SB101-20-120722	20	12/7/2022	**4.6**	**J**		--		
SB-101	SB101-48-120722	48	12/7/2022	< 5.8	**U**		--		
SB-101	SB101-51.5-120722	51.5	12/7/2022	**3.1**	**J**		--		
SB-101A	SB101A-67-121922	67	12/19/2022	< 5.8	**U**		--		
SB-102	SB102-10-120522	10	12/5/2022	--			--		
SB-102	SB102-42-120622	42	12/6/2022	**13**			--		
SB-102	SB102-52-120622	52	12/6/2022	**30**			--		
SB-102	SB102-52-120622-DUP	52	12/6/2022	**47**			--		
SB-102	SB102-55-120622	55	12/6/2022	**600**			--		
SB-102	SB102-72-120622	72	12/6/2022	**3.3**	**J**		--		
SVP-01-10	SVP01-10-120522	10	12/5/2022	--			--		
SVP-01-20	SVP01-20-120922	20	12/9/2022	--			--		
SVP-01-30	SVP01-30-120922	30	12/9/2022	--			--		
SVP-02-10	SVP02-10-120522	10	12/5/2022	--			--		
SVP-02-20	SVP02-20-120622	20	12/6/2022	--			--		
SVP-02-30	SVP02-30-120622	30	12/6/2022	--			--		
SVP-03-10	SVP03-10-121222	10	12/12/2022	--			--		
SVP-03-20	SVP03-20-121222	20	12/12/2022	--			--		
SVP-03-30	SVP03-30-121222	30	12/12/2022	--			--		
SVP-04-10	SVP04-10-121222	10	12/12/2022	--			--		
SVP-04-20	SVP04-20-121222	20	12/12/2022	--			--		
SVP-04-30	SVP04-30-121222	30	12/12/2022	--			--		
SVP-05-10	SVP05-10-121322	10	12/13/2022	--			--		
SVP-05-20	SVP05-20-121322	20	12/13/2022	--			--		
SVP-05-30	SVP05-30-121322	30	12/13/2022	--			--		
SVP-06-10	SVP06-10-121422	10	12/14/2022	--			--		
SVP-06-20	SVP06-20-121422	20	12/14/2022	--			--		
SVP-06-30	SVP06-30-121422	30	12/14/2022	--			--		
SVP-07-10	SVP07-10-121422	10	12/14/2022	--			--		
SVP-07-10	SVP07-10-121422-DUP	10	12/14/2022	--			--		
SVP-07-20	SVP07-20-121422	20	12/14/2022	--			--		
SVP-07-30	SVP07-30-121422	30	12/14/2022	--			--		
SVP-08-10	SVP08-10-010623	10	1/6/2023	--			--		
SVP-08-20	SVP08-20-010923	20	1/9/2023	--			--		
SVP-08-30	SVP08-30-010923	30	1/9/2023	--			--		
SVP-09-10	SVP09-10-010623	10	1/6/2023	--			--		
SVP-09-20	SVP09-20-010623	20	1/6/2023	--			--		
SVP-09-20	SVP09-20-010623-DUP	20	1/6/2023	--			--		
SVP-09-30	SVP09-30-010623	30	1/6/2023	--			--		
SVP-10-10	SVP10-10-010423	10	1/4/2023	--			--		
SVP-10-10	SVP10-10-010423-DUP	10	1/4/2023	--			--		
SVP-10-20	SVP10-20-010423	20	1/4/2023	--			--		
SVP-10-30	SVP10-30-010423	30	1/4/2023	--			--		
SVP-11-10	SVP11-10-010323	10	1/3/2023	--			--		
SVP-11-20	SVP11-20-010323	20	1/3/2023	--			--		
SVP-11-20	SVP11-20-010323-DUP	20	1/3/2023	--			--		
SVP-11-30	SVP11-30-010323	30	1/3/2023	--			--		
SVP-12-10	SVP12-10-010323	10	1/3/2023	--			--		
SVP-12-20	SVP12-20-010323	20	1/3/2023	--			--		
SVP-12-30	SVP12-30-010323	30	1/3/2023	--			--		
SVP-13-10	SVP13-10-121622	10	12/16/2022	--			--		
SVP-13-20	SVP13-20-121622	20	12/16/2022	--			--		
SVP-13-30	SVP13-30-121622	30	12/16/2022	--			--		
SVP-13-30	SVP13-30-121622-DUP	30	12/16/2022	--			--		
SVP-14-10	SVP14-10-010523	10	1/5/2023	--			--		
SVP-14-20	SVP14-20-010523	20	1/5/2023	--			--		
SVP-14-30	SVP14-30-010523	30	1/5/2023	--			--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Diesel Range Organics (C10 - C28)			Oil Range Organics (C21 - C35)		
Screening Criteria (mg/kg)									
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SB-103	SB103-38-051723	38	5/17/2023	--			--		
SB-103	SB103-43-051723	43	5/17/2023	--			--		
SB-103	SB103-58-051723	58	5/17/2023	--			--		
SB-103	SB103-68-051323	68	5/17/2023	--			--		
SB-103	SB103-77-052423	77	5/24/2023	--			--		
SB-104	SB104-42-062023	42	6/20/2023	--			--		
SB-104	SB104-57-062023	57	6/20/2023	--			--		
SB-104	SB104-57-062023-DUP	57	6/20/2023	--			--		
SB-104	SB104-65-062023	65	6/20/2023	--			--		
SB-104	SB104-78-062023	78	6/20/2023	--			--		
SB-105	SB105-40-062023	40	6/20/2023	--			--		
SB-105	SB105-55-062023	55	6/20/2023	--			--		
SB-105	SB105-67-062023	67	6/20/2023	--			--		
SB-105	SB105-73-062023	73	6/20/2023	--			--		
SB-106	SB106-39-061923	39	6/19/2023	--			--		
SB-106	SB106-45-061923	45	6/19/2023	--			--		
SB-106	SB106-45-061923-DUP	45	6/19/2023	--			--		
SB-106	SB106-58-061923	58	6/19/2023	--			--		
SB-106	SB106-68-061923	68	6/19/2023	--			--		
SB-106	SB106-77-061923	77	6/19/2023	--			--		
SB-107	SB107-15-061723	15	6/17/2023	--			--		
SB-107	SB107-39-061723	39	6/17/2023	--			--		
SB-107	SB107-58-061723	58	6/17/2023	--			--		
SB-107	SB107-67-061723	67	6/17/2023	--			--		
SB-107	SB107-78-061723	78	6/17/2023	--			--		
SI-AA1	SIAA1-45-051123	45	5/11/2023	--			--		
SI-AA1	SIAA1-50-051123	50	5/11/2023	--			--		
SI-AA1	SIAA1-56-051123	56	5/11/2023	--			--		
SI-AA1	SIAA1-56-051123-DUP	56	5/11/2023	--			--		
SI-AA3	SIAA3-45-051023	45	5/10/2023	--			--		
SI-AA3	SIAA3-56-051023	56	5/10/2023	--			--		
SI-AB0	SIAB0-48-061323	48	6/13/2023	--			--		
SI-AB0	SIAB0-48-061323-DUP	48	6/13/2023	--			--		
SI-AB0	SIAB0-56-061323	56	6/13/2023	--			--		
SI-AC4	SIAC4-41-042523	41	4/25/2023	--			--		
SI-AC4	SIAC4-48-042523	48	4/25/2023	--			--		
SI-AC4	SIAC4-56-042523	56	4/25/2023	--			--		
SI-AD3	SIAD3-47-042623	47	4/26/2023	--			--		
SI-AD3	SIAD3-56-042623	56	4/26/2023	--			--		
SI-AD3	SIAD3-56-042623-DUP	56	4/26/2023	--			--		
SI-AD6	SIAD6-39-032323	39	3/23/2023	--			--		
SI-AD6	SIAD6-49 032323	49	3/23/2023	--			--		
SI-AD6	SIAD6-55-032323	55	3/23/2023	--			--		
SI-AF2	SIAF2-44-051623	44	5/16/2023	--			--		
SI-AF2	SIAF2-49-051623	49	5/16/2023	--			--		
SI-AF3	SIAF3-41-031423	41	3/14/2023	--			--		
SI-AF3	SIAF3-47-031423	47	3/14/2023	--			--		
SI-AF3	SIAF3-55-031423	55	3/14/2023	--			--		
SI-AG7	SIAG7-39-022023	39	2/20/2023	--			--		
SI-AG7	SIAG7-43-022023	43	2/20/2023	--			--		
SI-AG7	SIAG7-55-022123	55	2/21/2023	--			--		
SI-AI7	SIAI7-38-052023	38	5/20/2023	--			--		
SI-AI7	SIAI7-48-052023	48	5/20/2023	--			--		
SI-AI7	SIAI7-55-052023	55	5/20/2023	--			--		
SI-AJ6	SIAJ6-40-032123	40	3/21/2023	--			--		
SI-AJ6	SIAJ6-48-032123	48	3/21/2023	--			--		
SI-AJ6	SIAJ6-56-032123	56	3/21/2023	--			--		

SEE LAST PAGE OF TABLE FOR NOTES

Appendix D
2022-2023 Pre-SEE Soil Analytical Results

				Diesel Range Organics (C10 - C28)			Oil Range Organics (C21 - C35)		
Screening Criteria (mg/kg)									
Location	Sample ID	Depth (ft bgs)	Sample Date	Result (mg/kg)	Lab Quals	AECOM Quals	Result (mg/kg)	Lab Quals	AECOM Quals
SI-BC1	SIBC1-40-051323	40	5/13/2023	--			--		
SI-BC1	SIBC1-49-051323	49	5/13/2023	--			--		
SI-BC1	SIBC1-49-051323-DUP	49	5/13/2023	--			--		
SI-BC1	SIBC1-56-051323	56	5/13/2023	--			--		
SI-BD2	SIBD2-46-032723	46	3/27/2023	--			--		
SI-BD2	SIBD2-53-032723	53	3/27/2023	--			--		
SI-BD2	SIBD2-56-032723	56	3/27/2023	--			--		
SI-BD3	SIBD3-48-062223	48	6/22/2023	--			--		
SI-BD3	SIBD3-48-062223-DUP	48	6/22/2023	--			--		
SI-BD3	SIBD3-30-62223	30	6/22/2023	--			--		
SI-BD3	SIBD3-57-062223	57	6/22/2023	--			--		
SI-BE2	SIBE2-47-032923	47	3/29/2023	--			--		
SI-BE2	SIBE2-53-032923	53	3/29/2023	--			--		
SI-BE2	SIBE2-56-032923	56	3/29/2023	--			--		
SI-BE4	SIBE4-39-061523	39	6/15/2023	--			--		
SI-BE4	SIBE4-49-061523	49	6/15/2023	--			--		
SI-BE4	SIBE4-55-061523	55	6/15/2023	--			--		
SI-BF1	SIBF1-48-051223	48	5/12/2023	--			--		
SI-BF1	SIBF1-48-051223-DUP	48	5/12/2023	--			--		
SI-BF1	SIBF1-56-051223	56	5/12/2023	--			--		
SI-BF3	SIBF3-48-062923	48	6/29/2023	--			--		
SI-BF3	SIBF3-48-062923-DUP	48	6/29/2023	--			--		
SI-BF3	SIBF3-56-062923	56	6/29/2023	--			--		
SI-BH3	SIBH3-48-071423	48	7/14/2023	--			--		
SI-BH3	SIBH3-56-071123	56	7/14/2023	--			--		
T-AB2	TAB2-48-061523	48	6/15/2023	--			--		
T-AB2	TAB2-59-061523	59	6/15/2023	--			--		
T-BG2	TBG2-48-071123	48	7/11/2023	--			--		
T-BG2	TBG2-59-071123	59	7/11/2023	--			--		
T-BG2	TBG2-59-071123-DUP	59	7/11/2023	--			--		
X-AD2	XAD2-49-052323	49	5/23/2023	--			--		
X-AD2	XAD2-49-052323-DUP	49	5/23/2023	--			--		
X-AD2	XAD2-58-052323	58	5/23/2023	--			--		
X-AE4	XAE4-40-030223	40	3/2/2023	--			**22.2**		
X-AE4	XAE4-40-030223-DUP	40	3/2/2023	--			**19.7**		
X-AE4	XAE4-48-030223	48	3/2/2023	--			**< 13.5**	**U**	
X-AE4	XAE4-52-030223	52	3/2/2023	--			**< 13.2**	**U**	
X-AF6	XAF6-40-022723	40	2/27/2023	--			--		
X-AF6	XAF6-40-022723-DUP	40	2/27/2023	--			--		
X-AF6	XAF6-47-022723	47	2/27/2023	--			--		
X-AF6	XAF6-58-022723	58	2/27/2023	--			--		
X-AG5	XAG5-40-031823	40	3/18/2023	--			--		
X-AG5	XAG5-49-031823	49	3/18/2023	--			--		
X-AG5	XAG5-56-031823	56	3/18/2023	--			--		
X-AJ8	XAJ8-38-042223	38	4/22/2023	--			--		
X-AJ8	XAJ8-46-042223	46	4/22/2023	--			--		
X-AJ8	XAJ8-46-042223-DUP	46	4/22/2023	--			--		
X-AJ8	XAJ8-57-042223	57	4/22/2023	--			--		
X-BB2	XBB2-4-030123	4	3/1/2023	--			--		
X-BB2	XBB2-9-030123	9	3/1/2023	--			--		
X-BB2	XBB2-38-051823	38	5/18/2023	--			--		
X-BB2	XBB2-47-051823	47	5/18/2023	--			--		
X-BB2	XBB2-47-051823-DUP	47	5/18/2023	--			--		
X-BC3	XBC3-4-022423	4	2/24/2023	--			--		
X-BC3	XBC3-9-022423	9	2/24/2023	--			--		
X-BC3	XBC3-38-062123	38	6/21/2023	--			**< 13.1**	**U**	
X-BC3	XBC3-47-062123	47	6/21/2023	--			--		
X-BC3	XBC3-58-062123	58	6/21/2023	--			--		

Notes

Screening criteria are from 35 I A.C 742 (TACO) Appendix B, Table A - Tier 1 Soil Remediation Objectives for Residential Properties. The lowest applicable value was selected for each analyte.

Blank screening criteria cell indicates analyte does not have a screening criterion.

Analyses performed on Pre-SEE soil samples varied over the course of sampling activities because many samples were collected prior to the 5/5/2023 IEPA letter, which included additional requirements for soil sample analyses.

Method 8015B OA-2 does not analyze for a specific carbon range in the same manner as GRO or DRO. OA-2 is based on pattern recognition. Kerosene and diesel fuel can be difficult to distinguish.

	Indicates an exceedance of screening criteria.
--	Empty cell without a value indicates result was rejected or the analyte was not analyzed.

Bold results are detections above the reporting limit (RL), or estimated detections between the method detection limit (MDL) and RL.

< # ## Gray text indicates the analyte was not detected above the given reporting limit.

LABORATORY QUALIFIERS

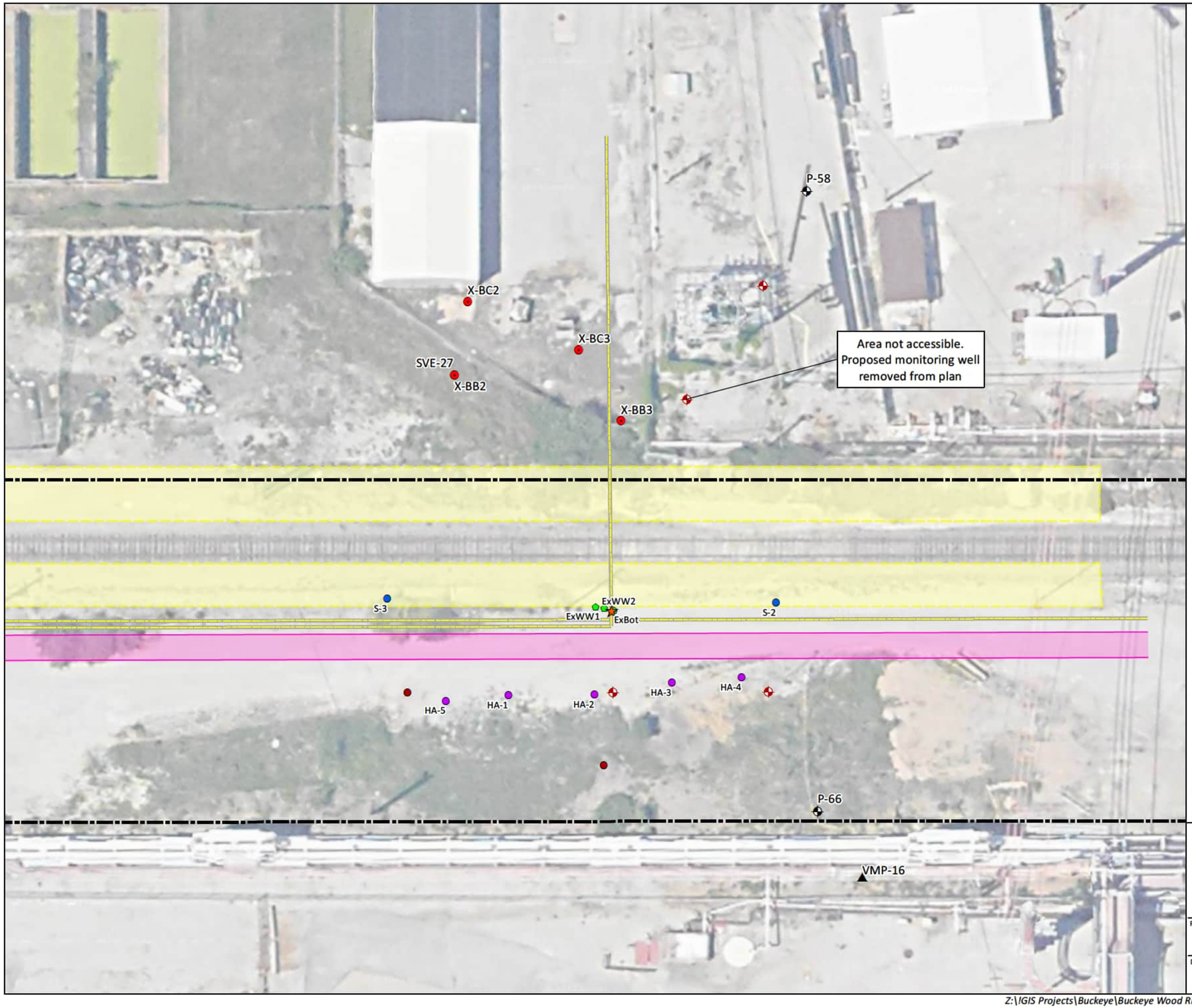
U = The analyte was not detected above the reportling limit.
J = The analyte was detected below the reporting limit. Result is estimated.
B = Target analyte was identified in the method blank, indicating possible lab contamination.
H = Analyzed or extracted out of holding time criteria.
F1 = Indicates matrix spike/matrix spike duplicate (MS/MSD) is outside acceptance limit.
F2 = Indicates MS/MSD RPD exceeds control limits
S = Spike recovery outside recovery limits
# = Unknown hydrocarbon
*+ = Indicates laboratory control spike (LCS) and/or LCS duplicate (LCSD) is outside acceptance limit, high biased
*1 = LCS/LCSD relative percent difference (RPD) is outside contol limit

AECOM QUALIFIERS

J = The result is estimated.
UJ = Estimated non-detect.
U = Result is non-detect.
R = RPD outside accepted recovery limits

Appendix E

Antea Group Proposed Soil Boring and Monitoring Well Locations Figure



Legend

- Site
- Antea Group Proposed Monitoring Well
- Antea Group Proposed Soil Boring
- Shell Soil Boring or Monitoring Well Locations (2023)
- Excavation Soil Sample (2020)
- Antea Group Hand Auger Boring (2021)
- Antea Group Soil Sample (2021)
- Shell Monitoring Well
- Shell Vapor Monitoring Point
- Pipeline
- Sloped Area
- Utility Corridor
- Norfolk Southern Railway Property

N

0 15 30 60 Feet

FIGURE 6

PROPOSED SOIL BORING AND MONITORING WELL LOCATIONS
WOOD RIVER PIPE LINES LLC
LATITUDE: 38.8411249
LONGITUDE: -90.0763969
ROXANA, MADISON COUNTY, ILLINOIS

PROJECT NO.	PREPARED BY	REF SCALE	
WOODRIVER	MB	1:360	antea group
DATE	REVIEWED BY	MAP SCALE	
4/28/2023	CM/MP	1 inch = 30 feet	

Z:\IGIS Projects\Buckeye\Buckeye Wood River Roxanna\BUCWRPL20\Layout\Wood River Pipe Lines LLC_180LProposedPoints.mxd

aecom.com