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October 3, 2013

VIA FEDERAL EXPRESS:

Messrs. Rusty Kestle, Interim RPM, and
Scott Miller, Remedial Project Manager
c/o Mr. Rusty Kestle, Interim RPM
U.S. Environmental Protection Agency, Region IV
61 Forsyth Street, S.W. (4WD-SRTMB)
Atlanta, Georgia 30303-3415
Telephone (Interim RPM): 404-562-8819

RE: 2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/ Koppers Superfund Site
Gainesville, Florida

Dear Messrs. Kestle and Miller:

On behalf of Beazer East, Inc. (Beazer), enclosed are three copies of the 2013 First Semiannual Comprehensive Groundwater Monitoring Report for the above-referenced site.

If you should have any questions regarding this correspondence, please do not hesitate to contact Mr. Mitchell Brourman, Beazer Environmental Manager, at (412) 208-8805 or Ms. Angie Gatchie of Field & Technical Services LLC (FTS) at 412-429-2694.

Sincerely,

Field & Technical Services LLC

Angie Gatchie
Project Scientist

Attachments

cc: W. O'Steen, U.S. EPA
L. Paul, Koppers, Inc. (CD)
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2013 FIRST SEMIANNUAL COMPREHENSIVE GROUNDWATER MONITORING REPORT

CABOT CARBON / KOPPERS SUPERFUND SITE GAINESVILLE, FLORIDA

Submitted to:

U.S. EPA Region 4

On behalf of:

Beazer East, Inc.

Prepared by:

Field & Technical Services, LLC
200 Third Avenue
Carnegie, Pennsylvania 15106

October 3, 2013

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ABBREVIATIONS/ACRONYMS

Beazer	Beazer East, Inc.
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CGMSAP	Comprehensive Groundwater Monitoring and Sample Analysis Plan
COC	Chain of Custody
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
FTS	Field & Technical Services, LLC
GCTLs	Florida Groundwater Cleanup Target Levels
gpm	Gallons per Minute
HG	Hawthorn Group
IRM	Interim Remedial Measure
Koppers	Koppers Inc.
LNAPL	Light Non-Aqueous Phase Liquid
LTZ	Lower Transmissive Zone
MCL	Maximum Contaminant Level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NAPL	Non-Aqueous Phase Liquid
ORP	Oxidation-Reduction Potential
PPE	Personal Protective Equipment
POTW	Publicly-Owned Treatment Works
QA	Quality Assurance
QC	Quality Control
Site	Cabot Carbon/Koppers Superfund Site, Gainesville, Florida
SOP	Standard Operating Procedure
SVOCs	Semi-volatile Organic Constituents
µg/l	Micrograms per Liter
U.S. EPA	United States Environmental Protection Agency
UTZ	Upper Transmissive Zone
VOCs	Volatile Organic Constituents
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

On behalf of Beazer East, Inc. (Beazer), Field & Technical Services, LLC (FTS) is pleased to submit the 2013 First Semiannual Comprehensive Groundwater Monitoring Report for the Cabot Carbon/Koppers Superfund Site in Gainesville, Florida (Site) (Figure 1) to the United States Environmental Protection Agency (U.S. EPA). This report presents the Site-wide monitoring activities which occurred during the first semiannual period of 2013 (January 1, 2013 through June 30, 2013) conducted in accordance with the U.S. EPA-approved[1] *Comprehensive Groundwater Monitoring and Sample Analysis Plan*[2] (CGMSAP). The purpose of the CGMSAP is to combine the current groundwater monitoring efforts into a unified Site-wide program, thereby enhancing the efficiency of data collection and the quality of the data obtained for understanding Site-wide groundwater conditions. The CGMSAP has replaced the previous Surficial Aquifer, Hawthorn Group (HG), and Floridan Aquifer monitoring programs at the Site.

[1] U.S. EPA, June 19, 2010, *May 7, 2010 Response to Comments and Final CGMSAP Submittal*, Letter to Karen Fromme, FTS.

[2] FTS, May 4, 2012, *Comprehensive Groundwater Monitoring and Sample Analysis Plan Revision 04*, Cabot Carbon/Koppers Superfund Site, Gainesville, Florida, submitted to U.S. EPA.

2.0 MONITORING ACTIVITIES

Field activities associated with the first quarter 2013 were conducted February 18, 2013 through February 21, 2013. Field activities associated with the second quarter 2013 were conducted April 22, 2013 through April 24, 2013. Monitoring activities and methods used for the implementation of the CGMSAP are discussed in the following sections. Figure 2 depicts the locations of the monitoring wells sampled during the reporting period.

2.1 MONITORING PROCEDURES

The following summary describes the general methods employed to conduct water-level measurements, non-aqueous phase liquid (NAPL) measurements, and groundwater sampling during the first and second quarter 2013:

- Water levels were collected during the first quarter 2013 event to fulfill the semiannual gauging requirement as established in the CGMSAP. Water levels were measured with a water-level meter and interface probe before groundwater sampling commenced in accordance with FTS Standard Operation Procedure (SOP) #116 and the CGMSAP. The depths to the bottom of the monitoring wells were also measured to monitor the potential accumulation of silt or sand in the wells. All monitoring wells were allowed to equilibrate to atmospheric pressure prior to gauging. The thickness of accumulated NAPL (if present) was also measured prior to purging and sampling. Gauging order was generally based on available historical analytical data. Monitoring wells were gauged in order of increasing impact. This procedure was followed to minimize any potential for cross contamination between monitoring wells;

- Low-flow sampling procedures were implemented during the purging and sampling of the monitoring wells in accordance with FTS SOP #157 and the CGMSAP (except for the Floridan multi-port monitoring wells and the Floridan Aquifer pumping wells, see below). Floridan Aquifer pumping wells (FW-6 and FW-21B) were purged by direct fill from spigot;

- Groundwater sampling of the multi-port monitoring wells was conducted via the use of the Westbay sampling tool (Westbay MP Sampling System) and in accordance with the CGMSAP;

- Water-quality parameters were measured with a YSI-556 water-quality meter and a LaMotte-2020e or a Hanna turbidity meter, which were field calibrated daily using manufacturer-supplied standard solutions.

Field parameters were measured approximately every 5 minutes during low-flow sampling procedures and included: pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity. Field parameters measured during traditional sampling procedures were collected and included: pH, specific conductivity, temperature, and turbidity. The multi-port sampling equipment is not designed for flow-through cell application. Therefore, groundwater field parameters were not collected at the multi-port monitoring wells;

- Sampling was initiated after field parameters stabilized. Samples were collected either directly from the Teflon®-lined tubing after the YSI-556 and its flow-thru cell were removed or with a Teflon® bailer. The groundwater samples were collected according to volatility (volatile samples first, semi-volatile samples second, and inorganic samples last). Dissolved metals were filtered through a 0.45-micrometer filter immediately upon sample collection;

- Decontamination of sampling equipment was performed between monitoring well locations utilizing Alconox solution and DI water rinses as specified in FTS SOP # 104;

- Laboratory-supplied bottles were filled, labeled, placed in a cooler with ice, and transported under chain-of-custody procedures to ALS Environmental of Jacksonville, Florida for analysis; and

- Purged groundwater was temporarily placed in 5-gallon buckets or the FTS 1,200-gallon water transport trailer and transferred to the on-Site waste-water treatment plant (WWTP) and subsequent discharge to the publicly-owned treatment works (POTW). Personal protective equipment (PPE) was collected in a 55-gallon drum for future disposal at an off-site licensed facility.

Groundwater quality measurements, calculations, and field notes were recorded for each monitoring well with digital handheld computers and printouts are provided in Appendix A. Copies of the chain of custody (COC) forms are included with the laboratory analytical data reports in Appendix B.

2.2 SURFICIAL AQUIFER

Surficial Aquifer monitoring consists of sampling monitoring wells in the immediate vicinity of the eastern and northern Site property boundaries. Thirteen Surficial Aquifer monitoring wells are used to monitor groundwater quality in the vicinity of these two property boundaries (Figure 2). The majority of the Surficial Aquifer

monitoring wells are nested monitoring wells completed in the upper ("A" series monitoring wells) and lower ("B" series monitoring wells) portions of the Surficial Aquifer.

No Surficial Aquifer monitoring wells were sampled during the first and second quarter 2013 events. The Surficial Aquifer monitoring wells are sampled annually in the third quarter. The monitoring locations and sampling frequency for the Surficial Aquifer is provided in Table 1.

2.3 HAWTHORN GROUP

HG monitoring focuses on wells located on-Site (near the former Drip Track and former North Lagoon areas), along the eastern and western property boundaries, and downgradient of these boundaries. A total of 24 HG monitoring wells are used to monitor groundwater quality (Figure 2).

No HG monitoring wells were sampled during the first and second quarter 2013 events. The HG monitoring wells are sampled annually in the third quarter. The monitoring locations and sampling frequency for the HG is provided in Table 2.

2.4 FLORIDAN AQUIFER

The Floridan Aquifer monitoring focuses on monitoring wells located downgradient and within suspected source area locations (Figure 2). The Floridan Aquifer monitoring wells are completed in the Upper Transmissive Zone (UTZ) and Lower Transmissive Zone (LTZ). The UTZ monitoring wells consist of both standard-construction monitoring wells and multiple-screen, multi-port sampling monitoring wells. The multi-port monitoring wells were installed to provide vertically discrete sampling within the Floridan Aquifer.

Thirteen (13) Floridan Aquifer monitoring wells were sampled during the first quarter 2013 event and six Floridan Aquifer monitoring wells were sampled during the second quarter 2013 event (Table 3).

Floridan Aquifer pumping wells FW-6 and FW-21B could not be gauged due to dedicated pumping equipment installed in these wells.

The list of analytes for the Floridan Aquifer monitoring wells is tailored to the known constituent distributions established from the quarterly sampling in these monitoring wells, which has been on-going since 2006. All Floridan Aquifer monitoring wells were sampled for select semivolatile organic compounds (SVOCs) and benzene, toluene, ethylbenzene, and xylenes (BTEX) consistent with the CGMSAP. In addition, Floridan Aquifer monitoring well FW-24B was sampled for total and dissolved arsenic.

2.5 QUALITY ASSURANCE

Quality assurance/quality control (QA/QC) samples collected during the first and second quarter 2013 events included trip blanks, field blanks, equipment rinsate blanks, filter blanks, field duplicates, and Site-specific matrix-spike/matrix-spike duplicate (MS/MSD) samples in accordance with the CGMSAP. Trip blanks were included in each cooler submitted to the laboratory containing volatile organic constituents (VOCs). Field blanks and equipment rinsate blanks were collected at a rate of one blank per day per sampling event. The following table summarizes the field duplicate and MS/MSD samples collected during the first and second quarter sampling events.

Monitoring Zone	Well ID	QA/QC ID	QA/QC Type
First Quarter 2013			
Floridan Aquifer	FW-4C Zone 2	GAIN-FW-99A-021813	Duplicate
	FW-23C Zone 1	GAIN-M-99B-021913	Duplicate
	FW-24C Zone 2	GAIN-FW-99C-021913	Duplicate
	FW-12B Zone 4	GAIN-FW-99D-022113	Duplicate
	FW-4	--	MS/MSD
	FW-6	--	MS/MSD
Second Quarter 2013			
Floridan Aquifer	FW-12B Zone 4	GAIN-FW-99A-042413	Duplicate
	FW-20B Zone 2	GAIN-FW-99B-042413	Duplicate
	FW-22B Zone 3	--	MS/MSD

FTS completed a QA review of the field and technical data at two levels as described in the CGMSAP. For the first level, data were reviewed at the time of collection by following standard procedures and QC checks. For the second level, after data reduction to table format or arrays, the data were reviewed for anomalous values. Any inconsistencies or anomalies identified during this review were immediately resolved, if possible, by seeking clarification from the field personnel responsible for collecting the data.

Upon receipt of the analytical data from ALS Environmental, Environmental Standards validated the data, using the protocols of the U.S. EPA National Functional

Guidelines (U.S. EPA 2008[3], 2009[4], and 2010[5]) and U.S. EPA method specifications. Environmental Standards found the majority of the data acceptable with the summarized qualifications, listed in Appendix B. Appendix B also contains the data validations and analytical reports. Appendix C contains the analytical data tables in Microsoft Excel format.

2.6 MONITORING WELL INSPECTION

A monitoring well inspection was completed on February 18, 2013. The FTS field crew documented observed defects or maintenance activities associated with the monitoring wells included in the first quarter 2013 event (Appendix A). Only minor defects were observed during the first quarter 2013 monitoring well inspection. These minor defects included surficial pad crack, replacement of a cap, and replacement of a lock (HG-24S). All defects to monitoring well HG-24S were repaired during the monitoring period.

2.7 DEVIATIONS FROM THE CGMSAP

The following deviations from the approved CGMSAP occurred during the reporting period:

- Floridan Aquifer monitoring wells FW-6 and FW-21B were not gauged during the reporting period due to dedicated pumping equipment installed in these monitoring wells.

[3] U.S. EPA, June 2008. *U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*.
[4] U.S. EPA, January 2009. *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*.
[5] U.S. EPA, January 2010. *U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*.

3.0 MONITORING RESULTS

The NAPLs monitoring, groundwater flow and water-quality results for the Surficial Aquifer, HG deposits, and Floridan Aquifer are discussed in the following sections.

3.1 NON-AQUEOUS PHASE LIQUIDS

Dense non-aqueous phase liquid (DNAPL) is being recovered on a bi-monthly basis in six Upper Hawthorn monitoring wells as an interim remedial measure (IRM). DNAPL recovery is reported in the monthly status reports for this Site. One of the six DNAPL recovery wells (HG-16S) is also sampled annually in accordance with the CGMSAP (Table 2). The annual gauging and sampling of this well will be conducted during the third quarter 2013. No measureable DNAPL thickness was detected in any of the Upper and Lower Hawthorn monitoring wells gauged during the first quarter 2013. However, similar to historical monitoring in monitoring well HG-16D, minor DNAPL staining was detected on the probe during the measurement in this monitoring well (Table 4). Light non-aqueous phase liquid (LNAPL) was not detected in any of the Surficial Aquifer, HG, or Floridan Aquifer monitoring wells measured during the first quarter 2013 monitoring event (Table 4).

3.2 GROUNDWATER FLOW

Groundwater potentiometric elevations were obtained in 21 monitoring well locations (20 HG monitoring wells and one Floridan Aquifer monitoring well) during the first quarter 2013 (Table 4). The monitoring well groundwater elevations were used to construct the Upper and Lower Hawthorn potentiometric surface contour maps for the first quarter 2013 (Figures 3a and 3b). In addition to the semiannual gauging requirements of the CGMSAP, groundwater potentiometric elevations were also obtained from Lower Hawthorn monitoring wells HG-12D and HG-16D during the first quarter 2013 as part of the IRM sampling event that occurred concurrent with the Site-wide groundwater monitoring event. The HG-12D and HG-16D groundwater potentiometric elevations are presented on Table 4 and Figure 3b for greater refinement of the Lower Hawthorn potentiometric surface during the first quarter 2013. Groundwater potentiometric elevations were not obtained in Floridan Aquifer monitoring well FW-6 and FW-21B due to dedicated pumping equipment installed in these wells. Potentiometric surface contour maps were not completed for the Surficial Aquifer or the Floridan Aquifer. The following subsections discuss the first quarter 2013 groundwater elevation data for the Surficial Aquifer, Upper Hawthorn Aquifer, Lower Hawthorn Aquifer, and Floridan Aquifer.

3.2.1 Surficial Aquifer

Surficial Aquifer groundwater flow at the Site is primarily controlled by the hydraulic-containment system designed to capture impacted groundwater at the Site. The hydraulic-containment system for the Surficial Aquifer was operational during the first and second quarters 2013. Recovery wells along the eastern and northern property boundary continued to capture impacted groundwater along with the horizontal trench/drain recovery system in the immediate vicinity of the four former source areas. The average combined groundwater recovery rate from the well/drain system during first quarter 2013 was approximately 85.7 gallons per minute (gpm) and second quarter 2013 was approximately 88.8 gpm.

A Surficial Aquifer Potentiometric Surface Map was not completed for the first quarter 2013 gauging event. No Surficial Aquifer monitoring wells were gauged during the first quarter 2013 event as part of the Site-wide groundwater monitoring program in accordance with the CGMSAP.

3.2.2 Hawthorn Group Deposits

The HG deposits contain three primary low-permeability clay deposits termed the upper clay, middle clay and lower clay units. Sedimentary deposits between the upper and middle clay units are referred to as the Upper Hawthorn and sedimentary deposits between the middle and lower clay units are referred to as the Lower Hawthorn. Groundwater flow directions for the Upper Hawthorn are distinct from flow directions in the Lower Hawthorn and therefore, will be discussed separately in this section.

<u>Upper Hawthorn</u>

Groundwater flow in the Upper Hawthorn closely approximates the flow direction in the Surficial Aquifer, with a primarily northeastern flow direction across the Site (Figure 3a). The low-permeability upper clay unit restricts downward vertical flow resulting in approximately 2 to 3 feet hydraulic-head difference across this clay unit. However, the similar northeasterly groundwater flow direction in the Upper Hawthorn and Surficial Aquifer is an indication that hydraulic communication is occurring between these two hydrologic units such that the approximate groundwater flow directions are the same. Similar to the hydraulic gradient in the Surficial Aquifer, the hydraulic gradient for the Upper Hawthorn increases from south to north across the Site; however the magnitude of this hydraulic-gradient change is not as large as in the Surficial Aquifer.

Lower Hawthorn

Groundwater flow in the Lower Hawthorn is influenced by the approximately 5- to 20-foot thick lower-permeability middle clay unit. The hydraulic-head difference across this clay unit is approximately 30 to 35 feet, indicating that the middle clay unit restricts vertical groundwater flow from the Upper Hawthorn to the Lower Hawthorn. The groundwater flow direction within the Lower Hawthorn is considerably different than the flow direction in the Upper Hawthorn. Monitoring well data from the Lower Hawthorn indicate the presence of a groundwater divide approximately extending from the southeastern corner of the Site to northwestern corner (Figure 3b). This groundwater divide results in northerly to northeasterly groundwater flow direction for the eastern half of the Site and a westerly to northwesterly flow direction for the western half of the Site. This groundwater divide approximately correlates with locations on the Site where the middle clay unit is thinnest (approximately 5 to 10 feet thick). These thin clay areas are also the same areas where the hydraulic-head differences between the Upper and Lower Hawthorn is the least (approximately 30 feet). Areas of the Site where the middle clay unit are the thickest (approximately 15 to 20 feet thick) correspond to areas where the hydraulic-head difference between these two units is also the greatest (more than 35 feet).

The hydraulic gradient is slightly less on the eastern portion of the Site versus the gradient on the western portion of the Site. This change in hydraulic gradient is likely due to a reduction in transmissivity for Lower Hawthorn deposits on the western half of the Site.

The potentiometric surface elevation for monitoring well HG-22D is approximately 7 feet higher than surrounding monitoring wells. The higher potentiometric surface elevation in this area may be due to the well completion in the upper portion of the Lower Hawthorn or increased hydraulic communication between the Upper Hawthorn and Lower Hawthorn in this area.

These data support the conceptual model of significantly restricted groundwater flow and hydraulic communication between the Upper and Lower Hawthorn across the entire Site. The approximately 30-foot of hydraulic-head difference in areas where the middle clay unit is projected to be the thinnest, supports this conceptual model.

3.2.3 Floridan Aquifer

Groundwater flow in the Floridan Aquifer is primarily controlled by groundwater withdrawals at the Murphree Wellfield. The Site is located within the large groundwater capture area that has developed from over 44 years of pumping at this

wellfield. Because of groundwater withdrawals at the Murphree Wellfield, the average groundwater flow direction at the Site is to the northeast.

A Floridan Aquifer Potentiometric Surface Map was not completed for the first quarter 2013 gauging event. One Floridan Aquifer monitoring well was gauged during the first quarter 2013 event; monitoring well FW-4 is completed in the Upper Transmissive Zone (UTZ).

3.3 GROUNDWATER QUALITY

Groundwater samples were collected from thirteen (13) Floridan Aquifer monitoring wells during the first quarter 2013 and from six Floridan Aquifer monitoring wells during the second quarter 2013 in accordance with the CGMSAP. Per the CGMSAP, Surficial Aquifer or HG monitoring wells were not sampled during the first and second quarter 2013 events. The following subsections discuss groundwater quality observations for the Floridan Aquifer during the first and second quarter 2013.

3.3.1 Floridan Aquifer

Groundwater samples were collected from thirteen (13) Floridan Aquifer monitoring wells during the first quarter 2013 and six Floridan Aquifer monitoring wells were sampled during the second quarter 2013 (Figure 2). Table 5 presents a summary of the first and second quarter 2013 analytical results for the single-screened Floridan Aquifer monitoring wells. Summaries of the first and second quarter 2013 analytical results for the multi-screened, multi-port UTZ and LTZ Floridan Aquifer monitoring wells are presented in Tables 6a and 6b, respectively. A graphical summary of organic and inorganic constituents that exceed the U.S. EPA MCLs and the Florida GCTLs are provided for the source area monitoring wells (Figure 4), transect monitoring wells (Figure 5), and boundary monitoring wells (Figures 6 and 7). Figures 8 and 9 show a summary of the Floridan Aquifer organic and the inorganic exceedances, respectively. The field forms, associated with the sampling of these monitoring wells, are included in Appendix A. The analytical laboratory results are included in Appendix B.

In the following paragraphs, groundwater quality results are discussed in more detail for the source, transect, and boundary monitoring wells.

3.3.1.1 Source Area Monitoring Wells

The source area UTZ extraction well FW-6 and monitoring well FW-20B, located near the former North Lagoon, contained select organic constituents with concentrations above Florida GCTL standards; and benzene above its respective

USEPA MCL (Figure 4). Source area extraction well FW-21B located in the former Drip Track area contained naphthalene above its respective Florida GCTL standards.

The February 2013 sample collected from UTZ extraction well FW-6 contained six organic constituents that exceed Florida GCTL standards: benzene, 2-methylnaphthalene, acenaphthene, carbazole, dibenzofuran, and naphthalene. Naphthalene concentration in FW-6 dropped from 1,900 micrograms per liter [µg/l] in August 2012 to 580 µg/l in February 2013 (Figure 4). The sample collected during the February 2013 sampling event also contained benzene that exceeds its respective U.S. EPA MCL.

The February and April 2013 samples collected from Zone 1 and Zone 2 for monitoring well FW-20B contain select organic constituents that exceed Florida GCTL standards. The February and April 2013 samples collected from Zone 1 contained six organic constituents (benzene, 2-methylnaphthalene, acenaphthene, carbazole, dibenzofuran, and naphthalene) that exceed their respective Florida GCTL standards. Zone 2 contained two organic constituents (acenaphthene and naphthalene) that exceeded their respective Florida GCTL standards during the February 2013 sampling event. During the April 2013 sampling event, Zone 2 contained four organic constituents (benzene, acenaphthene, carbazole, and naphthalene) that exceeded their respective Florida GCTL standards. The samples collected from Zone 1 during the February and April 2013 sampling events also contained benzene that exceeds its respective U.S. EPA MCL. The naphthalene and benzene concentrations in monitoring well FW-20B (Zone 1) increased during the fourth quarter 2010 monitoring event and concentrations continued to be elevated but steady through 2011, 2012, and into the first half of 2013. The February and April 2013 results for monitoring well FW-20B (Zone 2) are consistent with previous sampling results.

The February 2013 sample collected from extraction well FW-21B contained naphthalene that exceeded its respective Florida GCTL standards. The February 2013 naphthalene concentration for this extraction well was consistent previous concentrations.

3.3.1.2 Transect Monitoring Wells

There are a total of ten UTZ transect monitoring wells. Two of the UTZ transect monitoring wells were sampled during the reporting period (Figure 5). Samples collected from monitoring wells FW-12B (Zones 1, 3 and 4) and FW-16B (Zone 1) contained select organic constituents that exceed the Florida GCTLs.

Three of the four Zones (Zones 1, 3, and 4) for monitoring well FW-12B contain select organic constituents that exceed Florida GCTL standards. The highest

constituent impacts in FW-12B continue to be in the two lowest monitoring zones. The uppermost monitoring zone contains constituent impacts, but at lower concentrations. The constituent temporal trends for impacts in the two lower monitoring zones are consistent with the conceptual model of impacts infiltrating upgradient of this monitoring well location and migrating diagonally downward as they are transported to the north. In general, the organic constituent concentrations observed in monitoring well FW-12B during the reporting period were consistent with previous sampling event results.

Monitoring well FW-16B Zone 1 contained benzene and naphthalene concentrations in excess of Florida GCTL standards during the February and April 2013 sampling events. The February and April 2013 organic constituent concentrations in monitoring well FW-16B were similar to previous sampling events; with one exception, naphthalene concentrations were slightly elevated when compared to previous sampling events.

3.3.1.3 Boundary Monitoring Wells

As shown on Figure 6, all organic constituents were below the USEPA MCLs and the Florida GCTLs in the single-screened UTZ property boundary monitoring well FW-4, the multi-screened, multi-port LTZ property boundary monitoring wells FW-4C, FW-22C, FW-23C, and FW-24C, and in the multi-screened, multi-port UTZ property boundary monitoring wells FW-22B, FW-23B, and FW-24B during the reporting period. In addition, boundary monitoring well FW-24B was sampled for total and dissolved arsenic (Figure 7). Total and dissolved arsenic concentrations were elevated above Federal and State standards in Zones 1 in monitoring well FW-24B, which is consistent with previous sampling events. Total and dissolved arsenic were not detected above Federal and State standards in Zones 2, 3, and 4 in either the February or April 2013 sampling events for monitoring well FW-24B.

4.0 SUMMARY AND CONCLUSIONS

4.1 HYDROGEOLOGY

Groundwater potentiometric elevations were obtained in 21 monitoring well locations (20 HG monitoring wells and one Floridan Aquifer monitoring well) during the first quarter 2013, in accordance with the semiannual gauging requirements of the CGMSAP. Therefore, potentiometric surface contour maps were not completed for the Surficial Aquifer or the Floridan Aquifer.

The groundwater flow direction in the Upper Hawthorn is primarily to the northeast across the Site. Monitoring well data from the Lower Hawthorn indicate the presence of a groundwater divide extending approximately from the southeastern corner of the Site to northwestern corner. This groundwater divide results in northerly to northeasterly groundwater flow direction for the eastern half of the Site and a westerly to northwesterly flow direction for the western half of the Site.

4.2 NAPL RECOVERY

DNAPL recovery is performed in six Upper Hawthorn monitoring wells at the Site. Only one of these six monitoring wells (HG-16S) is included in the annual sampling program. Upper Hawthorn monitoring well HG-16S, located near the former North Lagoon, was not gauged during the first quarter 2013 due to it not being sampled, in accordance with the CGMSAP. No measureable DNAPL thickness was detected in any of the Upper and Lower Hawthorn monitoring wells gauged during the first quarter 2013. However, similar to historical monitoring in monitoring well HG-16D, minor DNAPL staining was detected on the probe during the measurement in these monitoring wells. LNAPL was not detected in any of the Surficial Aquifer, HG, or Floridan Aquifer monitoring wells gauged during the first quarter 2013 monitoring event. The NAPL thickness measurements are consistent with historical observations.

4.3 GROUNDWATER QUALITY

Groundwater quality observed during the first and second quarter 2013 sampling events in the Floridan Aquifer monitoring wells was generally consistent with previous sampling events.

Monitoring wells in the northwestern area of the Site demonstrate that dissolved-phase Site constituents are not wide-spread in the Floridan Aquifer. Organic constituents were not detected along the northern property boundary. No free-phase or residual DNAPL impacts were detected in continuous geologic core collected in the UF Aquifer at any of the monitoring well locations.

TABLES

Table 1
Surficial Aquifer Monitoring Wells and Program Parameters
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Monitoring Series	Parameters[2],[3]					Sampling Frequency[1]	Sampling Completed During the Reporting Period		Sampling to be Completed During the Next Reporting Period	
								First Quarter 2013	Second Quarter 2013	Third Quarter 2013	Fourth Quarter 2013
ITW-12	A	SVOCs	VOCs	--	--	--	Annual	--	--	X	--
ITW-22	A	SVOCs	VOCs	--	--	--	Annual	--	--	X	--
M-3BR	B	SVOCs	VOCs	Arsenic (total and dissolved)	Chromium (total and dissolved)	Pentachlorophenol	Annual	--	--	X	--
M-9AR	A	SVOCs	VOCs	Arsenic (total and dissolved)	--	--	Annual	--	--	X	--
M-9BR	B	SVOCs	VOCs	Arsenic (total and dissolved)	--	--	Annual	--	--	X	--
M-12	A	SVOCs	VOCs	Arsenic (total and dissolved)	Chromium (total and dissolved)	Pentachlorophenol	Annual	--	--	X	--
M-16A	A	SVOCs	VOCs	Arsenic (total and dissolved)	--	Pentachlorophenol	Annual	--	--	X	--
M-16B	B	SVOCs	VOCs	Arsenic (total and dissolved)	--	Pentachlorophenol	Annual	--	--	X	--
M-17	A	SVOCs	VOCs	Arsenic (total and dissolved)	--	Pentachlorophenol	Annual	--	--	X	--
M-20B	B	SVOCs	VOCs	Arsenic (total and dissolved)	--	Pentachlorophenol	Annual	--	--	X	--
M-23BR	B	SVOCs	VOCs	Arsenic (total and dissolved)	--	Pentachlorophenol	Annual	--	--	X	--
M-25B	B	SVOCs	VOCs	Arsenic (total and dissolved)	--	Pentachlorophenol	Annual	--	--	X	--
M-33B	B	SVOCs	VOCs	--	--	--	Annual	--	--	X	--

Notes:

(1) "SA" indicates semiannual; "QTR" indicates quarterly.

(2) "SVOCs" indicates semivolatile organic compounds. The specific list of SVOCs included in the program is provided in Table 5-3.
Note that pentachlorophenol as listed on Table 5-3 will be analyzed for select samples.

(3) "VOCs" indicates volatile organic compounds. The specific list of VOCs included in the program is provided in Table 5-3.

Table 2
Hawthorn Group Monitoring Wells and Program Parameters
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Parameters[2],[3]		Sampling Frequency[1]	Sampling Completed During the Reporting Period		Sampling to be Completed During the Next Reporting Period	
				First Quarter 2013	Second Quarter 2013	Third Quarter 2013	Fourth Quarter 2013
HG-2D	SVOCs	VOCs	Annual	--	--	X	--
HG-4S	SVOCs	VOCs	Annual	--	--	X	--
HG-4D	SVOCs	VOCs	Annual	--	--	X	--
HG-5D	SVOCs	VOCs	Annual	--	--	X	--
HG-6S	SVOCs	VOCs	Annual	--	--	X	--
HG-6D	SVOCs	VOCs	Annual	--	--	X	--
HG-10D	SVOCs	VOCs	Annual	--	--	X	--
HG-12D	SVOCs	VOCs	Annual	--	--	X	--
HG-16D	SVOCs	VOCs	Annual	--	--	X	--
HG-16S	SVOCs	VOCs	Annual	--	--	X	--
HG-20S	SVOCs	VOCs	Annual	--	--	X	--
HG-20D	SVOCs	VOCs	Annual	--	--	X	--
HG-21S	SVOCs	VOCs	Annual	--	--	X	--
HG-21D	SVOCs	VOCs	Annual	--	--	X	--
HG-22D	SVOCs	VOCs	Annual	--	--	X	--
HG-23D	SVOCs	VOCs	Annual	--	--	X	--
HG-24S	SVOCs	VOCs	Annual	--	--	X	--
HG-25D	SVOCs	VOCs	Annual	--	--	X	--
HG-26S	SVOCs	VOCs	Annual	--	--	X	--
HG-26D	SVOCs	VOCs	Annual	--	--	X	--
HG-27S	SVOCs	VOCs	Annual	--	--	X	--
HG-27D	SVOCs	VOCs	Annual	--	--	X	--
HG-29S	SVOCs	VOCs	Annual	--	--	X	--
HG-29D	SVOCs	VOCs	Annual	--	--	X	--

Notes:

(1) "QTR" indicates quarterly; "SA" indicates semiannual.

(2) "SVOCs" indicates semivolatile organic compounds. The specific list of SVOCs included in the program is provided in Table 5-4.

(3) "VOCs" indicates volatile organic compounds. The specific list of VOCs included in the program is provided in Table 5-4.

"NS" indicates not sampled due to the presence of dense non-aqueous phase liduid (DNAPL)

Table 3
Floridan Aquifer Monitoring Wells and Program Parameters
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Parameters(2),(3)			Site Location	Westbay Zones	Sampling Frequency(1)	Sampling Completed During the Reporting Period		Sampling to be Completed During the Next Reporting Period	
							First Quarter 2013	Second Quarter 2013	Third Quarter 2013	Fourth Quarter 2013
FW-3	SVOCs	VOCs	--	Boundary	n/a	Annual	--	--	X	--
FW-4	SVOCs	VOCs	--	Boundary	n/a	Semiannual	X	--	X	--
FW-4C	SVOCs	VOCs	--	Boundary	all	Semiannual	X	--	X	--
FW-6	SVOCs	VOCs	--	Source area	n/a	Semiannual	X	--	X	--
FW-10B	SVOCs	VOCs	--	Transect area	all	Annual	--	--	X	--
FW-11B	SVOCs	VOCs	--	Transect area	all	Annual	--	--	X	--
FW-12B	SVOCs	VOCs	--	Transect area	all	Quarterly	X	X	X	X
FW-13B	SVOCs	VOCs	--	Transect area	all	Annual	--	--	X	--
FW-14B	SVOCs	VOCs	--	Transect area	all	Annual	--	--	X	--
FW-15B	SVOCs	VOCs	--	Transect area	all	Annual	--	--	X	--
FW-16B	SVOCs	VOCs	--	Transect area	1	Quarterly	X	X	X	X
			--		2, 3, 4	Annual	--	--	X	--
FW-17B	SVOCs	VOCs	--	Transect area	all	Annual	--	--	X	--
FW-18B	SVOCs	VOCs	--	Source area	all	Annual	--	--	X	--
FW-19B	SVOCs	VOCs	--	Source area	all	Annual	--	--	X	--
FW-20B	SVOCs	VOCs	--	Source area	1, 2	Quarterly	X	X	X	X
			--		3, 4	Annual	--	--	X	--
FW-21B	SVOCs	VOCs	--	Source area	n/a	Semiannual	X	--	X	--
FW-22B	SVOCs	VOCs	--	Boundary	all	Quarterly	X	X	X	X
FW-22C	SVOCs	VOCs	--	Boundary	all	Semiannual	X	--	X	--
FW-23B	SVOCs	VOCs	--	Boundary	all	Quarterly	X	X	X	X
FW-23C	SVOCs	VOCs	--	Boundary	all	Semiannual	X	--	X	--
FW-24B	SVOCs	VOCs	As (total and dissolved)	Boundary	all	Quarterly	X	X	X	X
FW-24C	SVOCs	VOCs	As (total and dissolved)	Boundary	all	Semiannual/Annual(4)	X	--	X	--
FW-25B	SVOCs	VOCs	--	Sentinel	n/a	Annual	--	--	X	--
FW-25C	SVOCs	VOCs	--	Sentinel	n/a	Annual	--	--	X	--
FW-26B	SVOCs	VOCs	--	Sentinel	n/a	Annual	--	--	X	--
FW-26C	SVOCs	VOCs	--	Sentinel	n/a	Annual	--	--	X	--
FW-27B	SVOCs	VOCs	As (total and dissolved)	Transect area	all	Annual	--	--	X	--
FW-28B	SVOCs	VOCs	As (total and dissolved)	Boundary	all	Annual	--	--	X	--
FW-29B	SVOCs	VOCs	--	Sentinel	n/a	Annual	--	--	X	--
FW-29C	SVOCs	VOCs	--	Sentinel	n/a	Annual	--	--	X	--
FW-30B	SVOCs	VOCs	As (total and dissolved)	Transect area	all	Annual	--	--	X	--

Notes:

(1) "QTR" indicates quarterly; "SA" indicates semiannual.

(2) "SVOCs" indicates semivolatile organic compounds. The specific list of SVOCs included in the program is provided in Table 5-6.

(3) "VOCs" indicates volatile organic compounds. The specific list of VOCs included in the program is provided in Table 5-6.

(4) Note that for FW-24C, arsenic analysis is required for Zone 1 on an annual basis only. Arsenic is not required for the other zones. Analysis for SVOCs and VOCs is required on a semiannual basis.

Table 4
Summary of Groundwater Elevations - First Quarter 2013 Groundwater Monitoring Event
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well Number	Gauging Date	Top of Casing Elevation (ft msl)	Depth To Water (ft)	Measured Total Depth (ft TOC)	Apparent LNAPL Thickness (ft)	Apparent DNAPL Thickness (ft)	Groundwater Elevation (ft msl)
HG-2D	2/18/13	188.88	54.26	112.95	NP	NP	134.62
HG-4D	2/18/13	180.91	43.53	107.95	NP	NP	137.38
HG-4S	2/18/13	180.41	13.19	52.54	NP	NP	167.22
HG-5D	2/18/13	187.73	56.48	112.69	NP	NP	131.25
HG-6D	2/18/13	185.02	41.96	107.87	NP	NP	143.06
HG-6S	2/18/13	184.86	15.30	52.75	NP	NP	169.56
HG-12D	2/18/13	184.64	46.34	115.68	NP	NP	138.30
HG-16D	2/18/13	185.07	46.71	117.42	NP	Trace	138.36
HG-20D	2/18/13	174.33	38.31	84.16	NP	NP	136.02
HG-20S	2/18/13	174.37	7.23	39.80	NP	NP	167.14
HG-21D	2/18/13	167.90	36.96	94.95	NP	NP	130.94
HG-21S	2/18/13	167.72	10.09	41.10	NP	NP	157.63
HG-22D	2/18/13	186.15	45.09	82.60	NP	NP	141.06
HG-23D	2/18/13	186.70	52.78	89.47	NP	NP	133.92
HG-24S	2/18/13	184.28	15.88	71.42	NP	NP	168.40
HG-25D	2/18/13	181.30	52.00	85.95	NP	NP	129.30
HG-26D	2/18/13	182.92	40.78	94.02	NP	NP	142.14
HG-26S	2/18/13	183.21	13.67	44.29	NP	NP	169.54
HG-27D	2/18/13	162.42	32.92	96.38	NP	NP	129.50
HG-27S	2/18/13	162.48	8.57	59.87	NP	NP	153.91
HG-29D	2/18/13	179.17	41.53	96.85	NP	NP	137.64
HG-29S	2/18/13	179.17	13.31	54.78	NP	NP	165.86
FW-4	2/18/13	173.91	129.49	159.90	NP	NP	44.42
FW-6	2/18/13	NM	NM	NM	NM	NM	NM

Notes:

ft msl - feet above mean sea level

ft toc - feet below top of casing

NP = no product measured or observed

NM = not measured; pumping well

LNAPL = Light Non-Aqueous Phase Liquid

DNAPL = Dense Non-Aqueous Phase Liquid

Table 5
Summary of Analytical Data for Floridan Aquifer Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Analyte	Federal MCL [1] (ug/l)	Florida GCTL [2] (ug/l)	Well ID: FW-4 Sample Date: 2/20/2013 Sample Type: SMP	FW-6 2/20/2013 SMP	FW-21B 2/20/2013 SMP
Temperature (°C)	NA	NA	23.74	24.18	24.22
pH (S.U.)	NA	NA	7.54	8.19	8.89
Conductivity (mS/cm)	NA	NA	0.454	0.473	0.557
VOCs					
BENZENE	5	1	1 U	12	1 U
ETHYLBENZENE	700	30	1 U	5.2	1 U
TOLUENE	10000	40	1 U	1.4	1 U
XYLENE (total)	1000	20	3 U	9.8	3 U
SVOCs					
2,4-DIMETHYLPHENOL	-	140	5.2 U	10 J	5.3 U
2-METHYLNAPHTHALENE	-	28	5.2 U	66 J	5.3 U
2-METHYLPHENOL	-	35	5.2 U	5.2 UJ	5.3 U
3&4-METHYLPHENOL	-	3.5[3]	1.1 U	1.1 UJ	1.1 U
ACENAPHTHENE	-	20	5.2 U	99	7.4
ACENAPHTHYLENE	-	210	5.2 U	5.2 U	5.3 U
ANTHRACENE	-	2100	5.2 U	6.2	5.3 U
CARBAZOLE	-	1.8	1.9 U	68 J	2 U
DIBENZOFURAN	-	28	5.2 U	54 J	5.3 U
FLUORANTHENE	-	280	5.2 U	7.8	5.3 U
FLUORENE	-	280	5.2 U	65 J	5.3 U
NAPHTHALENE	-	14	5.2 U	580	75
PHENANTHRENE	-	210	5.2 U	54 J	5.3 U
PHENOL	-	10	5.2 UJ	5.2 UJ	5.3 UJ
PYRENE	-	210	5.2 U	5.2 UJ	5.3 U

Notes:

B - Indicates analyte was detected in the field blank.

U - Indicates analyte was not detected above the method detection limit (MDL)

J - Indicates result is estimated

Concentration exceeds Florida GCTL

Concentration exceeds Florida MCL

[1] - Federal Maximum Contaminant Levels (MCLs) represent the National Primary Drinking Water Standards.

[2] - Florida Groundwater Cleanup Target Levels (GCTL) are guidelines set forth in 62-777 Florida Administrative Code (F.A.C.).

[3] - 3-Methylphenol and 4-Methylphenol cannot be quantified separately using SW846.

Table 6a
Summary of Analytical Data for Westbay Upper Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-12B									
			Zone 1	Zone 1	Zone 2	Zone 2	Zone 3	Zone 3	Zone 4	Duplicate	Zone 4	Duplicate
		Sample Date:	2/20/2013	4/24/2013	2/20/2013	4/24/2013	2/21/2013	4/24/2013	2/21/2013	2/21/2013	4/24/2013	4/24/2013
METALS												
ARSENIC (dissolved)	10	10	--	--	--	--	--	--	--	--	--	--
ARSENIC (total)	10	10	--	--	--	--	--	--	--	--	--	--
VOCs												
BENZENE	5	1	1.9	1.9	1 U	1 U	2.3	2.6	1.7 J	2.9 J	3.1 J	1.7 J
ETHYLBENZENE	700	30	1.1	1.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	2.9	3.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	1.1	1.2	3 U	3 U	2.3	2.4	3 U	4.3	4.2	3 U
SVOCs												
2,4-DIMETHYLPHENOL	-	140	29	34	6.3 U	5.6 U	5.9 U	5.2 U	5.9 U	5.2 U	6 U	5.7 U
2-METHYLNAPHTHALENE	-	28	6.2 U	5.5 U	6.3 U	5.6 U	34	39	19	19	24	25
2-METHYLPHENOL	-	35	32	30	6.3 U	5.6 U	5.9 U	5.2 U	5.9 U	5.2 U	6 U	5.7 U
3&4-METHYLPHENOL	-	3.5[3]	1.4	1.1 U	1.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U
ACENAPHTHENE	-	20	6.9	5.9	6.3 U	5.6 U	76	69	42	41	44	45
ACENAPHTHYLENE	-	210	6.2 U	5.5 U	6.3 U	5.6 U	5.9 U	5.2 U	5.9 U	5.2 U	6 U	5.7 U
ANTHRACENE	-	2100	6.2 U	5.5 U	6.3 U	5.6 U	5.9 U	5.2 U	5.9 U	5.2 U	6 U	5.7 U
CARBAZOLE	-	1.8	2.3 U	2 U	2.3 U	2 U	19	23	2.1 U	1.9 U	2.2 U	2.1 U
DIBENZOFURAN	-	28	6.2 U	5.5 U	6.3 U	5.6 U	49	48	29	28	32	33
FLUORANTHENE	-	280	6.2 U	5.5 U	6.3 U	5.6 U	5.9 U	5.2 U	5.9 U	5.2 U	6 U	5.7 U
FLUORENE	-	280	6.2 U	5.5 U	6.3 U	5.6 U	52	52	28	28	33	33
NAPHTHALENE	-	14	290	240	6.3 U	5.6 U	970	1000	580	550	640	690
PHENANTHRENE	-	210	6.2 U	5.5 U	6.3 U	5.6 U	20	25	5.9 U	5.2 U	6 U	5.7 U
PHENOL	-	10	6.2 UJ	5.5 UJ	6.3 UJ	5.6 UJ	5.9 UJ	5.2 UJ	5.9 UJ	5.2 UJ	6 UJ	5.7 UJ
PYRENE	-	210	6.2 U	5.5 U	6.3 U	5.6 U	5.9 UJ	5.2 U	5.9 UJ	5.2 UJ	6 U	5.7 U

Table 6a
Summary of Analytical Data for Westbay Upper Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-16B		WELL ID FW-20B				
			Zone 1	Zone 1	Zone 1	Zone 1	Zone 2	Zone 2	Duplicate
		Sample Date:	2/20/2013	4/23/2013	2/21/2013	4/24/2013	2/21/2013	4/24/2013	4/24/2013
METALS									
ARSENIC (dissolved)	10	10	--	--	--	--	--	--	--
ARSENIC (total)	10	10	--	--	--	--	--	--	--
VOCs									
BENZENE	5	1	3.4	3.2	12	8.5	1 U	1.1	1 U
ETHYLBENZENE	700	30	1.8	1.5	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	3.1	2.6	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	3.8	1.3	6.2	4	3 U	3 U	3 U
SVOCs									
2,4-DIMETHYLPHENOL	-	140	120	140	5.5 U	9.3	6 U	5.5 U	5.4 U
2-METHYLNAPHTHALENE	-	28	6.1 U	5.4 U	130	170	6.4	9.6	11
2-METHYLPHENOL	-	35	9.3	9.2	5.5 U	5.7 U	6 U	5.5 U	5.4 U
3&4-METHYLPHENOL	-	3.5[3]	1.3 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U
ACENAPHTHENE	-	20	6.1 U	5.4 U	84	90	53	58	55
ACENAPHTHYLENE	-	210	6.1 U	5.4 U	5.5 U	5.7 U	6 U	5.5 U	5.4 U
ANTHRACENE	-	2100	6.1 U	5.4 U	5.5 U	6.1	6 U	5.5 U	5.4 U
CARBAZOLE	-	1.8	2.2 U	2 U	30	44	2.2 U	2.3	2.8 J
DIBENZOFURAN	-	28	6.1 U	5.4 U	48	55	24	26	27
FLUORANTHENE	-	280	6.1 U	5.4 U	5.5 U	8.5	6 U	5.5 U	5.4 U
FLUORENE	-	280	6.1 U	5.4 U	54	63	30	35	35
NAPHTHALENE	-	14	85	76	1900	2100	330	28	280
PHENANTHRENE	-	210	6.1 U	5.4 U	39	49	6 U	5.5 U	6.1
PHENOL	-	10	6.1 UJ	5.4 U	5.5 UJ	5.7 UJ	6 UJ	5.5 UJ	5.4 UJ
PYRENE	-	210	6.1 U	5.4 U	5.5 UJ	5.7 U	6 UJ	5.5 U	5.4 U

Table 6a
Summary of Analytical Data for Westbay Upper Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-22B							
			Zone 1	Zone 1	Zone 2	Zone 2	Zone 3	Zone 3	Zone 4	Zone 4
		Sample Date:	2/20/2013	4/23/2013	2/20/2013	4/23/2013	2/20/2013	4/23/2013	2/20/2013	4/23/2013
METALS										
ARSENIC (dissolved)	10	10	--	--	--	--	--	--	--	--
ARSENIC (total)	10	10	--	--	--	--	--	--	--	--
VOCs										
BENZENE	5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	700	30	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SVOCs										
2,4-DIMETHYLPHENOL	-	140	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
2-METHYLNAPHTHALENE	-	28	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
2-METHYLPHENOL	-	35	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
3&4-METHYLPHENOL	-	3.5[3]	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U
ACENAPHTHENE	-	20	6.2 U	6.1 U	8.4	6.6	5.8 U	5.8 U	5.3 U	5.7 U
ACENAPHTHYLENE	-	210	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
ANTHRACENE	-	2100	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
CARBAZOLE	-	1.8	2.3 U	2.2 U	2.1 U	2.1 U	2.1 U	2.1 U	1.9 U	2.1 U
DIBENZOFURAN	-	28	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
FLUORANTHENE	-	280	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
FLUORENE	-	280	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
NAPHTHALENE	-	14	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
PHENANTHRENE	-	210	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U
PHENOL	-	10	6.2 UJ	6.1 U	5.9 UJ	5.7 UJ	5.8 UJ	5.8 UJ	5.3 UJ	5.7 U
PYRENE	-	210	6.2 U	6.1 U	5.9 U	5.7 U	5.8 U	5.8 U	5.3 U	5.7 U

Table 6a
Summary of Analytical Data for Westbay Upper Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-23B							
			Zone 1	Zone 1	Zone 2	Zone 2	Zone 3	Zone 3	Zone 4	Zone 4
		Sample Date:	2/18/2013	4/22/20113	2/18/2013	4/22/20113	2/18/2013	4/22/20113	2/18/2013	4/22/20113
METALS										
ARSENIC (dissolved)	10	10	--	--	--	--	--	--	--	--
ARSENIC (total)	10	10	--	--	--	--	--	--	--	--
VOCs										
BENZENE	5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	700	30	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SVOCs										
2,4-DIMETHYLPHENOL	-	140	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
2-METHYLNAPHTHALENE	-	28	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
2-METHYLPHENOL	-	35	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
3&4-METHYLPHENOL	-	3.5[3]	1.1 U	1.3 U	1.3 U	1.1 U	1.2 U	1.1 U	1.3 U	1.1 U
ACENAPHTHENE	-	20	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
ACENAPHTHYLENE	-	210	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
ANTHRACENE	-	2100	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
CARBAZOLE	-	1.8	2 U	2.2 U	2.4 U	1.9 U	2 U	2 U	2.4 U	2 U
DIBENZOFURAN	-	28	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
FLUORANTHENE	-	280	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
FLUORENE	-	280	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
NAPHTHALENE	-	14	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
PHENANTHRENE	-	210	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 U
PHENOL	-	10	5.5 UJ	6.1 U	6.5 UJ	5.3 U	5.6 UJ	5.5 U	6.5 UJ	5.5 U
PYRENE	-	210	5.5 U	6.1 U	6.5 U	5.3 U	5.6 U	5.5 U	6.5 U	5.5 UJ

Table 6a
Summary of Analytical Data for Westbay Upper Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-24B							
			Zone 1	Zone 1	Zone 2	Zone 2	Zone 3	Zone 3	Zone 4	Zone 4
		Sample Date:	2/19/2013	4/23/2013	2/19/2013	4/23/2013	2/19/2013	4/23/2013	2/19/2013	4/23/2013
METALS										
ARSENIC (dissolved)	10	10	168	156	4.6	3.8	1 U	1 U	1 U	1 U
ARSENIC (total)	10	10	162	159	4.3	4.3	1 U	1.7	1.2	1 U
VOCs										
BENZENE	5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	700	30	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SVOCs										
2,4-DIMETHYLPHENOL	-	140	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
2-METHYLNAPHTHALENE	-	28	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
2-METHYLPHENOL	-	35	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
3&4-METHYLPHENOL	-	3.5[3]	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U
ACENAPHTHENE	-	20	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
ACENAPHTHYLENE	-	210	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
ANTHRACENE	-	2100	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
CARBAZOLE	-	1.8	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2 U	2.1 U
DIBENZOFURAN	-	28	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
FLUORANTHENE	-	280	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
FLUORENE	-	280	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
NAPHTHALENE	-	14	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
PHENANTHRENE	-	210	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U
PHENOL	-	10	5.9 UJ	5.7 UJ	5.7 UJ	5.7 U	5.4 UJ	5.4 U	5.6 UJ	5.7 U
PYRENE	-	210	5.9 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U	5.6 U	5.7 U

Notes:

B - Indicates analyte was detected in the field blank.

U - Indicates analyte was not detected above the method detection limit (MDL)

J - Indicates result is estimated

Concentration exceeds Florida GCTL

Concentration exceeds Federal MCL

(1) - Federal Maximum Contaminant Levels (MCLs) represent the National Primary Drinking Water Standards.

(2) - Florida Groundwater Cleanup Target Levels (GCTL) are guidelines set forth in 62-777 Florida Administrative Code (F.A.C.).

(3) - 3-Methylphenol and 4-Methylphenol cannot be quantified separately using SW846.

Table 6b
Summary of Analytical Data for Westbay Lower Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-4C				WELL ID FW-22C		
			Zone 1	Zone 2	Duplicate	Zone 3	Zone 1	Zone 2	Zone 3
		Sample Date:	2/18/2013	2/18/2013	2/18/2013	2/18/2013	2/19/2013	2/19/2013	2/19/2013
Metals									
BENZENE	5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	700	30	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SVOCs									
2,4-DIMETHYLPHENOL	-	140	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
2-METHYLNAPHTHALENE	-	28	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
2-METHYLPHENOL	-	35	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
3&4-METHYLPHENOL	-	3.5[3]	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U
ACENAPHTHENE	-	20	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
ACENAPHTHYLENE	-	210	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
ANTHRACENE	-	2100	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
CARBAZOLE	-	1.8	2 U	2.2 U	2 U	1.9 U	2 U	2 U	2 U
DIBENZOFURAN	-	28	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
FLUORANTHENE	-	280	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
FLUORENE	-	280	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
NAPHTHALENE	-	14	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
PHENANTHRENE	-	210	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U
PHENOL	-	10	5.5 UJ	6.1 UJ	5.5 UJ	5.3 UJ	5.5 UJ	5.6 UJ	5.4 UJ
PYRENE	-	210	5.5 U	6.1 U	5.5 U	5.3 U	5.5 U	5.6 U	5.4 U

Table 6b
Summary of Analytical Data for Westbay Lower Transmissive Zone Monitoring Wells
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)	WELL ID FW-23C				WELL ID FW-24C				
			Zone 1	Duplicate	Zone 2	Zone 3	Zone 1	Zone 2	Duplicate	Zone 3	Zone 4
		Sample Date:	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013
Metals											
BENZENE	5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	700	30	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	10000	40	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XYLENE (total)	1000	20	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SVOCs											
2,4-DIMETHYLPHENOL	-	140	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
2-METHYLNAPHTHALENE	-	28	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
2-METHYLPHENOL	-	35	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
3&4-METHYLPHENOL	-	3.5[3]	1.1 U	5.8 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U
ACENAPHTHENE	-	20	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
ACENAPHTHYLENE	-	210	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
ANTHRACENE	-	2100	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
CARBAZOLE	-	1.8	1.9 U	2.1 U	2 U	1.9 U	2 U	2 U	2.1 U	2.1 U	2 U
DIBENZOFURAN	-	28	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
FLUORANTHENE	-	280	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
FLUORENE	-	280	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
NAPHTHALENE	-	14	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
PHENANTHRENE	-	210	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U
PHENOL	-	10	5.2 UJ	5.8 UJ	5.4 UJ	5.1 UJ	5.5 UJ	5.4 UJ	5.7 UJ	5.7 UJ	5.5 UJ
PYRENE	-	210	5.2 U	5.8 U	5.4 U	5.1 U	5.5 U	5.4 U	5.7 U	5.7 U	5.5 U

Notes:

B - Indicates analyte was detected in the field blank.

U - Indicates analyte was not detected above the method detection limit (MDL)

J - Indicates result is estimated

Concentration exceeds Florida GCTL

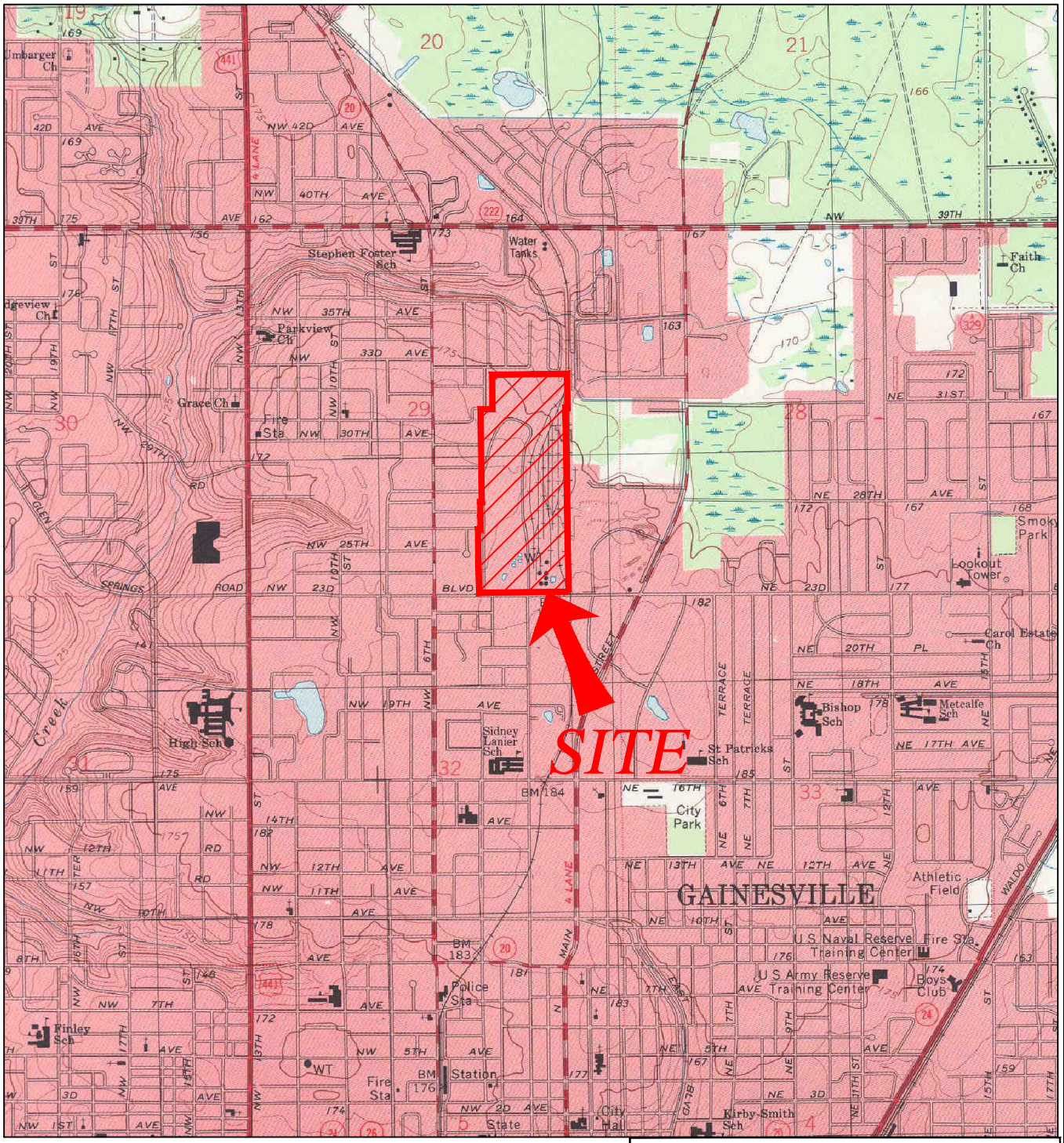
Concentration exceeds Federal MCL

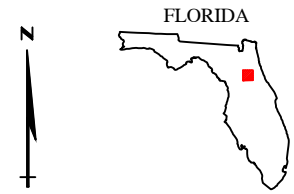
(1) Federal Mazimum Contaminant Levels (MCLs) represent the National Primary Drinking Water Standards.

(2) Florida Groundwater Cleanup Target Levels (GCTLs) are guidelines set forth in 62-777 Florida Administrative Code (F.A.C.).

(3) 3-Methylphenol and 4-Methylphenol cannot be quantified separately using USEPA SW-846 Method 8270C.

FIGURES





QUADRANGLE LOCATION

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
GAINESVILLE EAST, FLORIDA – 1994

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	02/19/13
CHKD:	AMG	DATE:	02/19/13
APPD:	AMG	DATE:	02/19/13
SCALE:	1" = 1000'		
ISSUE DATE:			

FTS

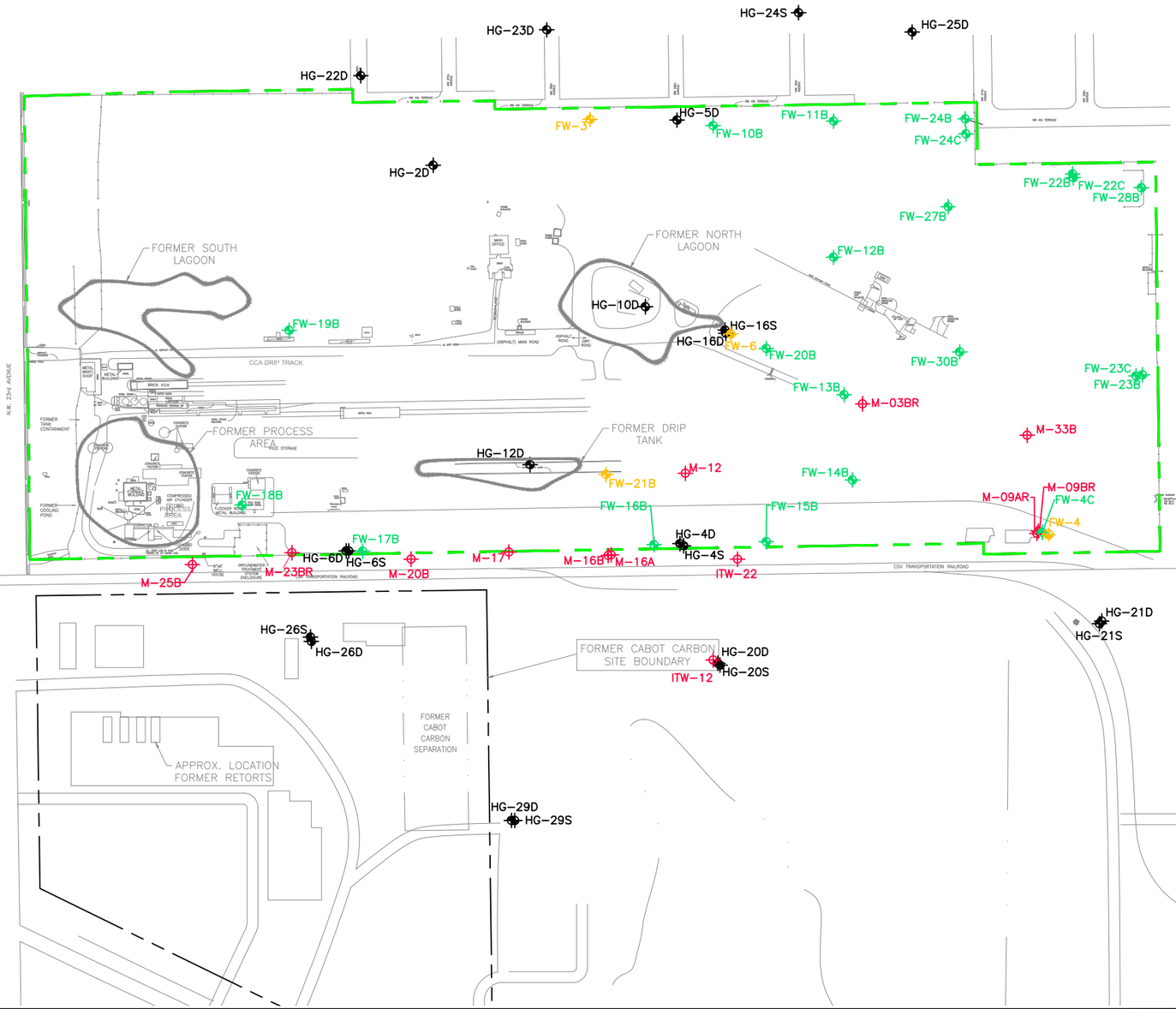
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

SITE LOCATION MAP

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 1

FILE: Q:\PROJECTS\BEAZER PROJECTS\GAINESVILLE\CADD\1SA GW COMP REPORT 2013\FIBORE-1.DWG



LEGEND

- FW-21B — FLORIDAN STANDARD CONSTRUCTION MONITORING WELL
- FW-19B — FLORIDAN WESTBAY MONITORING WELL
- FW-25B — FLORIDAN SENTINEL MONITORING WELL
- HG-25D — HAWTHORN MONITORING WELL
- ITW-22 — SURFICIAL MONITORING WELL
- SUBJECT SITE PROPERTY LINE (APPROXIMATE)
- FORMER CABOT CARBON SITE BOUNDARY

0 350 700 FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KC	DATE: 02/19/13	FIELD & TECHNICAL SERVICES, LLC
CHKD: RMB	DATE: 02/19/13	200 THIRD AVENUE
APPD: AMG	DATE: 02/19/13	CARNEGIE, PA 15106
SCALE: AS SHOWN		
ISSUE DATE:		

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

MONITORING WELL LOCATION MAP

PROJECT NO: OM045013
DRAWING NUMBER
FIGURE 2

c:\projects\beazer projects\gainesville\cadd\1sa gw comp report 2013\figure-2.dwg Last Saved By: Kchintella 2/19/2013 10:41 AM Plotted By: Kendra L. Chintella 2/19/2013 10:41 AM Scale: 1:1.0192

N

HG-24S
168.40

HG-6S
169.56

HG-4S
167.22

HG-26S
169.54

HG-20S
167.14

HG-29S
165.86

HG-21S
157.63

HG-27S
153.91

169 168 167 166 165 164 163 162 161 160 159 158 157 156 155 154 153 152 151 150 149 148 147 146 145 144 143 142 141 140 139 138 137 136 135 134 133 132 131 130 129 128 127 126 125 124 123 122 121 120 119 118 117 116 115 114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

FORMER SOUTH LAGOON

FORMER NORTH LAGOON

FORMER PROCESS AREA

FORMER DRIP TANK

FORMER CABOT CARBON SITE BOUNDARY

FORMER CABOT CARBON SEPARATION

APPROX. LOCATION FORMER RETORTS

CCA DRIP TRACK

BRICK KILN

CSX TRANSPORTATION RAILROAD

N.W. 23rd AVENUE

(ASPHALT) MAIN ROAD

LEGEND

HG-24S ⊕	UPPER HAWTHORN MONITORING WELL
168.40	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION (FT-MSL)
165	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION CONTOUR (FT-MSL) *(DASHED WHERE INFERRED)*
	SUBJECT SITE PROPERTY LINE (APPROXIMATE)
	FORMER CABOT CARBON SITE BOUNDARY

0 300 600 FEET

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	02/19/13
CHKD:	RMW	DATE:	02/19/13
APPD:	AMG	DATE:	02/19/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS

FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

UPPER HAWTHORN POTENTIOMETRIC SURFACE CONTOURS – FEBRUARY 2013

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 3a

G:\projects\beazer projects\gainesville\cad\1so gw comp report 2013\figure-3a.dwg Last Saved By: Kchintello 8/12/2013 10:36 AM Plotted By: Kendra L. Chintello 8/12/2013 10:37 AM Scales: 1:1.0161

N

LEGEND

HG–25D ⊕	LOWER HAWTHORN MONITORING WELL
129.30	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION (FT–MSL)
135	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION CONTOUR (FT–MSL) *(DASHED WHERE INFERRED)*
	SUBJECT SITE PROPERTY LINE (APPROXIMATE)
	FORMER CABOT CARBON SITE BOUNDARY

HG–22D 141.06
HG–23D 133.92
HG–25D 129.30
HG–5D 131.25
HG–2D 134.62
HG–16D 138.36
HG–12D 138.30
HG–4D 137.38
HG–6D 143.06
HG–26D 142.14
HG–20D 136.02
HG–21D 130.94
HG–27D 129.50
HG–29D 137.64

FORMER SOUTH LAGOON
FORMER NORTH LAGOON
FORMER DRIP TANK
FORMER PROCESS AREA
FORMER CABOT CARBON SITE BOUNDARY
FORMER CABOT CARBON SEPARATION
APPROX. LOCATION FORMER RETORTS
CSX TRANSPORTATION RAILROAD

0 300 600
FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.
HG–22D NOT USED IN CONTOURING.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	02/19/13
CHKD:	RMW	DATE:	02/19/13
APPD:	AMG	DATE:	02/19/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

LOWER HAWTHORN POTENTIOMETRIC SURFACE CONTOURS – FEBRUARY 2013

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 3b

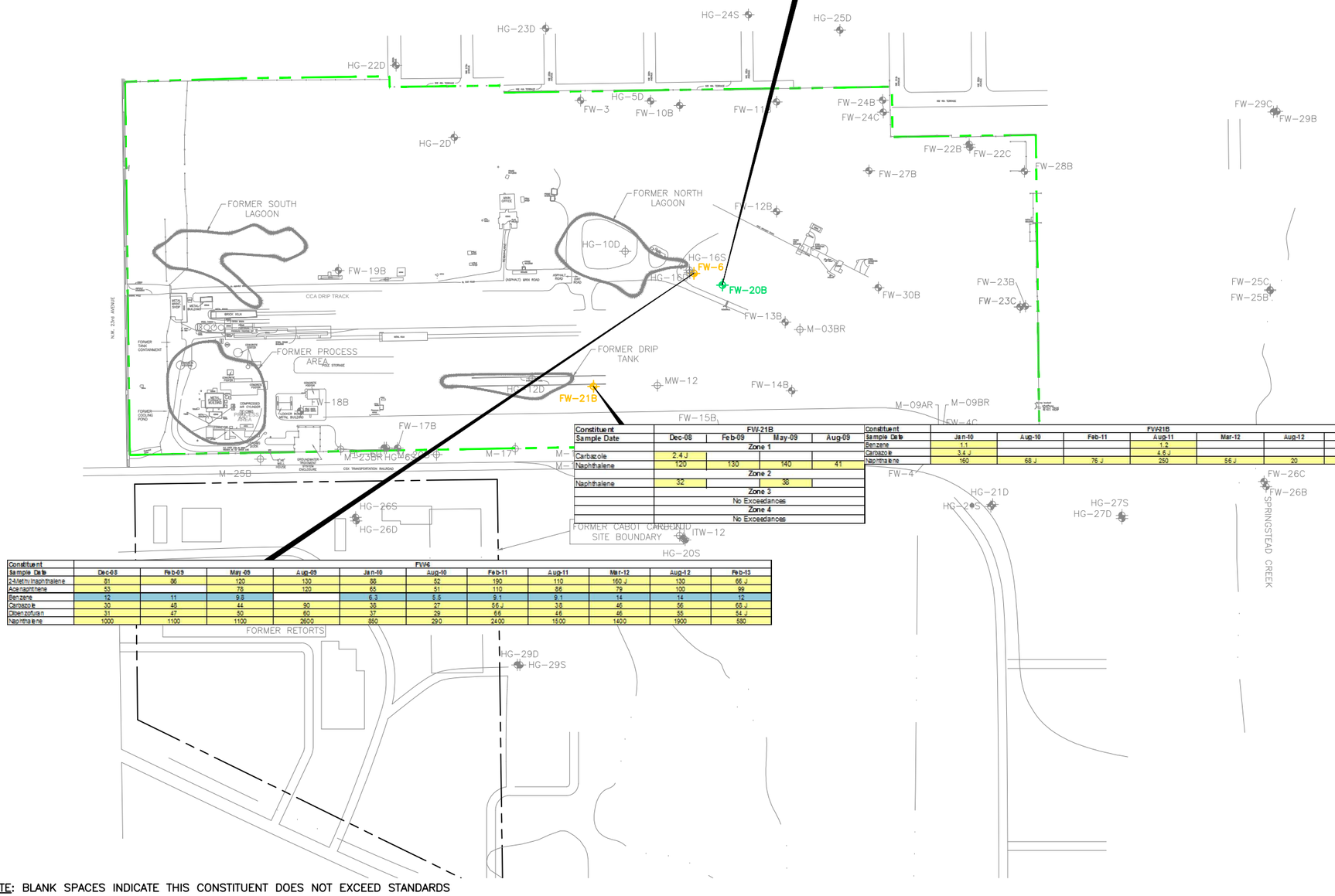
o:\projects\beazer projects\gainesville\cadd\1so gw comp report 2013\figure-3b.dwg Last Saved By: Kchintella 8/12/2013 10:37 AM Plotted By: Kendra L. Chintella 8/12/2013 10:38 AM Scale: 1:1.0161

Constituent	FW-20B																												
Sample Date	Mar-06	Jul-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jan-10	May-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Dec-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
	Zone 1																												
2-Methylnaphthalene		62	49	35	30								29	42	60	53	110	86	160			100	110	180	120	89	86	130	170
Acenaphthene	54	63	65	59	58	60	39	58	30	42	44	42	53	74	60	47	63	60	96 J	78	110	92	83	110	99	86	79	84	90
Benzene	2.4	5.3	5.9	4.5	3.7	3.6	3.7	2.5	2.6	1.9	3	3.5	2.9	3.6	3.3	7.3	5.2	4.6		9.9	8	12	12	6.4	12	10	9.9	12	8.5
Carbazole	26	22	25	17	14	9	3.4 J									6.2	14	19		25 J	30	31	32	41	38	20	23	30	44
Dibenzofuran		33	37	35	34	35		33						36	29	29	35	38	53	47	53	46	51	69	53	44	39	48	55
Naphthalene		650	720	510	550	450	380	210	450	260	310	420	730	1000	870	690	1100	840	2000 J	1800	2300	1700	2200	2200	2100	1600	1400	1900	2100
	Zone 2																												
2-Methylnaphthalene																			33										
Acenaphthene		31	40	43	44	41	32	50		42	34	31	38	42	40	33	39	44	45	52	45	47	40	32			38	53	58
Benzene		3.1	2.5	2.9	2.7	2.2	1.9	1.3									1.1										1.1		1.1
Carbazole	2.1 J	9.6	13	12	10	5.4 J	2.7 J																						2.3
Dibenzofuran																			33 J										
Naphthalene	53	370	140	120	140	86	94	99	49	100	58	73	96	150	170	63	240	230	480 J	160	200	180	44 J				150	330	280
	Zone 3																												
	No Exceedances															NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS
	Zone 4																												
	No Exceedances															NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS

Constituent	FW-21B			
Sample Date	Dec-08	Feb-09	May-09	Aug-09
	Zone 1			
Carbazole	2.4 J			
Naphthalene	120	130	140	41
	Zone 2			
Naphthalene	32		38	
	Zone 3			
	No Exceedances			
	Zone 4			
	No Exceedances			

Constituent	FW-21B						
Sample Date	Jan-10	Aug-10	Feb-11	Aug-11	Mar-12	Aug-12	Feb-13
Benzene	1.1			1.2			
Carbazole	3.4 J			4.6 J			
Naphthalene	160	68 J	76 J	250	56 J	20	75

Constituent	FW-6										
Sample Date	Dec-08	Feb-09	May-09	Aug-09	Jan-10	Aug-10	Feb-11	Aug-11	Mar-12	Aug-12	Feb-13
2-Methylnaphthalene	81	86	120	120	88	52	190	110	160 J	130	66 J
Acenaphthene	53		78	120	65	51	110	86	79	100	99
Benzene	12	11	9.8		6.3	5.5	9.1	9.1	14	14	12
Carbazole	30	48	44	90	38	27	56 J	38	46	56	68 J
Dibenzofuran	31	47	50	60	37	29	56	46	55	55	54 J
Naphthalene	1000	1100	1100	2600	850	290	2400	1500	1400	1900	580



LEGEND

- FW-20B — FLORIDAN WESTBAY MONITORING WELL
- FW-25B — FLORIDAN STANDARD CONSTRUCTION MONITORING WELL
- SUBJECT SITE PROPERTY LINE (APPROXIMATE)
- FORMER CABOT CARBON SITE BOUNDARY
- NS — NOT SAMPLED
- * — DEDICATED PUMPING EQUIPMENT INSTALLED

STANDARDS

Constituent	Federal MCL(1) (ug/L)	Florida GCTL(2) (ug/L)
Organic Chemicals		
2,4-Dimethylphenol	-	140
2-Methylnaphthalene	-	28
2-Methylphenol	-	35
3&4-Methylphenol	-	3.5(3)
Acenaphthene	-	20
Acenaphthylene	-	210
Anthracene	-	2100
Benzene	5	1
Carbazole	-	1.8
Dibenzofuran	-	28
Ethylbenzene	700	30
Fluoranthene	-	280
Fluorene	-	280
Naphthalene	-	14
Pentachlorophenol	1	1
Phenanthrene	-	210
Phenol	-	10
Pyrene	-	210
Toluene	10000	40
Xylene (total)	1000	20

0 400 800 FEET

NOTE: BLANK SPACES INDICATE THIS CONSTITUENT DOES NOT EXCEED STANDARDS

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

Concentration exceeds Florida GCTL.
Concentration exceeds Federal MCL.
All results are in the units ug/L.

(1) FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLS) REPRESENT THE NATIONAL PRIMARTY DRINKING WATER STANDARDS.
(2) FLORIDA GROUNDWATER CLEANUP TARGET LEVELS (GCTLS) ARE GUIDELINES SET FORTH IN 62-777 FLORIDA ADMINISTRATIVE CODE (F.A.C)
(3) 3-METHYLPHENOL AND 4-METHYLPHENOL CANNOT BE QUANTIFIED SEPERATELY USING USEPA SW-846 METHOD 8270C.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	04/09/13
CHKD:	KC	DATE:	04/09/13
APPD:	AMG	DATE:	04/09/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

FLORIDAN AQUIFER SOURCE AREA
MONITORING WELLS
ORGANIC ANALYTICAL EXCEEDANCES

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 4

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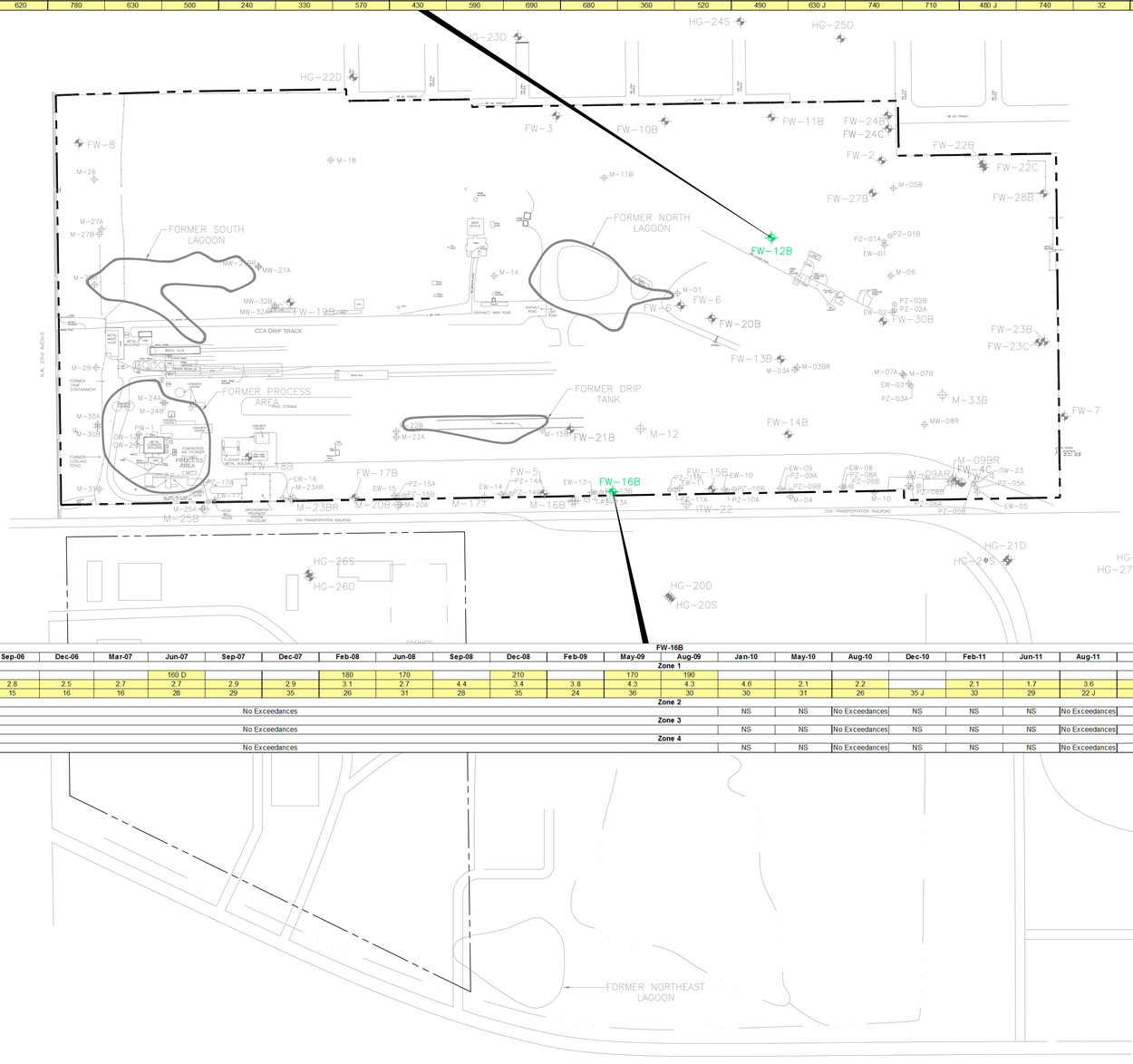
Constituent	FW-12B																														
Sample Date	Jan-06	Mar-06	Jul-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jul-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jan-10	May-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																															
2-Methylphenol								38																							
4-Methylphenol																				3.8 J											
Benzene			1.5		1.6	1.6	1.7	2	2		1.3	2.2	2.8	1.5	2.4	2.8	2.9	3.1	2.4	3.5	3.3	2.1	2.8	3.1	1.8	2.1	2.1	2	1.9	1.9
Naphthalene			49	40	45	44	46	47			48	55	20	65	85	95	76	86	61	110 J	140	170	120 J	170	18	260	190	300	290	240
Zone 2																															
Benzene										1.2		1.1	1.3	1.2		1.1															
Naphthalene			15		17	15	16	21	21 B																						
Zone 3																															
2-Methylnaphthalene							44	80	50		71	41 J	49	36	44	98	58	75	60	43	70	43	36	47			36		34	39
Acenaphthene	29	28	52	35	33	35	43	56	54	26	53	46 J	43	64	52	69	54	63	54	57	72	94	61	65	64	42	60	68	76	69
Benzene	1.7				2.1	3	4	3.4	3.9	2.7	2.7	5.3	4.6	2.3	4	5	5.6	5.2	2.8	5	2.7	2.6	3.9	4.5	3.5	3.8	2.9	2.3	2.3	2.6
Carbazole	4.6 J	1.9 J									3.4 J		2.5 J		3.9 J	8.1	9.9	16	18	31	20 J	24	16	20	15	14	10	17	19	23
Dibenzofuran			29						29									30	31	42 J	36	44		36	35		31	37	49	48
Naphthalene	160	380	500	370	410	540	780	830	550	760	870	770	280	750	950	970	750	870	850	1000 J	1100	1300	830 J	1100	180	610 J	770	700	970	1000
Zone 4																															
2-Methylnaphthalene			32	31	33	32	41	47	32		29									32 J											
Acenaphthene	40	45	61	55	55	52	60	55	53	29 J	49	45	45	44	44	44	32	39	39	62 J	48	40	36	41	30	38	32	38	42	44
Benzene	2.2	3.1	4.2		4.1	3.5	3.6	3.1	3.9	2.9	2	2.7	4	1.8	2.8	3.2	3.5	3.3	1.7	3.2 J	3.3		2.7	3.1	3.8	2.8	2.1	2	1.7 J	3.1 J
Carbazole	16	23	32	34	31	31	32	34	29	13 J	25	20 J	21	20	17	18	15	15	12	6.9											
Dibenzofuran				29	33	30	38	35	35		32		33						32	45 J	33			31					29	32
Naphthalene	280	660	650	630	550	620	780	630	500	240	330	570	430	590	690	680	360	520	490	630 J	740	710	480 J	740	32	540	440	450	580	640



Constituent	FW-16B																														
Sample Date	Jan-06	Mar-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jan-10	May-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																															
2,4-Dimethylphenol							160 D			180	170		210		170	190															
Benzene			1.7	2.8	2.5	2.7	2.7	2.9	2.9	3.1	2.7	4.4	3.4	3.8	4.3	4.3	4.6	2.1	2.2		2.1	1.7	3.6	2.9	5.5	5.4	3.5	4.6	3.4	3.2
Naphthalene				15	16	16	28	29	35	26	31	28	35	24	36	30	30	31	26	35 J	33	29	22 J	34	46	58 J	70	61	85	76
Zone 2																															
	No Exceedances																NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS
Zone 3																															
	No Exceedances																NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS
Zone 4																															
	No Exceedances																NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS

BLANK SPACES INDICATE THIS CONSTITUENT DOES NOT EXCEED STANDARDS

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

J: The quantity is an estimated value.

Concentration exceeds Florida GCTL

Concentration exceeds Federal MCL.

All results are in the units ug/L.

NS = NOT SAMPLED

(1) FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLS) REPRESENT THE NATIONAL PRIMARTY DRINKING WATER STANDARDS.
(2) FLORIDA GROUNDWATER CLEANUP TARGET LEVELS (GCTLS) ARE GUIDELINES SET FORTH IN 62-777 FLORIDA ADMINISTRATIVE CODE (F.A.C)
(3) 3-METHYLPHENOL AND 4-METHYLPHENOL CANNOT BE QUANTIFIED SEPERATELY USING USEPA SW-846 METHOD 8270C.

LEGEND

FW-20B — FLORIDAN WESTBAY MONITORING WELL

SUBJECT SITE PROPERTY LINE (APPROXIMATE)

FORMER CABOT CARBON SITE BOUNDARY

STANDARDS

Constituent	Federal MCL[1] (ug/L)	Florida GCTL[2] (ug/L)
Organic Chemicals		
2,4-Dimethylphenol	-	140
2-Methylnaphthalene	-	28
2-Methylphenol	-	35
3&4-Methylphenol	-	3.5[3]
Acenaphthene	-	20
Acenaphthylene	-	210
Anthracene	-	2100
Benzene	5	1
Carbazole	-	1.8
Dibenzofuran	-	28
Ethylbenzene	700	30
Fluoranthene	-	280
Fluorene	-	280
Naphthalene	-	14
Pentachlorophenol	1	1
Phenanthrene	-	210
Phenol	-	10
Pyrene	-	210
Toluene	10000	40
Xylene (total)	1000	20

0 200 400 FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	04/09/13
CHKD:	KC	DATE:	04/09/13
APPD:	AMG	DATE:	04/09/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

FLORIDAN AQUIFER TRANSECT AREA
MONITORING WELLS
ORGANIC ANALYTICAL EXCEEDANCES

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 5

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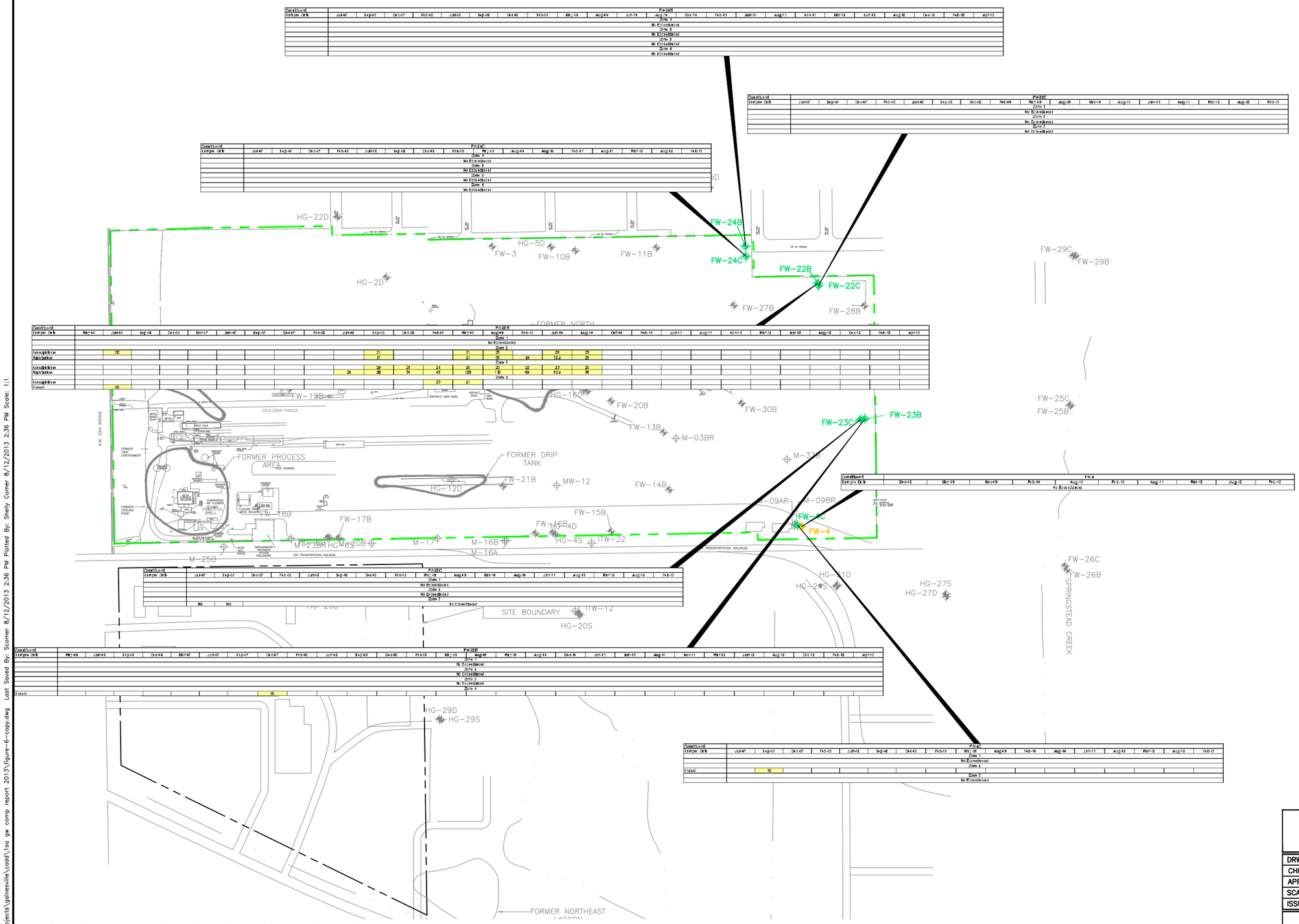

LEGEND

- FW-22B — FLORIDAN WESTBAY MONITORING WELL
- FW-4 — FLORIDAN STANDARD CONSTRUCTION MONITORIN WELL
- SUBJECT SITE PROPERTY LINE (APPROXIMATE)
- FORMER CABOT CARBON SITE BOUNDARY

STANDARDS

Constituent	Federal MCL(1) (ug/L)	Florida GCTL(2) (ug/L)
Organic Chemicals		
2,4-Dimethylphenol	-	140
2-Methylnaphthalene	-	28
2-Methylphenol	-	35
3&4-Methylphenol	-	3.5(3)
Acenaphthene	-	20
Acenaphthylene	-	210
Anthracene	-	2100
Benzene	5	1
Carbazole	-	1.8
Dibenzofuran	-	28
Ethylbenzene	700	30
Fluoranthene	-	280
Fluorene	-	280
Naphthalene	-	14
Pentachlorophenol	1	1
Phenanthrene	-	210
Phenol	-	10
Pyrene	-	210
Toluene	10000	40
Xylene (total)	1000	20

0 400 800 FEET

NOTE: BLANK SPACES INDICATE THIS CONSTITUENT DOES NOT EXCEED STANDARDS

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

Concentration exceeds Florida GCTL.
Concentration exceeds Federal MCL.
All results are in the units ug/L.

(1) FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLS) REPRESENT THE NATIONAL PRIMARTY DRINKING WATER STANDARDS.
(2) FLORIDA GROUNDWATER CLEANUP TARGET LEVELS (GCTLS) ARE GUIDELINES SET FORTH IN 62-777 FLORIDA ADMINISTRATIVE CODE (F.A.C)
(3) 3-METHYLPHENOL AND 4-METHYLPHENOL CANNOT BE QUANTIFIED SEPERATELY USING USEPA SW-846 METHOD 8270C.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	04/09/13
CHKD:	KC	DATE:	04/09/13
APPD:	AMG	DATE:	04/09/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

FLORIDAN AQUIFER BOUNDARY
MONITORING WELLS
ORGANIC ANALYTICAL EXCEEDANCES

PROJECT NO: OM045013
DRAWING NUMBER
FIGURE 6

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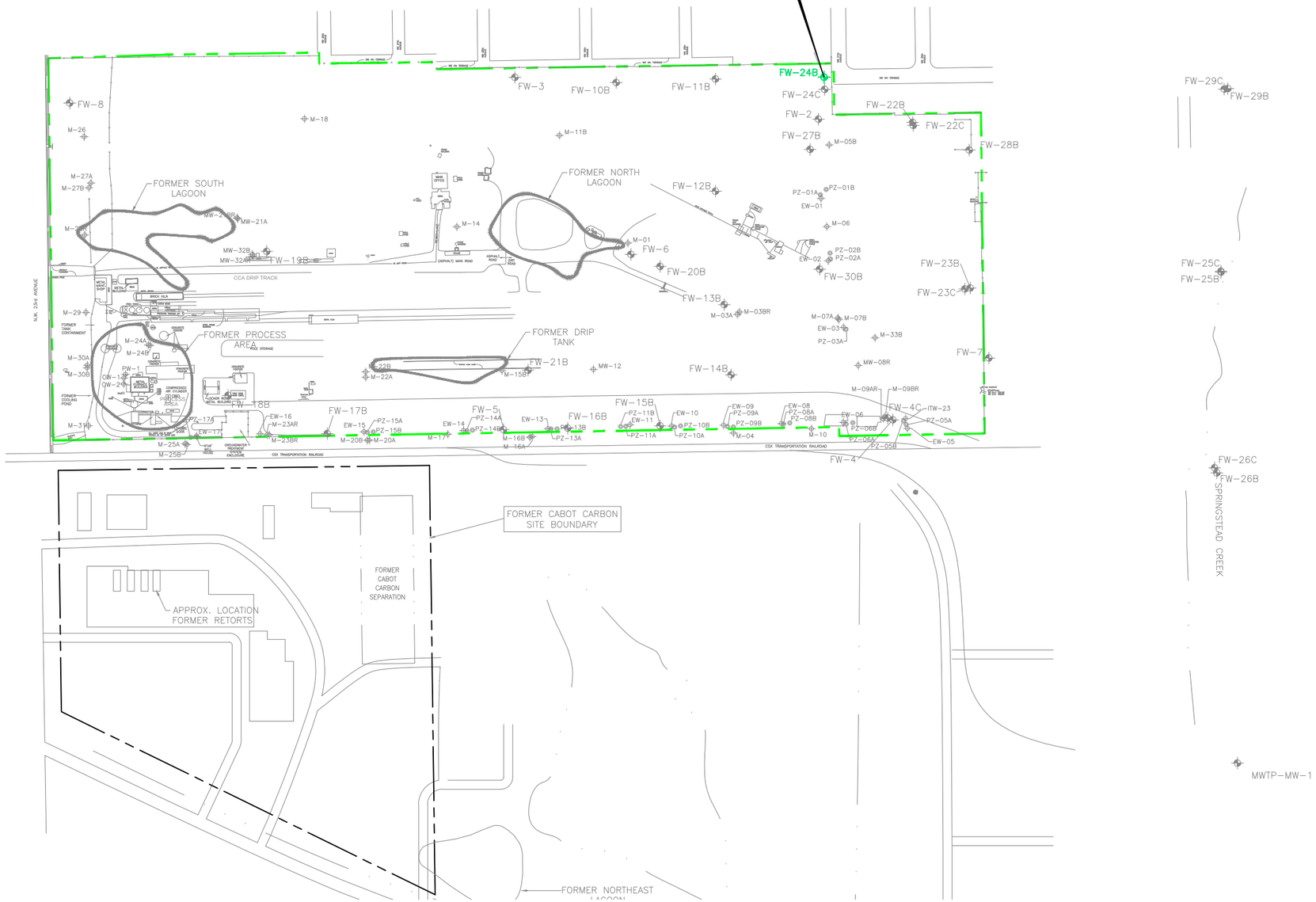
Constituent	FW-24B																							
Sample Date	Jul-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jun-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Feb-13
Zone 1																							
Arsenic, (dissolved)	140	78	86	99	107	101	122	105	134	120	165	159	178	166	158	172	207	172	159	162	162	168	156
Arsenic, (total)											156	162	184	174	174	174	198	185	160	157	180	162	159
Zone 2																							
Arsenic, (dissolved)	48	18	58	61	60	75	90	86	92	94	45	27	25	24	15	14	14		12				
Arsenic, (total)											42	26	24	29	16	14	15	11	13	20			
Zone 3																							
Arsenic, (dissolved)	13																						
Zone 4																							
Arsenic, (dissolved)	No Exceedances																						



LEGEND

- FW-22B — FLORIDAN WESTBAY MONITORING WELL
- SUBJECT SITE PROPERTY LINE (APPROXIMATE)
- FORMER CABOT CARBON SITE BOUNDARY
- NS — NOT SAMPLED

STANDARDS

Constituent	Federal MCL(1) (ug/L)	Florida GCTL(2) (ug/L)
Metals		
Arsenic, dissolved	10	10
Arsenic, total	10	10

0 400 800 FEET

NOTE: BLANK SPACES INDICATE THIS CONSTITUENT DOES NOT EXCEED STANDARDS

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

Concentration exceeds Florida GCTL.
Concentration exceeds Federal MCL.
All results are in the units ug/L.

(1) FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLS) REPRESENT THE NATIONAL PRIMARTY DRINKING WATER STANDARDS.
(2) FLORIDA GROUNDWATER CLEANUP TARGET LEVELS (GCTLS) ARE GUIDELINES SET FORTH IN 62-777 FLORIDA ADMINISTRATIVE CODE (F.A.C)

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	04/09/13
CHKD:	KC	DATE:	04/09/13
APPD:	AMG	DATE:	04/09/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

FLORIDAN AQUIFER BOUNDARY
MONITORING WELLS
INORGANIC ANALYTICAL EXCEEDANCES

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 7

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Constituent / Sample Date	FW-22B May-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Feb-10	Jun-10	Aug-10	Oct-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																													
	No Exceedances																												
Zone 2																													
Acenaphthene		20									21			21	23		26	23											
Naphthalene											17			21	58	49	50 J	26											
Zone 3																													
Acenaphthene											29	21	21	25	23	22	23	25											
Naphthalene										24	20	31	48	120	110	69	82 J	35											
Zone 4																													
Acenaphthene													23	21															
Phenol		20																											

Constituent / Sample Date	FW-24B Jul-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jun-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																							
	No Exceedances																						
Zone 2																							
	No Exceedances																						
Zone 3																							
	No Exceedances																						
Zone 4																							
	No Exceedances																						

Constituent / Sample Date	FW-22C Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Mar-10	Aug-10	Jan-11	Aug-11	Mar-12	Aug-12	Feb-13
Zone 1																	
	No Exceedances																
Zone 2																	
	No Exceedances																
Zone 3																	
	No Exceedances																

Constituent / Sample Date	FW-24C Jul-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Aug-10	Feb-11	Aug-11	Mar-12	Aug-12	Feb-13
Zone 1																
	No Exceedances															
Zone 2																
	No Exceedances															
Zone 3																
	No Exceedances															
Zone 4																
	No Exceedances															

Constituent / Sample Date	FW-12B Jan-06	Mar-06	Jul-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jul-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jan-10	May-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																														
2-Methylphenol								38																						
4-Methylphenol																				3.8 J										
Benzene			1.5		1.6	1.6	1.7	2	2		1.3	2.2	2.8	1.5	2.4	2.8	2.9	3.1	2.4	3.5	3.3	2.1	2.8	3.1	1.8	2.1	2.1	2	1.9	1.9
Naphthalene			49	40	45	44	46	47			48	55	20	65	85	95	76	86	61	110 J	140	170	120 J	170	18	260	190	300	290	240
Zone 2																														
Benzene										1.2		1.1	1.3	1.2		1.1														
Naphthalene			15		17	15	16	21	21 B																					
Zone 3																														
2-Methylnaphthalene							44	80	50		71	41 J	49	36	44	98	58	75	60	43	70	43	36	47			36		34	39
Acenaphthene	29	28	52	35	33	35	43	56	54	26	53	46 J	43	64	52	69	54	63	54	57	72	94	61	65	64	42	60	68	76	69
Benzene	1.7				2.1	3	4	3.4	3.9	2.7	2.7	5.3	4.6	2.3	4	5	5.6	5.2	2.8	5	2.7	2.6	3.9	4.5	3.5	3.8	2.9	2.3	2.3	2.6
Carbazole	4.6 J	1.9 J									3.4 J		2.5 J		3.9 J	8.1	9.9	16	18	31	20 J	24	16	20	15	14	10	17	19	23
Dibenzofuran			29						29									30	31	42 J	36	44		36	35		31	37	49	48
Naphthalene	160	380	500	370	410	540	780	830	550	760	870	770	280	750	950	970	750	870	850	1000 J	1100	1300	830 J	1100	180	610 J	770	700	970	1000
Zone 4																														
2-Methylnaphthalene			32	31	33	32	41	47	32		29									32 J										
Acenaphthene	40	45	61	55	55	52	60	55	53	29 J	49	45	45	44	44	44	32	39	39	62 J	48	40	36	41	30	38	32	38	42	44
Benzene	2.2	3.1	4.2		4.1	3.5	3.6	3.1	3.9	2.9	2	2.7	4	1.8	2.8	3.2	3.5	3.3	1.7	3.2 J	3.3		2.7	3.1	3.8	2.8	2.1	2	1.7 J	3.1 J
Carbazole	16	23	32	34	31	31	32	34	29	13 J	25	20 J	21	20	17	18	15	15	12	6.9										
Dibenzofuran				29	33	30	38	35	35		32		33						32	45 J	33			31					29	32
Naphthalene	280	660	650	630	550	620	780	630	500	240	330	570	430	590	690	680	360	520	490	630 J	740	710	480 J	740	32	540	440	450	580	640

Constituent / Sample Date	FW-6 Dec-08	Feb-09	May-09	Aug-09	Jan-10	Aug-10	Feb-11	Aug-11	Mar-12	Aug-12	Feb-13
2-Methylnaphthalene	61	56	120	130	56	52	190	110	160 J	130	66 J
Acenaphthene	53		76	120	65	51	110	56	79	100	99
Benzene	12	11	9.8		6.3	5.5	9.1	9.1	14	14	12
Carbazole	30	45	44	90	36	27	56 J	38	46	56	66 J
Dibenzofuran	31	47	50	60	37	29	66	46	46	55	54 J
Naphthalene	1000	1100	1100	2600	850	290	2400	1500	1400	1900	550

Constituent / Sample Date	FW-21B Dec-08	Feb-09	May-09	Aug-09
Zone 1				
Carbazole	2.4 J			
Naphthalene	120	130	140	41
Zone 2				
Naphthalene	32		38	
Zone 3				
	No Exceedances			
Zone 4				
	No Exceedances			

Constituent / Sample Date	FW-21B Jan-10	Aug-10	Feb-11	Aug-11	Mar-12	Aug-12	Feb-13
Benzene	1.1			1.2			
Carbazole	2.4 J			4.6 J			
Naphthalene	160	66 J	76 J	250	56 J	20	75

Constituent / Sample Date	FW-23C Jul-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Mar-10	Aug-10	Jan-11	Aug-11	Mar-12	Aug-12	Feb-13
Zone 1																	
	No Exceedances																
Zone 2																	
	No Exceedances																
Zone 3																	
	NS	NS	No Exceedances														

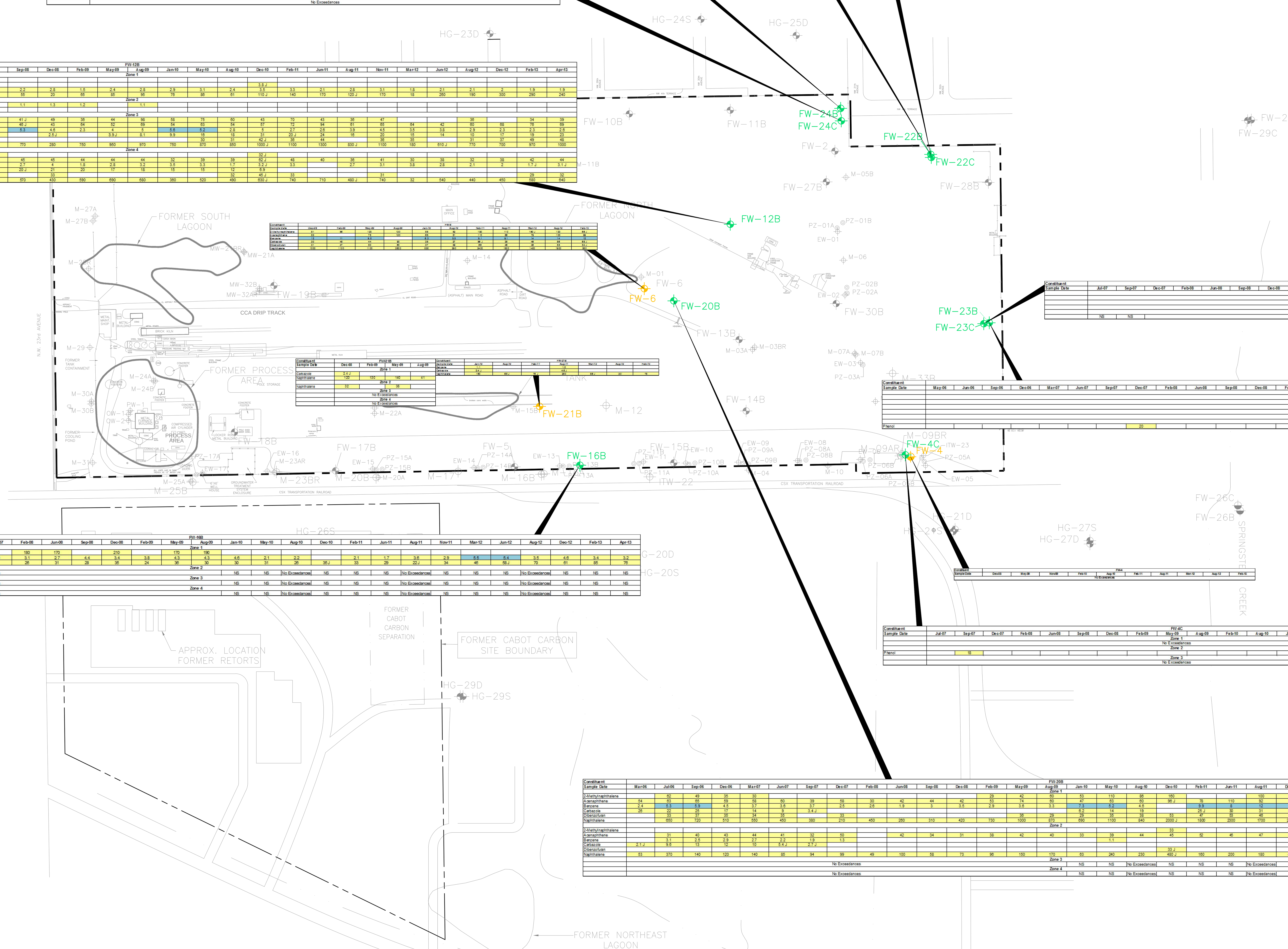
Constituent / Sample Date	FW-23B May-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	May-10	Aug-10	Dec-10	Jan-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																												
	No Exceedances																											
Zone 2																												
	No Exceedances																											
Zone 3																												
	No Exceedances																											
Zone 4																												
Phenol								20																				

Constituent / Sample Date	FW-4 Dec-08	May-09	Nov-09	Feb-10	Aug-10	Feb-11	Aug-11	Mar-12	Aug-12	Feb-13
	No Exceedances									

Constituent / Sample Date	FW-4C Jul-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Feb-10	Aug-10	Jan-11	Aug-11	Mar-12	Aug-12	Feb-13
Zone 1																	
	No Exceedances																
Zone 2																	
Phenol		18															
Zone 3																	
	No Exceedances																

Constituent / Sample Date	FW-16B Jan-06	Mar-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jan-10	May-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																														
2,4-Dimethylphenol							160 D			180	170		210		170	190														
Benzene			1.7	2.8	2.5	2.7	2.7	2.9	2.9	3.1	2.7	4.4	3.4	3.8	4.3	4.3	4.6	2.1	2.2		2.1	1.7	3.6	2.9	5.5	5.4	3.5	4.6	3.4	3.2
Naphthalene				15	16	16	28	29	35	26	31	28	35	24	36	30	30	31	26	35 J	33	29	22 J	34	46	58 J	70	61	85	76
Zone 2																														
	No Exceedances																NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS
Zone 3																														
	No Exceedances																NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS
Zone 4																														
	No Exceedances																NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS

Constituent / Sample Date	FW-20B Mar-06	Jul-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jan-10	May-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Dec-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Apr-13
Zone 1																													
2-Methylnaphthalene		62	49	35	30								29	42	60	53	110	86	160			100	110	180	120	89	85	130	170
Acenaphthene	54	63	65	59	58	60	39	58	30	42	44	42	53	74	60	47	63	60	96 J	78	110	92	83	110	99	86	79	84	90
Benzene	2.4	5.3	5.9	4.5	3.7	3.6	3.7	2.5	2.6	1.9	3	3.5	2.9	3.6	3.3	7.3	5.2	4.6		9.9	8	12	12	6.4	12	10	9.9	12	8.5
Carbazole	26	22	25	17	14	9	3.4 J									6.2	14	19		25 J	30	31	32	41	38	20	23	30	44
Dibenzofuran		33	37	35	34	35		33						36	29	29	35	38	53	47	53	46	51	69	53	44	39	48	55
Naphthalene		650	720	510	550	450	380	210	450	260	310	420	730	1000	870	690	1100	840	2000 J	1800	2300	1700	2200	2200	2100	1600	1400	1900	2100
Zone 2																													
2-Methylnaphthalene																			33										
Acenaphthene		31	40	43	44	41	32	50		42	34	31	38	42	40	33	39	44	45	52	45	47	40	32			38	53	58
Benzene		3.1	2.5	2.9	2.7	2.2	1.9	1.3									1.1										1.1		1.1
Carbazole	2.1 J	9.6	13	12	10	5.4 J	2.7 J																						2.3
Dibenzofuran																			33 J										
Naphthalene	53	370	140	120	140	85	94	99	49	100	58	73	96	150	170	63	240	230	480 J	160	200	180	44 J				150	330	280
Zone 3																													
	No Exceedances															NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS
Zone 4																													
	No Exceedances															NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS	No Exceedances	NS	NS	NS



LEGEND

FW-25C — FLORIDAN SENTINEL MONITORING WELL

FW-20B — FLORIDAN WESTBAY MONITORING WELL

FW-6 — FLORIDAN STANDARD CONSTRUCTION MONITORING WELL

SUBJECT SITE PROPERTY LINE (APPROXIMATE)

FORMER CABOT CARBON SITE BOUNDARY

STANDARDS

Constituent	Federal MCL(1) (ug/L)	Florida GCTL(2) (ug/L)
Organic Chemicals		
2,4-Dimethylphenol	-	140
2-Methylnaphthalene	-	28
2-Methylphenol	-	35
3&4-Methylphenol	-	3.5(3)
Acenaphthene	-	20
Acenaphthylene	-	210
Anthracene	-	2100
Benzene	5	1
Carbazole	-	1.8
Dibenzofuran	-	28
Ethylbenzene	700	30
Fluoranthene	-	280
Fluorene	-	280
Naphthalene	-	14
Pentachlorophenol	1	1
Phenanthrene	-	210
Phenol	-	10
Pyrene	-	210
Toluene	10000	40
Xylene (total)	1000	20

0 200 400 FEET

BLANK SPACES INDICATE THIS CONSTITUENT DOES NOT EXCEED STANDARDS

REV #	DATE	DESCRIPTION	APPD
1			

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

J: The quantity is an estimated value.

Concentration exceeds Florida GCTL. (yellow)

Concentration exceeds Federal MCL. (blue)

All results are in the units ug/L.

NS = NOT SAMPLED

(1) FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLS) REPRESENT THE NATIONAL PRIMARTY DRINKING WATER STANDARDS.
(2) FLORIDA GROUNDWATER CLEANUP TARGET LEVELS (GCTLS) ARE GUIDELINES SET FORTH IN 62–777 FLORIDA ADMINISTRATIVE CODE (F.A.C)
(3) 3–METHYLPHENOL AND 4–METHYLPHENOL CANNOT BE QUANTIFIED SEPERATELY USING USEPA SW–846 METHOD 8270C.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: KC	DATE: 04/09/13
CHKD: KC	DATE: 04/09/13
APPD: AMG	DATE: 04/09/13
SCALE: AS SHOWN	
ISSUE DATE:	

FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

SUMMARY OF FLORIDAN WELLS ORGANIC ANALYTICAL EXCEEDANCES

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 8

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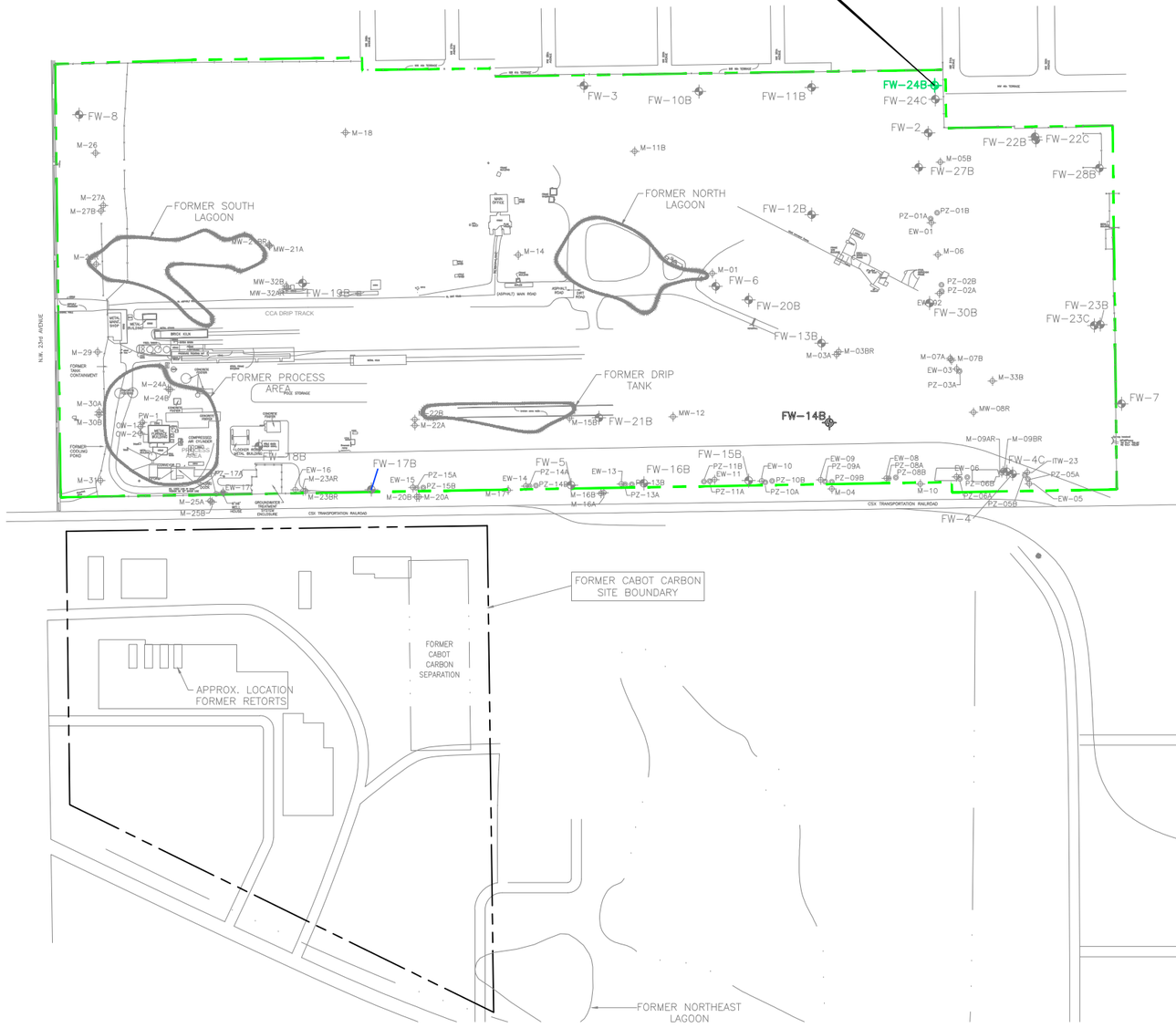
Constituent / Sample Date	FW-24B																						
	Jul-07	Sep-07	Dec-07	Feb-08	Jun-08	Sep-08	Dec-08	Feb-09	May-09	Aug-09	Jun-10	Aug-10	Dec-10	Feb-11	Jun-11	Aug-11	Nov-11	Mar-12	Jun-12	Aug-12	Dec-12	Feb-13	Feb-13
Zone 1																							
Arsenic, (dissolved)	140	78	86	99	107	101	122	105	134	120	155	159	178	166	158	172	207	172	159	162	162	168	156
Arsenic, (total)											156	162	184	174	174	174	198	185	160	157	180	162	159
Zone 2																							
Arsenic, (dissolved)	48	18	58	61	60	75	90	86	92	94	45	27	25	24	15	14	14		12				
Arsenic, (total)											42	26	24	29	16	14	15	11	13	20			
Zone 3																							
Arsenic, (dissolved)	13																						
Zone 4																							
Arsenic, (dissolved)	No Exceedances																						



LEGEND

- FW-22B — FLORIDAN WESTBAY MONITORING WELL
- FW-25C — FLORIDAN SENTINEL MONITORING WELL
- SUBJECT SITE PROPERTY LINE (APPROXIMATE)
- FORMER CABOT CARBON SITE BOUNDARY

STANDARDS

Constituent	Federal MCL(1) (ug/L)	Florida GCTL(2) (ug/L)
Metals		
Arsenic, dissolved	10	10
Arsenic, total	10	10

0 400 800 FEET

NOTE: BLANK SPACES INDICATE THIS CONSTITUENT DOES NOT EXCEED STANDARDS

REV #	DATE	DESCRIPTION	APPD

REFERENCE: GEOTRANS 2010 FIGURES COMPREHENSIVE GROUNDWATER MONITORING AND SAMPLING PLAN; AUGUST 4, 2010.

Concentration exceeds Florida GCTL.
Concentration exceeds Federal MCL
All results are in the units ug/L.

(1) FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLS) REPRESENT THE NATIONAL PRIMARTY DRINKING WATER STANDARDS.
(2) FLORIDA GROUNDWATER CLEANUP TARGET LEVELS (GCTLS) ARE GUIDELINES SET FORTH IN 62-777 FLORIDA ADMINISTRATIVE CODE (F.A.C)

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	KC	DATE:	04/09/13
CHKD:	KC	DATE:	04/09/13
APPD:	AMG	DATE:	04/09/13
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC
200 THIRD AVENUE
CARNEGIE, PA 15106

2013 FIRST SEMIANNUAL
COMPREHENSIVE GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

SUMMARY OF FLORIDAN WELLS
INORGANIC ANALYTICAL EXCEEDANCES

PROJECT NO: 0M045013
DRAWING NUMBER
FIGURE 9

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APPENDIX A

FIELD FORMS

GROUNDWATER GAUGING SHEET

Project Name: 1st Qtr 2013 GW
Project Number: OM-0450-13-091
Client: Beazer East, Inc.
Location: Gainesville

Order	Well	Date	Time	Previous Depth to Ground	Depth to Ground water (ft)	Previous Total Depth (ft)	Total Depth (ft)	Previous Depth to LNAPL (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Previous Depth to DNAPL (ft)	Depth to DNAPL (ft)	DNAPL Thickness (ft)	PID reading (ppm)	Notes
1	M-12	2/18/13	8:30	10.60	12.17	14.31	14.35	N/A	NP	N/A	N/A	NP	N/A	0.0	
2	EW-3	2/18/13	8:39	9.57	12.87	23.90	23.77	N/A	NP	N/A	N/A	NP	N/A	0.0	
3	FW-4	2/18/13	9:01	134.21	129.49	159.95	159.90	N/A	NP	N/A	N/A	NP	N/A	1.5	
4	EW-2	2/18/13	9:10	12.16	14.88	24.56	24.57	N/A	NP	N/A	N/A	NP	N/A	0	
5	EW-1	2/18/13	9:16	14.51	14.82	25.90	25.77	N/A	NP	N/A	N/A	NP	N/A	0.0	
6	HG-5D	2/18/13	9:21	57.48	56.48	112.71	112.69	N/A	NP	N/A	N/A	NP	N/A	0.0	
7	HG-24S	2/18/13	9:32	15.88	15.88	71.60	71.42	N/A	NP	N/A	N/A	NP	N/A	0.4	
8	HG-27S	2/18/13	9:50	8.65	8.57	59.90	59.87	N/A	NP	N/A	N/A	NP	N/A	0.0	
9	HG-25D	2/18/13	10:06	53.37	52.00	85.95	85.95	N/A	NP	N/A	N/A	NP	N/A	0.4	
10	HG-22D	2/18/13	10:14	46.12	45.09	82.71	82.60	N/A	NP	N/A	N/A	NP	N/A	0.0	
11	HG-23D	2/18/13	10:22	53.93	52.78	89.52	89.47	N/A	NP	N/A	N/A	NP	N/A	0.0	
12	HG-27D	2/18/13	10:35	34.33	32.92	96.50	96.38	N/A	NP	N/A	N/A	NP	N/A	0.0	
13	EW-6	2/18/13	10:50	23.61	14.10	29.10	29.14	N/A	NP	N/A	N/A	NP	N/A	0.0	
14	HG-26D	2/18/13	11:02	41.98	40.78	94.04	94.02	N/A	NP	N/A	N/A	NP	N/A	0.0	
15	EW-9	2/18/13	11:15	8.33	9.05	30.89	30.85	N/A	NP	N/A	N/A	NP	N/A	0.0	
16	HG-21S	2/18/13	12:22	10.16	10.09	41.10	41.10	N/A	NP	N/A	N/A	NP	N/A	0.0	
17	EW-11	2/18/13	12:39	26.32	20.95	30.40	30.36	N/A	NP	N/A	N/A	NP	N/M	0.0	
18	FW-21B	2/18/13	12:21	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	
19	EW-8	2/18/13	12:54	6.89	7.70	25.85	25.91	N/A	NP	N/A	N/A	NP	N/A	0.2	
20	EW-5	2/18/13	12:58	12.29	13.00	25.96	25.96	N/A	NP	N/A	N/A	NP	N/A	0.0	
21	HG-20D	2/18/13	13:14	38.17	38.31	84.16	84.16	N/A	NP	N/M	N/A	NP	N/M	0.4	

Notes:
N/A = not available
ND = not determined
NP = no product
NM = not measured

Print Date: 3/14/2013
Print Time: 7:37:54AM

GROUNDWATER GAUGING SHEET

Project Name: 1st Qtr 2013 GW
Project Number: OM-0450-13-091
Client: Beazer East, Inc.
Location: Gainesville

Order	Well	Date	Time	Previous Depth to Ground	Depth to Ground water (ft)	Previous Total Depth (ft)	Total Depth (ft)	Previous Depth to LNAPL (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Previous Depth to DNAPL (ft)	Depth to DNAPL (ft)	DNAPL Thickness (ft)	PID reading (ppm)	Notes
22	NORTH LAGOON DRAIN	2/18/13	13:20	12.22	13.33	18.00	18.00	N/A	NP	N/A	N/A	NP	N/A	0	0
23	FW-31BE	2/18/13	13:33	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	
24	HG-6S	2/18/13	13:34	15.11	15.30	52.79	52.75	N/A	NP	N/A	N/A	NP	N/A	0.8	
25	HG-20S	2/18/13	13:45	6.93	7.23	39.90	39.80	N/A	NP	N/A	N/A	NP	N/A	0.7	
26	M-32B	2/18/13	13:50	12.31	12.81	25.27	25.29	N/A	NP	N/M	N/A	NP	N/A	0.0	
27	EW-15	2/18/13	13:57	23.98	16.90	27.60	27.68	N/A	NP	N/M	N/A	NP	N/A	0.0	
28	HG-12D	2/18/13	14:01	46.44	46.34	116.00	115.68	N/A	NP	N/A	N/A	NP	N/A	0.0	
29	EW-16	2/18/13	14:06	21.98	21.98	23.05	23.25	N/A	NP	N/A	N/A	NP	N/A	0.0	
30	EW-14	2/18/13	14:09	18.32	18.78	28.20	27.82	N/A	NP	N/A	N/A	NP	N/A	0.0	
31	HG-2D	2/18/13	14:16	55.62	54.26	112.97	112.95	N/A	NP	N/M	N/A	NP	N/A	0.0	
32	M-3BR	2/18/13	14:20	10.52	11.79	26.33	26.29	N/A	NP	N/A	N/A	NP	N/A	0	
33	HG-26S	2/18/13	14:24	13.58	13.67	44.25	44.29	N/A	NP	N/A	N/A	NP	N/A	0.0	
34	EW-13	2/18/13	14:31	10.33	12.10	27.60	27.55	N/A	NP	N/A	N/A	NP	N/A	0.0	
35	FW-6	2/18/13	14:42	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	
36	HG-21D	2/18/13	14:47	38.41	36.96	94.97	94.95	N/A	NP	N/A	N/A	NP	N/A	0.0	
37	EW-17	2/18/13	14:53	15.66	18.78	26.55	26.55	N/A	NP	N/A	N/A	NP	N/A	0.0	
38	HG-4D	2/18/13	14:58	44.86	43.53	107.98	107.95	N/A	NP	N/A	N/A	NP	N/A	0.0	
39	DRIP TRACK DRAIN	2/18/13	15:00	10.11	10.69	18.69	18.69	N/A	NP	N/A	N/A	NP	N/A	0	
40	HG-6D	2/18/13	15:03	43.09	41.96	107.81	107.87	N/A	NP	N/A	N/A	NP	N/A	0	

Notes:
N/A = not available
ND = not determined
NP = no product
NM = not measured

Print Date: 3/14/2013
Print Time: 7:37:55AM

GROUNDWATER GAUGING SHEET

Project Name: 1st Qtr 2013 GW

Project Number: OM-0450-13-091

Client: Beazer East, Inc.

Location: Gainesville

Order	Well	Date	Time	Previous Depth to Ground	Depth to Ground water (ft)	Previous Total Depth (ft)	Total Depth (ft)	Previous Depth to LNAPL (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Previous Depth to DNAPL (ft)	Depth to DNAPL (ft)	DNAPL Thickness (ft)	PID reading (ppm)	Notes
41	SOUTH LAGOON DRAIN	2/18/13	15:04	8.11	8.32	17.71	17.67	N/A	NP	N/A	N/A	NP	N/A	0	
42	PROCESS AREA DRAIN	2/18/13	15:04	9.22	9.88	15.43	15.50	N/A	NP	N/A	N/A	NP	N/A	0	
43	HG-4S	2/18/13	15:06	12.16	13.19	52.59	52.54	N/A	NP	N/A	N/A	NP	N/A	0.0	
44	HG-29D	2/18/13	15:20	42.36	41.53	96.88	96.85	N/A	NP	N/A	N/A	NP	N/A	0.0	
45	HG-29S	2/18/13	15:24	13.66	13.31	54.80	54.78	N/A	NP	N/A	N/A	NP	N/A	0.0	
46	EW-10	2/18/13	15:40	8.53	9.18	27.85	27.80	N/A	NP	N/A	Trace	NP	NP	0.0	
47	HG-16D	2/18/13	15:47	46.75	46.71	117.94	117.42	N/A	NP	N/A	Trace	117.42	Trace	0.0	
103	FW-32BE	2/18/13	15:55	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	

Notes:
N/A = not available
ND = not determined
NP = no product
NM = not measured

Print Date: 3/14/2013
Print Time: 7:37:55AM

WELL INSPECTION REPORT

Project No.: OM-0450-13-091
Project Name: 1st Qtr 2013 GW
Location: Gainesville

Well	Date	Well Type	Well Outer Casing			Well Inner Casing			Well Pad Condition	Vegetation/ Accessibility	Potential Hazard	Well Head Locked & Secure @ Departure	Photo	Notes
			Label	Lock	Condition	Survey Mark Present	Cap	Condition						
M-12	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear		Yes	Yes	
EW-3	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	
FW-4	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
EW-2	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Not Applicable	Good	Good	Clear		Yes	Yes	
EW-1	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	
HG-5D	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
HG-24S	2/18/13	Flush Mount	Yes	Not Applicable	Good	Yes	Lock Needs Replacement	Issue noted see comment	Cracked	Clear	none	Yes	Yes	Lid will nit go on with lock on cap. Cap needs replacing.
HG-27S	2/18/13	Flush Mount	Yes	Not Applicable	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
HG-25D	2/18/13	Flush Mount	Yes	Not Applicable	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear		Yes	Yes	
HG-22D	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	

Notes:
N/A = not available
ND = not determined
NP = no Product

Print Date: 3/14/2013
Print Time: 7:41:13AM

FTS Field & Technical Services, LLC

WELL INSPECTION REPORT

Project No.: QM-0450-13-091
Project Name: 1st Qtr 2013 GW
Location: Gainesville

Well	Date	Well Type	Well Outer Casing			Well Inner Casing			Well Pad Condition	Vegetation/ Accessibility	Potential Hazard	Well Head Locked & Secure @ Departure	Photo	Notes
			Label	Lock	Condition	Survey Mark Present	Cap	Condition						
HG-23D	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	No	
HG-27D	2/18/13	Flush Mount	Yes	Not Applicable	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	No	
EW-6	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	No	
HG-26D	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	No	well can be hard to locate as it may be covered by asphalt millings.
EW-9	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	No	
HG-21S	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	No	
EW-11	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	No	
FW-21B	2/18/13	Pumping Well	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	No	
EW-8	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	No	
EW-5	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	No	

Notes:
N/A = not available
ND = not determined
NP = no Product

Print Date: 7/31/2013
Print Time: 2:30:20PM

WELL INSPECTION REPORT

Project No.: OM-0450-13-091
Project Name: 1st Qtr 2013 GW
Location: Gainesville

Well	Date	Well Type	Well Outer Casing			Well Inner Casing			Well Pad Condition	Vegetation/ Accessibility	Potential Hazard	Well Head Locked & Secure @ Departure	Photo	Notes
			Label	Lock	Condition	Survey Mark Present	Cap	Condition						
HG-20D	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	Forklift activity	Yes	Yes	
NORTH L	2/18/13	Pumping Well	Yes	Not Applicable	Good	Yes	Not Applicable	Good	Good	Clear		Yes	Yes	
EW-31BE	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	
HG-6S	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
HG-20S	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	Forklift activity	Yes	Yes	
M-32B	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Not Applicable	Good	Good	Clear	none	Yes	Yes	
EW-15	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	Good	Clear	none	Yes	Yes	
HG-12D	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
EW-16	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	
EW-14	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	

Notes:
N/A = not available
ND = not determined
NP = no Product

Print Date: 3/14/2013
Print Time: 7:41:13AM

WELL INSPECTION REPORT

Project No.: OM-0450-13-091
Project Name: 1st Qtr 2013 GW
Location: Gainesville

Well	Date	Well Type	Well Outer Casing			Well Inner Casing			Well Pad Condition	Vegetation/ Accessibility	Potential Hazard	Well Head Locked & Secure @ Departure	Photo	Notes
			Label	Lock	Condition	Survey Mark Present	Cap	Condition						
HG-2D	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
M-3BR	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear		Yes	Yes	
HG-26S	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	Well be hard to find. It may be covered by asphalt millings.
EW-13	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	
FW-6	2/18/13	Pumping Well	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	Good	Clear	none	Yes	Yes	
HG-21D	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
EW-17	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	
HG-4D	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
DRIP TRA	2/18/13	Pumping Well	Yes	Not Applicable	Good	Yes	Not Applicable	Good	Good	Clear		Yes	Yes	
HG-6D	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
SOUTH L	2/18/13	Pumping Well	Yes	Not Applicable	Good	Yes	Not Applicable	Good	Good	Clear		Yes	Yes	

Notes:
N/A = not available
ND = not determined
NP = no Product

Print Date: 3/14/2013
Print Time: 7:41:13AM

WELL INSPECTION REPORT

Project No.: OM-0450-13-091
Project Name: 1st Qtr 2013 GW
Location: Gainesville

Well	Date	Well Type	Well Outer Casing			Well Inner Casing			Well Pad Condition	Vegetation/ Accessibility	Potential Hazard	Well Head Locked & Secure @ Departure	Photo	Notes
			Label	Lock	Condition	Survey Mark Present	Cap	Condition						
PROCESS	2/18/13	Pumping Well	Yes	Not Applicable	Good	Yes	Not Applicable	Good	Good	Clear		Yes	Yes	
HG-4S	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
HG-29D	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
HG-29S	2/18/13	Flush Mount	Yes	Yes - Secure on Arrival	Good	Yes	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
EW-10	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	nonr	Yes	Yes	
HG-16D	2/18/13	Stick up	Yes	Yes - Secure on Arrival	Good	No	Yes - Secure on Arrival	Good	Good	Clear	none	Yes	Yes	
FW-32BE	2/18/13	Stick up	No	Yes - Secure on Arrival	Good	No	Not Applicable	Good	None Present	Clear	none	Yes	Yes	

Notes:
N/A = not available
ND = not determined
NP = no Product

Print Date: 3/14/2013
Print Time: 7:41:13AM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-4C-01

Client:	Beazer East, Inc.	Well ID:	FW-4C-01
Project Name:	1st Qtr 2013 GW	Date:	02/18/2013 1340
Project Number:	OM-0450-13-091	Technician:	Rory Hanczar
Location:	Gainesville	Weather Condition:	sunny 60

Sampling Equipment	Dedicated
westbay beazer	NO

Sampling Start Time: 02/18/2013 1355
Sampling End Time: 02/18/2013 1429
Ambient Barometric: 14.81

Comments: westbay probe 3535 / magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	316.3	99.35	☑	96.77	☑	96.77	☑	☑	99.21	4
2	☑	☑	☑	☑	☑	☑	316.3	99.21	☑	96.77	☑	96.77	☑	☑	99.05	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-4C-01-021813

Print Date: 3/14/2013
Print Time: 1:05:37PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-4C-02

Client:	Beazer East, Inc.	**Well ID:**	FW-4C-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/18/2013 1429
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	sunny 65

Sampling Equipment	Dedicated
westbay beazer	NO

Sampling Start Time: 02/18/2013 1431
Sampling End Time: 02/18/2013 1533
Ambient Barometric: 14.79

Comments: westbay probe 3535 / magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	344.2	111.42	☑	109.28	☑	109.28	☑	☑	111.43	4
2	☑	☑	☑	☑	☑	☑	345.0	111.47	☑	109.27	☑	109.27	☑	☑	111.45	4
3	☑	☑	☑	☑	☑	☑	345.0	111.45	☑	109.28	☑	109.28	☑	☑	111.43	4
4	☑	☑	☑	☑	☑	☑	343.9	111.44	☑	109.27	☑	109.28	☑	☑	111.43	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-4C-02-021813
Blind Duplicate :GAIN-FW-99A-021813

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-4C-03

Client:	Beazer East, Inc.	**Well ID:**	FW-4C-03
Project Name:	1st Qtr 2013 GW	**Date:**	02/18/2013 1544
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	SUNNY 65

Sampling Equipment	Dedicated
WESTBAY BEAZER	NO

Sampling Start Time: 02/18/2013 1549
Sampling End Time: 02/18/2013 1625
Ambient Barometric: 14.80

Comments: WESTBAY PROBEV3535 / MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	365.1	120.14	☑	117.94	☑	117.94	☑	☑	120.14	4
2	☑	☑	☑	☑	☑	☑	365.4	120.12	☑	117.93	☑	117.93	☑	☑	120.12	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-4C-03-021813
Field Blank :GAIN-FB-01-021813

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/20/2013 1632
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 60

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/20/2013 1636
Sampling End Time: 02/20/2013 1720
Ambient Barometric: 14.70

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	155.6	20.17	☑	22.58	☑	22.57	☑	☑	20.18	5
2	☑	☑	☑	☑	☑	☑	155.6	20.16	☑	22.58	☑	22.57	☑	☑	20.16	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-01-022013

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/20/2013 1548
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 62

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/20/2013 1553
Sampling End Time: 02/20/2013 1619
Ambient Barometric: 14.70

Comments: Westwbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	175.5	28.92	☑	31.23	☑	31.23	☑	☑	28.91	5
2	☑	☑	☑	☑	☑	☑	175.6	28.90	☑	31.24	☑	31.23	☑	☑	28.91	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-02-022013
Equipment Blank :GAIN-EB-03-022013

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-03

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-03
Project Name:	1st Qtr 2013 GW	**Date:**	02/21/2013 0923
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	50 sunny

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/21/2013 0938
Sampling End Time: 02/21/2013 1033
Ambient Barometric: 14.73

Comments: Westbay3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	196.4	36.96	☑	39.88	☑	39.88	☑	☑	36.97	5
2	☑	☑	☑	☑	☑	☑	196.5	36.93	☑	39.88	☑	39.88	☑	☑	36.93	5
3	☑	☑	☑	☑	☑	☑	196.5	36.91	☑	39.87	☑	36.87	☑	☑	36.95	3

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-03-022113
Trip Blank :GAIN-TB-022113

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-04
Project Name:	1st Qtr 2013 GW	**Date:**	02/21/2013 0739
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	43 sunny

Sampling Equipment	Dedicated
westbay beazer	NO

Sampling Start Time: 02/21/2013 0805
Sampling End Time: 02/21/2013 0922
Ambient Barometric: 14.73

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	215.5	46.03	☑	48.51	☑	48.51	☑	☑	46.02	5
2	☑	☑	☑	☑	☑	☑	215.7	45.97	☑	48.52	☑	48.52	☑	☑	45.98	5
3	☑	☑	☑	☑	☑	☑	215.8	45.85	☑	48.51	☑	48.51	☑	☑	45.84	5
4	☑	☑	☑	☑	☑	☑	215.9	45.71	☑	48.52	☑	48.51	☑	☑	45.48	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-04-022113
Equipment Blank :GAIN-EB-04-022113
Blind Duplicate :GAIN-FW-99D-022113

Print Date: 3/14/2013
Print Time: 1:05:37PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-16B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-16B-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/20/2013 1424
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 63

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/20/2013 1446
Sampling End Time: 02/20/2013 1508
Ambient Barometric: 14.74

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	164.6	28.90	☑	27.64	☑	27.64	☑	☑	28.90	5
2	☑	☑	☑	☑	☑	☑	164.7	28.87	☑	27.64	☑	27.64	☑	☑	28.89	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-16B-01-022013

Print Date: 3/14/2013
Print Time: 1:05:37PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-20B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-20B-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/21/2013 1416
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 73

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/21/2013 1418
Sampling End Time: 02/21/2013 1454
Ambient Barometric: 14.70

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	155.1	22.08	☑	23.39	☑	23.39	☑	☑	22.08	5
2	☑	☑	☑	☑	☑	☑	155.0	22.04	☑	23.39	☑	23.39	☑	☑	22.05	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-20B-01-022113

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-20B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-20B-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/21/2013 1317
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 70

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time:	02/21/2013 1326
Sampling End Time:	02/21/2013 1416
Ambient Barometric:	14.70

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	175.3	30.82	☑	32.03	☑	32.03	☑	☑	30.81	5
2	☑	☑	☑	☑	☑	☑	175.3	30.80	☑	32.03	☑	32.03	☑	☑	30.79	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-20B-02-022113

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-01

Client:	Beazer East, Inc.	Well ID:	FW-22B-01
Project Name:	1st Qtr 2013 GW	Date:	02/20/2013 0914
Project Number:	OM-0450-13-091	Technician:	Steven Clark
Location:	Gainesville	Weather Condition:	Sunny 49

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/20/2013 0918
Sampling End Time: 02/20/2013 0947
Ambient Barometric: 17.74

Comments: Westbay 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	155.0	27.30	☑	23.39	☑	23.39	☑	☑	27.31	4
2	☑	☑	☑	☑	☑	☑	155.1	27.28	☑	23.37	☑	23.39	☑	☑	27.30	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-01-022013

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-02

Client:	Beazer East, Inc.	Well ID:	FW-22B-02
Project Name:	1st Qtr 2013 GW	Date:	02/20/2013 1026
Project Number:	OM-0450-13-091	Technician:	Steven Clark
Location:	Gainesville	Weather Condition:	Sunny 52

Sampling Equipment	Dedicated
Westbat Beazer	NO

Sampling Start Time: 02/20/2013 1031
Sampling End Time: 02/20/2013 1055
Ambient Barometric: 14.74

Comments: Westbay probe3535/ Magi2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	175.7	35.76	☑	32.03	☑	32.03	☑	☑	35.76	4
2	☑	☑	☑	☑	☑	☑	175.7	35.73	☑	32.03	☑	32.03	☑	☑	35.73	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-02-022013

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-03

Client:	Beazer East, Inc.	**Well ID:**	FW-22B-03
Project Name:	1st Qtr 2013 GW	**Date:**	02/20/2013 0947
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 52

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/20/2013 0958
Sampling End Time: 02/20/2013 1021
Ambient Barometric: 17.74

Comments: Westbay 3535/Magi 27.43

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	195.0	44.60	☑	40.67	☑	40.67	☑	☑	44.56	4
2	☑	☑	☑	☑	☑	☑	195.3	44.51	☑	40.67	☑	40.67	☑	☑	44.48	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-03-022013

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-22B-04
Project Name:	1st Qtr 2013 GW	**Date:**	02/20/2013 0824
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 48

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/20/2013 0842
Sampling End Time: 02/20/2013 0914
Ambient Barometric: 14.73

Comments: Westbay probe 3535/ Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	209.5	51.40	☑	47.12	☑	47.12	☑	☑	51.36	4
2	☑	☑	☑	☑	☑	☑	209.7	51.30	☑	47.13	☑	47.12	☑	☑	51.31	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-04-022013

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22C-01

Client:	Beazer East, Inc.	**Well ID:**	FW-22C-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 0828
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Clear, 50

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time:	02/19/2013 0844
Sampling End Time:	02/19/2013 0901
Ambient Barometric:	14.74

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	322.2	97.80	☑	95.97	☑	95.97	☑	☑	97.81	4
2	☑	☑	☑	☑	☑	☑	321.3	97.78	☑	95.98	☑	95.98	☑	☑	97.77	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22C-01-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22C-02

Client:	Beazer East, Inc.	**Well ID:**	FW-22C-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 0750
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Clear, 50

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/19/2013 0754
Sampling End Time: 02/19/2013 0827
Ambient Barometric: 14.72

Comments: Westbayvprobe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	349.9	110.01	☑	108.03	☑	108.04	☑	☑	110.02	4
2	☑	☑	☑	☑	☑	☑	350.0	109.98	☑	108.04	☑	108.04	☑	☑	109.98	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22C-02-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22C-03

Client:	Beazer East, Inc.	**Well ID:**	FW-22C-03
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 0909
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Clear 55

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/19/2013 0912
Sampling End Time: 02/19/2013 0945
Ambient Barometric: 14.73

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	363.1	116.35	☑	114.50	☑	114.50	☑	☑	116.35	4
2	☑	☑	☑	☑	☑	☑	363.1	116.31	☑	114.50	☑	114.50	☑	☑	116.31	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22C-03-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/18/2013 1357
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Condition:**	60 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/18/2013 1420
Sampling End Time: 02/18/2013 1430
Ambient Barometric: 14.70

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	151.8	26.30	☑	25.86	☑	25.86	☑	☑	26.30	4
2	☑	☑	☑	☑	☑	☑	151.7	26.30	☑	25.86	☑	25.86	☑	☑	26.30	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-01-021813

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/18/2013 1440
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Condition:**	60 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/18/2013 1510
Sampling End Time: 02/18/2013 1520
Ambient Barometric: 14.69

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	171.7	34.98	☑	34.53	☑	34.53	☑	☑	34.98	4
2	☑	☑	☑	☑	☑	☑	171.8	34.98	☑	34.53	☑	34.53	☑	☑	34.53	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-02-021813

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-03

Client:	Beazer East, Inc.	Well ID:	FW-23B-03
Project Name:	1st Qtr 2013 GW	Date:	02/18/2013 1533
Project Number:	OM-0450-13-091	Technician:	Ryan Stahl
Location:	Gainesville	Weather Condition:	60 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/18/2013 1550
Sampling End Time: 02/18/2013 1605
Ambient Barometric: 14.62

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	191.5	43.08	☑	43.19	☑	43.19	☑	☑	43.08	4
2	☑	☑	☑	☑	☑	☑	191.5	43.08	☑	43.19	☑	43.19	☑	☑	43.08	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-03-021813

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-04
Project Name:	1st Qtr 2013 GW	**Date:**	02/18/2013 1630
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Condition:**	55 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/18/2013 1630
Sampling End Time: 02/18/2013 1650
Ambient Barometric: 14.63

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	211.3	51.75	☑	51.83	☑	51.83	☑	☑	51.75	4
2	☑	☑	☑	☑	☑	☑	211.3	51.75	☑	51.83	☑	51.83	☑	☑	51.75	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-04-021813
Trip Blank :GAIN-TRIP BLANK-021813
Equipment Blank :GAIN-EB-01-021813

Print Date: 3/14/2013
Print Time: 1:05:37PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23C-01

Client:	Beazer East, Inc.	**Well ID:**	FW-23C-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 0836
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Condition:**	50 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/19/2013 0855
Sampling End Time: 02/19/2013 0915
Ambient Barometric: 14.57

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	312.4	98.39	☑	95.57	☑	95.57	☑	☑	98.39	4
2	☑	☑	☑	☑	☑	☑	312.4	98.39	☑	95.57	☑	95.57	☑	☑	98.39	4
3	☑	☑	☑	☑	☑	☑	312.4	98.39	☑	95.57	☑	95.57	☑	☑	98.39	4
4	☑	☑	☑	☑	☑	☑	312.4	98.39	☑	95.57	☑	95.57	☑	☑	98.39	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23C-01-021913
Blind Duplicate :GAIN-M-99B-021913

Print Date: 3/14/2013
Print Time: 1:05:37PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23C-02

Client:	Beazer East, Inc.	**Well ID:**	FW-23C-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 0939
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Condition:**	70 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/19/2013 1020
Sampling End Time: 02/19/2013 1035
Ambient Barometric: 14.59

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	344.1	112.14	☑	109.37	☑	109.37	☑	☑	112.14	4
2	☑	☑	☑	☑	☑	☑	344.1	112.14	☑	109.37	☑	109.37	☑	☑	112.14	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23C-02-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23C-03

Client:	Beazer East, Inc.	**Well ID:**	FW-23C-03
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 0749
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Condition:**	45 SUNNY

Sampling Equipment	Dedicated
4071	NO

Sampling Start Time: 02/19/2013 0810
Sampling End Time: 02/19/2013 0840
Ambient Barometric: 14.57

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	364.6	120.16	☑	118.00	☑	118.00	☑	☑	120.16	2
2	☑	☑	☑	☑	☑	☑	364.6	120.16	☑	118.00	☑	118.00	☑	☑	120.16	2
3	☑	☑	☑	☑	☑	☑	364.6	120.16	☑	118.00	☑	118.00	☑	☑	120.15	2
4	☑	☑	☑	☑	☑	☑	364.6	120.15	☑	118.00	☑	118.00	☑	☑	120.15	2

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23C-03-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-24B-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 1730
Project Number:	OM-0450-13-091	**Technician:**	David Schuster
Location:	Gainesville	**Weather Conditions**	70 sunny

Sampling Equipment	Dedicated
westbay	NO

Sampling Start Time: 02/19/2013 1740
Sampling End Time: 02/19/2013 1755
Ambient Barometric: 14.53

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	164.1	21.94	☑	26.78	☑	26.78	☑	☑	21.94	5
2	☑	☑	☑	☑	☑	☑	164.1	21.94	☑	26.78	☑	26.78	☑	☑	21.94	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-01-021913
Filter Blank :GAIN-1810-021913
Field Blank :GAIN-1755-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-02

Client:	Beazer East, Inc.	Well ID:	FW-24B-02
Project Name:	1st Qtr 2013 GW	Date:	02/19/2013 1700
Project Number:	OM-0450-13-091	Technician:	David Schuster
Location:	Gainesville	Weather Conditions	70 sunny

Sampling Equipment	Dedicated
westbay	NO

Sampling Start Time: 02/19/2013 1710
Sampling End Time: 02/19/2013 1735
Ambient Barometric: 14.53

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	183.9	30.36	☑	35.41	☑	35.41	☑	☑	30.36	5
2	☑	☑	☑	☑	☑	☑	183.6	30.36	☑	35.41	☑	35.41	☑	☑	30.36	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-02-021913

Print Date: 7/31/2013
Print Time: 2:31:58PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-03

Client:	Beazer East, Inc.	Well ID:	FW-24B-03
Project Name:	1st Qtr 2013 GW	Date:	02/19/2013 1635
Project Number:	OM-0450-13-091	Technician:	David Schuster
Location:	Gainesville	Weather Conditions	70 sunny

Sampling Equipment	Dedicated
westbay	NO

Sampling Start Time: 02/19/2013 1645
Sampling End Time: 02/19/2013 1705
Ambient Barometric: 14.53

Comments:

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure In MP (2)	
1	☑	☑	☑	☑	☑	☑	203.9	39.09	☑	44.06	☑	44.06	☑	☑	39.09	5
2	☑	☑	☑	☑	☑	☑	203.9	39.08	☑	44.05	☑	44.05	☑	☑	39.09	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-03-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-24B-04
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 1535
Project Number:	OM-0450-13-091	**Technician:**	David Schuster
Location:	Gainesville	**Weather Conditions**	65 sunny

Sampling Equipment	Dedicated
westbay set	NO

Sampling Start Time: 02/19/2013 1545
Sampling End Time: 02/19/2013 1630
Ambient Barometric: 14.53

Comments: Due to a handheld error, the data associated with FW-24B-04 could not be saved nor recovered. Consequently, the data is "incomplete".

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure In MP (2)	
1	☑	☑	☑	☑	☑	☑	0.0	0.00	☑	0.00	☑	0.00	☑	☑	0.00	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-04-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24C-01

Client:	Beazer East, Inc.	**Well ID:**	FW-24C-01
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 1620
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Cloudy 63

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/19/2013 1624
Sampling End Time: 02/19/2013 1656
Ambient Barometric: 14.73

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	307.0	92.60	☑	88.88	☑	88.88	☑	☑	92.60	4
2	☑	☑	☑	☑	☑	☑	307.2	92.26	☑	88.88	☑	88.88	☑	☑	92.97	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24C-01-021913

Print Date: 3/14/2013
Print Time: 1:05:37PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24C-02

Client:	Beazer East, Inc.	**Well ID:**	FW-24C-02
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 1427
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	Sunny 68

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 02/19/2013 1430
Sampling End Time: 02/19/2013 1534
Ambient Barometric: 14.73

Comments: Westbay probe 3535/Magi 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe in	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	346.4	110.37	☑	106.12	☑	106.12	☑	☑	110.37	4
2	☑	☑	☑	☑	☑	☑	347.7	110.28	☑	106.13	☑	106.13	☑	☑	110.29	4
3	☑	☑	☑	☑	☑	☑	347.0	110.23	☑	106.12	☑	106.12	☑	☑	110.23	4
4	☑	☑	☑	☑	☑	☑	346.9	110.21	☑	106.13	☑	106.13	☑	☑	110.21	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24C-02-021913
Equipment Blank :GAIN-EB-02-021913
Blind Duplicate :GAIN-FW-99C-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24C-03

Client:	Beazer East, Inc.	**Well ID:**	FW-24C-03
Project Name:	1st Qtr 2013 GW	**Date:**	02/19/2013 1809
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	overcast 65

Sampling Equipment	Dedicated
westbay beazer	NO

Sampling Start Time: 02/19/2013 1704
Sampling End Time: 02/19/2013 1816
Ambient Barometric: 14.73

Comments: westbay probe 3535 / magi 2743 (this is zone 2. Well was sampled out of order inadvertently) toughbook froze on 2nd drop and all zone data was lost. attempt safe mode

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	327.0	99.51	☑	97.51	☑	97.51	☑	☑	99.51	4
2	☑	☑	☑	☑	☑	☑	327.0	99.50	☑	97.51	☑	97.51	☑	☑	99.51	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24C-03-021913

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24C-04

Client:	Beazer East, Inc.	Well ID:	FW-24C-04
Project Name:	1st Qtr 2013 GW	Date:	02/19/2013 1534
Project Number:	OM-0450-13-091	Technician:	Steven Clark
Location:	Gainesville	Weather Condition:	67 Sunny

Sampling Equipment	Dedicated
WESTBAY BEAZER	NO

Sampling Start Time: 02/19/2013 1547
Sampling End Time: 02/19/2013 1609
Ambient Barometric: 14.73

Comments: WESTBAY PROBE 3535/MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure In MP (2)	
1	☑	☑	☑	☑	☑	☑	366.8	118.67	☑	114.75	☑	114.75	☑	☑	118.68	4
2	☑	☑	☑	☑	☑	☑	366.9	118.64	☑	114.75	☑	114.75	☑	☑	118.64	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24C-04-021913

GRAB GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-6

Client:	Beazer East, Inc.	Sample Location:	FW-6
Project Name:	1st Qtr 2013 GW	Sampling Technician:	Rory Hanczar
Project Number:	OM-0450-13-091	Date:	02/20/2013 1600
Location:	Gainesville	Weather Conditions:	SUNNY 70

1. Sample Location Information: PUMPING WELL

2. Sample Collection Method: DIRECT FILL FROM SPIGOT

Field Testing Equipment	Calibrated
LaMotte 2020we	Yes
YSI 556 Handheld Multi Probe With Flow Cell 05M1500AD	Yes

SamplingEquipment	Dedicated
DIRECT FILL	No

3. Purge Data

Reading #	Volume (Gal)	Temp (degree C)	pH (s.u)	Spec. Cond. (ms/cm)	Turbidity (NTU)	Notes
1	2.00	24.18	8.19	0.473	15.10	

4. Sample Collection Data

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-6-022013
Field Blank :GAIN-FB-03-022013
MS/MSD Blank :GAIN-FW-6-MS/MSD-022013

Sample Start time: 02/20/2013 1610
Sample Finish time: 02/20/2013 1633

Comments: YSI 556 SN: O5M1500AD, LaMotte 2020we SN: 457-5010

Print Date: 3/14/2013
Print Time: 1:10:54PM

GRAB GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-21B

Client:	Beazer East, Inc.	Sample Location:	FW-21B
Project Name:	1st Qtr 2013 GW	Sampling Technician:	Rory Hanczar
Project Number:	OM-0450-13-091	Date:	02/20/2013 1125
Location:	Gainesville	Weather Conditions:	SUNNY 65

1. Sample Location Information: PUMPING WELL

2. Sample Collection Method: DIRECT FILL FROM SPIGOT

Field Testing Equipment	Calibrated
LaMotte 2020we	Yes
YSI 556 Handheld Multi Probe With Flow Cell	Yes

SamplingEquipment	Dedicated
DIRECT FILL	No

3. Purge Data

Reading #	Volume (Gal)	Temp (degree C)	pH (s.u)	Spec. Cond. (ms/cm)	Turbidity (NTU)	Notes
1	4.00	24.22	8.89	0.557	2.17	

4. Sample Collection Data

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	1st Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-21B-022013
Blind Duplicate :GAIN-IRM-DUP-022013

Sample Start time: 02/20/2013 1133
Sample Finish time: 02/20/2013 1146

Comments: YSI 556 SN: O5M1500AD, LaMotte 2020we SN: 457-5010

LOW-FLOW GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-4

Client:	Beazer East, Inc.	**Well ID:**	FW-4
Project Name:	1st Qtr 2013 GW	**Date:**	02/20/2013 1117
Project Number:	OM-0450-13-091	**Technician:**	Ryan Stahl
Location:	Gainesville	**Weather Conditions:**	70 SUNY

WATER LEVEL DATA

a.) Depth To Groundwater:	129.34 (ft)	e.) Depth to LNAPL:	NP (ft)
b.) Total Well Depth:	159.90 (ft)	f.) Depth to DNAPL:	NP (ft)
c.) Length of Water Column:	30.56 (ft)	g.) LNAPL Thickness:	N/A (ft)
d.) Well Volume:	5.0 (gal)	h.) DNAPL Thickness:	N/A (ft)

WATER PURGE DATA

Purge Method:	Non-Dedicated Centrifugal Pump	Purge Start:	02/20/2013 1145
Conductivity Unit:	ms/cm	Purge End:	02/20/2013 1210
Total Volume Removed (gals):	1.39		

FieldEquipment	Calibrated
fts hanna turbidity meter (fts 001630)	Yes
Heron Dipper T Water Level Meter 20247	No
fts ysi 556 (fts001707)	Yes

Sampling Equipment	Dedicated
FTS HURRICANE (fts 001723)	No

PRE-PURGE VALUES

Reading #	Time	Purge Rate	Temp (degree)	pH	Specific Conductivity	Eh/ORP mV	Dissolve O2 (mg/l)	Turbidity (NTU)	Water Level	Notes
		ml/minute	Constant	+/- 0.2	+/- 3%	+/- 10 mV	+/- 10 %	< 10 NTU	ft	
Initial	1145	250	22.69	7.45	0.469	-99.4	0.74	3.87	129.40	none

PURGE VALUES

Reading #	Time	Purge Rate	Temp (degree)	pH	Specific Conductivity	Eh/ORP mV	Dissolve O2 (mg/l)	Turbidity (NTU)	Water Level	Notes
		ml/minute	Constant	+/- 0.2	+/- 3%	+/- 10 mV	+/- 10 %	< 10 NTU	ft	
1	1150	250	23.73	7.45	0.466	-127.5	0.30	2.88	129.40	none
2	1155	200	23.72	7.53	0.459	-141.8	0.22	2.86	129.43	lowered purge rate
3	1200	200	23.70	7.53	0.457	-152.1	0.21	2.86	129.38	none
4	1205	200	23.71	7.55	0.457	-156.7	0.20	2.80	129.38	none
5	1210	200	23.74	7.54	0.454	-160.6	0.19	2.77	129.38	none

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	1st Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	1st Qtr 2013 GW_001

Print Date: 3/14/2013
Print Time: 1:11:30PM

SAMPLE IDENTIFICATION(S)
Normal Sample :GAIN-FW-4-022013
MS/MSD Blank :GAIN-FW-4-ms/msd-022013

Sample Start time: 02/20/2013 1215

Sample Finish time: 02/20/2013 1300

Comments:

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-01
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/24/2013 0934
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 70

Sampling Equipment	Dedicated
Westbay FTS	NO

Sampling Start Time: 04/24/2013 0938
Sampling End Time: 04/24/2013 1020
Ambient Barometric: 14.60

Comments: PROBE 4071 MAGI 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	155.9	19.40	☑	21.89	☑	21.91	☑	☑	19.41	5
2	☑	☑	☑	☑	☑	☑	155.7	19.37	☑	21.89	☑	21.90	☑	☑	19.39	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-01-042413
Equipment Blank :GAIN-EB-03-042413

Print Date: 5/29/2013
Print Time: 4:00:19PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-02
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/24/2013 0725
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	71 sunny

Sampling Equipment	Dedicated
Westbay FTS	NO

Sampling Start Time: 04/24/2013 0855
Sampling End Time: 04/24/2013 0934
Ambient Barometric: 14.59

Comments: westbay probe 4071/magi 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	176.1	28.17	☑	30.57	☑	30.57	☑	☑	28.18	5
2	☑	☑	☑	☑	☑	☑	176.0	28.12	☑	30.55	☑	30.56	☑	☑	28.14	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-02-042413

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-03

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-03
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/24/2013 1116
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 80

Sampling Equipment	Dedicated
Westbay FTS	NO

Sampling Start Time: 04/24/2013 1118
Sampling End Time: 04/24/2013 1310
Ambient Barometric: 14.59

Comments: PROBE 4071 MAGI 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	195.0	36.62	☑	39.21	☑	39.22	☑	☑	36.63	5
2	☑	☑	☑	☑	☑	☑	194.9	36.60	☑	39.20	☑	39.22	☑	☑	36.59	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-03-042413
Field Blank :GAIN-FB-03-042413

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-12B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-12B-04
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/24/2013 1020
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 75

Sampling Equipment	Dedicated
Westbay FTS	NO

Sampling Start Time: 04/24/2013 1023
Sampling End Time: 04/24/2013 1116
Ambient Barometric: 14.59

Comments: PROBE 4071 MAGI 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	215.4	45.44	☑	47.86	☑	47.86	☑	☑	45.44	5
2	☑	☑	☑	☑	☑	☑	215.2	45.40	☑	47.86	☑	47.86	☑	☑	45.39	5
3	☑	☑	☑	☑	☑	☑	215.2	45.35	☑	47.86	☑	47.86	☑	☑	45.35	5
4	☑	☑	☑	☑	☑	☑	215.2	43.89	☑	47.86	☑	47.86	☑	☑	43.89	2

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-12B-04-042413
Blind Duplicate :GAIN-FW-99A-042413

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-16B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-16B-01
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1802
Project Number:	OM-0450-13-091	**Technician:**	Steven Clark
Location:	Gainesville	**Weather Condition:**	76 sunny

Sampling Equipment	Dedicated
westbay FTS	NO

Sampling Start Time: 04/23/2013 1807
Sampling End Time: 04/23/2013 1843
Ambient Barometric: 14.53

Comments: westbay probe 4071/magi 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	163.9	28.47	☑	26.97	☑	26.97	☑	☑	28.47	5
2	☑	☑	☑	☑	☑	☑	164.6	28.47	☑	26.98	☑	26.98	☑	☑	28.47	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-16B-01-042313

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-20B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-20B-01
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/24/2013 1602
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 80

Sampling Equipment	Dedicated
Westbay FTS	NO

Sampling Start Time: 04/24/2013 1604
Sampling End Time: 04/24/2013 1647
Ambient Barometric: 14.62

Comments: PROBE 4071 MAGI 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	155.5	21.69	☑	22.70	☑	22.70	☑	☑	21.70	5
2	☑	☑	☑	☑	☑	☑	155.3	21.65	☑	22.70	☑	22.71	☑	☑	21.65	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-20B-01-042413

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-20B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-20B-02
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/24/2013 1455
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 80

Sampling Equipment	Dedicated
Westbay FTS	NO

Sampling Start Time: 04/24/2013 1456
Sampling End Time: 04/24/2013 1602
Ambient Barometric: 14.61

Comments: PROBE 4071 MAGI 4129

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure in MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	176.0	30.47	☑	31.39	☑	31.39	☑	☑	30.47	5
2	☑	☑	☑	☑	☑	☑	176.0	30.42	☑	31.38	☑	31.38	☑	☑	30.42	5
3	☑	☑	☑	☑	☑	☑	175.7	30.42	☑	31.38	☑	31.38	☑	☑	30.41	5
4	☑	☑	☑	☑	☑	☑	175.7	29.42	☑	31.37	☑	31.37	☑	☑	29.42	3

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	IRM 2nd Qtr 2013_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-20B-02-042413
Blind Duplicate :GAIN-FW-99B-042413

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-22B-01
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1444
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 80

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1450
Sampling End Time: 04/23/2013 1528
Ambient Barometric: 14.71

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure In MP (2)	
1	☑	☑	☑	☑	☑	☑	154.2	26.90	☑	22.82	☑	22.82	☑	☑	26.90	4
2	☑	☑	☑	☑	☑	☑	153.9	26.87	☑	22.82	☑	22.82	☑	☑	26.87	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-01-042313
Field Blank :GAIN-FB-02-042313

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-22B-02
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1702
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 75

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1723
Sampling End Time: 04/23/2013 1813
Ambient Barometric: 14.71

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressur e (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	174.7	34.68	☑	31.46	☑	31.47	☑	☑	34.68	4
2	☑	☑	☑	☑	☑	☑	174.6	34.67	☑	31.46	☑	31.45	☑	☑	34.67	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-02-042313

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-03

Client:	Beazer East, Inc.	**Well ID:**	FW-22B-03
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1528
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 80

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1531
Sampling End Time: 04/23/2013 1701
Ambient Barometric: 14.71

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	194.5	44.66	☑	40.10	☑	40.10	☑	☑	44.66	5
2	☑	☑	☑	☑	☑	☑	194.3	44.48	☑	40.10	☑	40.11	☑	☑	44.37	5
3	☑	☑	☑	☑	☑	☑	194.1	44.25	☑	40.10	☑	40.10	☑	☑	44.13	5
4	☑	☑	☑	☑	☑	☑	193.8	44.03	☑	40.10	☑	40.11	☑	☑	43.91	5
5	☑	☑	☑	☑	☑	☑	193.6	42.90	☑	40.10	☑	40.10	☑	☑	42.89	3

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-03-042313
MS/MSD Blank :GAIN-MS/MSD-042313

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-22B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-22B-04
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1411
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 80

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1414
Sampling End Time: 04/23/2013 1444
Ambient Barometric: 14.67

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	209.5	50.85	☑	46.56	☑	46.56	☑	☑	50.85	4
2	☑	☑	☑	☑	☑	☑	209.2	50.83	☑	46.57	☑	46.56	☑	☑	50.85	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-22B-04-042313

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-01
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/22/2013 1226
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	overcast 65

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/22/2013 1235
Sampling End Time: 04/22/2013 1306
Ambient Barometric: 14.68

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	151.6	25.65	☑	25.35	☑	25.35	☑	☑	25.65	4
2	☑	☑	☑	☑	☑	☑	151.5	25.64	☑	25.35	☑	25.36	☑	☑	25.65	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-01-042213

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-02
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/22/2013 1306
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Overcast 65

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/22/2013 1308
Sampling End Time: 04/22/2013 1338
Ambient Barometric: 14.68

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)							Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	171.3	34.32	☑	34.04	☑	34.03	☑	☑	34.31	4
2	☑	☑	☑	☑	☑	☑	171.2	34.28	☑	34.03	☑	34.03	☑	☑	34.27	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-02-042213
Trip Blank :GAIN-Trip Blank-042213

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-03

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-03
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/22/2013 1338
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Overcast 65

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/22/2013 1341
Sampling End Time: 04/22/2013 1410
Ambient Barometric: 14.68

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	191.0	42.92	☑	42.70	☑	42.70	☑	☑	42.89	4
2	☑	☑	☑	☑	☑	☑	190.8	42.84	☑	42.69	☑	42.70	☑	☑	42.79	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-03-042213
Field Blank :GAIN-FB-01-042213

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-23B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-23B-04
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/22/2013 1410
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Overcast 65

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/22/2013 1413
Sampling End Time: 04/22/2013 1437
Ambient Barometric: 14.68

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	210.6	51.39	☑	51.33	☑	51.34	☑	☑	51.35	4
2	☑	☑	☑	☑	☑	☑	210.5	51.25	☑	51.34	☑	51.34	☑	☑	51.19	4

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-23B-04-042213
Equipment Blank :GAIN-EB-01-042213

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-01

Client:	Beazer East, Inc.	**Well ID:**	FW-24B-01
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1145
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 75

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1203
Sampling End Time: 04/23/2013 1411
Ambient Barometric: 14.69

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	163.7	21.50	☑	26.22	☑	26.22	☑	☑	21.51	5
2	☑	☑	☑	☑	☑	☑	163.4	21.48	☑	26.22	☑	26.22	☑	☑	21.50	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-01-042313
Equipment Blank :GAIN-EB-02-042313

Print Date: 5/29/2013
Print Time: 4:00:29PM

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-02

Client:	Beazer East, Inc.	**Well ID:**	FW-24B-02
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 1035
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 70

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1044
Sampling End Time: 04/23/2013 1145
Ambient Barometric: 14.69

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	184.0	30.25	☑	34.87	☑	34.87	☑	☑	30.25	5
2	☑	☑	☑	☑	☑	☑	184.0	30.22	☑	34.87	☑	34.87	☑	☑	30.22	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-02-042313

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-03

Client:	Beazer East, Inc.	**Well ID:**	FW-24B-03
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 0731
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 60

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 0903
Sampling End Time: 04/23/2013 0958
Ambient Barometric: 14.69

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	204.0	39.36	☑	43.51	☑	43.51	☑	☑	39.26	5
2	☑	☑	☑	☑	☑	☑	203.9	39.20	☑	43.51	☑	43.51	☑	☑	39.11	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-03-042313
Filter Blank :GAIN-FilterBlank-042313

WESTBAY GROUNDWATER SAMPLE COLLECTION RECORD

WELL No.: FW-24B-04

Client:	Beazer East, Inc.	**Well ID:**	FW-24B-04
Project Name:	Gainesville 2nd Qtr 2013	**Date:**	04/23/2013 0958
Project Number:	OM-0450-13-091	**Technician:**	Rory Hanczar
Location:	Gainesville	**Weather Condition:**	Sunny 70

Sampling Equipment	Dedicated
Westbay Beazer	NO

Sampling Start Time: 04/23/2013 1004
Sampling End Time: 04/23/2013 1035
Ambient Barometric: 14.69

Comments: PROBE 3535 MAGI 2743

Run #	Surface Function Tests						Position Sampler	Sample Collection Checks (Probe Located at samplin zone in MP casing)								Volumes Tubes
	Shoe Out	Close Valve	Check Vacuum	Open Valve	Evacuate Container	Close Valve	Locate Port Arm Out Land Probe	Pressure In MP1	Shoe Out	Zone Pressure	Open Valve	Zone Pressure (2)	Close Valve	Shoe In	Pressure in MP (2)	
1	☑	☑	☑	☑	☑	☑	223.7	47.73	☑	52.15	☑	52.15	☑	☑	47.71	5
2	☑	☑	☑	☑	☑	☑	223.5	47.66	☑	52.15	☑	52.15	☑	☑	47.61	5

SAMPLE COLLECTION INFORMATION

Lab	Parameter	Method	Bottle QTY Required	Bottle QTY Collected	BottleType	Preservative	Program
Columbia	BTEX_AQ	SW-846 8260B	3	3	40 ml glass vial	HCL	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C SIM	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_DISS	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	METALS_AQ_TOTAL	SW-846 6020/6010	1	1	125 ml plastic bottle	HNO3	2nd Qtr 2013 GW_001
Columbia	SVOA_AQ	SW-846 8270C	1	1	1 liter amber bottle	None	2nd Qtr 2013 GW_001

SAMPLE IDENTIFICATION(S)

Normal Sample :GAIN-FW-24B-04-042313

APPENDIX B

ANALYTICAL LABORATORY REPORTS

Appendix B

Quality Control Sample Summary
2013 First Semiannual Comprehensive Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

SDG	Collection Date	QC ID	Parameters Detected	Qualifier	Associated Samples
J1301017	2/20-21/2013	Continuing Calibration Verification	Pyrene	UJ	FW-6, FW-20B-01, FW-12B-04, FW-99D, FW-12B-03, FW-20B-02
		MS/MSD	Phenol	UJ	FW-6, FW-4, FW-12B-04
			2-Methylnaphthalene	J	FW-6
			Carbazole		
			Dibenzofuran		
			Fluorene		
			Phenanthrene		
		Duplicate Percent Difference	Benzene	J	FW-12B-04, FW-99D
		Laboratory Control Sample	Phenol	UJ	FW-16B-01, FW-6, FW-21B, FW-20B-01, FW-12B-04, FW-22B-01, FW-12B-02, FW-4, FW-99D, FW-12B-03, FW-12B-01, FW-22B-02, FW-22B-04, FW-20B-02, FW-22B-03
		Surrogate Recoveries	2,4-Dimethylphenol	UJ/J	FW-6
			2-Methylphenol		
			3&4-Methylphenol		
			Phenol		
J1300953	2/19/2013	Laboratory Control Sample	Phenol	UJ	FW-24B-03, FW-24B-02, FW-24B-01, FW-24B-04
J1300961	2/18-19/2013	Laboratory Control Sample	Phenol	UJ	FW-4C-02, FW-22C-01, M-99B, FW-23B-02, FW-22C-03, FW-23B-03, FW-23B-01, FW-24C-01, FW-23B-04, FW-24C-04, FW-24C-03, FW-23C-02, FW-99C, FW-99A, FW-4C-02, FW-23C-03, FW-4C-01, FW-4C-03, FW-23C-01, FW-24C-02, FW-22C-02
			Pentachlorophenol		M-99B
J1302295	4/23-24/2013	Reporting Requirements	Carbazole	J	FW-20B-02, FW-99B
		Internal Standard	Pyrene	UJ	FW-23B-04
		MS/MSD	Phenol	UJ	FW-22B-03
		Laboratory Control Sample	Phenol	UJ	FW-12B-01, FW-12B-02, FW-12B-03, FW-12B-04, FW-20B-01, FW-20B-02, FW-22B-02, FW-24B-01, FW-99A, FW-99B
		Duplicate Percent Difference	Benzene	J	FW-12B-04, FW-99A

APPENDIX C

ELECTRONIC DATA SUBMITTALS

(PROVIDED TO U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV)