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SITE ASSESSMENT, REMEDIATION & REVITALIZATION

September 20, 2017

Mr. Greg Cassidy
State Voluntary Cleanup Section
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia SC 29201

CD Scanned
PM Copy

RE: Groundwater Monitoring Report – June 2017 Event
SCE&G Huger Street Former MGP
Columbia, South Carolina

Dear Mr. Cassidy:

On behalf of SCANA Services, Inc., (SCANA) and their primary subsidiary, South Carolina Electric & Gas Company Inc. (SCE&G), enclosed, please find one hard copy and one CD of the Groundwater Monitoring Report – June 2017 Event for the Former Manufactured Gas Plant (MGP) located at 1409 Huger Street in Columbia, South Carolina. The Huger St. MGP is being administratively managed by the South Carolina Department of Health and Environmental Control (SCDHEC) under the Responsible Party Voluntary Cleanup Contract (VCC) #02-5295-RP, signed on August 19, 2002.

The June 2017 monitoring event was the sixth comprehensive, site-wide groundwater monitoring event conducted in support of the implementation of the Effectiveness Monitoring Plan (EMP) submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) on April 24, 2013 and subsequently approved on August 2, 2013.

As currently planned and in accordance with the EMP, the next groundwater monitoring event will be completed in March 2018.

Should you have any questions, please contact either Paul Biery of SCANA at (803) 465-7736 or me at (412) 829-9650.

Sincerely,
Apex Companies, LLC

William J. Zeli, P.E.
Senior Program Manager

Enclosures

cc: P. Biery - SCANA – w/ Encl.
M. Ferlin, T. Wolf - Apex – w/o Encl.

GROUNDWATER MONITORING REPORT
JUNE 2017 EVENT

HUGER STREET FORMER MGP SITE
COLUMBIA, SOUTH CAROLINA

September 2017

Prepared for:

SCANA Services, Inc.
220 Operation Way
Cayce, South Carolina 29033

Prepared by:

Apex Companies, LLC

Apex Companies, LLC · 1600 Commerce Circle · Trafford, PA 15085 · T 412.829.9650 · F 412.349.0350 · apexcos.com

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

On behalf of SCANA Services, Inc. (SCANA), this report presents the findings of the June 2017 groundwater monitoring event at the South Carolina Electric & Gas (SCE&G) Huger Street former Manufactured Gas Plant (MGP) site located in Columbia, South Carolina. The June 2017 monitoring event was the sixth comprehensive, site-wide groundwater monitoring event conducted in accordance with the Effectiveness Monitoring Plan (EMP) submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) on April 24, 2013 and subsequently approved on August 2, 2013.

The Huger Street former MGP site is currently managed under the SCDHEC Responsible Party Voluntary Cleanup Contract (VCC) #02-5295-RP. The contract provides for assessment and remediation of the site by SCE&G with oversight from SCDHEC. Previous work completed at the site has included a multi-phased remedial investigation and three separate Interim Removal Actions (IRA), as described below.

1.1 Background Information

For investigation and remediation purposes, the Huger Street site was divided into three separate parcels. The Parcels are shown on Figure 1 and are referred to as:

- Parcel “A”;
- Parcel “B”; and
- Parcel “C”.

For various reasons, each parcel was investigated and/or remediated via separate removal actions, and a summary of relevant information is provided below. Based on the successful completion of these removal activities, a significant quantity of MGP-impacted source material was removed from the site. It is anticipated that these removal activities will have a positive effect on groundwater quality at the site, which will be confirmed by continued implementation of the EMP.

Parcel “A”

The former MGP operations were generally situated on a city block (Parcel “A”), which is approximately 5.88 acres in size and bounded by Huger Street to the east, Washington Street to the south, Williams Street to the west, and Hampton Street to the north (Figure 1). Properties surrounding the site include a mix of industrial, residential and currently undeveloped properties. Previous structures relating to both the former MGP operations and the former bus maintenance facility on Parcel “A” are shown on Figure 1. A buried 72-inch diameter concrete stormwater drainage culvert passes through the site and discharges to the Congaree River at an outfall area located directly south of Gervais Street.

The former MGP operated from 1906 through 1954. There was a total of three above-grade gasholders at the site along with tar tanks, pressure vessels, purifiers and other apparatus (Figure 1). After 1954, MGP operations were terminated and the site was redeveloped to the current day grade and utilized for bus transit and maintenance operations by SCE&G and subsequently the Columbia Area Regional Transit Authority (CARTA). The CARTA operations were moved to a different location in May 2008. After CARTA vacated the site, the above-grade bus maintenance facility structures were demolished in preparation for the Interim Removal Action (IRA).

Mobilization of personnel and equipment to conduct the Parcel "A" IRA began in November 2009 and the IRA was completed in June 2011. The primary objective of the IRA was to remove known source material from the subsurface of the site. During the project, approximately 125,000 tons of MGP-impacted soil and debris was excavated and properly disposed. Following excavation to the required depth, each section was backfilled using clean backfill material. Backfill material within the saturated zone was amended with an oxygen-releasing product used to promote aerobic biodegradation of residual constituents in groundwater. A total of 2,375 pounds of EHC-O™ was utilized throughout the project. The removal activities were documented in greater detail in the Interim Removal Action Report – Parcel "A" submitted to SCDHEC on February 20, 2013 and approved on April 26, 2013.

Parcel "B"

Parcel "B" is located directly south of Parcel "A", across Washington Street (Figure 1). No historical MGP-related operations occurred on this property. An electrical substation currently exists in the western corner of the lot. SCE&G's former public transportation division used the central and eastern portions of the property for parking and storage of disabled or wrecked buses. A Phase I Environmental Site Assessment (Phase I ESA) conducted on Parcel "B" in preparation for sale of the property identified surface soil staining and residual impacts from the bus storage operations. An investigation and removal action were undertaken to address these impacts and a total of 951.71 tons of soil and 23.47 tons of debris were removed. Some of the removed material consisted of metal slag and paint waste material attributed to the former operations on the adjacent Klein Steel property. The primary constituents of interest (COI) that were addressed by the removal action included; chromium, cadmium, lead, zinc, benzo(a)pyrene and benzo(b)fluoranthene.

Post-excavation, confirmation soil samples illustrated achievement of residential and industrial regional screening levels (RSLs). SCDHEC provided concurrence on February 2, 2007 that no restrictions would be required on soil for future use of Parcel "B". SCE&G subsequently divested the property to the developers of the former Kline Steel property.

Parcel "C"

The SCE&G Williams Street Substation, also referred to as Parcel "C", is located to the west of Parcel "A", as shown on Figure 1. An apparent tar-like material (TLM) was visually observed at ground surface near the center of Parcel "C" in the general vicinity of the utility trench and buried concrete structure (BCS) (Figure 1). Although no MGP-related activities are known to have occurred on this parcel, the presence of the TLM suggests some correlation.

To gain a better understanding of the potential extent of TLM, SCE&G completed numerous investigative activities at the site, which included installation of soil borings and monitoring wells, excavation of test trenches and collection of groundwater and soil samples. The Parcel "C" removal action was conducted in September and October 2012 to remove the majority of a relatively small BCS that contained tar-like material and resulted in the excavation and off-site disposal of approximately 1,100 tons of impacted material. Figure 1 provides the location and extent of the removal activities. A relatively small amount of visually stained/discolored and/or odiferous soil had to be left in place under the BCS to maintain the structural integrity of the fiber optic conduit that bisects the excavation area. SCDHEC concurred with the decision to leave this material in place and additional soil sampling was conducted to document the

remaining impacts. The removal action activities were documented in the Parcel "C" Removal Action Report, which was submitted on December 13, 2012 and approved on January 29, 2013.

1.2 Conceptual Approach to Remediation

SCE&G has developed a conceptual approach to remediation, based on experience in managing similar sites impacted by MGP-related constituents that generally consists of source removal via excavation and subsequent monitoring of groundwater quality for effectiveness. The groundwater monitoring is intended to assess the effectiveness of remediation and the (anticipated) subsequent natural attenuation of dissolved-phase constituents. As currently envisioned and following a sufficient period of monitoring, a Focused Feasibility Study (FFS) will be prepared, if required, to address alternatives for further remediation of groundwater. The FFS will be prepared as a contingency, should natural attenuation alone appear to be inadequate to address the remaining impacts to groundwater.

Successful completion of the removal actions on all three parcels was the first step in the overall approach to remediation. The September 2013 site-wide groundwater monitoring event was the first post-removal action monitoring event intended to gauge the effectiveness of the remediation activities and the anticipated ongoing natural attenuation processes. It is important to note that baseline groundwater sampling events were completed prior to conducting the Parcel "A" and Parcel "C" removal actions. This baseline data is a critical component of the effectiveness monitoring program because it provides pre-removal action groundwater data for comparison with the recently collected data. The baseline data is further discussed in Section 5.0 of this report.

2.0 POST REMOVAL SITE-WIDE GROUNDWATER MONITORING

2.1 Post Removal Action Replacement Monitoring Well Installation

During completion of the IRA activities on Parcel "A", a total of six monitoring wells (MW-2, MW-4, MW-9, MW-12, MW-15 and MW-17) and one piezometer (PZ-01) located within the excavation area were abandoned with SCDHEC approval. More recently, in 2012 monitoring wells MW-6 and MW-8 located on the State Museum property were also abandoned, with SCDHEC approval, in support of ongoing building renovations on that property. Figure 1 shows the locations of the abandoned wells and the piezometer and Table 1 provides a list of existing and abandoned monitoring wells and their locations. Some wells located within the shallower IRA excavation areas were successfully protected from damage during the removal action. Other wells, located in the deeper excavation areas, were abandoned as the excavation progressed. These wells were either abandoned by a licensed South Carolina driller in accordance with R.61-71 or by complete physical removal with the excavator. The monitoring well locations on Parcels "B" and "C" were not impacted by removal activities and are still available for gauging and/or sampling activities.

The approved EMP included installation of new or replacement monitoring wells based on the following criteria:

1. General replacement of abandoned/removed monitoring wells with a recent history of elevated detections of constituents of potential concern (COPC);

2. Provide locations representative of the baseline Geoprobe Screen Point Sampling (GSPS) locations (GP-02 through GP-04 on Figure 1);
3. Install new wells in areas known to previously contain significant impacts and/or potential low areas in the sub-surface bedrock where residual DNAPL may potentially accumulate, should it exist; and
4. Provide adequate spatial distribution to accurately assess groundwater flow patterns and overall site-wide groundwater quality.

The primary objective of satisfying criteria 1 and 2 above is to obtain current site-wide groundwater quality data that can be directly correlated to historical concentrations at specific locations to determine the effectiveness of the removal actions. Over time, the data is anticipated to demonstrate the subsequent natural attenuation of residual impacts to groundwater. Criteria number 3 provides data at new locations where the excavation operations identified significant impacts such as in the former retort house area. The fourth criterion provides a means to monitor groundwater flow patterns over time.

The approved EMP designated four new/replacement monitoring locations. These locations were installed in early September 2013 and properly developed prior to being sampled during the initial post-removal action September 2013 event. The locations included the following wells:

- MW-19 was installed near the former GP-02, MW-4 and MW-12 locations and is also located directly downgradient of the former gasholder #1.
- MW-20 was installed near the former retort house area, which was found to contain a significant amount of impacted material during completion of the removal action. MW-20 is also situated in the general vicinity of MW-2, which was removed during excavation activities and exhibited some historical detections of COPCs.
- MW-21 was installed near the former GP-04 location.
- MW-22 was intended to replace abandoned monitoring wells MW-9 and MW-15 and provide groundwater quality data downgradient of the former process area and the former underground storage tanks (USTs).

2.2 Monitoring Locations

In accordance with the EMP, all 26 site wide monitoring wells and piezometers are gauged during each event to determine the depth to groundwater (groundwater elevations), flow directions and to check for the presence of both light and dense non-aqueous phase liquids (NAPL). Eighteen locations, including three off-site wells, were proposed for sampling in the approved EMP. Table 1 provides a summary of the monitoring locations. For Parcels “A” and “B”, these included the four proposed new/replacement monitoring wells (MW-19 through MW-22) and seven existing monitoring locations (MW-3, MW-5S, MW-5M, MW-5D, MW-13, MW-14 and MW-16).

For Parcel “C”, any location that previously exhibited detections of constituents were retained in the post removal action monitoring program. These six locations include CMW-01 through CMW-04, CMW-07, and CMW-08. In addition, downgradient sentinel well location CMW-12 (which did not exhibit previous detections of COPCs) is included in the program.

2.3 Analytical Parameters and Methods

Groundwater samples collected during the June 2017 event were analyzed for the same constituents as in the remedial investigation and baseline groundwater monitoring events. These analyses include benzene, ethylbenzene, toluene, and total xylenes (BTEX) via EPA Method 8260B, and polynuclear aromatic hydrocarbons (PAHs) via EPA Method 8270D. Samples from monitoring locations in the vicinity and downgradient of the former UST locations shown on Figure 1 (MW-5D, MW-5M, MW-5S, MW-16 and MW-22) were also analyzed for methyl tert-butyl ether (MTBE) via EPA Method 8260B. The groundwater analytical parameters, methods, detection limits and screening levels are provided in Table 2. Field measurements include pH, specific conductance, temperature, redox potential, dissolved oxygen, and turbidity. Observations of groundwater color are also recorded.

2.4 Groundwater Screening Values

For data comparison and discussion purposes, the June 2017 groundwater analytical data was compared to published groundwater screening levels. The groundwater screening levels consisted of the SCDHEC Maximum Contaminant Levels (MCLs) in drinking water (R.61-58, 2009). If a SCDHEC drinking water standard was not available for a particular constituent, the U.S. EPA Region 9 Regional Screening Level (RSL) for tap water where carcinogens are based on a 1×10^{-6} risk and non-carcinogens are based on a hazard quotient of 1 (June 2017) was utilized as a groundwater screening level. The screening levels are provided in Table 2 and are included in the analytical summary Tables 6 through 8 and Figures 3 and 4. Exceedences of the screening value are highlighted on the tables and figures.

3.0 FIELD ACTIVITIES

In summary, field activities performed during the June 2017 groundwater sampling event included obtaining depth to groundwater level measurements, evaluating the presence/absence of NAPL, purging and sampling a total of 17 monitoring wells.

3.1 Groundwater Level Measurements

Groundwater level measurements were obtained at 26 accessible monitoring well and piezometer locations on June 13, 2017. A check for the occurrence of both light and dense NAPL was also evaluated at each monitoring well and piezometer location. The groundwater level measurements and NAPL evaluation was made using an electronic interface probe.

Table 3 provides the depth to groundwater level measurements, associated groundwater elevations, and findings from the NAPL evaluation. NAPL was not observed at any monitoring well location during this event.

3.2 Groundwater Sampling

Groundwater samples were collected from the 18 wells specified in the EMP on June 13 and 14, 2017. Purging and sampling was conducted using a portable peristaltic pump. The polyethylene and silicon tubing used for the purging and sampling was dedicated to each well. The wells were purged at a slow rate to minimize turbidity and the potential introduction of particles into the samples. The total volume of

groundwater purged from each well was dependent on field indicator parameter stabilization (pH, specific conductance, temperature, dissolved oxygen, oxidation-reduction potential [redox], and turbidity). Table 4 provides the final groundwater field indicator parameter measurements for each well and Appendix A provides the complete data set.

The groundwater samples were collected following stabilization of the field indicator parameters. The samples were collected in the appropriate, pre-preserved sample containers provided by the laboratory, placed in coolers with ice, retained under chain-of-custody protocol, and hand delivered to Shealy Environmental Services, Inc. (Shealy) in West Columbia, South Carolina for laboratory analyses. Water generated during purging and groundwater sampling was placed in a 55-gallon drum and stored in the former radio repair/storage building located on-site.

3.3 QA/QC Sample Collection

QA/QC samples collected included one equipment blank (EB061317), one field duplicate (FD061317) collected at well MW-5S and one trip blank (TB061317) that was analyzed for BTEX and MTBE. Additional sample volume was collected at MW-5M for Matrix Spike/Matric Spike Duplicate (MS/MSD) purposes.

4.0 GROUNDWATER FLOW CHARACTERISTICS

4.1 Groundwater Monitoring Network

The groundwater monitoring network used to determine groundwater elevations consists of 25 monitoring wells and one piezometer located on Parcels “A”, “B” and “C” (Table 3 and Figure 2).

4.2 Hydrogeologic Setting

In summary, both Parcel “A” and Parcel “C” were originally characterized as complex geologic settings where unconsolidated sedimentary deposits overlaid weathered saprolite and non-weathered igneous rocks (Columbia granite). These unconsolidated sedimentary deposits were interpreted to have been deposited unconformably in several geologic environments that include fluvial, marine, and anthropogenic fill. As a result of the removal actions, a large portion of the Parcel “A” geology was disturbed and replaced with clean backfill that may be characterized as fine sand and silt. The removal action, completed from 2009 to 2011, consisted of excavating approximately 125,000 tons of material from 2 feet to 30 feet below ground surface (bgs) over most of Parcel “A”. For Parcel “C”, approximately 1,100 tons of material was removed in 2012.

Since no specific geologic unit is designated as the shallow groundwater bearing unit, shallow groundwater is characterized by saturated conditions to the point of refusal in the underlying saprolite or granite. Generally, the well screening strategy was to screen the entire saturated zone. This saturated interval was then referred to as shallow groundwater, which is monitored at Parcel “A” and Parcel “C”.

4.3 Groundwater Contour and Flow Patterns

4.3.1 Horizontal

The shallow groundwater contour and flow pattern developed for Parcels "A" and "C" are shown on Figure 2. Groundwater flow is generally directed from northwest to southeast. Semi-radial groundwater flow is observed on the western portion of Parcel "C" with groundwater flow generally directed from southwest to southeast. A 72-inch culvert is located on Parcel "A" and groundwater converges along the southern limits of this buried structure. The overall site-wide groundwater contour pattern for this event is similar to that observed historically.

The groundwater linear velocity is calculated by estimating horizontal hydraulic gradients, hydraulic conductivity (K) and assumption of porosity. The assumed porosity is 0.30. Two hydraulic gradients are determined along groundwater flowpaths in the western portions of Parcel "A" and Parcel "C" and are estimated at 5.0×10^{-2} feet/feet and 3.7×10^{-2} feet/feet, respectively. The hydraulic gradient in the vicinity of MW-16 and the 72-inch culvert is estimated at 3.2×10^{-2} feet/feet.

Slug tests were performed during the Parcel "A" RI at a total of six wells with varying lithologies to determine hydraulic conductivity (K). Slug tests were not performed on the Parcel "C" wells. Review of the boring logs suggest a lithologic comparison exists between MW-13 and generally Parcel "C". Therefore, the estimated K (0.5 feet/day) from MW-13 is used to estimate groundwater linear velocity on Parcel "C". The majority of Parcel "A" was excavated and backfilled with clean fill (silt and fine sand). Slug tests were not performed in the recently installed wells screened in backfill material and saprolite (MW-19 through MW-22) and therefore, the backfill and saprolite K is not known. By inference, the MW-14 lithology may be sufficiently comparable enough that the K estimated from this well may be representative of the backfill and saprolite. The MW-14 well screen straddled lithologies comprised of silt, sand, and saprolite and the estimated K = 9.5 feet/day. The estimated K from MW-16 located near the 72-inch culvert is 82.7 feet/day.

Based on the above, the estimated groundwater linear velocity in the western portion of Parcel "A" is 1.6 feet/day and in the western portion of Parcel "C" is 0.06 feet/day. Near the 72-inch culvert, groundwater linear velocity is estimated at 8.8 feet/day and is attributed to the higher estimated K value at MW-16.

4.3.2 Vertical

The vertical hydraulic gradient was assessed at well nest MW-5S (shallow), MW-5M (middle), and MW-5D (deep). The groundwater elevations differed by 0.03 feet between each interval monitored. The middle had the highest groundwater elevation, and the shallow and deep wells had lower groundwater elevations, indicating groundwater flow was directed from the middle to the upper and deep intervals during this event.

5.0 GROUNDWATER ANALYTICAL RESULTS

A discussion of the June 2017 monitoring event results is provided in this section along with a comparison of the results with the previous post-removal action and pre-removal action concentrations. The June 2017 groundwater analytical data is provided in Appendix B.

5.1 Data Evaluation

Following receipt of the data package from Shealy, the data was evaluated in accordance with the U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review (EPA, 2017). The analytical data was reviewed with respect to sample preservation, holding times, equipment blank, field duplicate, trip blanks (volatiles only) and other laboratory control samples. The data was determined to be acceptable; however, it should be noted that the laboratory reported elevated detection limits due to laboratory sample dilutions for samples collected at well locations CMW-03, CMW-04 and MW-13. A memorandum discussing the analytical data evaluation is provided in Appendix C.

5.2 Equipment and Trip Blanks

Analytical results for the equipment blank and trip blank samples indicate that constituents were not detected. The equipment blank was analyzed for BTEX, MTBE and PAHs, while the trip blank was analyzed for BTEX and MTBE. The results are summarized in Table 5.

5.3 Parcel "A" Monitoring Wells

Eight monitoring wells associated with Parcel "A" were sampled during the June 2017 monitoring event. Table 6 and Figure 3 provide a summary of the analytical results. Similar to previous events, no constituents were detected above laboratory detection limits at four of the seven locations. These locations included wells MW-3, MW-14, MW-21 and MW-22 located in the northern and south-central portions of the completed excavation area. A minimal detection of acenaphthene (11 µg/L), below the applicable screening value, was present in the sample collected from MW-16 located in the southwestern corner of the site.

The final three monitoring locations produced results above the screening levels for naphthalene at MW-13 (2,200 µg/L), MW-19 (340 µg/L) and MW-20 (13 µg/L) and benzene at MW-19 (15 µg/L) and MW-20 (90 µg/L). MW-13 and MW-19 also exhibited low-level detections for other volatile and semi-volatile constituents below the applicable screening levels.

In summary and like previous events, the June 2017 exceedances of the screening levels for Parcel "A" were limited to three locations for naphthalene (MW-13, MW-19 and MW-20) and two locations for benzene (MW-19 and MW-20). These wells are located in the approximate central portion of the completed excavation area.

Previous baseline groundwater sampling events were conducted to provide pre-removal action groundwater data for comparison to post-removal action groundwater data. Appendix D provides a summary of the historical groundwater data for the Huger Street site. For illustrative purposes, Figure 4 provides benzene, naphthalene and in some cases MTBE concentrations from the pre-removal action baseline events and the post-removal action effectiveness monitoring events. Review of this data and Figure 4 provides the following information:

- The MW-3, MW-14 and MW-15/MW-22 locations continue to produce non-detect results.
- The detection of only one constituent (acenaphthene) at low concentrations is typical for monitoring well MW-16 and the June 2017 concentration is the lowest to date.

- The GP-02/MW-19 location continues to exhibit a reduction in benzene concentration from the 2009 pre-removal action baseline event concentration of 1,400 µg/L to 15 µg/L for the June 2017 event. This is second lowest concentration to date, which was seen during the previous (September 2016) event. Naphthalene concentrations at this location are also still well below the pre-removal action baseline concentration of 4,000 µg/L, and the June 2017 concentration of 340 µg/L was the lowest to date.
- The GP-04/MW-21 location continues to show a significant reduction in benzene and naphthalene concentrations from pre-removal action concentrations of 590 µg/L and 59 µg/L, respectively, to below laboratory detection limits in the post-removal action monitoring events.
- The naphthalene concentrations at MW-13 for the post-removal action monitoring events appear to be range bound. However, an overall decrease in naphthalene concentration from pre-removal action levels is still apparent at this location.
- The benzene and naphthalene concentrations at MW-20 continue to exhibit a steadily decreasing trend. No historical pre-removal action data is available for comparison at this location.

5.4 Parcel "B" Monitoring Wells

The wells associated with Parcel "B" include MW-5S, MW-5M and MW-5D, which are located south of Washington Street near the SCE&G substation. These wells were included in the post-removal action effectiveness monitoring program because of historical detections of MTBE, which has typically been the only constituent detected at these locations. The historical analytical results for these locations are summarized in Appendix D and the June 2017 results are provided in Table 7 and Figure 3. For the first time since inception of the monitoring program, MW-5S was the only well that exhibited a detection of MTBE. The June 2017 concentration (33 µg/L), is the lowest to date and a continuation of a downward trend in MTBE concentrations at this location. This was the first event where MTBE was not detected at well MW-5M and MW-5D continues to produce non-detect results.

5.5 Parcel "C" Monitoring Wells

As specified in the EMP, seven of the 12 monitoring wells associated with Parcel "C" were sampled during the June 2017 event. Table 8 provides the analytical results for the June 2017 event and Figure 3 provides a summary of the benzene and naphthalene concentrations. Six of the locations were included in the monitoring program because they exhibited historical detections of COPCs. The final well (CMW-12) is a downgradient sentinel location that has not exhibited historical detections.

No constituents were detected above laboratory detection limits at two Parcel "C" monitoring locations (CMW-01 and downgradient CMW-12). Four of the remaining five wells produced naphthalene results above the screening level: CMW-02 (420 µg/L), CMW-03 (2,400 µg/L), CMW-04 (2,000 µg/L)), and CMW-08 (11 µg/L). In addition, three locations exhibited results above the screening level for benzene, CMW-02 (6.9 µg/L), CMW-03 (130 µg/L) and CMW-07 (7.1 µg/L). Lower level volatile and semi-volatile concentrations (below screening values) were also noted at three locations (Table 8).

Review of the historical data for the Parcel "C" wells in Appendix D and the pre- and post-removal benzene and naphthalene concentration comparison on Figure 4 provides the following information:

- Consistent with the other post-removal action monitoring events, CMW-01 continues to produce results below laboratory detection limits for all constituents.

- Sentinel well CMW-12 also continues to produce non-detect results for all constituents.
- Benzene concentrations at CMW-07 appear to be developing a trend of range bound low-level results that are either below (non-detect) or slightly above the screening level. Naphthalene continued the trend of non-detect results for this location.
- At the CMW-08 location, benzene was not detected for the third straight event and the naphthalene concentration continues an established downward trend with the June 2017 concentration (11 µg/L) being the lowest since inception of the program.
- The benzene concentration at the CMW-04 location was non-detect at an elevated detection limit of 25 µg/L for this event. Recent benzene results for this location have been near this detection limit with the lowest being 24 µg/L in December 2015. The naphthalene concentrations continue to fluctuate and the June 2017 result of 2,000 µg/L is the second lowest, a significant decrease from the previous two events and a return to concentrations that are below the pre-removal action levels.
- The benzene and naphthalene concentrations at the CMW-02 and CMW-03 locations appear to be range bound and fluctuating slightly from event to event. The naphthalene concentration of 2,400 µg/L at CMW-03 is significantly lower than the last event and breaks the trend of increasing concentrations of naphthalene at this location.

6.0 SUMMARY

NAPL was not identified at any of the monitoring well locations. This event's groundwater contour pattern, flow directions, and hydraulic gradients were similar to historically observed patterns. The highest estimated groundwater linear velocity is in the vicinity of the 72-inch buried culvert and is attributed to the K measured at this site area. The groundwater elevations at the MW-5 well nest suggests divergent flow from the middle to upper and deep intervals.

For Parcel "A", four of the eight monitoring locations continue to produce results below laboratory detection limits. A fifth, MW-16, exhibited only a minimal semi-volatile detection that was well below the screening level. These monitoring locations (MW-3, MW-14, MW-16, MW-21 and MW-22) are located in the northern, central and southwestern portions of the site. Of the remaining three locations, three exhibited naphthalene concentrations above the screening level and two locations exceeded the screening level for benzene. A decrease in concentrations from pre-removal action conditions continues to be observed at all locations with comparable historical data. MW-20 produced the lowest concentrations to date and MTBE continues to be non-detect at the Parcel "A" monitoring wells analyzed for this constituent.

MTBE is the primary COPC for Parcel "B" and was not detected in two of the three locations, MW-5M and MW-5D, located in the middle and deep intervals. MW-5S (shallow) produced an MTBE concentration that exceeded the screening level, but was the lowest concentration to date for this location. The MTBE concentration for MW-5M (middle) was non-detect for the first time since inception of the program and is the result of a steady decline in concentrations of MTBE at this location. MW-5D (deep) continues to exhibit non-detect results for MTBE. The middle and deep locations appear to exhibit a trend of low or non-detect concentrations while the shallow location appears to be steadily decreasing in concentration.

No constituents were detected above laboratory detection limits at two Parcel "C" monitoring locations. One location is the sentinel location CMW-12, and the second (CMW-01) previously exhibited results

above the screening level for naphthalene, but has produced non-detect results since inception of the post-removal action monitoring program.

For benzene at Parcel "C", results continue to be relatively low, when detected. CMW-08 continues the non-detect trend established during the December 2015 event and CMW-02 and CMW-07 continue the trend of low level/non-detect results. CMW-03, located directly downgradient of the former excavation area, continues to produce the highest results for this portion of the site. CMW-03 is the only location that consistently produces benzene concentrations that are higher than pre-removal action levels. This is likely due to its location, which is downgradient and very close to the former source area.

Naphthalene has been historically detected at four of the seven Parcel "C" monitoring locations. At three of these locations, CMW-03, CMW-04 and CMW-08, the June 2017 naphthalene concentrations were lower than the previous event. The concentration at CMW-02 was slightly higher but within the historical range. With the exception of CMW-03, an overall decrease in naphthalene concentrations as compared to pre-removal action concentrations is evident at all of the locations with detections. Similar to the benzene concentrations observed at CMW-03, the increase from pre-removal action concentrations is likely due to being downgradient and very close to the former source area. It is also important to note that the increasing trend in naphthalene concentrations that appeared to be occurring at the CMW-03 and CMW-04 locations following the last event was broken during this event with significant decreases in concentrations observed for naphthalene at these locations.

Surfer 10, a groundwater contouring and three-dimensional surface mapping program, was utilized to develop Figures 5 and 6, which approximately illustrate the pre- and post-removal action groundwater isoconcentrations for benzene and naphthalene, respectively. It is important to note that the spatial distribution of monitoring points directly affects the capability of the program to develop an accurate model of groundwater conditions. For example, more monitoring well locations would most likely produce plumes of smaller size since the edge of the plume is extended to the locations with non-detect results. However, this software will be utilized to graphically illustrate the change in the respective plumes as the monitoring program is continued in the future.

Review of the benzene figure shows a significant reduction in concentration and extent of the benzene plume following completion of the IRA. The June 2017 benzene plume for Parcel "A" appears similar in areal extent to the most recent previous events (December 2015 and September 2016) but illustrates the lower concentrations seen at the MW-20 location. The benzene plume for Parcel "C" is smaller due to the non-detect result (at an elevated detection limit) for the CMW-04 location.

The naphthalene figure shows the reduction in concentration but relatively similar aerial extent of naphthalene between the pre- and post-excavation monitoring events. The reduction in naphthalene concentrations at the MW-19 location is apparent when comparing the most recent events to historical illustrations.

7.0 CONCLUSIONS

Benzene, naphthalene and MTBE continue to be the primary COPCs for the Huger Street site. They continue to be the only constituents detected above the screening levels for the June 2017 event. For Parcel "A", the June 2017 monitoring event results continue to support the current hypothesis that source removal via excavation and augmentation of backfill material in the saturated zone with an oxygen-releasing product followed by natural attenuation will achieve a significant improvement in site-related groundwater quality. The Parcel "A" monitoring wells when compared to historical data continue to produce post-removal action results below the pre-removal action concentrations. A steady to slowly decreasing trend in constituent concentration is apparent at most of the monitoring locations.

Consistent with previous monitoring events, MTBE was the only constituent detected at Parcel "B" and a decreasing trend in MTBE concentrations is apparent with MW-5M being non-detect for the first time since inception of the program and continued reduction in concentrations at the MW-5S location.

With the exception of CMW-03, which is located downgradient and directly adjacent to the former source removal area, downward trends in concentrations are also becoming apparent at Parcel "C". The apparent increasing trend in naphthalene concentrations at the CMW-03 and CMW-04 locations following the last event did not continue this event, with significant decreases observed. More time and additional monitoring events will provide a better basis for trend determination on Parcel "C". Based on SCE&G's experience at similar sites, the desired effect of reducing constituent groundwater concentrations is dependent upon several site-specific factors. Consistent reductions may be observed relatively soon after source removal or may require years to achieve the desired groundwater restoration goals.

8.0 RECOMMENDATIONS

As specified in the approved EMP, groundwater samples are to be collected on a nine-month sampling frequency. This frequency was proposed to provide data to account for seasonal variations in groundwater quality. Therefore, the next nine-month event will take place in March 2018.

TABLES

TABLE 1

SITE-WIDE GROUNDWATER MONITORING WELLS AND SAMPLING LOCATIONS

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well ID	Location	Status	Included or Excluded for Sampling	Rationale for Inclusion or Exclusion
MW-1	Parcel "A"	Existing	Excluded	Non-detect in previous three events and near MW-16
MW-2	Parcel "A"	Abandoned		
MW-3	Parcel "A"	Existing	Included	Upgradient locations
MW-4	Parcel "A"	Abandoned		
MW-5S	Parcel "B" SCE&G Substation	Existing	Included	Previous detections of MTBE
MW-5M	Parcel "B" SCE&G Substation	Existing	Included	Previous detections of MTBE
MW-5D	Parcel "B" SCE&G Substation	Existing	Included	Previous detections of MTBE
MW-6	Off-Site - Museum Parking Lot	Abandoned - based on development		
MW-7	Parcel "B"	Abandoned		
MW-8	Off-Site - Museum Parking Lot	Abandoned - based on development		
MW-9	Parcel "A"	Abandoned		
MW-10	Parcel "B" SCE&G Substation	Abandoned		
MW-11	Off-Site - Museum Parking Lot	Abandoned		
MW-12	Parcel "A"	Abandoned		
MW-13	Parcel "A"	Existing	Included	Previous detections of benzene and naphthalene
MW-14	Parcel "A"	Existing	Included	Downgradient of the deep excavation area
MW-15	Parcel "A"	Abandoned		
MW-16	Parcel "A"	Existing	Included	Previous detection of benzene and naphthalene
MW-17	Parcel "A"	Abandoned		
MW-18	Parcel "A"	Existing	Excluded	Non-detect in previous three events and near MW-16
MW-19	Parcel "A"	Existing	Included	New monitoring location
MW-20	Parcel "A"	Existing	Included	New monitoring location
MW-21	Parcel "A"	Existing	Included	New monitoring location
MW-22	Parcel "A"	Existing	Included	New monitoring location
GP-02	Parcel "A"	Abandoned		
GP-03	Parcel "A"	Abandoned		
GP-04	Parcel "A"	Abandoned		
PZ-01	Parcel "A"	Abandoned		
PZ-02	Parcel "A"	Existing	Excluded	Piezometer location - not previously sampled
CMW-01	Parcel "C"	Existing	Included	Previous detections
CMW-02	Parcel "C"	Existing	Included	Previous detections
CMW-03	Parcel "C"	Existing	Included	Previous detections
CMW-04	Parcel "C"	Existing	Included	Previous detections
CMW-05	Parcel "C"	Existing	Excluded	Non-detect in previous three events
CMW-06	Parcel "C"	Existing	Excluded	Non-detect in previous three events
CMW-07	Parcel "C"	Existing	Included	Previous detections
CMW-08	Parcel "C"	Existing	Included	Previous detections
CMW-09	Parcel "C"	Existing	Excluded	Non-detect in previous three events
CMW-10	Parcel "C"	Existing	Excluded	Non-detect in previous three events
CMW-11	Parcel "C"	Existing	Excluded	Included if sufficient water present for sample
CMW-12	Parcel "C"	Existing	Included	Downgradient sentinel well

Note:
GP-02 through GP-04 were temporary Geoprobe Screen Point Sampling (GSPS) locations installed during the Parcel "A" baseline event to provide data in previously inaccessible locations.

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL PARAMETERS, METHODS AND SCREENING LEVELS

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Constituent	Analytical Method	Detection Limit (µg/L)	MCL[(1)] (µg/L)	Region 9 Regional Screening Level[(2,3,4,5)] (µg/L)
Volatile Organic Compounds				
Benzene	8260B	5	5	--
Ethylbenzene	8260B	5	700	--
Toluene	8260B	5	1,000	--
Xylenes, Total	8260B	5	10,000	--
MTBE[(7)]	8260B	5	--[(6)]	14
PAH Constituents				
Acenaphthene	8270C	5	--	530
Acenaphthylene	8270C	5	--	NL[(8)]
Anthracene	8270C	5	--	1,800
Benzo(a)anthracene	8270C	5	--	0.03
Benzo(a)pyrene	8270C	5	0.2	--
Benzo(b)fluoranthene	8270C	5	--	0.25
Benzo(g,h,i)perylene	8270C	5	--	NL
Benzo(k)fluoranthene	8270C	5	--	2.5
Chrysene	8270C	5	--	25
Dibenzo(a,h)anthracene	8270C	5	--	0.025
Fluoranthene	8270C	5	--	800
Fluorene	8270C	5	--	290
Indeno(1,2,3-cd)pyrene	8270C	5	--	0.25
Naphthalene	8270C	5	--	0.17
Phenanthrene	8270C	5	--	NL
Pyrene	8270C	5	--	120

Notes:

Field measurements included pH, specific conductance, temperature, dissolved oxygen, turbidity and redox potential.

Quality assurance/quality control (QA/QC) samples included one equipment blank, one trip blank per sample delivery group (VOCs only) and one blind field duplicate.

(1) MCL - maximum contaminant level from South Carolina State Primary Drinking Water Regulation: R.61-58.

(2) Represents the June 2017 U.S. EPA Region 9 Regional Screening Levels (RSL, [formerly PRG]) for tapwater and utilizes the target risk (TR) = 1×10^{-6} and hazard quotient (HQ) = 1 table.

(3) For acenaphthene, anthracene, fluoranthene, fluorene, and pyrene, only a non-carcinogenic level exists and therefore, the value in the non-carcinogenic screening level (SL) HI = 1 column is shown.

(4) For benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, only a carcinogenic level exists and therefore, the level in the carcinogenic SL TR = 1×10^{-6} column is shown.

(5) The carcinogenic TR = 1×10^{-6} is shown for MTBE and naphthalene since both a carcinogenic and non-carcinogenic level is provided in the Region 9 RSL for tapwater.

(6) -- indicates a level is not provided or is superseded by the MCL for this project.

(7) Only wells MW-5S, MW-5M, MW-5D, MW-16 and MW-22 were analyzed for MTBE.

(8) NL - indicates neither an MCL or Region 9 RSL for tapwater level exists for this constituent.

TABLE 3

GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS - JUNE 13, 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well	Top of Casing Elevation (feet)[1]	Depth to Groundwater (feet)[2]	Groundwater Elevation (feet)[1]	NAPL Results[3]
MW-1	182.53	19.43	163.10	NP
MW-3	200.47	15.42	185.05	NP
MW-5S	182.47	22.21	160.26	NP
MW-5M	182.50	22.21	160.29	NP
MW-5D	182.65	22.38	160.27	NP
MW-13	189.62	8.91	180.71	NP
MW-14	187.58	13.37	174.21	NP
MW-16	182.12	19.19	162.93	NP
MW-18	187.52	22.01	165.51	NP
MW-19	190.05	11.78	178.27	NP
MW-20	189.77	11.25	178.52	NP
MW-21	189.59	15.48	174.11	NP
MW-22	187.55	21.35	166.20	NP
PZ-02	183.58	21.26	162.32	NP
CMW-01	197.02	13.36	183.66	NP
CMW-02	195.23	11.81	183.42	NP
CMW-03	195.28	12.90	182.38	NP
CMW-04	197.03	13.34	183.69	NP
CMW-05	193.50	14.73	178.77	NP
CMW-06	191.54	18.67	172.87	NP
CMW-07	192.72	14.11	178.61	NP
CMW-08	195.13	14.02	181.11	NP
CMW-09	196.94	14.23	182.71	NP
CMW-10	197.96	16.16	181.80	NP
CMW-11	192.07	20.50	171.57	NP
CMW-12	192.85	18.11	174.74	NP

Notes:
(1) Elevation referenced to NGVD '29.
(2) Depth to groundwater measured from top of PVC casing.
(3) NAPL includes both light and dense non-aqueous phase liquids and NP represents not present.

Checked by : JD
9/18/2017

TABLE 4

FINAL GROUNDWATER FIELD MEASUREMENTS - JUNE 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well I.D.	Sampling Date	pH (S.U.)	Specific Conductance (µS/cm)	Temperature (^{o}C)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Color
MW-3	06/14/17	3.29	1,063	23.8	0.26	480	4	Clear
MW-5S	06/13/17	5.97	371	23.2	2.98	-121	9	Clear
MW-5M	06/13/17	5.17	218	22.0	1.62	242	11	Clear
MW-5D	06/13/17	5.13	215	22.4	2.87	289	1	Clear
MW-13	06/14/17	5.16	326	24.5	0.25	43	3	Clear
MW-14	06/14/17	3.59	1,356	24.0	0.94	30	4	Clear
MW-16	06/14/17	6.63	1,144	21.8	1.96	-120	10	Clear
MW-19	06/14/17	6.05	632	24.8	1.21	-183	5	Clear
MW-20	06/14/07	5.43	425	24.1	0.28	536	2	Clear
MW-21	06/14/17	5.25	525	24.5	1.22	-186	5	Clear
MW-22	06/14/17	6.51	891	22.5	2.85	-34	1	Clear
CMW-01	06/14/17	5.12	208	21.9	0.44	324	0	Clear
CMW-02	06/14/17	5.24	152	21.6	0.93	-67	3	Clear
CMW-03	06/14/17	3.58	359	21.1	0.28	428	3	Clear
CMW-04	06/14/17	5.68	76	22.3	0.49	97	0	Clear
CMW-07	06/14/17	5.08	428	21.5	0.34	232	2	Clear
CMW-08	06/14/17	4.15	291	22.1	1.06	37	1	Clear
CMW-12	06/14/17	5.51	392	19.8	7.15	4	1	Clear

TABLE 5

SUMMARY OF EQUIPMENT AND TRIP BLANK ANALYTICAL RESULTS - JUNE 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Constituent	Units	Screening Level	EB061317	TB061317
Volatiles				
Benzene	µg/L	5	5 U	5 U
Ethylbenzene	µg/L	700	5 U	5 U
Toluene	µg/L	1,000	5 U	5 U
Xylenes, Total	µg/L	10,000	5 U	5 U
MTBE	µg/L	14	5 U	5 U
Semi-Volatiles				
Acenaphthene	µg/L	530	10 U	NA
Acenaphthylene	µg/L	NL	10 U	NA
Anthracene	µg/L	1,800	10 U	NA
Benzo(a)anthracene	µg/L	0.03	10 U	NA
Benzo(a)pyrene	µg/L	0.2	10 U	NA
Benzo(b)fluoranthene	µg/L	0.25	10 U	NA
Benzo(g,h,i)perylene	µg/L	NL	10 U	NA
Benzo(k)fluoranthene	µg/L	2.5	10 U	NA
Chrysene	µg/L	25	10 U	NA
Dibenz(a,h)anthracene	µg/L	0.025	10 U	NA
Fluoranthene	µg/L	800	10 U	NA
Fluorene	µg/L	290	10 U	NA
Indeno(1,2,3-cd)pyrene	µg/L	0.25	10 U	NA
Naphthalene	µg/L	0.17	10 U	NA
Phenanthrene	µg/L	NL	10 U	NA
Pyrene	µg/L	120	10 U	NA

Notes:

1. NL - Not Listed
2. NA **-** Not Analyzed
3. U - Indicates that the constituent was not detected at the reported detection limit.
4. Groundwater screening values are the SCDHEC Maximum Contaminant Levels (MCL) in drinking water (R.61-58, 2009). If a SCDHEC drinking water standard is not available for a particular constituent, the groundwater screening level is the U.S. EPA Region 9 Regional Screening Level (RSL [June 2017]) for tapwater where carcinogens are based on a $1x10^{-6}$ risk and non-carcinogens are based on a hazard quotient of 1.

TABLE 6

SUMMARY OF PARCEL "A" WELL SAMPLES GROUNDWATER ANALYTICAL RESULTS - JUNE 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Constituent	Units	Screening Level	MW-3	MW-13	MW-14	MW-16	MW-19	MW-20	MW-21	MW-22
Volatiles										
Benzene	µg/L	5	5 U	5 U	5 U	5 U	15	90	5 U	5 U
Ethylbenzene	µg/L	700	5 U	53	5 U	5 U	13	5 U	5 U	5 U
Toluene	µg/L	1,000	5 U	120	5 U	5 U	9	5 U	5 U	5 U
Total Xylenes	µg/L	10,000	5 U	420	5 U	5 U	47	5 U	5 U	5 U
MTBE	µg/L	14	NA	NA	NA	5 U	NA	NA	NA	5 U
Semi-Volatiles										
Acenaphthene	µg/L	530	10 U	40 U	10 U	11	28	10 U	10 U	10 U
Acenaphthylene	µg/L	NL	10 U	40 U	10 U	10 U	57	10 U	10 U	10 U
Anthracene	µg/L	1,800	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Benzo(a)anthracene	µg/L	0.03	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Benzo(a)pyrene	µg/L	0.2	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Benzo(b)fluoranthene	µg/L	0.25	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	µg/L	NL	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Benzo(k)fluoranthene	µg/L	2.5	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Chrysene	µg/L	25	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	µg/L	0.025	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Fluoranthene	µg/L	800	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Fluorene	µg/L	290	10 U	40 U	10 U	10 U	19	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	µg/L	0.25	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U
Naphthalene	µg/L	0.17	10 U	2,200	10 U	10 U	340	13	10 U	10 U
Phenanthrene	µg/L	NL	10 U	45	10 U	10 U	21	10 U	10 U	10 U
Pyrene	µg/L	120	10 U	40 U	10 U	10 U	8 U	10 U	10 U	10 U

Notes:

1. NL - Not Listed
2. NA - Not Analyzed
3. NS - Not Sampled. MW-16 was not sampled because it was buried due to erosion that occurred at the site and was unable to be located during sampling activities.
4. U - Indicates that the consitutent was not detected at the reported detection limit.
5. Groundwater screening values are the SCDHEC Maximum Contaminant Levels (MCL) in drinking water (R.61-58, 2009). If a SCDHEC drinking water standard is not available for a particular constituent, the groundwater screening level is the U.S. EPA Region 9 Regional Screening Level (RSL [June 2017]) for tapwater where carcinogens are based on a $1x10^{-6}$ risk and non-carcinogens are based on a hazard quotient of 1.
6. Indicates constituent exceeds the Screening Level.

Checked by: TW
9/18/2017

TABLE 7

SUMMARY OF PARCEL "B" WELL SAMPLES GROUNDWATER ANALYTICAL RESULTS - JUNE 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Constituent	Units	Screening Level	MW-5S	MW-5S Dup	MW-5M	MW-5D
Volatiles						
Benzene	µg/L	5	5 U	5 U	5 U	5 U
Ethylbenzene	µg/L	700	5 U	5 U	5 U	5 U
Toluene	µg/L	1,000	5 U	5 U	5 U	5 U
Total Xylenes	µg/L	10,000	5 U	5 U	5 U	5 U
MTBE	µg/L	14	33	37	5 U	5 U
Semi-Volatiles						
Acenaphthene	µg/L	530	10 U	10 U	10 U	10 U
Acenaphthylene	µg/L	NL	10 U	10 U	10 U	10 U
Anthracene	µg/L	1,800	10 U	10 U	10 U	10 U
Benzo(a)anthracene	µg/L	0.03	10 U	10 U	10 U	10 U
Benzo(a)pyrene	µg/L	0.2	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	µg/L	0.25	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	µg/L	NL	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	µg/L	2.5	10 U	10 U	10 U	10 U
Chrysene	µg/L	25	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	µg/L	0.025	10 U	10 U	10 U	10 U
Fluoranthene	µg/L	800	10 U	10 U	10 U	10 U
Fluorene	µg/L	290	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	µg/L	0.25	10 U	10 U	10 U	10 U
Naphthalene	µg/L	0.17	10 U	10 U	10 U	10 U
Phenanthrene	µg/L	NL	10 U	10 U	10 U	10 U
Pyrene	µg/L	120	10 U	10 U	10 U	10 U

Notes:

1. NL - Not Listed
2. U - Indicates that the consitutent was not detected at the reported detection limit.
3. Groundwater screening values are the SCDHEC Maximum Contaminant Levels (MCL) in drinking water (R.61-58, 2009). If a SCDHEC drinking water standard is not available for a particular constituent, the groundwater screening level is the U.S. EPA Region 9 Regional Screening Level (RSL [June 2017) for tapwater where carcinogens are based on a $1x10^{-6}$ risk and non-carcinogens are based on a hazard quotient of 1.
4. Indicates constituent exceeds the Screening Level.

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9/18/2017

TABLE 8

SUMMARY OF PARCEL "C" WELL SAMPLES GROUNDWATER ANALYTICAL RESULTS - JUNE 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Constituent	Units	Screening Level	CMW-01	CMW-02	CMW-03	CMW-04	CMW-07	CMW-08	CMW-12
Volatiles									
Benzene	µg/L	5	5 U	6.9	130	25 U	7.1	5 U	5 U
Ethylbenzene	µg/L	700	5 U	5 U	35	26	5 U	5 U	5 U
Toluene	µg/L	1,000	5 U	5 U	450	210	5 U	5 U	5 U
Total Xylenes	µg/L	10,000	5 U	18	550	400	5 U	5 U	5 U
Semi-Volatiles									
Acenaphthene	µg/L	530	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Acenaphthylene	µg/L	NL	10 U	38	55	40 U	10 U	10 U	10 U
Anthracene	µg/L	1,800	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Benzo(a)anthracene	µg/L	0.03	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Benzo(a)pyrene	µg/L	0.2	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Benzo(b)fluoranthene	µg/L	0.25	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	µg/L	NL	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Benzo(k)fluoranthene	µg/L	2.5	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Chrysene	µg/L	25	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	µg/L	0.025	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Fluoranthene	µg/L	800	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Fluorene	µg/L	290	10 U	21	40 U	46	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	µg/L	0.25	10 U	8 U	40 U	40 U	10 U	10 U	10 U
Naphthalene	µg/L	0.17	10 U	420	2,400	2,000	10 U	11	10 U
Phenanthrene	µg/L	NL	10 U	34	40 U	55	10 U	10 U	10 U
Pyrene	µg/L	120	10 U	8 U	40 U	40 U	10 U	10 U	10 U

Notes:

1. NL - Not Listed
2. U - Indicates that the consitutent was not detected at the reported detection limit.
3. J - Indicates an estimated value. The constituent was positively identified. However, based on data evaluation the associated result is an approximate concentration of the constituent in the sample.
4. Groundwater screening values are the SCDHEC Maximum Contaminant Levels (MCL) in drinking water (R.61-58, 2009). If a SCDHEC drinking water standard is not available for a particular constituent, the groundwater screening level is the U.S. EPA Region 9 Regional Screening Level (RSL [June 2017]) for tapwater where carcinogens are based on a $1x10^{-6}$ risk and non-carcinogens are based on a hazard quotient of 1.
5. Indicates constituent exceeds the Screening Level.

Checked by: TW
9/18/2017

FIGURES

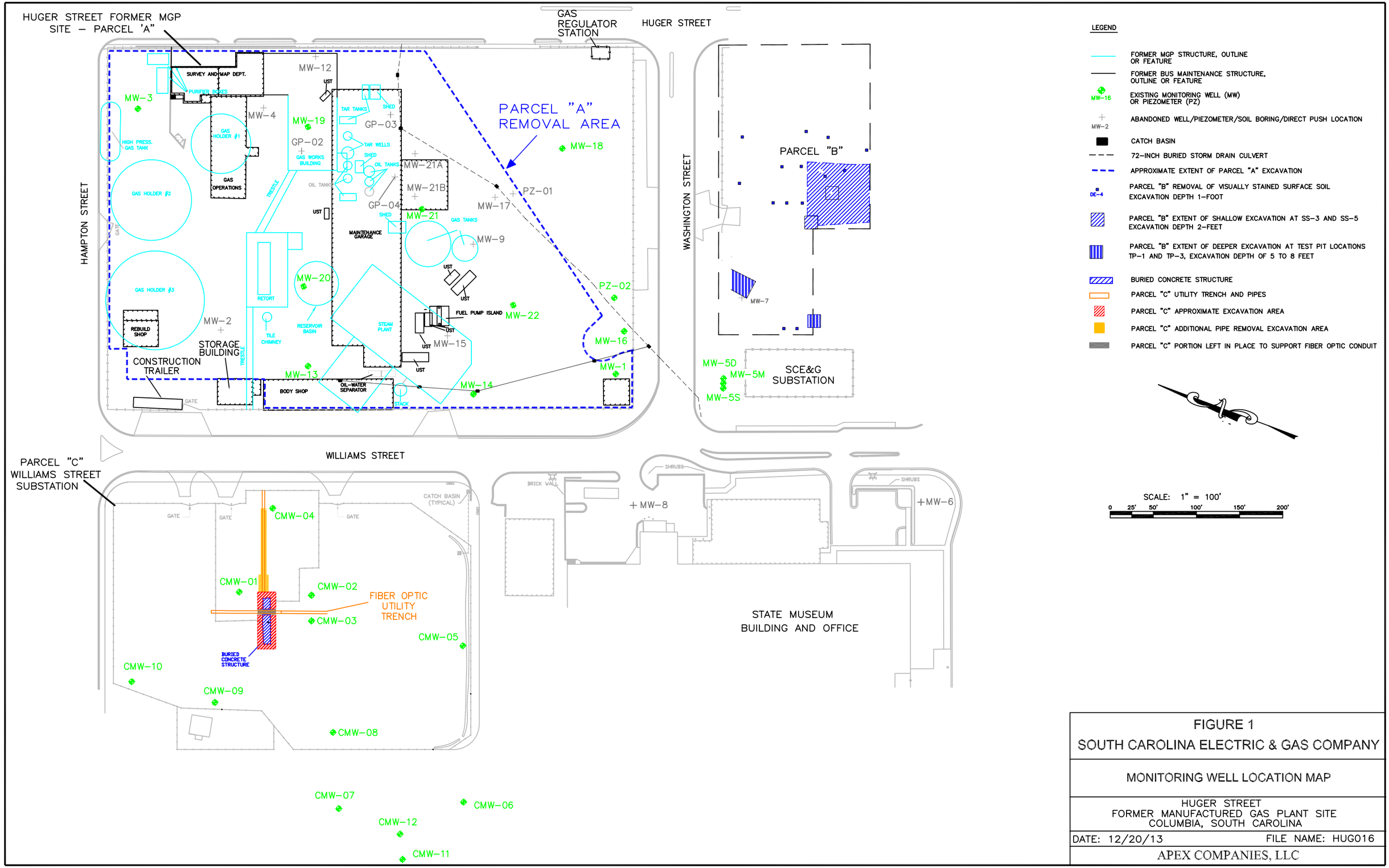


FIGURE 1

SOUTH CAROLINA ELECTRIC & GAS COMPANY

MONITORING WELL LOCATION MAP

HUGER STREET
FORMER MANUFACTURED GAS PLANT SITE
COLUMBIA, SOUTH CAROLINA

DATE: 12/20/13 FILE NAME: HUG016

APEX COMPANIES, LLC

HUGER STREET FORMER MGP SITE - PARCEL 'A'

WILLIAMS STREET SUBSTATION - PARCEL 'C'

HUGER STREET

WILLIAMS STREET

HAMPTON STREET

WASHINGTON STREET

GAS REGULATOR STATION

PARCEL 'B'

SCE&G SUBSTATION

STATE MUSEUM BUILDING AND OFFICE

CONSTRUCTION TRAILER

STORAGE BUILDING

GATE

SHRUBS

BRICK WALL

CATCH BASIN (TYPICAL)

TREES AND SHRUBS

MW-3 (185.05)

MW-19 (178.27)

MW-18 (165.51)

MW-21 (174.11)

MW-20 (178.52)

MW-22 (166.20)

PZ-02 (162.32)

MW-16 (162.93)

MW-13 (180.71)

MW-14 (174.21)

MW-5D (160.27)

MW-5M (160.29)

MW-1 (163.10)

(160.26) MW-5S

CMW-04 (183.69)

CMW-01 (183.66)

CMW-02 (183.42)

CMW-03 (182.38)

CMW-05 (178.77)

CMW-10 (181.80)

CMW-09 (182.71)

CMW-08 (181.11)

CMW-06 (172.87)

CMW-07 (178.61)

CMW-12 (174.74)

CMW-11 (171.57)

184 182 180 178 176 174 172 170 168 166 164 162 182 180 178 176 174 172 170 168 166 164 162

LEGEND

- MW-18 — EXISTING MONITORING WELL (MW) OR PIEZOMETER (PZ)
- FORMER BURIED CONCRETE STRUCTURE
- CATCH BASIN
- 72-INCH BUREID STORM DRAIN CULVERT
- (164.44) — GROUDNWATER ELEVATION (FEET NGVD '29)
- 171 — GROUNDWATER ELEVATION CONTOUR (FEET NGVD '29, DASHED WHERE INFERRED, 2-FOOT CONTOUR INTERVAL)
- GROUNDWATER FLOW DIRECTION
- LINE SEGMENT USED TO DETERMINE HYDRAULIC GRADIENT
- APPROXIMATE LOCATION OF BEDROCK HIGH

NOTES:
1) The extents of potential bedrock highs on Parcels 'A' and 'C' are approximate.

0 100 200

FIGURE 2
SOUTH CAROLINA ELECTRIC & GAS COMPANY

GROUNDWATER CONTOUR MAP
JUNE 13, 2017

HUGER STREET
FORMER MANUFACTURED GAS PLANT
COLUMBIA, SOUTH CAROLINA

DATE: 7/5/2017 FILE NAME: HUG0717

APEX COMPANIES, LLC

HUGER STREET FORMER MGP SITE – PARCEL "A"

GAS REGULATOR STATION

HUGER STREET

HAMPTON STREET

WASHINGTON STREET

PARCEL "B"

MW-19		
CONSTITUENT	SL	6/17
BENZENE	5	15
NAPHTHALENE	0.17	340

MW-21		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U

MW-3		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U

MW-20		
CONSTITUENT	SL	6/17
BENZENE	5	90
NAPHTHALENE	0.17	13

MW-22		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U
MTBE	14	5 U

MW-13		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	2,200

MW-14		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U

MW-16		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U
MTBE	14	5 U

MW-5D		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U
MTBE	14	5 U

MW-5M		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U
MTBE	14	5 U

MW-5S		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U
MTBE	14	33

MW-12, MW-3, MW-4, MW-19, GP-02, GP-03, GP-04, MW-18, PZ-01, MW-17, MW-21, MW-9, MW-20, PZ-02, MW-22, MW-2, MW-15, MW-16, MW-1, MW-13, MW-14, MW-7, MW-5D, MW-5M, MW-5S, SCE&G SUBSTATION

CONSTRUCTION TRAILER

STORAGE BUILDING

GATE

WILLIAMS STREET

PARCEL "C" WILLIAMS STREET SUBSTATION

CATCH BASIN (TYPICAL)

BRICK WALL

MW-8

MW-6

CMW-04		
CONSTITUENT	SL	6/17
BENZENE	5	25 U
NAPHTHALENE	0.17	2,000

CMW-01		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U

CMW-02		
CONSTITUENT	SL	6/17
BENZENE	5	6.9
NAPHTHALENE	0.17	420

CMW-03		
CONSTITUENT	SL	6/17
BENZENE	5	130
NAPHTHALENE	0.17	2,400

CMW-08		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	11

CMW-07		
CONSTITUENT	SL	6/17
BENZENE	5	7.1
NAPHTHALENE	0.17	10 U

CMW-12		
CONSTITUENT	SL	6/17
BENZENE	5	5 U
NAPHTHALENE	0.17	10 U

CMW-01, CMW-02, CMW-03, CMW-04, CMW-05, CMW-06, CMW-07, CMW-08, CMW-09, CMW-10, CMW-11, CMW-12

BURIED CONCRETE STRUCTURE

FIBER OPTIC UTILITY TRENCH

LEGEND

- MW-16 — EXISTING MONITORING WELL (MW) OR PIEZOMETER (PZ)
- MW-2 — ABANDONED WELL/PIEZOMETER/SOIL BORING/DIRECT PUSH LOCATION
- CATCH BASIN
- 72-INCH BURIED STORM DRAIN CULVERT
- PARCEL "A" APPROXIMATE EXCAVATION AREA
- BURIED CONCRETE STRUCTURE
- PARCEL "C" UTILITY TRENCH AND PIPES
- PARCEL "C" APPROXIMATE EXCAVATION AREA
- PARCEL "C" ADDITIONAL PIPE REMOVAL EXCAVATION AREA
- PARCEL "C" PORTION LEFT IN PLACE TO SUPPORT FIBER OPTIC CONDUIT

NOTES:

1) ALL RESUULTS ARE IN UG/L.
2) MTBE – METHYL TERT-BUTYL ETHER
3) SL – SCREENING LEVEL
4) NA – NOT ANALYZED
5) GROUNDWATER SCREENING VALUES ARE THE SCDHEC MAXIMUM CONTAMINANT LEVELS (MCL) IN DRINKING WATER (R.61-58, 2009). IF A SCDHEC DRINKING WATER STANDARD IS NOT AVAILABLE FOR A PARTICULAR CONSTITUENT, THE GROUNDWATER SCREENING LEVEL IS THE U.S. EPA REGION 9 REGIONAL SCREENING LEVEL (RSL [JUNE 2017]) FOR TAPWATER WHERE CARCINOGENS ARE BASED ON A 1 X 10-6 RISK AND NON-CARCINOGENS ARE BASED ON A HAZARD QUOTIENT OF 1.

SCALE: 1" = 100'

0 25' 50' 100' 150' 200'

FIGURE 3

SOUTH CAROLINA ELECTRIC & GAS COMPANY

ANALYTICAL RESULTS - JUNE 2017

HUGER STREET
FORMER MANUFACTURED GAS PLANT SITE
COLUMBIA, SOUTH CAROLINA

DATE: 8/18/17 FILE NAME: HUG080

APEX COMPANIES, LLC

HUGER STREET FORMER MGP SITE – PARCEL "A"

GAS REGULATOR STATION

HUGER STREET

PARCEL "B"

WASHINGTON STREET

HAMPTON STREET

PARCEL "C" WILLIAMS STREET SUBSTATION

SCE&G SUBSTATION

CONSTRUCTION TRAILER

STORAGE BUILDING

GATE

CATCH BASIN (TYPICAL)

BRICK WALL

BURIED CONCRETE STRUCTURE

FIBER OPTIC UTILITY TRENCH

MW-1 MW-2 MW-3 MW-4 MW-5D MW-5M MW-5S MW-6 MW-7 MW-8 MW-9 MW-10 MW-11 MW-12 MW-13 MW-14 MW-15 MW-16 MW-17 MW-18 MW-19 MW-20 MW-21 MW-22 CMW-01 CMW-02 CMW-03 CMW-04 CMW-05 CMW-06 CMW-07 CMW-08 CMW-09 CMW-10 CMW-11 CMW-12 GP-02 GP-03 GP-04 PZ-01 PZ-02

GP02/MW-19

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	1400	R	50 U	32	25	17	6.6	15
NAPHTHALENE	0.17	4000	A	900	900	1,100	1,400	470	340

GP-04/MW-21

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	590	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	59	A	10 U	10 U	10 U	10 U	10 U	10 U

MW-3

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	7.8	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.1 U	A	10 U	10 U	10 U	10 U	10 U	10 U

MW-15/MW-22

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.1 U	A	10 U	10 U	10 U	10 U	10 U	10 U
MTBE	14	NA		5 U	5 U	5 U	5 U	5 U	5 U

MW-20

CONSTITUENT	SL	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	290	230	260	170	130	90
NAPHTHALENE	0.17	85	78	62	44	28	13

MW-16

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.1 U	A	10 U	10 U	10 U	10 U	10 U	10 U
MTBE	14	16		8.2	5.3	5.9	5.0	5 U	5 U

MW-5D

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.2 U	A	10 U	10 U	10 U	10 U	10 U	10 U
MTBE	14	13		5 U	5 U	5 U	5 U	5 U	5 U

MW-13

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	25 U	R	25 U	50 U	5 U	NA	25 U	5 U
NAPHTHALENE	0.17	4200	A	2,300	2,400	3,100	2,200	2,900	2,200

MW-5M

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.2 U	A	10 U	10 U	10 U	10 U	10 U	10 U
MTBE	14	16		20	8.8	7.2	6.7	5.4	5 U

MW-14

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.1 U	A	10 U	10 U	10 U	10 U	10 U	10 U

MW-5S

CONSTITUENT	SL	8/09	I	9/13	6/14	3/15	12/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	5.1 U	A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MTBE	14	49		90	90	58	58	58	42	33

CMW-04

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	83	R	100 U	44	57	24	36	25 U
NAPHTHALENE	0.17	2,800	A	2,400	2,100	1,700	3,300	3,100	2,000

CMW-02

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	66	R	25 U	9.9	6.9	9.7	5 U	6.9
NAPHTHALENE	0.17	810	A	640	400	490	680 J	400	420

CMW-03

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	95	R	97	100	120	110	160	130
NAPHTHALENE	0.17	1,900	A	2,000	2,300	2,800	2,900	3,100	2,400

CMW-01

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	27	A	10 U	10 U	10 U	10 U	10 U	10 U

CMW-08

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	130	R	64	7.6	6.4	5 U	5 U	5 U
NAPHTHALENE	0.17	1,200	A	810	130	170	20	26	11

CMW-07

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	8	R	16	19	26	5 U	6.7	7.1
NAPHTHALENE	0.17	10 U	A	46	10 U	10 U	10 U	10 U	10 U

CMW-12

CONSTITUENT	SL	7/12	I	9/13	6/14	3/15	12/15	9/16	6/17
BENZENE	5	5 U	R	5 U	5 U	5 U	5 U	5 U	5 U
NAPHTHALENE	0.17	10 U	A	10 U	10 U	10 U	10 U	10 U	10 U

LEGEND

- MW-16 — EXISTING MONITORING WELL (MW) OR PIEZOMETER (PZ)
- MW-2 — ABANDONED WELL/PIEZOMETER/SOIL BORING/DIRECT PUSH LOCATION
- CATCH BASIN
- 72-INCH BURIED STORM DRAIN CULVERT
- PARCEL "A" APPROXIMATE EXCAVATION AREA
- BURIED CONCRETE STRUCTURE
- PARCEL "C" UTILITY TRENCH AND PIPES
- PARCEL "C" APPROXIMATE EXCAVATION AREA
- PARCEL "C" ADDITIONAL PIPE REMOVAL EXCAVATION AREA
- PARCEL "C" PORTION LEFT IN PLACE TO SUPPORT FIBER OPTIC CONDUIT
- IRA — INTERIM REMOVAL ACTION (2009 – 2011)

NOTE:

1) ALL RESUULTS ARE IN UG/L.
2) MTBE – METHYL TERT-BUTYL ETHER
3) SL – SCREENING LEVEL
4) NA – NOT ANALYZED
5) THE MOST RECENTLY AVAILABLE DATA WAS USED AS THE "PRE-REMOVAL" DATA. DATA IS PRESENTED IN APPENDIX B.
6) GROUNDWATER SCREENING VALUES ARE THE SCDHEC MAXIMUM CONTAMINANT LEVELS (MCL) IN DRINKING WATER (R.61-58, 2009). IF A SCDHEC DRINKING WATER STANDARD IS NOT AVAILABLE FOR A PARTICULAR CONSTITUENT, THE GROUNDWATER SCREENING LEVEL IS THE U.S. EPA REGION 9 REGIONAL SCREENING LEVEL (RSL [JUNE 2017]) FOR TAPWATER WHERE CARCINOGENS ARE BASED ON A 1 X 10-6 RISK AND NON-CARCINOGENS ARE BASED ON A HAZARD QUOTIENT OF 1.

SCALE: 1" = 100'

0 25' 50' 100' 150' 200'

FIGURE 4

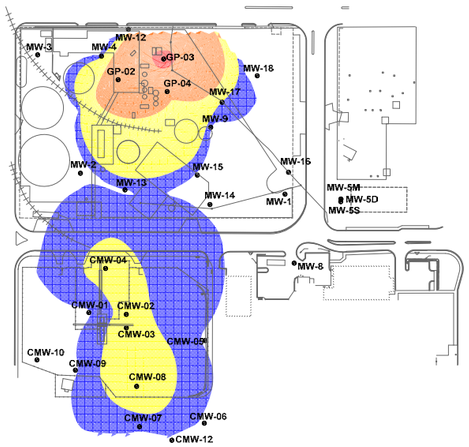
SOUTH CAROLINA ELECTRIC & GAS COMPANY

SUMMARY OF PRE- AND POST-REMOVAL ACTION GROUNDWATER ANALYTICAL RESULTS

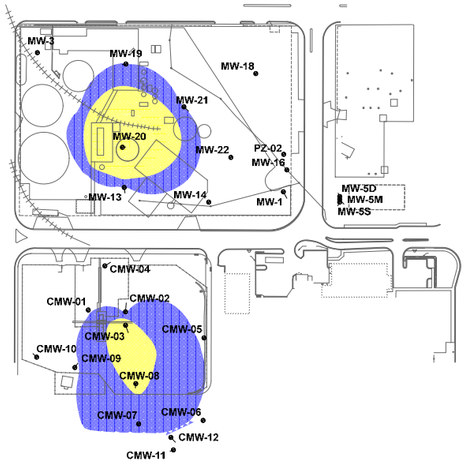
HUGER STREET
FORMER MANUFACTURED GAS PLANT SITE
COLUMBIA, SOUTH CAROLINA

DATE: 8/17/17 FILE NAME: HUG081

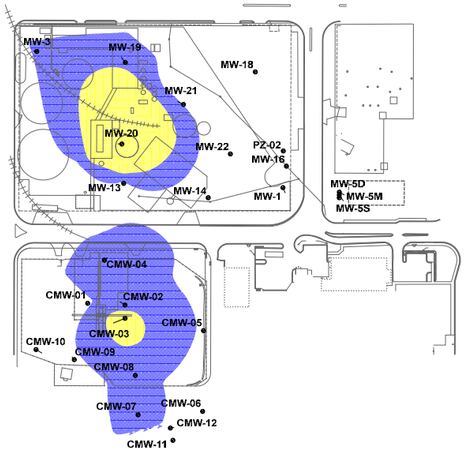
APEX COMPANIES, LLC



PRE-EXCAVATION (PARCEL "A" - AUGUST 2009 AND PARCEL "C" - JULY 2012)



POST-EXCAVATION (SEPTEMBER 2013)



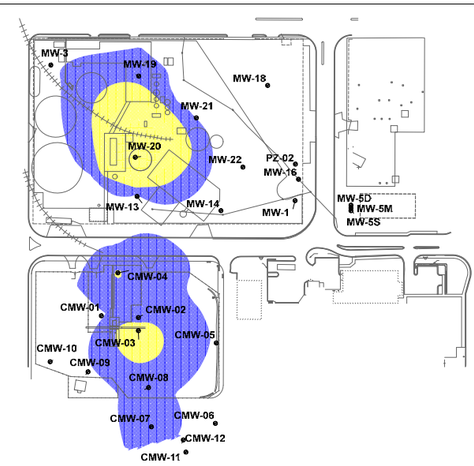
POST-EXCAVATION (JUNE 2014)

LEGEND

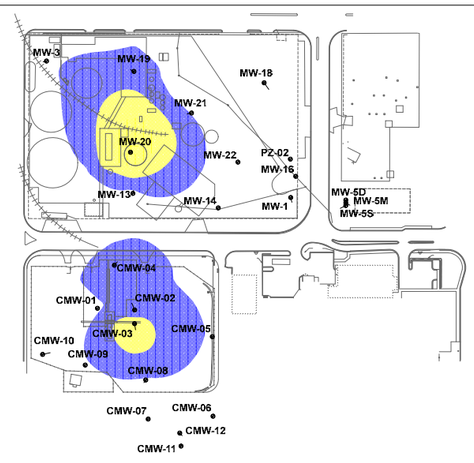
Conentration Ranges:

- 5-50 ug/L
- 50-500 ug/L
- 500-5,000 ug/L
- > 5,000 ug/L

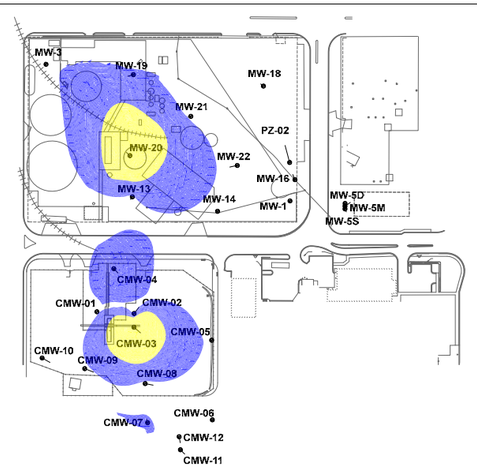
Note: Due to "numeric dispersion" the boundary extent shown may be overstated.



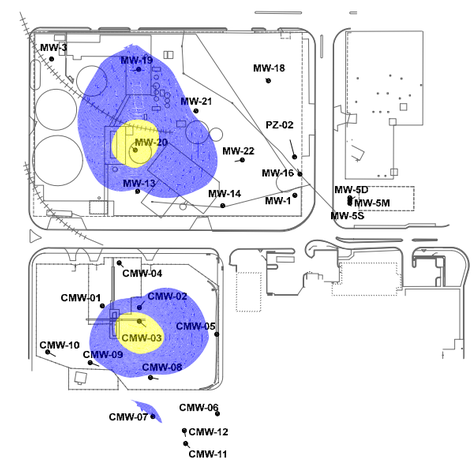
POST-EXCAVATION (MARCH 2015)



POST-EXCAVATION (DECEMBER 2015)



POST-EXCAVATION (SEPTEMBER 2016)



POST-EXCAVATION (JUNE 2017)

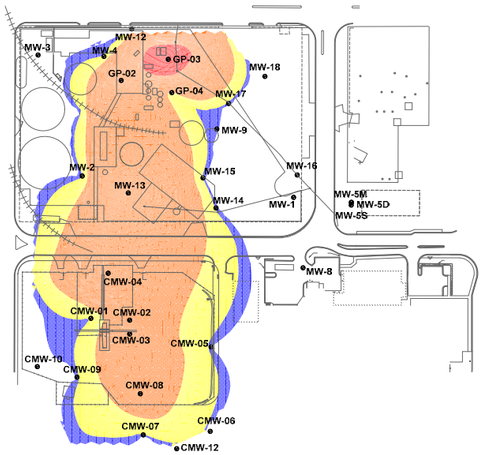
FIGURE 5
SOUTH CAROLINA ELECTRIC & GAS COMPANY

ILLUSTRATION OF PRE- AND POST-EXCAVATION BENZENE CONCENTRATIONS

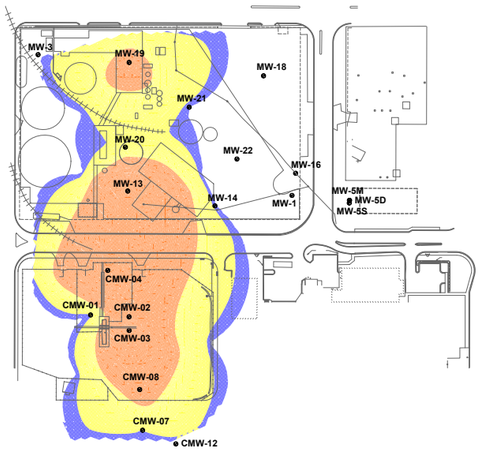
HUGER STREET
FORMER MANUFACTURED GAS PLANT
COLUMBIA, SOUTH CAROLINA

DATE: 8/17/2017 **FILE NAME: BENZENE 0617**

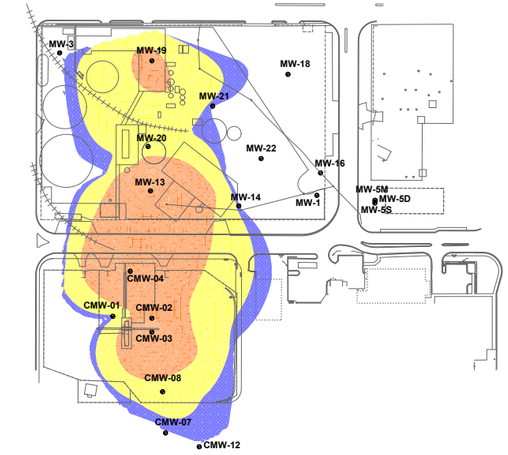
APEX COMPANIES, LLC



PRE-EXCAVATION (PARCEL "A" - AUGUST 2009 AND PARCEL "C" - JULY 2012)



POST-EXCAVATION (SEPTEMBER 2013)



POST-EXCAVATION (JUNE 2014)

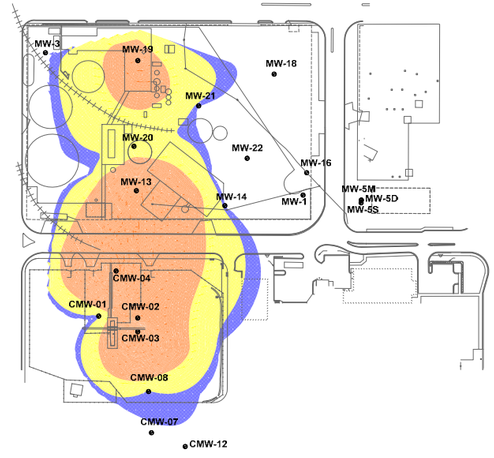
LEGEND

Conentration Ranges:

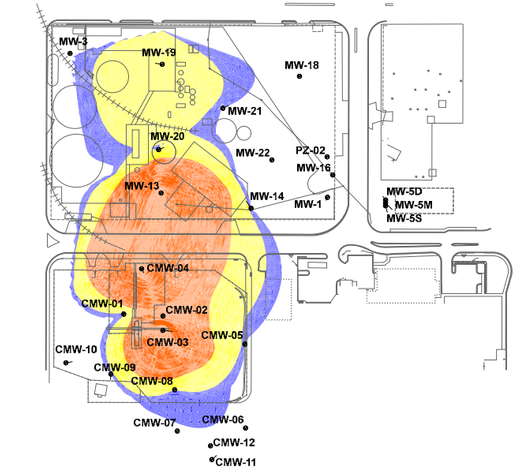
- 5-50 ug/L
- 50-500 ug/L
- 500-5,000 ug/L
- >5,000 ug/L

Note: Due to "numeric dispersion" the boundary extent shown may be overstated.

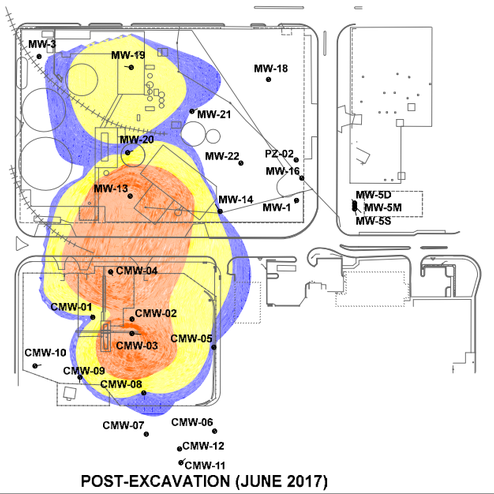
POST-EXCAVATION (MARCH 2015)



POST-EXCAVATION (DECEMBER 2015)



POST-EXCAVATION (SEPTEMBER 2016)



POST-EXCAVATION (JUNE 2017)

FIGURE 6
SOUTH CAROLINA ELECTRIC & GAS COMPANY

ILLUSTRATIONS OF PRE- AND POST-EXCAVATION NAPHTHALENE CONCENTRATIONS

HUGER STREET
FORMER MANUFACTURED GAS PLANT
COLUMBIA, SOUTH CAROLINA

DATE: 8/18/2017 **FILE NAME: NAPHTHALENE 0617**

APEX COMPANIES, LLC

APPENDIX A

GROUNDWATER PURGING DATA

APPENDIX A

GROUNDWATER PURGING DATA - JUNE 2017 EVENT
PARCELS "A", "B" & "C"

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well ID:	**MW-3**		**IDTW:**	15.40	feet	**Purge Begin:**	12:29	**Sample Date:**	6/14/2017
Total Depth:	25.84	feet toc	**Set Intake:**	20.50	feet	**Purge End:**	12:42	**Sample Time:**	12:45

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	12:30	15.47	3.38	1,069	24.2	1.60	444	6	Clear
0.25	12:33	15.48	3.29	1,066	23.7	0.29	478	6	Clear
0.35	12:36	15.48	3.29	1,064	23.7	0.27	479	5	Clear
0.45	12:39	15.48	3.29	1,065	23.7	0.26	479	4	Clear
0.55	12:42	15.48	3.29	1,063	23.8	0.26	479	4	Clear

Well ID:	**MW-5M**		**IDTW:**	22.25	feet	**Purge Begin:**	16:38	**Sample Date:**	6/13/2017
Total Depth:	36.02	feet toc	**Set Intake:**	34.50	feet	**Purge End:**	17:04	**Sample Time:**	17:05

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	16:40	22.35	5.38	222	22.2	3.82	272	531	Brown/Turbid
0.25	16:43	22.37	5.25	217	22.2	3.13	279	105	Light Brown
0.35	16:46	22.35	5.15	216	22.2	2.72	280	39	Clear
0.45	16:49	22.35	5.17	217	22.1	2.06	253	30	Clear
0.55	16:52	22.35	5.17	217	22.1	2.11	243	19	Clear
0.65	16:55	22.35	5.16	218	22.1	1.99	240	25	Clear
0.75	16:58	22.35	5.13	217	22.1	1.84	245	17	Clear
0.85	17:01	22.35	5.16	218	22.0	1.69	243	11	Clear
0.95	17:04	22.35	5.17	218	22.0	1.62	242	NM	Clear

Collected additional volume for MS/MSD

Well ID:	**MW-5S**		**IDTW:**	22.15	feet	**Purge Begin:**	16:10	**Sample Date:**	6/13/2017
Total Depth:	31.65	feet toc	**Set Intake:**	27.00	feet	**Purge End:**	16:22	**Sample Time:**	16:30

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	16:10	22.15	7.25	388	24.1	2.00	-81	22	Clear
0.25	16:13	22.20	6.29	374	24.0	2.21	-97	19	Clear
0.35	16:16	22.20	6.04	370	23.5	3.41	-110	15	Clear
0.45	16:19	22.21	5.99	369	23.2	3.33	-118	12	Clear
0.55	16:22	22.21	5.97	371	23.2	2.98	-121	9	Clear

Collected FD061317 at 16:30.

Well ID:	**MW-5D**		**IDTW:**	22.37	feet	**Purge Begin:**	16:05	**Sample Date:**	6/13/2017
Total Depth:	39.54	feet toc	**Set Intake:**	40.00	feet	**Purge End:**	16:22	**Sample Time:**	16:25

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	16:07	22.82	5.37	218	22.8	5.29	288	6	Clear
0.25	16:10	23.10	5.31	216	22.8	3.95	290	4	Clear
0.35	16:13	23.20	5.21	215	22.6	3.37	293	3	Clear
0.45	16:16	23.27	5.11	215	22.6	3.04	293	2	Clear
0.55	16:19	23.29	5.15	215	22.5	2.95	289	2	Clear
0.65	16:22	23.31	5.13	215	22.4	2.87	289	1	Clear

Well ID:	**MW-13**		**IDTW:**	8.90	feet	**Purge Begin:**	13:55	**Sample Date:**	6/14/2017
Total Depth:	20.24	feet toc	**Set Intake:**	15.00	feet	**Purge End:**	14:08	**Sample Time:**	14:10

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	13:56	10.45	5.03	243	23.6	0.29	242	7	Clear
0.25	13:59	10.23	5.10	336	24.6	0.27	60	5	Clear
0.35	14:02	10.15	5.16	329	24.6	0.27	45	5	Clear
0.45	14:05	10.15	5.17	330	24.6	0.27	44	3	Clear
0.55	14:08	10.15	5.16	326	24.5	0.25	43	3	Clear

APPENDIX A

GROUNDWATER PURGING DATA - JUNE 2017 EVENT
PARCELS "A", "B" & "C"

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well ID:	**MW-14**		**IDTW:**	13.38	feet	**Purge Begin:**	14:40	**Sample Date:**	6/14/2017
Total Depth:	17.00	feet toc	**Set Intake:**	16.00	feet	**Purge End:**	15:07	**Sample Time:**	15:10

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	14:40	13.38	3.70	1,547	24.5	8.50	109	90	Clear
0.15	14:43	13.69	3.53	1,519	24.3	2.62	49	33	Clear
0.24	14:46	13.81	3.53	1,465	24.3	2.03	42	14	Clear
0.35	14:49	14.02	3.55	1,351	24.3	1.64	77	16	Clear
0.45	14:52	14.18	3.59	1,343	24.4	1.34	94	10	Clear
0.55	14:55	14.34	3.60	1,341	24.3	1.16	65	7	Clear
0.65	14:58	14.60	3.51	1,333	24.1	1.05	49	3	Clear
0.75	15:01	14.77	3.61	1,330	24.3	0.98	35	3	Clear
0.85	15:04	14.95	3.61	1,344	24.0	0.98	27	4	Clear
0.95	15:07	15.03	3.59	1,356	24.0	0.94	30	4	Clear

Well ID:	**MW-16**		**IDTW:**	19.22	feet	**Purge Begin:**	7:05	**Sample Date:**	6/13/2017
Total Depth:	--	feet toc	**Set Intake:**	--	feet	**Purge End:**	7:26	**Sample Time:**	7:30

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	7:05	19.22	7.62	2	21.6	9.20	10	59	Clear
0.15	7:08	19.22	6.73	1,133	21.8	2.88	-123	23	Clear
0.25	7:11	19.22	6.66	1,136	21.8	3.81	-127	24	Clear
0.35	7:14	19.22	6.66	1,137	21.8	3.40	-127	26	Clear
0.45	7:17	19.22	6.64	1,140	21.8	2.81	-126	18	Clear
0.55	7:20	19.22	6.64	1,141	21.8	2.46	-126	14	Clear
0.65	7:23	19.22	6.64	1,143	21.8	2.12	-123	13	Clear
0.75	7:26	19.22	6.63	1,144	21.8	1.96	-120	10	Clear

Well ID:	**MW-19**		**IDTW:**	11.94	feet	**Purge Begin:**	12:40	**Sample Date:**	6/14/2017
Total Depth:	31.64	feet toc	**Set Intake:**	20.50	feet	**Purge End:**	13:06	**Sample Time:**	13:10

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	12:40	11.94	6.30	291	25.5	1.71	-78	7	Clear
0.15	12:43	12.09	5.54	271	25.1	1.20	-114	6	Clear
0.25	12:46	12.09	5.38	295	24.9	2.31	-114	6	Clear
0.35	12:49	12.21	5.38	386	25.0	3.04	-124	5	Clear
0.45	12:52	12.25	5.68	474	25.3	2.58	-146	5	Clear
0.55	12:55	12.28	5.81	566	24.8	2.14	-158	5	Clear
0.65	12:58	12.31	5.92	586	24.8	1.88	-168	5	Clear
0.75	13:01	12.31	5.92	614	24.4	1.73	-171	3	Clear
0.85	13:04	12.33	5.95	621	24.9	1.51	-174	5	Clear
0.95	13:06	12.33	6.05	632	24.8	1.41	-183	5	Clear

Well ID:	**MW-20**		**IDTW:**	11.23	feet	**Purge Begin:**	13:18	**Sample Date:**	6/14/2017
Total Depth:	28.22	feet toc	**Set Intake:**	18.50	feet	**Purge End:**	13:31	**Sample Time:**	13:35

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	13:19	11.40	5.21	431	24.1	2.59	479	5	Clear
0.25	13:22	11.53	5.40	427	24.1	0.83	523	3	Clear
0.35	13:25	11.55	5.43	426	24.2	0.37	529	2	Clear
0.45	13:28	11.59	5.43	427	23.9	0.31	533	2	Clear
0.55	13:31	11.61	5.43	425	24.1	0.28	536	2	Clear

APPENDIX A

GROUNDWATER PURGING DATA - JUNE 2017 EVENT
PARCELS "A", "B" & "C"

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well ID:	**MW-21**		**IDTW:**	15.62	feet	**Purge Begin:**	13:45	**Sample Date:**	6/14/2017
Total Depth:	21.60	feet toc	**Set Intake:**	16.50	feet	**Purge End:**	14:03	**Sample Time:**	14:10

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	13:45	15.62	5.74	583	25.2	5.45	-112	18	Clear
0.15	13:48	16.04	5.13	557	24.8	2.48	-138	21	Clear
0.25	13:51	16.33	5.13	521	25.1	2.12	-151	17	Clear
0.35	13:54	16.45	5.21	517	24.9	1.76	-167	9	Clear
0.45	13:57	16.62	5.31	520	25.0	1.51	-182	5	Clear
0.55	14:00	16.75	5.29	524	24.7	1.34	-185	4	Clear
0.65	14:03	18.88	5.25	525	24.5	1.22	-186	5	Clear

Well ID:	**MW-22**		**IDTW:**	21.35	feet	**Purge Begin:**	7:00	**Sample Date:**	6/14/2017
Total Depth:	25.98	feet toc	**Set Intake:**	23.50	feet	**Purge End:**	7:31	**Sample Time:**	7:35

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	7:01	21.52	7.08	782	22.7	3.18	-6	NM	Clear
0.25	7:04	21.78	6.67	712	22.6	3.30	34	NM	Clear
0.35	7:07	21.91	6.59	692	22.6	3.60	29	NM	Clear
0.45	7:10	22.11	6.55	655	22.6	3.99	15	NM	Clear
0.55	7:13	22.24	6.54	722	22.5	4.62	3	NM	Clear
0.65	7:16	22.38	6.53	750	22.5	3.95	-8	NM	Clear
0.75	7:19	22.48	6.53	775	22.5	4.01	-15	NM	Clear
0.85	7:22	22.56	6.53	804	22.5	3.99	-22	NM	Clear
0.95	7:25	22.68	6.52	844	22.5	2.85	-30	NM	Clear
1.05	7:28	22.78	6.52	870	22.5	2.84	-34	NM	Clear
1.15	7:31	22.84	6.51	891	22.5	2.85	-34	0.89	Clear

Well ID:	**CMW-01**		**IDTW:**	13.20	feet	**Purge Begin:**	8:59	**Sample Date:**	6/14/2017
Total Depth:	38.34	feet toc	**Set Intake:**	31.00	feet	**Purge End:**	9:12	**Sample Time:**	9:15

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	9:00	13.42	4.89	213	22.2	2.27	347	NM	Clear
0.25	9:03	13.50	5.05	209	21.9	0.67	338	NM	Clear
0.35	9:06	13.51	5.08	208	21.9	0.52	333	NM	Clear
0.45	9:09	15.53	5.10	209	21.8	0.45	326	NM	Clear
0.55	9:12	13.53	5.12	208	21.9	0.44	324	0	Clear

Well ID:	**CMW-02**		**IDTW:**	11.95	feet	**Purge Begin:**	8:15	**Sample Date:**	6/14/2017
Total Depth:	32.55	feet toc	**Set Intake:**	26.50	feet	**Purge End:**	8:50	**Sample Time:**	8:50

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	8:15	11.95	6.86	175	22.1	2.42	58	NM	Clear
0.15	8:18	12.15	5.60	164	21.6	1.88	55	NM	Clear
0.25	8:21	12.20	5.33	166	21.6	1.97	35	NM	Clear
0.35	8:24	12.20	5.32	163	21.6	1.76	8	NM	Clear
0.45	8:27	12.20	5.35	160	21.6	1.55	-13	NM	Clear
0.55	8:30	12.20	5.35	159	21.6	1.41	-25	NM	Clear
0.65	8:33	12.20	5.33	155	21.6	1.29	-34	3	Clear
0.75	8:36	12.20	5.25	152	21.6	1.21	-44	3	Clear
0.85	8:39	12.20	5.25	152	21.6	1.07	-54	2	Clear
0.95	8:42	12.20	5.25	151	21.6	1.07	-61	1	Clear
1.05	8:45	12.20	5.24	152	21.6	0.93	-67	3	Clear

Well ID:	**CMW-03**		**IDTW:**	12.02	feet	**Purge Begin:**	8:15	**Sample Date:**	6/14/2017
Total Depth:	32.82	feet toc	**Set Intake:**	27.00	feet	**Purge End:**	8:32	**Sample Time:**	8:35

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	8:17	12.22	4.53	353	21.4	4.05	319	3	Clear
0.25	8:20	12.32	3.82	353	21.3	0.86	418	4	Clear
0.35	8:23	12.36	3.74	357	21.2	0.46	422	3	Clear
0.45	8:26	12.40	3.66	359	21.2	0.36	424	3	Clear
0.55	8:29	12.43	3.59	360	21.1	0.30	427	3	Clear
0.65	8:32	12.45	3.58	360	21.1	0.28	428	3	Clear

APPENDIX A

GROUNDWATER PURGING DATA - JUNE 2017 EVENT
PARCELS "A", "B" & "C"

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Well ID:	**CMW-04**		**IDTW:**	13.33	feet	**Purge Begin:**	9:42	**Sample Date:**	6/14/2017
Total Depth:	29.75	feet toc	**Set Intake:**	26.00	feet	**Purge End:**	9:55	**Sample Time:**	10:00

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	9:43	13.56	5.79	78	22.7	2.74	119	NM	Clear
0.25	9:46	13.60	5.72	76	22.4	0.89	103	NM	Clear
0.35	9:49	13.62	5.71	75	22.4	0.58	95	NM	Clear
0.45	9:52	13.63	5.68	75	22.4	0.51	97	NM	Clear
0.55	9:55	13.63	5.68	76	22.3	0.49	97	0	Clear

Well ID:	**CMW-07**		**IDTW:**	13.97	feet	**Purge Begin:**	10:29	**Sample Date:**	6/14/2017
Total Depth:	37.05	feet toc	**Set Intake:**	28.50	feet	**Purge End:**	10:42	**Sample Time:**	10:45

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.15	10:30	14.40	5.25	428	21.7	2.32	209	2	Clear
0.25	10:33	14.55	5.15	428	21.7	0.74	223	2	Clear
0.35	10:36	14.68	5.12	428	21.6	0.50	228	1	Clear
0.45	10:39	14.74	5.10	428	21.4	0.40	230	2	Clear
0.55	10:42	14.78	5.08	428	21.5	0.34	232	2	Clear

Well ID:	**CMW-08**		**IDTW:**	13.89	feet	**Purge Begin:**	9:20	**Sample Date:**	6/14/2017
Total Depth:	36.50	feet toc	**Set Intake:**	30.00	feet	**Purge End:**	9:35	**Sample Time:**	9:40

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	9:20	13.89	4.75	295	23.0	5.44	25	NM	Clear
0.15	9:23	14.66	4.37	287	22.1	2.45	24	NM	Clear
0.25	9:26	14.90	4.22	288	22.1	1.65	39	1	Clear
0.35	9:29	15.09	4.15	289	22.0	1.24	44	1	Clear
0.45	9:32	15.09	4.15	291	22.1	1.06	37	1	Clear

Well ID:	**CMW-12**		**IDTW:**	18.12	feet	**Purge Begin:**	10:30	**Sample Date:**	6/14/2017
Total Depth:	31.37	feet toc	**Set Intake:**	29.00	feet	**Purge End:**	10:39	**Sample Time:**	10:45

Purge Volume (Gallons)	Time	Water Level (feet toc)	pH (S.U.)	Conductivity (µS/cm)	Temperature (° C)	DO (mg/L)	Redox (mV)	Turbidity (N.T.U.)	Color
0.00	10:30	18.12	5.80	395	20.4	9.43	36	1	Clear
0.15	10:33	18.68	5.57	392	19.9	7.59	6	1	Clear
0.25	10:36	18.73	5.52	392	19.9	7.22	5	1	Clear
0.35	10:39	18.75	5.51	392	19.8	7.15	4	1	Clear

APPENDIX B

LABORATORY ANALYTICAL REPORTS

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Apex Companies, LLC
1600 Commerce Circle
Trafford, PA 15085
Attention: Cheryl Yushenski

Project Name: Huger Street 6-2017

Lot Number:**SF14079**

Date Completed:07/03/2017
Revision Date: 08/10/2017

Project Manager:**Nisreen Saikaly**

08/10/2017 9:56 AM
Approved and released by:
Project Manager: Kelly M. Nance

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Apex Companies, LLC
Lot Number: SF14079

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Report Revision 08/10/17
At the client's request, 1-methylnaphthalene and 2-methylnaphthalene were removed from the PAH list for all samples.

Sample Summary
Apex Companies, LLC
Lot Number: SF14079

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TB061317	Aqueous	06/13/2017	06/14/2017
002	EB061317	Aqueous	06/13/2017 1745	06/14/2017
003	FD061317	Aqueous	06/13/2017 1630	06/14/2017
004	MW-5S	Aqueous	06/13/2017 1630	06/14/2017
005	MW-5M	Aqueous	06/13/2017 1705	06/14/2017
006	MW-5D	Aqueous	06/13/2017 1625	06/14/2017
007	MW-16	Aqueous	06/14/2017 0730	06/14/2017
008	MW-22	Aqueous	06/14/2017 0735	06/14/2017
009	CMW-01	Aqueous	06/14/2017 0915	06/14/2017
010	CMW-02	Aqueous	06/14/2017 0850	06/14/2017
011	CMW-03	Aqueous	06/14/2017 0835	06/14/2017
012	CMW-04	Aqueous	06/14/2017 1000	06/14/2017
013	CMW-07	Aqueous	06/14/2017 1045	06/14/2017
014	CMW-12	Aqueous	06/14/2017 1045	06/14/2017
015	CMW-08	Aqueous	06/14/2017 0940	06/14/2017
016	MW-19	Aqueous	06/14/2017 1310	06/14/2017
017	MW-21	Aqueous	06/14/2017 1410	06/14/2017
018	MW-14	Aqueous	06/14/2017 1510	06/14/2017
019	MW-13	Aqueous	06/14/2017 1410	06/14/2017
020	MW-20	Aqueous	06/14/2017 1335	06/14/2017
021	MW-3	Aqueous	06/14/2017 1245	06/14/2017

(21 samples)

Detection Summary

Apex Companies, LLC

Lot Number: SF14079

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
003	FD061317	Aqueous	Methyl tertiary butyl ether	8260B	37		ug/L	8
004	MW-5S	Aqueous	Methyl tertiary butyl ether	8260B	33		ug/L	10
007	MW-16	Aqueous	Acenaphthene	8270D	11		ug/L	17
010	CMW-02	Aqueous	Benzene	8260B	6.9		ug/L	22
010	CMW-02	Aqueous	Xylenes (total)	8260B	18		ug/L	22
010	CMW-02	Aqueous	Acenaphthylene	8270D	38		ug/L	23
010	CMW-02	Aqueous	Fluorene	8270D	21		ug/L	23
010	CMW-02	Aqueous	Naphthalene	8270D	420		ug/L	23
010	CMW-02	Aqueous	Phenanthrene	8270D	34		ug/L	23
011	CMW-03	Aqueous	Benzene	8260B	130		ug/L	24
011	CMW-03	Aqueous	Ethylbenzene	8260B	35		ug/L	24
011	CMW-03	Aqueous	Toluene	8260B	450		ug/L	24
011	CMW-03	Aqueous	Xylenes (total)	8260B	550		ug/L	24
011	CMW-03	Aqueous	Acenaphthylene	8270D	55		ug/L	25
011	CMW-03	Aqueous	Naphthalene	8270D	2400		ug/L	25
012	CMW-04	Aqueous	Ethylbenzene	8260B	26		ug/L	26
012	CMW-04	Aqueous	Toluene	8260B	210		ug/L	26
012	CMW-04	Aqueous	Xylenes (total)	8260B	400		ug/L	26
012	CMW-04	Aqueous	Fluorene	8270D	46		ug/L	27
012	CMW-04	Aqueous	Naphthalene	8270D	2000		ug/L	27
012	CMW-04	Aqueous	Phenanthrene	8270D	55		ug/L	27
013	CMW-07	Aqueous	Benzene	8260B	7.1		ug/L	28
015	CMW-08	Aqueous	Naphthalene	8270D	11		ug/L	33
016	MW-19	Aqueous	Benzene	8260B	15		ug/L	34
016	MW-19	Aqueous	Ethylbenzene	8260B	13		ug/L	34
016	MW-19	Aqueous	Toluene	8260B	9.0		ug/L	34
016	MW-19	Aqueous	Xylenes (total)	8260B	47		ug/L	34
016	MW-19	Aqueous	Acenaphthene	8270D	28		ug/L	35
016	MW-19	Aqueous	Acenaphthylene	8270D	57		ug/L	35
016	MW-19	Aqueous	Fluorene	8270D	19		ug/L	35
016	MW-19	Aqueous	Naphthalene	8270D	340		ug/L	35
016	MW-19	Aqueous	Phenanthrene	8270D	21		ug/L	35
019	MW-13	Aqueous	Ethylbenzene	8260B	53		ug/L	40
019	MW-13	Aqueous	Toluene	8260B	120		ug/L	40
019	MW-13	Aqueous	Xylenes (total)	8260B	420		ug/L	40
019	MW-13	Aqueous	Naphthalene	8270D	2200		ug/L	41
019	MW-13	Aqueous	Phenanthrene	8270D	45		ug/L	41
020	MW-20	Aqueous	Benzene	8260B	90		ug/L	42
020	MW-20	Aqueous	Naphthalene	8270D	13		ug/L	43

(39 detections)

Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-001
Description: TB061317
Matrix: Aqueous
Date Sampled: 06/13/2017
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/15/2017 1303	JM1		44333

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-002
Description: EB061317
Matrix: Aqueous
Date Sampled: 06/13/2017 1745
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/15/2017 1327	JM1		44333

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-002
Description: EB061317
Matrix: Aqueous
Date Sampled: 06/13/2017 1745
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/29/2017 2106	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		79	38-127
2-Fluorobiphenyl		65	37-129
Terphenyl-d14		70	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-003
Description: FD061317
Matrix: Aqueous
Date Sampled: 06/13/2017 1630
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1359	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	37		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-003
Description: FD061317
Matrix: Aqueous
Date Sampled: 06/13/2017 1630
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/29/2017 2220	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		70	38-127
2-Fluorobiphenyl		55	37-129
Terphenyl-d14		66	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-004
Description: MW-5S
Matrix: Aqueous
Date Sampled: 06/13/2017 1630
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1425	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	33		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-004
Description: MW-5S
Matrix: Aqueous
Date Sampled: 06/13/2017 1630
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/29/2017 2244	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		68	38-127
2-Fluorobiphenyl		54	37-129
Terphenyl-d14		61	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-005
Description: MW-5M
Matrix: Aqueous
Date Sampled: 06/13/2017 1705
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1450	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-005
Description: MW-5M
Matrix: Aqueous
Date Sampled: 06/13/2017 1705
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/29/2017 2309	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		66	38-127
2-Fluorobiphenyl		52	37-129
Terphenyl-d14		63	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-006
Description: MW-5D
Matrix: Aqueous
Date Sampled: 06/13/2017 1625
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1515	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-006
Description: MW-5D
Matrix: Aqueous
Date Sampled: 06/13/2017 1625
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/29/2017 2333	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		70	38-127
2-Fluorobiphenyl		56	37-129
Terphenyl-d14		65	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-007
Description: MW-16
Matrix: Aqueous
Date Sampled: 06/14/2017 0730
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1540	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-007
Description: MW-16
Matrix: Aqueous
Date Sampled: 06/14/2017 0730
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/29/2017 2358	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	11		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		58	38-127
2-Fluorobiphenyl		49	37-129
Terphenyl-d14		27	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-008
Description: MW-22
Matrix: Aqueous
Date Sampled: 06/14/2017 0735
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1605	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-008
Description: MW-22
Matrix: Aqueous
Date Sampled: 06/14/2017 0735
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 0022	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		73	38-127
2-Fluorobiphenyl		57	37-129
Terphenyl-d14		62	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-009
Description: CMW-01
Matrix: Aqueous
Date Sampled: 06/14/2017 0915
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1630	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-009
Description: CMW-01
Matrix: Aqueous
Date Sampled: 06/14/2017 0915
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 2130	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		62	38-127
2-Fluorobiphenyl		49	37-129
Terphenyl-d14		65	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-010
Description: CMW-02
Matrix: Aqueous
Date Sampled: 06/14/2017 0850
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1655	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	6.9		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	18		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-010
Description: CMW-02
Matrix: Aqueous
Date Sampled: 06/14/2017 0850
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	10	06/30/2017 0338	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		8.0	ug/L	1
Acenaphthylene	208-96-8	8270D	38		8.0	ug/L	1
Anthracene	120-12-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		8.0	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		8.0	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		8.0	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		8.0	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		8.0	ug/L	1
Chrysene	218-01-9	8270D	ND		8.0	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		8.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		8.0	ug/L	1
Fluorene	86-73-7	8270D	21		8.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		8.0	ug/L	1
Naphthalene	91-20-3	8270D	420		8.0	ug/L	1
Phenanthrene	85-01-8	8270D	34		8.0	ug/L	1
Pyrene	129-00-0	8270D	ND		8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		58	38-127
2-Fluorobiphenyl		47	37-129
Terphenyl-d14		61	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-011
Description: CMW-03
Matrix: Aqueous
Date Sampled: 06/14/2017 0835
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	06/16/2017 1859	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	130		25	ug/L	1
Ethylbenzene	100-41-4	8260B	35		25	ug/L	1
Toluene	108-88-3	8260B	450		25	ug/L	1
Xylenes (total)	1330-20-7	8260B	550		25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		117	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-011
Description: CMW-03
Matrix: Aqueous
Date Sampled: 06/14/2017 0835
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	50	06/30/2017 0451	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		40	ug/L	1
Acenaphthylene	208-96-8	8270D	55		40	ug/L	1
Anthracene	120-12-7	8270D	ND		40	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		40	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		40	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		40	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		40	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		40	ug/L	1
Chrysene	218-01-9	8270D	ND		40	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		40	ug/L	1
Fluoranthene	206-44-0	8270D	ND		40	ug/L	1
Fluorene	86-73-7	8270D	ND		40	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		40	ug/L	1
Naphthalene	91-20-3	8270D	2400		40	ug/L	1
Phenanthrene	85-01-8	8270D	ND		40	ug/L	1
Pyrene	129-00-0	8270D	ND		40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		52	38-127
2-Fluorobiphenyl		47	37-129
Terphenyl-d14		62	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-012
Description: CMW-04
Matrix: Aqueous
Date Sampled: 06/14/2017 1000
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	06/16/2017 1924	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		25	ug/L	1
Ethylbenzene	100-41-4	8260B	26		25	ug/L	1
Toluene	108-88-3	8260B	210		25	ug/L	1
Xylenes (total)	1330-20-7	8260B	400		25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-012
Description: CMW-04
Matrix: Aqueous
Date Sampled: 06/14/2017 1000
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	50	06/30/2017 0516	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		40	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		40	ug/L	1
Anthracene	120-12-7	8270D	ND		40	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		40	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		40	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		40	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		40	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		40	ug/L	1
Chrysene	218-01-9	8270D	ND		40	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		40	ug/L	1
Fluoranthene	206-44-0	8270D	ND		40	ug/L	1
Fluorene	86-73-7	8270D	46		40	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		40	ug/L	1
Naphthalene	91-20-3	8270D	2000		40	ug/L	1
Phenanthrene	85-01-8	8270D	55		40	ug/L	1
Pyrene	129-00-0	8270D	ND		40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		48	38-127
2-Fluorobiphenyl		44	37-129
Terphenyl-d14		54	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-013
Description: CMW-07
Matrix: Aqueous
Date Sampled: 06/14/2017 1045
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1720	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	7.1		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-013
Description: CMW-07
Matrix: Aqueous
Date Sampled: 06/14/2017 1045
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 0047	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		65	38-127
2-Fluorobiphenyl		51	37-129
Terphenyl-d14		62	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-014
Description: CMW-12
Matrix: Aqueous
Date Sampled: 06/14/2017 1045
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1745	ALL		44463

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-014
Description: CMW-12
Matrix: Aqueous
Date Sampled: 06/14/2017 1045
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 0111	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		70	38-127
2-Fluorobiphenyl		58	37-129
Terphenyl-d14		64	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-015
Description: CMW-08
Matrix: Aqueous
Date Sampled: 06/14/2017 0940
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1512	TML		44453

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-015
Description: CMW-08
Matrix: Aqueous
Date Sampled: 06/14/2017 0940
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 0135	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	11		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		78	38-127
2-Fluorobiphenyl		63	37-129
Terphenyl-d14		66	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-016
Description: MW-19
Matrix: Aqueous
Date Sampled: 06/14/2017 1310
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1751	TML		44453

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	15		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	13		5.0	ug/L	1
Toluene	108-88-3	8260B	9.0		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	47		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-016
Description: MW-19
Matrix: Aqueous
Date Sampled: 06/14/2017 1310
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	10	06/30/2017 2106	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	28		8.0	ug/L	1
Acenaphthylene	208-96-8	8270D	57		8.0	ug/L	1
Anthracene	120-12-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		8.0	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		8.0	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		8.0	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		8.0	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		8.0	ug/L	1
Chrysene	218-01-9	8270D	ND		8.0	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		8.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		8.0	ug/L	1
Fluorene	86-73-7	8270D	19		8.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		8.0	ug/L	1
Naphthalene	91-20-3	8270D	340		8.0	ug/L	1
Phenanthrene	85-01-8	8270D	21		8.0	ug/L	1
Pyrene	129-00-0	8270D	ND		8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		59	38-127
2-Fluorobiphenyl		50	37-129
Terphenyl-d14		60	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-017
Description: MW-21
Matrix: Aqueous
Date Sampled: 06/14/2017 1410
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1534	TML		44453

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-017
Description: MW-21
Matrix: Aqueous
Date Sampled: 06/14/2017 1410
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 0224	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		77	38-127
2-Fluorobiphenyl		62	37-129
Terphenyl-d14		67	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-018
Description: MW-14
Matrix: Aqueous
Date Sampled: 06/14/2017 1510
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1557	TML		44453

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-018
Description: MW-14
Matrix: Aqueous
Date Sampled: 06/14/2017 1510
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/30/2017 0249	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		71	38-127
2-Fluorobiphenyl		55	37-129
Terphenyl-d14		62	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-019
Description: MW-13
Matrix: Aqueous
Date Sampled: 06/14/2017 1410
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1620	TML		44453
2	5030B	8260B	5	06/19/2017 1639	JM1		44588

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	53		5.0	ug/L	1
Toluene	108-88-3	8260B	120		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	420		25	ug/L	2

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130		100	70-130
Bromofluorobenzene		91	70-130		99	70-130
Toluene-d8		98	70-130		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-019
Description: MW-13
Matrix: Aqueous
Date Sampled: 06/14/2017 1410
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	50	06/30/2017 0540	JCG	06/15/2017 1620	44317

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		40	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		40	ug/L	1
Anthracene	120-12-7	8270D	ND		40	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		40	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		40	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		40	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		40	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		40	ug/L	1
Chrysene	218-01-9	8270D	ND		40	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		40	ug/L	1
Fluoranthene	206-44-0	8270D	ND		40	ug/L	1
Fluorene	86-73-7	8270D	ND		40	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		40	ug/L	1
Naphthalene	91-20-3	8270D	2200		40	ug/L	1
Phenanthrene	85-01-8	8270D	45		40	ug/L	1
Pyrene	129-00-0	8270D	ND		40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		48	38-127
2-Fluorobiphenyl		52	37-129
Terphenyl-d14		47	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-020
Description: MW-20
Matrix: Aqueous
Date Sampled: 06/14/2017 1335
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	06/19/2017 1416	JM1		44588

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	90		5.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-020
Description: MW-20
Matrix: Aqueous
Date Sampled: 06/14/2017 1335
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/28/2017 1144	JCG	06/20/2017 0947	44664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	13		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		70	38-127
2-Fluorobiphenyl		61	37-129
Terphenyl-d14		72	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-021
Description: MW-3
Matrix: Aqueous
Date Sampled: 06/14/2017 1245
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2017 1643	TML		44453

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Apex Companies, LLC
Laboratory ID: SF14079-021
Description: MW-3
Matrix: Aqueous
Date Sampled: 06/14/2017 1245
Date Received: 06/14/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	06/28/2017 1208	JCG	06/20/2017 0947	44664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acenaphthene	83-32-9	8270D	ND		10	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		10	ug/L	1
Anthracene	120-12-7	8270D	ND		10	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		10	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		10	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		10	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		10	ug/L	1
Chrysene	218-01-9	8270D	ND		10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		10	ug/L	1
Fluoranthene	206-44-0	8270D	ND		10	ug/L	1
Fluorene	86-73-7	8270D	ND		10	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		10	ug/L	1
Naphthalene	91-20-3	8270D	ND		10	ug/L	1
Phenanthrene	85-01-8	8270D	ND		10	ug/L	1
Pyrene	129-00-0	8270D	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		72	38-127
2-Fluorobiphenyl		62	37-129
Terphenyl-d14		76	10-148

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: SQ44333-001
Batch: 44333
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Benzene	ND		1	5.0	ug/L	06/15/2017 1005
Ethylbenzene	ND		1	5.0	ug/L	06/15/2017 1005
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	ug/L	06/15/2017 1005
Toluene	ND		1	5.0	ug/L	06/15/2017 1005
Xylenes (total)	ND		1	5.0	ug/L	06/15/2017 1005

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: SQ44333-002
Batch: 44333
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	43		1	87	70-130	06/15/2017 0908
Ethylbenzene	50	45		1	90	70-130	06/15/2017 0908
Methyl tertiary butyl ether (MTBE)	50	42		1	84	70-130	06/15/2017 0908
Toluene	50	44		1	88	70-130	06/15/2017 0908
Xylenes (total)	100	86		1	86	70-130	06/15/2017 0908

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: SQ44453-001
Batch: 44453
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Benzene	ND		1	5.0	ug/L	06/16/2017 1029
Ethylbenzene	ND		1	5.0	ug/L	06/16/2017 1029
Toluene	ND		1	5.0	ug/L	06/16/2017 1029
Xylenes (total)	ND		1	5.0	ug/L	06/16/2017 1029

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: SQ44453-002
Batch: 44453
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	52		1	104	70-130	06/16/2017 0930
Ethylbenzene	50	52		1	103	70-130	06/16/2017 0930
Toluene	50	52		1	105	70-130	06/16/2017 0930
Xylenes (total)	100	110		1	108	70-130	06/16/2017 0930

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: SQ44463-001
Batch: 44463
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Benzene	ND		1	5.0	ug/L	06/16/2017 1052
Ethylbenzene	ND		1	5.0	ug/L	06/16/2017 1052
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	ug/L	06/16/2017 1052
Toluene	ND		1	5.0	ug/L	06/16/2017 1052
Xylenes (total)	ND		1	5.0	ug/L	06/16/2017 1052

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: SQ44463-002
Batch: 44463
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	44		1	88	70-130	06/16/2017 0950
Ethylbenzene	50	51		1	103	70-130	06/16/2017 0950
Methyl tertiary butyl ether (MTBE)	50	42		1	84	70-130	06/16/2017 0950
Toluene	50	53		1	105	70-130	06/16/2017 0950
Xylenes (total)	100	99		1	99	70-130	06/16/2017 0950

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: SF14079-005MS
Batch: 44463
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	ND	50	48		1	95	70-130	06/16/2017 1950
Ethylbenzene	ND	50	56		1	111	70-130	06/16/2017 1950
Methyl tertiary butyl ether (MTBE)	ND	50	51		1	103	70-130	06/16/2017 1950
Toluene	ND	50	56		1	113	70-130	06/16/2017 1950
Xylenes (total)	ND	100	110		1	105	70-130	06/16/2017 1950

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: SF14079-005MD
Batch: 44463
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	ND	50	46		1	92	3.2	70-130	20	06/16/2017 2014
Ethylbenzene	ND	50	53		1	107	4.0	70-130	20	06/16/2017 2014
Methyl tertiary butyl ether (MTBE)	ND	50	50		1	100	2.9	70-130	20	06/16/2017 2014
Toluene	ND	50	55		1	109	3.4	70-130	20	06/16/2017 2014
Xylenes (total)	ND	100	100		1	101	3.9	70-130	20	06/16/2017 2014

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: SQ44588-001
Batch: 44588
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Benzene	ND		1	5.0	ug/L	06/19/2017 1002
Ethylbenzene	ND		1	5.0	ug/L	06/19/2017 1002
Toluene	ND		1	5.0	ug/L	06/19/2017 1002
Xylenes (total)	ND		1	5.0	ug/L	06/19/2017 1002

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: SQ44588-002
Batch: 44588
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	52		1	103	70-130	06/19/2017 0906
Ethylbenzene	50	50		1	101	70-130	06/19/2017 0906
Toluene	50	50		1	100	70-130	06/19/2017 0906
Xylenes (total)	100	99		1	99	70-130	06/19/2017 0906

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MB

Sample ID: SQ44317-001
Batch: 44317
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/15/2017 1620

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acenaphthene	ND		1	10	ug/L	06/21/2017 0939
Acenaphthylene	ND		1	10	ug/L	06/21/2017 0939
Anthracene	ND		1	10	ug/L	06/21/2017 0939
Benzo(a)anthracene	ND		1	10	ug/L	06/21/2017 0939
Benzo(a)pyrene	ND		1	10	ug/L	06/21/2017 0939
Benzo(b)fluoranthene	ND		1	10	ug/L	06/21/2017 0939
Benzo(g,h,i)perylene	ND		1	10	ug/L	06/21/2017 0939
Benzo(k)fluoranthene	ND		1	10	ug/L	06/21/2017 0939
Chrysene	ND		1	10	ug/L	06/21/2017 0939
Dibenzo(a,h)anthracene	ND		1	10	ug/L	06/21/2017 0939
Fluoranthene	ND		1	10	ug/L	06/21/2017 0939
Fluorene	ND		1	10	ug/L	06/21/2017 0939
Indeno(1,2,3-c,d)pyrene	ND		1	10	ug/L	06/21/2017 0939
Naphthalene	ND		1	10	ug/L	06/21/2017 0939
Phenanthrene	ND		1	10	ug/L	06/21/2017 0939
Pyrene	ND		1	10	ug/L	06/21/2017 0939

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		96	38-127
2-Fluorobiphenyl		82	37-129
Terphenyl-d14		94	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: SQ44317-002
Batch: 44317
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/15/2017 1620

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	40	32		1	81	30-130	06/21/2017 1004
Acenaphthylene	40	35		1	88	30-130	06/21/2017 1004
Anthracene	40	39		1	98	30-130	06/21/2017 1004
Benzo(a)anthracene	40	38		1	95	30-130	06/21/2017 1004
Benzo(a)pyrene	40	36		1	90	30-130	06/21/2017 1004
Benzo(b)fluoranthene	40	34		1	84	30-130	06/21/2017 1004
Benzo(g,h,i)perylene	40	40		1	100	30-130	06/21/2017 1004
Benzo(k)fluoranthene	40	38		1	96	30-130	06/21/2017 1004
Chrysene	40	42		1	105	30-130	06/21/2017 1004
Dibenzo(a,h)anthracene	40	27		1	66	30-130	06/21/2017 1004
Fluoranthene	40	37		1	91	30-130	06/21/2017 1004
Fluorene	40	39		1	99	30-130	06/21/2017 1004
Indeno(1,2,3-c,d)pyrene	40	34		1	84	30-130	06/21/2017 1004
Naphthalene	40	31		1	77	30-130	06/21/2017 1004
Phenanthrene	40	39		1	98	30-130	06/21/2017 1004
Pyrene	40	38		1	94	30-130	06/21/2017 1004

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		92	38-127
2-Fluorobiphenyl		88	37-129
Terphenyl-d14		96	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MS

Sample ID: SF14079-002MS
Batch: 44317
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/15/2017 1620

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	ND	40	28		1	69	30-130	06/29/2017 2130
Acenaphthylene	ND	40	29		1	72	30-130	06/29/2017 2130
Anthracene	ND	40	31		1	76	30-130	06/29/2017 2130
Benzo(a)anthracene	ND	40	30		1	76	30-130	06/29/2017 2130
Benzo(a)pyrene	ND	40	34		1	85	30-130	06/29/2017 2130
Benzo(b)fluoranthene	ND	40	33		1	83	30-130	06/29/2017 2130
Benzo(g,h,i)perylene	ND	40	15		1	39	30-130	06/29/2017 2130
Benzo(k)fluoranthene	ND	40	34		1	84	30-130	06/29/2017 2130
Chrysene	ND	40	31		1	78	30-130	06/29/2017 2130
Dibenzo(a,h)anthracene	ND	40	24		1	61	30-130	06/29/2017 2130
Fluoranthene	ND	40	32		1	79	30-130	06/29/2017 2130
Fluorene	ND	40	29		1	71	30-130	06/29/2017 2130
Indeno(1,2,3-c,d)pyrene	ND	40	20		1	50	30-130	06/29/2017 2130
Naphthalene	ND	40	26		1	65	30-130	06/29/2017 2130
Phenanthrene	ND	40	30		1	76	30-130	06/29/2017 2130
Pyrene	ND	40	29		1	73	30-130	06/29/2017 2130

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		69	38-127
2-Fluorobiphenyl		60	37-129
Terphenyl-d14		64	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: SF14079-002MD
Batch: 44317
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/15/2017 1620

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acenaphthene	ND	40	23		1	56	20	30-130	40	06/29/2017 2155
Acenaphthylene	ND	40	23		1	58	22	30-130	40	06/29/2017 2155
Anthracene	ND	40	28		1	69	9.5	30-130	40	06/29/2017 2155
Benzo(a)anthracene	ND	40	29		1	73	3.3	30-130	40	06/29/2017 2155
Benzo(a)pyrene	ND	40	33		1	83	2.5	30-130	40	06/29/2017 2155
Benzo(b)fluoranthene	ND	40	33		1	82	0.93	30-130	40	06/29/2017 2155
Benzo(g,h,i)perylene	ND	40	15		1	38	0.81	30-130	40	06/29/2017 2155
Benzo(k)fluoranthene	ND	40	33		1	81	2.8	30-130	40	06/29/2017 2155
Chrysene	ND	40	30		1	76	3.2	30-130	40	06/29/2017 2155
Dibenzo(a,h)anthracene	ND	40	18		1	45	30	30-130	40	06/29/2017 2155
Fluoranthene	ND	40	30		1	76	4.8	30-130	40	06/29/2017 2155
Fluorene	ND	40	24		1	59	18	30-130	40	06/29/2017 2155
Indeno(1,2,3-c,d)pyrene	ND	40	18		1	46	7.6	30-130	40	06/29/2017 2155
Naphthalene	ND	40	25		1	62	3.9	30-130	40	06/29/2017 2155
Phenanthrene	ND	40	27		1	68	10	30-130	40	06/29/2017 2155
Pyrene	ND	40	28		1	70	5.4	30-130	40	06/29/2017 2155

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		62	38-127
2-Fluorobiphenyl		50	37-129
Terphenyl-d14		62	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MB

Sample ID: SQ44664-001
Batch: 44664
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/20/2017 947

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acenaphthene	ND		1	10	ug/L	06/26/2017 1351
Acenaphthylene	ND		1	10	ug/L	06/26/2017 1351
Anthracene	ND		1	10	ug/L	06/26/2017 1351
Benzo(a)anthracene	ND		1	10	ug/L	06/26/2017 1351
Benzo(a)pyrene	ND		1	10	ug/L	06/26/2017 1351
Benzo(b)fluoranthene	ND		1	10	ug/L	06/26/2017 1351
Benzo(g,h,i)perylene	ND		1	10	ug/L	06/26/2017 1351
Benzo(k)fluoranthene	ND		1	10	ug/L	06/26/2017 1351
Chrysene	ND		1	10	ug/L	06/26/2017 1351
Dibenzo(a,h)anthracene	ND		1	10	ug/L	06/26/2017 1351
Fluoranthene	ND		1	10	ug/L	06/26/2017 1351
Fluorene	ND		1	10	ug/L	06/26/2017 1351
Indeno(1,2,3-c,d)pyrene	ND		1	10	ug/L	06/26/2017 1351
Naphthalene	ND		1	10	ug/L	06/26/2017 1351
Phenanthrene	ND		1	10	ug/L	06/26/2017 1351
Pyrene	ND		1	10	ug/L	06/26/2017 1351

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		88	38-127
2-Fluorobiphenyl		73	37-129
Terphenyl-d14		79	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: SQ44664-002
Batch: 44664
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/20/2017 947

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	40	35		1	88	30-130	06/26/2017 1416
Acenaphthylene	40	34		1	86	30-130	06/26/2017 1416
Anthracene	40	35		1	89	30-130	06/26/2017 1416
Benzo(a)anthracene	40	34		1	86	30-130	06/26/2017 1416
Benzo(a)pyrene	40	34		1	85	30-130	06/26/2017 1416
Benzo(b)fluoranthene	40	36		1	90	30-130	06/26/2017 1416
Benzo(g,h,i)perylene	40	21		1	52	30-130	06/26/2017 1416
Benzo(k)fluoranthene	40	35		1	87	30-130	06/26/2017 1416
Chrysene	40	35		1	87	30-130	06/26/2017 1416
Dibenzo(a,h)anthracene	40	18		1	46	30-130	06/26/2017 1416
Fluoranthene	40	38		1	94	30-130	06/26/2017 1416
Fluorene	40	35		1	87	30-130	06/26/2017 1416
Indeno(1,2,3-c,d)pyrene	40	22		1	56	30-130	06/26/2017 1416
Naphthalene	40	32		1	79	30-130	06/26/2017 1416
Phenanthrene	40	36		1	89	30-130	06/26/2017 1416
Pyrene	40	34		1	86	30-130	06/26/2017 1416

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		86	38-127
2-Fluorobiphenyl		72	37-129
Terphenyl-d14		72	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MS

Sample ID: SF14079-021MS
Batch: 44664
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/20/2017 947

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	ND	40	28		1	70	30-130	06/28/2017 1233
Acenaphthylene	ND	40	29		1	73	30-130	06/28/2017 1233
Anthracene	ND	40	32		1	79	30-130	06/28/2017 1233
Benzo(a)anthracene	ND	40	31		1	79	30-130	06/28/2017 1233
Benzo(a)pyrene	ND	40	33		1	82	30-130	06/28/2017 1233
Benzo(b)fluoranthene	ND	40	28		1	71	30-130	06/28/2017 1233
Benzo(g,h,i)perylene	ND	40	38		1	95	30-130	06/28/2017 1233
Benzo(k)fluoranthene	ND	40	29		1	73	30-130	06/28/2017 1233
Chrysene	ND	40	31		1	77	30-130	06/28/2017 1233
Dibenzo(a,h)anthracene	ND	40	21		1	52	30-130	06/28/2017 1233
Fluoranthene	ND	40	31		1	79	30-130	06/28/2017 1233
Fluorene	ND	40	30		1	74	30-130	06/28/2017 1233
Indeno(1,2,3-c,d)pyrene	ND	40	34		1	85	30-130	06/28/2017 1233
Naphthalene	ND	40	26		1	64	30-130	06/28/2017 1233
Phenanthrene	ND	40	31		1	78	30-130	06/28/2017 1233
Pyrene	ND	40	33		1	84	30-130	06/28/2017 1233

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		71	38-127
2-Fluorobiphenyl		63	37-129
Terphenyl-d14		72	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: SF14079-021MD
Batch: 44664
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 06/20/2017 947

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acenaphthene	ND	40	29		1	73	4.4	30-130	40	06/28/2017 1258
Acenaphthylene	ND	40	30		1	76	3.1	30-130	40	06/28/2017 1258
Anthracene	ND	40	34		1	84	6.3	30-130	40	06/28/2017 1258
Benzo(a)anthracene	ND	40	32		1	79	0.60	30-130	40	06/28/2017 1258
Benzo(a)pyrene	ND	40	33		1	83	1.5	30-130	40	06/28/2017 1258
Benzo(b)fluoranthene	ND	40	29		1	73	2.9	30-130	40	06/28/2017 1258
Benzo(g,h,i)perylene	ND	40	38		1	96	1.1	30-130	40	06/28/2017 1258
Benzo(k)fluoranthene	ND	40	29		1	73	0.069	30-130	40	06/28/2017 1258
Chrysene	ND	40	32		1	80	3.3	30-130	40	06/28/2017 1258
Dibenzo(a,h)anthracene	ND	40	21		1	52	0.084	30-130	40	06/28/2017 1258
Fluoranthene	ND	40	33		1	84	6.1	30-130	40	06/28/2017 1258
Fluorene	ND	40	32		1	79	7.2	30-130	40	06/28/2017 1258
Indeno(1,2,3-c,d)pyrene	ND	40	35		1	87	2.1	30-130	40	06/28/2017 1258
Naphthalene	ND	40	26		1	66	3.2	30-130	40	06/28/2017 1258
Phenanthrene	ND	40	33		1	82	5.7	30-130	40	06/28/2017 1258
Pyrene	ND	40	35		1	88	5.5	30-130	40	06/28/2017 1258

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		69	38-127
2-Fluorobiphenyl		63	37-129
Terphenyl-d14		72	10-148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody
and
Miscellaneous Documents

SHEALY

Chain of Custody Record

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Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 73727

Client: Apex Companies	Report to Contact: Kayla Jones	Telephone No. / E-mail: 412-829-9650 / 412-349-0350	Quote No.
Address: 1600 Commerce Circle	Sampler's Signature: x [signature]	Analysis (Attach list if more space is needed)	Page ___ of ___
City: Trafford State: PA Zip Code: 15085	Printed Name: Gordon O Toole		SF14079
Project Name			
Project No.: HuberGWS 6/2017	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260B/MTBE	8270C	Remarks / Cooler I.D.
TB061317	6-13-17	—	G	X						2			X		
EB061317	6-13-17	17:45	G	X			2			3			X	X	
FD061317	6-13-17	16:30	G	X			2			3			X	X	
MW-5S	6-13-17	16:30	G	X			2			3			X	X	
MW-5M (Collected Additional vol)	6-13-17	17:05	G	X			6			9			X	X	
MW-5D	6-13-17	16:25	G	X			2			3			X	X	
MW-16	6-14-17	07:30	G	X			2			3			X	X	
MW-22	6-14-17	07:35	G	X			2			3			X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ **Standard** ☐ **Rush (Specify)**

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature] Gordon O'Toole	6-14-17	1653	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: [signature]	6.14.17	1653

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 2.8/5.1/2.5, + 3.4°C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

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SHEALY Chain of Custody Record

Number 73726

Client: Apex Companies LLC	Report to Contact: Kayla Jones	Telephone No. / E-mail: 412-829-9650 / 412-	Quote No.
Address: 1600 Commerce Circle	Sampler's Signature: X Gw J OToole	Analysis (Attach list if more space is needed)	Page ____ of ____
City: Trafford	State: PA Zip Code: 15085	Printed Name: Gordon O Toole	SF14079
Project Name: Huger 6/2017 GWS			

Project No.	P.O. No.			Matrix			No of Containers by Preservative Type						8260B	8270C	Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Aqueous	Solid	Non-aqueous	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
CMW-01	6-14-17	09:15	G	X			2			3			X	X	
CMW-02	6-14-17	08:50	G	X			2			3			X	X	
CMW-03	6-14-17	08:35	G	X			2			3			X	X	
CMW-04	6-14-17	10:00	G	X			2			3			X	X	
CMW-07	6-14-17	10:45	G	X			2			3			X	X	
CMW-12	6-14-17	10:45	G	X			2			3			X	X	
CMW-08	6-14-17	09:40	G	X			2			3			X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: Gw J OToole	6-14-17	1653	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	6-14-17	1653

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp: 2.5°C, 3.4°C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

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Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 73728

Client: Apex Companies LLC	Report to Contact: Kayla Jones	Telephone No. / E-mail: 412-829-9650/412-379-0350	Quote No.
Address: 1600 Commerce Circle	Sampler's Signature: X Gordon O Toole	Analysis (Attach list if more space is needed)	Page ___ of ___
City: Trafford State: PA Zip Code: 15085	Printed Name: Gordon O Toole		SF14079
Project Name: Huger 6/2017 GWS			
Project No.	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# of Cont.	Comp	Grab	Matrix: Aqueous	Soil	Other	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Other	8260B	8270C	Remarks / Cooler I.D.
MW-19	6-14-17	13:10	G		X	X			2			3			X	X	
MW-21	6-14-17	14:10	G		X	X			2			3			X	X	
MW-14	6-14-17	15:10	G		X	X			2			3			X	X	
MW-13	6-14-17	14:10	G		X	X			2			3			X	X	
MW-20	6-14-17	13:35	G		X	X			2			3			X	X	
MW-3	6-14-17	12:45	G		X	X			2			3			X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: Gordon O Toole	6.14.17	1653	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	6-14-17	1653

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp: 2.1, 2.5, 2.3, 3.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc
Document Number ME0018C-08

Page 1 of 1
Effective Date: 03/07/2017
Expiry Date 03/07/2022

Sample Receipt Checklist (SRC)

Client: Apex Cooler Inspected by/date: CCL 6/14/17 Lot #: SF14079

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other			
Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?
pH strip ID: NA Cl strip ID:			
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: 0.1 0.8 °C 5.1 5.1 °C 12.5 12.5 °C 13.4 13.4 °C			
Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C			
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		13. Was adequate sample volume available?
Yes ☑	No ☐		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
Yes ☑	No ☐	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA (< 0.5mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		22. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4, HNO_3, HCl, NaOH) using SR # _____.			
Sample(s) OCe were received with bubbles >6 mm in diameter.			
Samples(s) _____ were received with TRC > 0.5 mg/L (If #21 is No) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.			
SC Drinking Water Project Sample(s) pH verified to be < 2 by _____ Date: _____ Sample(s) _____ were Not received at a pH of < 2 and were adjusted accordingly using SR# _____			
Sample labels applied by: CCL Verified by: _____ Date: 6/14/17			

Comments: _____

APPENDIX C

DATA EVALUATION MEMORANDUM

Apex Companies, LLC

Memo

To: Bill Zeli

From: James Dunmyre

Date: August 18, 2017

Re: Evaluation of Analytical Data for Groundwater Samples Collected in June 2017
Groundwater Monitoring Program
SCE&G Huger Street Former Manufactured Gas Plant Site, Columbia, South Carolina

Sample Identification

CMW-01	CMW-07	MW-03	MW-13	MW-20
CMW-02	CMW-08	MW-05S	MW-14	MW-21
CMW-03	CMW-12	MW-05M	MW-16	MW-22
CMW-04		MW-05D	MW-19	

Overview

Eighteen groundwater samples were collected during the week of June 12, 2017, in support of the groundwater monitoring program at the Huger Street site.

The samples collected during the June groundwater sampling event were submitted to Shealy Environmental Services, Inc. (Shealy) located in West Columbia, South Carolina for the analyses of polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270D and BTEX via EPA Method 8260B. Some samples were also analyzed for methyl tert-butyl ether by EPA Method 8260B. The analytical results were reported in one sample delivery group (SDG) – SF14079. The attached table summarizes the SDGs, the samples and analytical parameters. Level II data packages were provided for the SDGs.

Three quality assurance/quality control (QA/QC) samples were also collected. The QA/QC samples collected included one equipment blank (EB061317), one blind field duplicate (FD061317, duplicate of MW-05S) and one trip blank TB061317. Additional sample volume was collected at MW-5M for MS/MSD purposes.

Summary

Quality control (QC) measures associated with the analytical data were reviewed following the U.S. EPA National Functional Guidelines (NFG) for Superfund Organic Methods Data Review (January 2017) to determine the accuracy and precision of the data reported. These QC measures included surrogate recoveries,

laboratory and field blank results, field duplicate results, MS/MSD results, and laboratory control sample (LCS) results.

The laboratory reported elevated detection limits due to laboratory sample dilutions at CMW-03, CMW-04 and MW-13. Data usability is presented below.

Recommendations for Data Usability

The reviewed QC results did not indicate that any significant problems existed with data precision and accuracy, as reported. All BTEX, MTBE, and PAH data should be considered usable for intended data uses.

Information Regarding Report Content

1. Attachment A - Glossary of Data Qualifier Codes
2. Attachment B - Summary of Groundwater Samples and Sample Delivery Groups – June 2017

ATTACHMENT A

GLOSSARY OF DATA QUALIFIER CODES

The following definitions provide a brief explanation of the national qualifiers assigned to results in the data review process.

CODES RELATING TO IDENTIFICATION

(Confidence concerning presence or absence of compounds.)

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

(NO CODE) = Confirmed identification

UR = The analyte was analyzed for, but not detected above the reported sample quantitation limit and the sample results are considered unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

R = Unusable Result. The sample results are considered unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

N = The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

E = Quantitation of compound exceeded the calibration range.

CODES RELATED TO QUANTITATION

(Can be used for positive results and sample quantitation limits.)

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

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

FRDP = The Relative Percent Difference (RPD) between the sample and its duplicate was greater than 20%.

ATTACHMENT B

SUMMARY OF GROUND WATER SAMPLES
BY SAMPLE DELIVERY GROUPS
June 2017

SCE&G Huger Street Former MGP Site
Columbia, South Carolina

Sample ID	Sample Date	SDGs for SVOC (8270D)	SDGs for VOC (8260B)	Comments
Parcel "A"				
MW-3	6/14/2017	SF14079	SF14079	
MW-13	6/14/2017	SF14079	SF14079	
MW-14	6/14/2017	SF14079	SF14079	
MW-16	6/14/2017	SF14079	SF14079	
MW-19	6/14/2017	SF14079	SF14079	
MW-20	6/14/2017	SF14079	SF14079	
MW-21	6/14/2017	SF14079	SF14079	
MW-22	6/14/2017	SF14079	SF14079	
Parcel "B"				
MW-5S	6/13/2017	SF14079	SF14079	
MW-5M	6/13/2017	SF14079	SF14079	
MW-5D	6/13/2017	SF14079	SF14079	
Parcel "C"				
CMW-01	6/14/2017	SF14079	SF14079	
CMW-02	6/14/2017	SF14079	SF14079	
CMW-03	6/14/2017	SF14079	SF14079	
CMW-04	6/14/2017	SF14079	SF14079	
CMW-07	6/14/2017	SF14079	SF14079	
CMW-08	6/14/2017	SF14079	SF14079	
CMW-12	6/14/2017	SF14079	SF14079	
QA/QC Samples				
EB061317	6/13/2017	SF14079	SF14079	
FD061317	6/13/2017	SF14079	SF14079	field duplicate of MW-05S (SVOC & VOC)
TB06/13/17	6/13/2017	*	SF14079	

Note:
1) SDG - Sample Delivery Group

APPENDIX D

SUMMARY OF HISTORICAL GROUNDWATER QUALITY DATA

TABLE D-1

SUMMARY OF HISTORICAL GROUNDWATER QUALITY DATA

Huger Street Former MGP Site
Columbia, South Carolina

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Methyl-tert-Butyl-Ether	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Screening Level (µg/L)[1]		**5**	**700**	**1,000**	**10,000**	**14**	**530**	**NL**	**1,800**	**0.03**	**0.2**	**0.25**	**NL**	**2.5**	**25**	**0.025**	**800**	**290**	**0.25**	**0.17**	**NL**	**120**
Well	**Date Sampled**																					
GP-02	8/24/2009	1,400	200	320	280	NA	15	130	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	29	5.2 U	4,000	20	5.2 U
GP-03	8/24/2009	7,000	1,100	200 U	630	NA	460	5.1 U	110	49	48	33	16	18	49	5.1 U	130	230	13	9,600	510	160
GP-04	8/24/2009	590	35	25 U	35	NA	510	40	200	110	100	76	36	35	95	5.1 U	240	320	31	59	830	360
MW-1	11/4/1996	10 U	10 U	10 U	10 U	10 U	33	12 U	14 U	8 U	8 U	8.4 U	6.8 U	9.2 U	12 U	7.6 U	10 U	17	3.6 U	43	9.6 U	8.4 U
	6/23/1997	2.1	1 U	1 U	1 U	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	10	5 U	5 U	5 U	34.2	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1.4	1 U	3.8	1 U	10.1	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	7/1/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	1/31/2006	5 U	5 U	5 U	5 U	14	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/28/2009	5 U	5 U	5 U	5 U	19	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.4	5.2 U	5.2 U	5.2 U	5.2 U
	9/25/2013	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-2	11/4/1996	210	220	5.8	95	1 U	8.3 U	12 U	14 U	8 U	8 U	8.4 U	6.8 U	9.2 U	12 U	7.6 U	10 U	10 U	3.6 U	130	9.6 U	8.4 U
	6/20/1997	720	190	10 U	55	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	150	50 U	50 U
	4/9/1998	353	347	7.4	93.4	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	688	5 U	0.3 U
	6/13/2002	20.1	5 U	5 U	6.5	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1.3	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	10.2	13.9	1 U	1 U	1 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	7/1/2004	8.2	18	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	1/30/2006	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/28/2009	5 U	5 U	5 U	5 U	NA	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
MW-3	11/4/1996	1 U	1 U	1 U	1 U	1 U	40	12 U	14 U	8 U	8 U	8.4 U	6.8 U	9.2 U	12 U	7.6 U	10 U	17	3.6 U	69	9.6 U	8.4 U
	6/20/1997	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	7.3	5 U	5 U	5 U	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	11.9	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	1 U	1 U	1 U	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1 U	1 U	1 U	1 U	1 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	7/1/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	1/30/2006	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/26/2009	5 U	5 U	5 U	5 U	NA	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
	9/24/2013	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/28/2014	7.8	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/11/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/11/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/29/2016	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-4	11/13/1996	1 U	3,200	1 U	400	1 U	57	12 U	14 U	8 U	8 U	8.4 U	6.8 U	9.2 U	12 U	7.6 U	10 U	52	3.6 U	4,000	9.6 U	12
	6/20/1997	85	470	10 U	66	10 U	100 U	15	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	22	100 U	63	19	100 U
	4/9/1998	31.7	5 U	5 U	5 U	5 U	11.5	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	1.8	22.8	0.2 U	5 U	5 U	2.5
	6/19/2003	6.6	8.7	6.9	10.4	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	32.6	10 U	10 U	10 U	10 U
	7/1/2004	6.7	310	5 U	34	NA	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6.9	5 U	550	5 U	5 U
	1/30/2006	6.6	10	5 U	5 U	NA	32	10 U	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25	10 U	10 U	10 U	10 U
	8/26/2009	5 U	76	5 U	12	NA	10	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	6.8	5.1 U	15	5.1 U	5.1 U
MW-5S	6/24/1997	1 U	1 U	1 U	1 U	4.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	33.6	3.6	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	2.1
	7/1/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	1/31/2006	5 U	5 U	5 U	5 U	33	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/24/2009	5 U	5 U	5 U	5 U	49	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
	9/25/2013	5 U	5 U	5 U	5 U	90	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/30/2014	5 U	5 U	5 U	5 U	90	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	58	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/12/2015	5 U	5 U	5 U	5 U	58	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/30/2016	5 U	5 U	5 U	5 U	42	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	33	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-5S DUP	6/14/2017	5 U	5 U	5 U	5 U	37	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

TABLE D-1

SUMMARY OF HISTORICAL GROUNDWATER QUALITY DATA

Huger Street Former MGP Site
Columbia, South Carolina

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Methyl-tert-Butyl-Ether	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Screening Level (µg/L)[1]		**5**	**700**	**1,000**	**10,000**	**14**	**530**	**NL**	**1,800**	**0.03**	**0.2**	**0.25**	**NL**	**2.5**	**25**	**0.025**	**800**	**290**	**0.25**	**0.17**	**NL**	**120**
Well	**Date Sampled**																					
MW-5M	6/24/1997	1 U	1 U	1 U	1 U	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	19.8	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	7/1/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	8/24/2009	5 U	5 U	5 U	5 U	16	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
	9/25/2013	5 U	5 U	5 U	5 U	20	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/30/2014	5 U	5 U	5 U	5 U	8.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	7.2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/12/2015	5 U	5 U	5 U	5 U	6.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/30/2016	5 U	5 U	5 U	5 U	5.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-5D	6/24/1997	1 U	1 U	1 U	1 U	5.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	8.1	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	1.6	7.2	9.4	1.6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1 U	1 U	1 U	1 U	5.4	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	7/1/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	8/24/2009	5 U	5 U	5 U	5 U	13	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
	9/25/2013	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/30/2014	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/12/2015	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/30/2016	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-6	6/24/1997	1 U	1 U	1 U	1 U	21	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	1.3	7	8.4	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1 U	1 U	1 U	1 U	1 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/30/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
MW-7	6/24/1997	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/30/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	1/31/2006	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-8	6/23/1997	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	2.3	11.4	18.7	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1 U	1 U	1 U	1 U	1 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	10.2	0.3 U
	6/30/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	8/26/2009	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
MW-9	6/24/1997	12	10 U	10 U	10 U	10 U	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	230	19	10 U
	7/1/2004	5 U	5 U	5 U	5 U	NA	16	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.6	5.4 U	5.4 U
	1/31/2006	5 U	5 U	5 U	5 U	7.3	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/28/2009	5 U	5 U	5 U	5 U	5 U	12	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2	5.2 U	5.2 U
MW-10	6/23/1997	1 U	1 U	1 U	1.6	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	1.4	6.5	9.1	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1 U	1 U	1 U	1 U	1 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/30/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
MW-11	6/24/1997	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/1998	5 U	5 U	5 U	5 U	5 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	5 U	0.2 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/13/2002	5 U	5 U	5 U	15 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U
	6/19/2003	1 U	1.9	8.9	11.4	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	4/9/2004	1 U	1 U	1 U	1 U	1 U	3 U	3 U	0.3 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	1 U	5 U	0.3 U	5 U	0.2 U	5 U	5 U	0.3 U
	6/30/2004	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Checked by: MR
9/18/2017

TABLE D-1

SUMMARY OF HISTORICAL GROUNDWATER QUALITY DATA

Huger Street Former MGP Site
Columbia, South Carolina

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Methyl-tert-Butyl-Ether	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Screening Level (µg/L)[1]		**5**	**700**	**1,000**	**10,000**	**14**	**530**	**NL**	**1,800**	**0.03**	**0.2**	**0.25**	**NL**	**2.5**	**25**	**0.025**	**800**	**290**	**0.25**	**0.17**	**NL**	**120**
Well	**Date Sampled**																					
MW-12	1/6/2006	10	7.8	5 U	21	NA	6	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	240	7.9	5.3 U
	1/30/2006	5 U	5 U	5 U	16	NA	10 U	15	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250	10 U	10 U
	8/26/2009	5 U	5 U	5 U	5 U	NA	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
MW-13	1/5/2006	25 U	45	260	670	NA	20	5.2 U	6.2	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	1,900	54	5.2 U
	1/31/2006	50 U	50 U	260	720	NA	31	10 U	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	95	10 U	3,400	83	10 U
	8/26/2009	25 U	52	150	760	NA	38	9.6	16	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	110	5.1 U	4,200	120	5.9
	9/25/2013	25 U	32	65	300	NA	38	10 U	17	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100	10 U	2,300	120	10 U
	5/27/2014	50 U	50 U	91	450	NA	30	10 U	14	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	84	10 U	2,400	110	10 U
	2/11/2015	5 U	35	73	330	NA	32	10 U	13	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	80	10 U	3,100	110	10 U
	11/12/2015	NA	NA	NA	NA	NA	24	10 U	13	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	80	10 U	2,200	110	10 U
	9/29/2016	25 U	37	49	250	NA	25	10 U	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	74	10 U	2,900	110	10 U
	6/14/2017	5 U	53	120	420	NA	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	2,200	45	40 U
MW-13DUP	9/25/2013	100 U	100 U	100 U	290	NA	39	10 U	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100	10 U	2,200	120	10 U
	5/27/2014	250 U	250 U	250 U	400	NA	31	10 U	15	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	87	10 U	2,600	110	10 U
MW-14	1/5/2006	5 U	5 U	5 U	5 U	NA	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
	1/31/2006	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/27/2009	5 U	5 U	5 U	5 U	5 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
	9/25/2013	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/29/2014	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/12/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/30/2016	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-15	1/6/2006	16	5 U	5 U	13	5 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
	1/30/2006	13	5 U	5 U	11	5 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U
	8/27/2009	5 U	5 U	5 U	5 U	5 U	11	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	13	5.1 U	5.1 U	5.1 U	5.1 U
MW-16	1/6/2006	5 U	5 U	5 U	5 U	38	14	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.3	11	5 U
	1/30/2006	5	5 U	5 U	5 U	31	21	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16	10 U	10 U	16	10 U
	8/27/2009	5 U	5 U	5 U	5 U	16	28	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	19	5.1 U	5.1 U	5.1 U	5.1 U
	9/25/2013	5 U	5 U	5 U	5 U	8.2	23	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16	10 U	10 U	10 U	10 U
	5/29/2014	5 U	5 U	5 U	5 U	5.3	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	5.9	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10	10 U	10 U	10 U	10 U
	11/12/2015	5 U	5 U	5 U	5 U	5.0	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	5 U	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U hh	10 U	10 U	10 U	10 U
MW-16 DUP	5/29/2014	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/12/2015	NA	NA	NA	NA	5.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/12/2015	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-17	1/6/2006	240	65	5 U	26	NA	140	5.2 U	8.5	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	120	52	5.2 U
	1/31/2006	190	51	5 U	20	5 U	140	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	58	10 U	90	52	10 U
	8/27/2009	27	5 U	5 U	5 U	5 U	29	5.2 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	9	5.1 U	5.1 U	5.1 U	5.1 U
MW-18	1/5/2006	5 U	5 U	5 U	5 U	NA	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
	1/31/2006	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	8/28/2009	5 U	5 U	5 U	5 U	5 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
	9/25/2013	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-19	9/26/2013	50 U	50 U	50 U	63	NA	27	110	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	35	10 U	900	39	10 U
	5/27/2014	32	25	25	70	NA	13	90	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25	10 U	900	25	10 U
	2/11/2015	25	31	30	86	NA	10 U	60	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	19	10 U	1,100	19	10 U
	11/11/2015	17	35	26	86	NA	21	95	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	35	10 U	1,400	35	10 U
	9/29/2016	6.6	15	5 U	39	NA	14	80	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8 U	37	8 U	470	39	8 U
	6/14/2017	15	13	9	47	NA	28	57	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8 U	19	8 U	340	21	8 U
MW-20	9/26/2013	290	25 U	25 U	25 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	85	10 U	10 U
	5/28/2014	230	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	78	10 U	10 U
	2/11/2015	260	25 U	25 U	25 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	62	10 U	10 U

TABLE D-1

SUMMARY OF HISTORICAL GROUNDWATER QUALITY DATA

Huger Street Former MGP Site
Columbia, South Carolina

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Methyl-tert-Butyl-Ether	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Screening Level (µg/L)[1]		**5**	**700**	**1,000**	**10,000**	**14**	**530**	**NL**	**1,800**	**0.03**	**0.2**	**0.25**	**NL**	**2.5**	**25**	**0.025**	**800**	**290**	**0.25**	**0.17**	**NL**	**120**
Well	**Date Sampled**																					
	11/11/2015	170	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	44	10 U	10 U
	9/30/2016	130	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	28	10 U	10 U
	6/14/2017	90	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	13	10 U	10 U
MW-21	9/26/2013	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/29/2014	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/13/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/30/2016	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-22	9/26/2013	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/29/2014	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/12/2015	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/13/2015	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/30/2016	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-22 DUP	9/30/2016	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CMW-01	9/16/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	10/19/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	28	10 U	10 U
	12/15/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	29	10 U	10 U
	7/19/2012	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	27	10 U	10 U
	9/24/2013	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/28/2014	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/11/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/10/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/29/2016	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CMW-02	9/16/2011	45	5.4	50	85	NA	10 U	49	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	22	10 U	770	34	10 U
	10/19/2011	46	5 U	42	90	NA	13	88	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	36	10 U	960	59	10 U
	12/15/2011	34	5 U	23	60	NA	10 U	71	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	26	10 U	1,100	41	10 U
	7/19/2012	66	5 U	68	69	NA	10 U	58	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	22 J	12 UJ	810	40 J	16 UJ
	9/24/2013	25 U	25 U	25 U	25 U	NA	13	80	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	37	10 U	640	60	10 U
	5/28/2014	9.9	5 U	5 U	18	NA	10 U	67	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	29	10 U	400	47	10 U
	2/11/2015	6.9	5 U	5 U	16	NA	10 U	47	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	30	10 U	490	50	10 U
	11/10/2015	9.7	5 U	5 U	23	NA	10 U	64	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	33	10 U	680 J	59	10 U
	9/29/2016	5 U	5 U	5 U	15	NA	10 U	60	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	33	10 U	400	53	10 U
	6/14/2017	6.9	5 U	5 U	10	NA	8 U	38	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8 U	8 U	21	8 U	420	34	8 U
CMW-03	9/16/2011	47	23	140	320	NA	15	61	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	37	10 U	690	41	10 U
	10/19/2011	64	28	190	360	NA	22	110	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	58	10 U	1,600	65	10 U
	12/15/2011	73	30	260	470	NA	14	79	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	38	10 U	2,700	40	10 U
	7/19/2012	95	23	230	320	NA	12	72	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	31	11 U	1,900	30	11 U
	9/24/2013	97	50 U	270	420	NA	19	93	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	47	10 U	2,000	49	10 U
	5/28/2014	100	50 U	310	420	NA	18	110	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	43	10 U	2,300	45	10 U
	2/11/2015	120	27	320	400	NA	21	83	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	54	10 U	2,800	53	10 U
	11/10/2015	110	26	300	420	NA	12	76	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	42	10 U	2,900	47	10 U
	9/29/2016	160	37	480	580	NA	15	98	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	46	10 U	3,100	51	10 U
	6/14/2017	130	35	450	550	NA	40 U	55	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	2,400	40 U	40 U
CMW-04	12/1/2011	99	72	730	1,100	NA	35 J, FRPD	230	23 UJ	12 UJ	10 UJ	12 UJ	16 UJ	21 UJ	14 UJ	27 UJ	29 UJ	84 J	47 UJ	4,700 FRPD	81 J	64 UJ
	12/15/2011	98	67	730	1,000	NA	22	170 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	58	10 U	5,800	51	10 U
	7/19/2012	83	44	530	700	NA	16 FRPD	54 FRPD	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	42 FRPD	10 U	2,800	41 FRPD	10 U
	9/24/2014	100 U	100 U	380	580	NA	34	92	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	87	10 U	2,400	84	10 U
	5/28/2014	44	30	300	500	NA	30	81	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	79	10 U	2,100	82	10 U
	2/10/2015	57	23	350	510	NA	25 FRPD	35 FRPD	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	67	10 U	1,700	76	10 U
	11/11/2015	24	22	120	330	NA	28	58	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	82	10 U	3,300	87	10 U
	9/26/2016	36	31	280	460	NA	23	47	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	71	10 U	3,100	77	10 U
	6/14/2017	25 U	26	210	400	NA	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	46	40 U	2,000	55	40 U
CMW-04 DUP	2/10/2015	52	25 U	360	490	NA	32 FRPD	44 FRPD	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	79	10 U	2,000	87	10 U

TABLE D-1

SUMMARY OF HISTORICAL GROUNDWATER QUALITY DATA

Huger Street Former MGP Site
Columbia, South Carolina

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Methyl-tert-Butyl-Ether	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Screening Level (µg/L)[(1)]		**5**	**700**	**1,000**	**10,000**	**14**	**530**	**NL**	**1,800**	**0.03**	**0.2**	**0.25**	**NL**	**2.5**	**25**	**0.025**	**800**	**290**	**0.25**	**0.17**	**NL**	**120**
Well	**Date Sampled**																					
	11/11/2015	24	22	140	320	NA	26	60	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	83	10 U	3,700	88	10 U
	9/29/2016	36	31	280	460	NA	24	27	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	70	10 U	3,100	78	10 U
CMW-05	11/30/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	12/14/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	7/19/2012	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CMW-06	11/30/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	12/15/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	7/19/2012	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CMW-07	11/30/2011	15	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	29	10 U	10 U
	12/15/2011	13	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	29	10 U	10 U
	7/19/2012	8	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/24/2013	16	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	46	10 U	10 U
	5/29/2014	19	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/10/2015	26	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/11/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/29/2016	6.7	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	7.1	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CMW-08	12/1/2011	32	5 U	5 U	73	NA	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	15 J	12 UJ	1,000	20 J	16 UJ
	12/15/2011	170	18	35	320	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	18	10 U	2,600	25	10 U
	7/19/2012	130	15	23	220	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	15	10 U	1,200	27	10 U
	9/24/2013	64	25 U	25 U	100	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	15	10 U	810	27	10 U
	5/27/2014	7.6	5 U	5 U	11	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	130	10 U	10 U
	2/10/2015	6.4	5 U	5 U	9.3	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	170	10 U	10 U
	11/10/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20	10 U	10 U
	9/29/2016	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	26	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11	10 U	10 U
CMW-09	11/30/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	12/14/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	7/18/2012	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CMW-10	11/30/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	12/14/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	7/18/2012	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CMW-12	11/30/2011	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/23/2013	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	5/29/2014	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	2/10/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	11/11/2015	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	9/29/2016	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	6/14/2017	5 U	5 U	5 U	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:

1. (1) Groundwater screening levels are the SCDHEC Maximum Contaminant Levels (MCL) in drinking water (R.61-58, 2009). If a SCDHEC drinking water standard is not available for a particular constituent, the groundwater screening level is the U.S. EPA Region 9 Regional Screening Level (RSL [November 2014]) for tapwater where carcinogens are based on a $1x10^{-6}$ risk and non-carcinogens are based on a hazard quotient of 1.
2. ▭ - Detections exceeding screening value.
3. FRPD - Failed Relative Percent Difference. Difference between sample result and its duplicate result for the constituent was greater than 20%.
4. J - Indicates an estimated value.
5. U - Indicates that the constituent was not detected at the reported detection limit.
6. UJ - Indicates the constituent was not detected at the reported detection limit; however, the result is qualified as estimated based on the data evaluation.
7. NA - Not Analyzed
8. NL - Not Listed