Periodic Groundwater Report
For Site 15
Hancock Air National Guard Base

Draft Final

Site:

Hancock Air National Guard Base
Syracuse, New York

Prepared for:

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List of Acronyms and Abbreviations

ANG	Air National Guard
ARAR	Applicable or Relevant and Appropriate Requirements
AWQS	Ambient Water Quality Standards
BEX	Benzene, Ethylbenzene, Xylenes
bgs	Below Ground Surface
cfm	Cubic feet per minute
COC	Compounds of Concern
DO	Dissolved Oxygen
DOD	Department of Defense
ELAP	Environmental Laboratory Accreditation Program
ERP	Environmental Restoration Program
ERM	Environmental Resources Management
FFS	Focused Feasibility Study
FSP	Field Sampling Plan
HANGB	Hancock Air National Guard Base
IRM	Interim Remedial Measure
JP	Jet Propulsion
lbs	Pounds
µg/L	Micrograms per Liter
mg/L	Milligram per liter
MNA	Monitored Natural Attenuation
MW	Monitoring Well
NGB	National Guard Bureau
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation-Reduction Potential
PCB	Polychlorinated Biphenyls
pH	Pondus Hydrogenii
PVC	Polyvinyl Chloride
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
ROD	Record of Decision
ROI	Radius of Influence
STARS	Spills Technology and Remediation Series
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1 Introduction

This Periodic Groundwater Report summarizes the progress of the remedial activities implemented to address petroleum hydrocarbon groundwater contamination associated with Environmental Restoration Program (ERP) Site 15 at the 174th Fighter Wing, New York Air National Guard (ANG), Hancock Air National Guard Base (HANGB), Syracuse, New York. A Final Record of Decision (ROD) was issued by the ANG in April 2011 for the remediation of groundwater at Site 15. The remedy selected in the ROD consists of the injection of calcium peroxide to enhance aerobic biodegradation of the dissolved-phase petroleum hydrocarbon groundwater plume, coupled with long-term monitoring.

The remedial activities conducted to date at ERP Site 15 under this contract consist of the installation of a biosparging system to address residual contamination in soil in October 2011; and an initial injection of calcium peroxide substrate conducted in October 2012. A baseline groundwater monitoring event was conducted in September 2012 and the first post-injection groundwater monitoring event was conducted in January 2013. This report provides a comparison of pre- and post-injection groundwater conditions at ERP Site 15, as well as recommendations for additional remedial activities and monitoring.

The activities summarized in this report were conducted in accordance with the *Final Remedial Action Work Plan* (WP) submitted to the New York State Department of Environmental Conservation (NYSDEC) in September 2011 and approved by NYSDEC in October 2011. The WP was prepared in accordance with NYSDEC Program Policy, DER-10, Chapter 5, Section 5.3.

1.1 Site Description

HANGB is located in Syracuse, New York and ERP Site 15 comprises approximately 2.5 acres in the southeastern portion of the HANGB. Site 15 was formerly used as a pump house and fuel storage facility where numerous spills of jet propulsion (JP)-4 and JP-8 military aviation fuels and polychlorinated biphenyls (PCBs) occurred during active use. The pump house, tanks, and associated piping and structures have been demolished and the majority of the Site is now a large open field. Site 15 was listed as a Class 2 site on the NYS Inactive Hazardous Waste Disposal Site Registry in 1994 as Site Number 734054. PCBs identified at the site have been successfully remediated. A map illustrating the location of the HANGB and ERP Site 15 is provided as Figure 1.

The recurrent releases of JP-4 and JP-8 at ERP Site 15 resulted in contamination of soil and a dissolved-phase plume of petroleum hydrocarbons with maximum historic dimensions of approximately 1,000 feet along the axis in the north-south direction and a width of approximately 150 feet. The plume is aligned with groundwater flow at Site 15, which is to the south-southeast towards Ley Creek and Onondaga Lake. The source area is located at the northern end of the plume in the vicinity of monitoring well MW-101; the down-gradient edge of the plume is at the boundary of the General Electric Property. The contaminants of concern (COCs) within the plume are benzene, ethylbenzene, and xylenes (BEX). The historic maximum detection of BEX occurred at MW-19 in September 2005 at a concentration of 1,500 micrograms per liter (µg/L). During the January 2013 monitoring event, BEX compounds exceeded cleanup criteria in only three (3) of 19 monitoring wells sampled, and in each instance the total BEX concentration was less than 50 µg/L. ERP Site 15 monitoring well locations are depicted in Figure 2 along with groundwater elevation contours and flow directions. Historic plume dimensions are depicted in Figure 3.

1.1.1 Site Geology

The surficial geology at Site 15 consists of glaciofluvial sediments deposited by glacial melt water underlain by poorly sorted till deposited directly by glaciers. The glaciofluvial sediments include clayey silts, sands, and gravels with thickness ranging from 45 to 55 feet. The underlying till consists of gravel, cobbles, and boulders entrained in a clayey silt matrix and ranges in thickness from 30 to 100 feet (Lockheed 1997).

Bedrock is encountered at depths ranging from 75 to 109 feet below ground surface (bgs), and is part of the Upper Silurian Vernon Formation. This formation consists of thinly bedded soft red shale with thin beds of green shale, gypsum, halite, and dolomite. Competence varies from soft and crumbly to dense and hard. The degree of competence appears to be proportional to the density of the fractures in the shale. The shale is characterized by enlarged fractures, joints and bedding planes (Lockheed 1997). Significant portions of ERP Site 15 have been re-graded and filled due to previous construction and demolition activities.

1.1.2 Site Hydrogeology

The overburden at Site 15 consists of fine-grained sediments. The subgrade soils are fairly uniform with the upper 10 to 15 feet of the soil characterized by relatively soft, dark yellowish-brown silt and clayey silt. Towards the southeast, the interval thins to approximately 5 feet. Beneath the clayey silt are yellowish brown to dark brown fine to medium-grained sands with silt and trace amounts of clay down to a depth of approximately 20 feet. Underlying these silty sands is a lens of stiff clayey silts (often called glacial till). Till has been encountered as much as 15 feet thick (Lockheed 1997).

Groundwater is generally encountered at depths of 1.5 to 13 feet bgs and, as previously discussed, flows in a south to southeasterly direction towards Ley Creek and eventually into Onondaga Lake. Groundwater contours based on elevation data gathered during the January 2013 performance monitoring event are depicted in Figure 2.

1.2 Previous Remedial Activities

Based on an evaluation of the site conditions, the compounds of concern (COC), and an analysis of applicable or relevant and appropriate requirements (ARARs), the following remedial action objectives (RAOs) were developed for groundwater contaminated with BEX at ERP Site 15:

- Prevent exposure to contaminated groundwater containing BEX concentrations above the NYSDEC Ambient Water Quality Standards (AWQS) and Guidance Values;
- Prevent or minimize further off-site migration of the contaminant plume (plume containment);
- Prevent or minimize further migration of contaminants from source materials to groundwater (source control); and
- Enhance the natural process for the attenuation of BEX compounds on-site and off-site.

Achievement of RAOs will be quantitatively measured by the achievement of NYSDEC AWQS included in *NYS Division of Water Technical and Operational Guidance Series (1.1.1) 1998.* The AWQS for BEX are included on Table 1.

Environmental studies performed from 1990 to 2009 identified Site 15 and down-gradient off-site areas as having soil and groundwater impacted with petroleum hydrocarbons. A Focused Feasibility Study (FFS) recommended excavation and off-site disposal of the source areas (these were completed in 2003 and 2008) and focused enhanced aerobic bioremediation with monitored natural attenuation (MNA). Two vadose zone source area removals have occurred as interim remedial measures (IRMs):

- **Year 2003:** removal of 5,360 tons of petroleum-impacted soil from the vadose zone, steel tanks and associated piping; and
- **Year 2008:** excavation of 2,890 tons of petroleum-impacted soil from the vadose zone source area followed by application of 4,800 pounds of an oxygen-releasing product (calcium peroxide) within the bottom of the excavation areas.

The location of the IRM soil excavations is presented in Figure 3**.** Calcium peroxide was applied directly to the bottom of the 2008 excavations prior to backfilling with crushed concrete. Post excavation confirmation soil sampling and groundwater monitoring results from wells adjacent to the excavations indicated that there was an area of residual soil contamination as well as a lack of oxygen available in this portion of the aquifer, potentially limiting biodegradation in the residual petroleum impacted soil. Biosparging was selected for accelerated biodegradation of the COCs in the source area as the presence of petroleum hydrocarbons adsorbed to soil in the saturated region can act as a continuous source of dissolved phase contamination; limiting the effectiveness of calcium peroxide injections in achieving RAOs in a reasonable timeframe.

A biosparge system was designed and installed in October 2011 to inject air into the saturated zone to stimulate aerobic biodegradation of residual source area smear zone impacts. Fifteen one-inch diameter polyvinyl chloride (PVC) biosparge wells screened from 18 to 20 feet bgs were installed at Site 15 in accordance with the WP. The biosparge well locations are depicted in Figure 3. The biosparging system was operated from November 2011 through December 2012, when it was shutdown to monitor for contaminant rebound. During operation, filtered atmospheric air was delivered to each well at a rate of 1 to 2 cubic feet per minute (cfm). The radius of influence (ROI) for sparge wells was estimated at up to 30 feet, based on dissolved oxygen measurements taken at IRP Site 15 monitoring wells.

2 Calcium Peroxide Injections

The prescribed remedy for remediation of BEX impacted groundwater is enhanced aerobic biodegradation via calcium peroxide injection. The injection of calcium peroxide provides an extended release of oxygen into the subsurface to maintain an aerobic environment, enhancing microbial activity which results in the degradation of petroleum compounds. Delivery of calcium peroxide to the aquifer is accomplished by pressure injection, which ensures a uniform distribution across the injection interval and allows for delivery of the substrate at a faster rate. Distribution of calcium within the aquifer is by advection along the natural hydraulic gradient.

An initial calcium peroxide injection event was conducted from October 2-5, 2012. A total of 2,200 pounds of calcium peroxide were injected at 44 injection locations. Each injection location received 50 pounds of calcium peroxide, which was injected as a 40-percent slurry comprised of 9 gallons of water and 50 pounds of calcium peroxide. Substrate was injected using direct-push technology (DPT) techniques. Substrate was injected using a 'bottom up' approach across a 15-foot injection interval at each location. Injection intervals ranged from 3 to 18 feet bgs to 15 to 30 feet bgs, dependent on the water table elevation in monitoring wells located adjacent to the injection locations. The injection locations are depicted in Figure 4.

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3 Groundwater Monitoring

3.1 Groundwater Monitoring Program Overview

3.1.1 Rationale

The groundwater monitoring program at ERP Site 15 was developed to provide baseline characterization of the BEX plum by sampling the 30 existing monitoring wells; and for performance monitoring to assess the effectiveness of biosparging and calcium peroxide injection in remediating BEX contamination. Performance monitoring will consist of sampling up to 30 monitoring wells on a quarterly basis for two years after the initial injection event, followed by semi-annual sampling of up to 20 monitoring wells for two additional years. Samples are analyzed for VOCs and geochemical data is also collected to assess the performance of the remedial action.

3.2 Sampling Methodology

3.2.1 Sample Collection

Groundwater samples are collected using low-flow (minimal drawdown) sampling techniques. Wells are gauged with an oil-water interface probe prior to sampling to determine the water level, total well depth and the presence/absence of non-aqueous phase liquids (NAPL). Water level data is utilized to develop potentiometric surface maps. Following gauging, the wells are purged using a peristaltic pump and dedicated tubing. During purging, the depth to water is monitored as well as geochemical and physical parameters including temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), specific conductivity and turbidity. The geochemical and physical parameters are utilized to determine well stabilization which indicates that the water being purged is from the formation surrounding the well and will provide a representative sample. VOC samples are collected in 40-milliliter (mL) vials preserved with hydrochloric acid provided by the analytical laboratory and shipped on ice to the laboratory for analysis. Geochemical and physical parameter readings are recorded on field sheets; and the geochemical data, particularly DO and ORP, are evaluated as indicators of the favorability of the aquifer for promoting aerobic biodegradation of BEX. In some instances, the hydraulic conductivity at a given well is insufficient to allow for low-flow sampling. In such cases, the well was purged dry, allowed to recharge and sampled with a disposable bailer. Additional information regarding sampling techniques can be found in the *Final Field Sampling Plan* (AECOM, 2011), which is included as an appendix of the WP.

3.2.2 Sample Analysis

Samples are analyzed for BEX using United States Environmental Protection Agency (USEPA) Method 8260. Samples are analyzed at Spectrum Analytical, Inc. laboratory in North Kingstown, Rhode Island; a Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) certified facility. In addition to environmental samples, quality assurance/quality control (QA/QC) samples are also submitted to the laboratory. These include duplicates, matrix spike and matrix spike duplicate (MS/MSD) samples, trip blanks, and ambient blanks. Additional information on analytical procedures and QA/QC procedures can be found in the Quality Assurance Program Plan (QAPP), which is included as an appendix of the WP.

3.2.3 Sample Locations

Sample locations are chosen from the existing 30 well monitoring network at ERP Site 15. All 30 wells were sampled in each of the three events summarized in this report. Future events will include fewer locations as wells are dropped from the network based on contaminant trends. The sampling locations and historic plume dimensions are depicted in Figure 5.

3.3 Groundwater Monitoring Results

The following sections present groundwater monitoring results from three sampling events. The October 2010 event was conducted by Environmental Resources Management (ERM) and predates the installation of the biosparge system and calcium peroxide injection. The second event, conducted by AECOM, occurred in September 2012, following 10 months of

biosparging and prior to the initial calcium peroxide injection event. The third event presented in this report occurred in January 2013, approximately three months after the initial calcium peroxide injection event.

3.3.1 October 2012 Groundwater Monitoring Results

Thirty (30) monitoring wells were sampled by ERM in October 2010. COCs were detected in 10 of the 30 wells sampled with detections at 6 wells exceeding the NYSDEC AWQS. Benzene was detected in samples from six (6) monitoring wells at concentrations ranging from 0.36J µg/L to 26 µg/L. Five of the six detections of benzene exceeded the NYSDEC AWQS of 1 µg/L. The maximum detection of benzene occurred at MW-11. Ethylbenzene was detected in samples from six wells at concentrations ranging from 3.8 µg/L to 100 µg/L. Five of the six detections of ethylbenzene exceeded the NYSDEC AWQS of 5 µg/L. The maximum detection of ethylbenzene occurred at MW-19. Xylenes were detected in samples from eight wells at concentrations ranging from 0.72J µg/L to 92 µg/L. Three of the eight detections of xylenes exceeded the NYSDEC AWQS of 5 µg/L. The maximum detection of xylenes occurred at MW-105. MW-112 was the furthest down-gradient monitoring well with detections of COCs in October 2010. Benzene, ethylbenzene, and xylenes were detected at MW-112 at concentrations of 0.36J µg/L, 10 µg/L, and 2.7 µg/L, respectively. The detection of ethylbenzene at MW-112 exceeded the NYSDEC AWQS. Groundwater analytical data is summarized in Table 1 and the extent of the BEX plume during the October 2010 monitoring event is depicted in Figure 5.

Geochemical parameter monitoring conducted during sampling indicated that conditions were generally anaerobic (DO less than 1-mg/L) and reducing (ORP below 0 mV) throughout ERP Site 15. These conditions are typically of sites contaminated with petroleum hydrocarbons that have not undergone chemical or biological amendment. Geochemical data for the October 2010 monitoring event is summarized in Table 2.

3.3.2 September 2012 Groundwater Monitoring Results

Thirty (30) monitoring wells were sampled in September 2012. The intent of this monitoring event was to serve as a baseline for evaluating the effectiveness of the calcium peroxide injections to be conducted in October 2012. The biosparging system had been operational for approximately 10 months at the time of the September 2012 monitoring event. COCs were detected in samples from seven wells during the September 2012 monitoring event. Benzene was detected in samples from three monitoring wells at concentrations ranging from 1.4 µg/L to 5.9 µg/L. All three detections of benzene exceeded the NYSDEC AWQS of 1 µg/L. The maximum detection of benzene occurred at MW-103. Ethylbenzene was detected in samples from four wells at concentrations ranging from 1.7 µg/L to 53 µg/L. Three detections exceeded the NYSDEC AWQS of 5 µg/L. The maximum detection of ethylbenzene occurred at MW-112. Xylenes were detected at three monitoring wells at concentrations ranging from 26 µg/L to 67 µg/L, all of which exceeded the NYSDEC AWQS of 5 µg/L. The maximum detection of xylenes occurred at MW-112. As during the October 2010 event, MW-112 was the furthest down-gradient monitoring well with detections of COCs. Ethylbenzene was detected in the sample from MW-112 at 29 µg/L and xylenes were detected at 18 µg/L. Both of these detections exceed their respective NYSDEC AWQS of 5 µg/L. Groundwater analytical data is summarized in Table 1 and the extent of the BEX plume during the September 2012 monitoring event is depicted in Figure 5.

Geochemical parameter monitoring conducted during sampling indicated that dissolved-oxygen concentrations had increased in many areas since the October 2010 monitoring event, as would be expected following 10 months of biosparging. ORP readings were still within the reducing range throughout the majority of ERP Site 15. Geochemical data for the September 2012 monitoring event is summarized in Table 2.

3.3.3 January 2013 Groundwater Monitoring Results

Thirty (30) monitoring wells were sampled at ERP Site 15 in January 2013 to assess the performance of calcium peroxide injections and biosparging at reducing dissolved-phase BEX contamination. COCs were detected in samples from four monitoring wells, with at least one COC exceeding the NYSDEC AWQS at three wells. This represents a significant decrease from October 2010, when COCs were detected in ten wells and exceeded the NYSDEC AWQS at six wells. The frequency of COC detections and exceedances of the NYSDEC AWQS also decreased from the September 2012 monitoring event. Benzene was detected in samples from two wells at concentrations of 0.78J µg/L and 4.7 µg/L. The detection of 4.7 µg/L, at MW-11, exceeded the NYSDEC AWQS of 1 µg/L. Ethylbenzene was detected in samples from three monitoring wells at concentrations of 0.63J µg/L to 29 µg/L. The detection of ethylbenzene at 29 µg/L, which occurred at MW-112, exceeded the NYSDEC AWQS of 1 µg/L. Xylenes were detected at MW-112 and MW-101 at concentrations of 18 µg/L and 26 µg/L, respectively. Both detections of xylene exceeded the NYSDEC AWQS of 1 µg/L. As in the previous monitoring events, MW-112 was the furthest down-gradient well with BEX impacts. The data from the January 2013 monitoring indicate that there is no longer a contiguous BEX plume at ERP Site 15 but rather pockets of residual groundwater contamination.

DO and ORP measurements taken while sampling show increases in DO at numerous wells when compared to October 2010 and September 2012 data. While DO concentrations decreased at some wells from September 2012, the values were generally higher than those in October 2010, prior to the implementation of biosparging and calcium peroxide injection. ORP data shows many wells still within the reducing range.

4 Conclusions and Recommendations

The groundwater monitoring data collected in September 2012 and January 2013 indicates that the addition of oxygen to the saturated zone at ERP Site 15 via biosparging and calcium peroxide injection has resulted in a significant decrease in BEX contamination within the aquifer, as evidenced by decreases in the frequency and magnitude of BEX detections over time. The current data indicates that the plume is no longer contiguous and that BEX impacts are isolated to the areas surrounding monitoring wells MW-11, MW-101, and MW-112.

Calcium peroxide is typically effective in providing dissolved-oxygen to an aquifer for a period of 6 to 12 months, depending on groundwater flow rates, contaminant concentrations and utilization rates. The next performance monitoring event is scheduled for April 2013. Should monitoring results indicate that BEX is still present at concentrations in excess of the NYSDEC AWQS, a second calcium peroxide injection will be conducted. This injection would possibly be augmented using a sodium-persulfate product, which degrades contaminants chemically, while the calcium peroxide would persist to stimulate biodegradation.

Quarterly groundwater monitoring should be continued until BEX concentrations are below the AWQS for four consecutive quarters as specified in DER-10 Section 6.4. The monitoring well network for April 2013 and subsequent events will include all wells where BEX compounds were detected in September 2012 and/or January 2013. The proposed monitoring well network is provided in Table 3.

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5 References

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Figures

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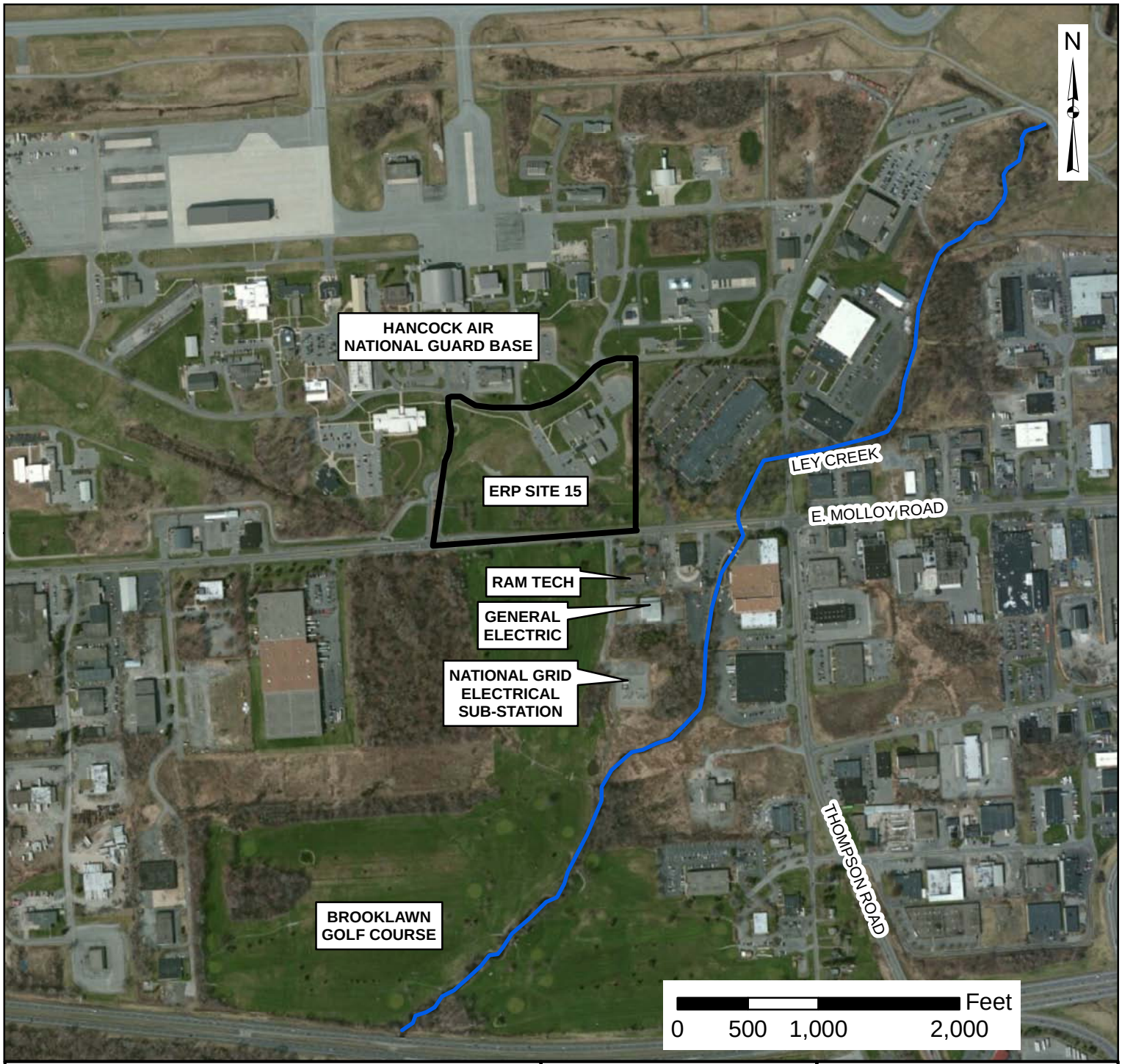

Source: ArcGIS World Imagery

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FIGURE 1

SITE LOCATION MAP

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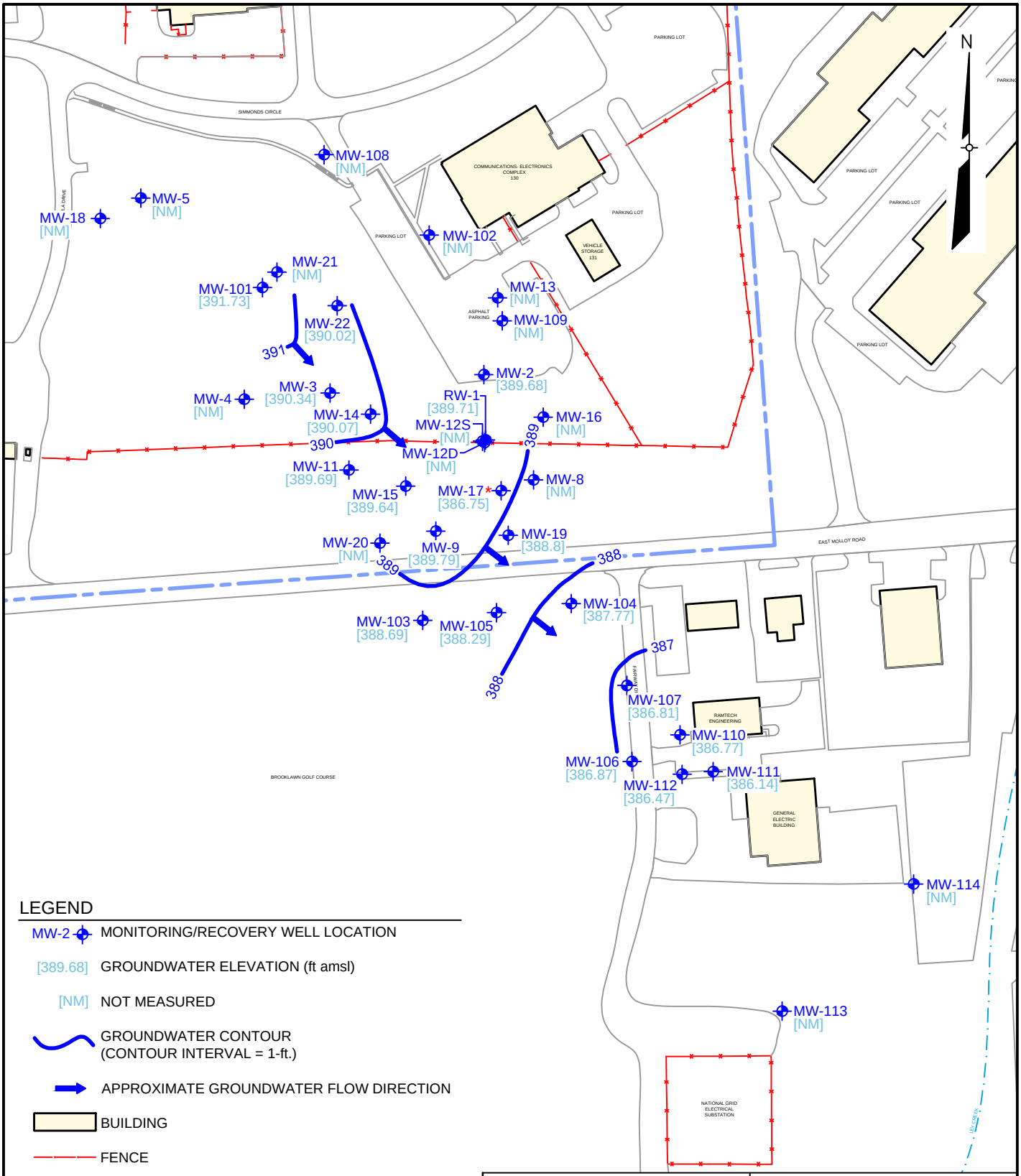
SYRACUSE, NEW YORK

APRIL 2013

60214697



LEGEND

- MW-2 — MONITORING/RECOVERY WELL LOCATION
- [389.68] — GROUNDWATER ELEVATION (ft amsl)
- [NM] — NOT MEASURED
- GROUNDWATER CONTOUR (CONTOUR INTERVAL = 1-ft.)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- BUILDING
- FENCE
- BASE BOUNDARY

NOTE

* GROUNDWATER ELEVATION OF MW-17 APPEARS TO BE ANOMALOUS AND THEREFORE IT WAS NOT USED FOR CONTOURING PURPOSES.

0 100 200 400

SCALE IN FEET

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FIGURE 2
STATIC GROUNDWATER CONTOUR MAP
JANUARY 7, 2013

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MARCH 2013 60214697

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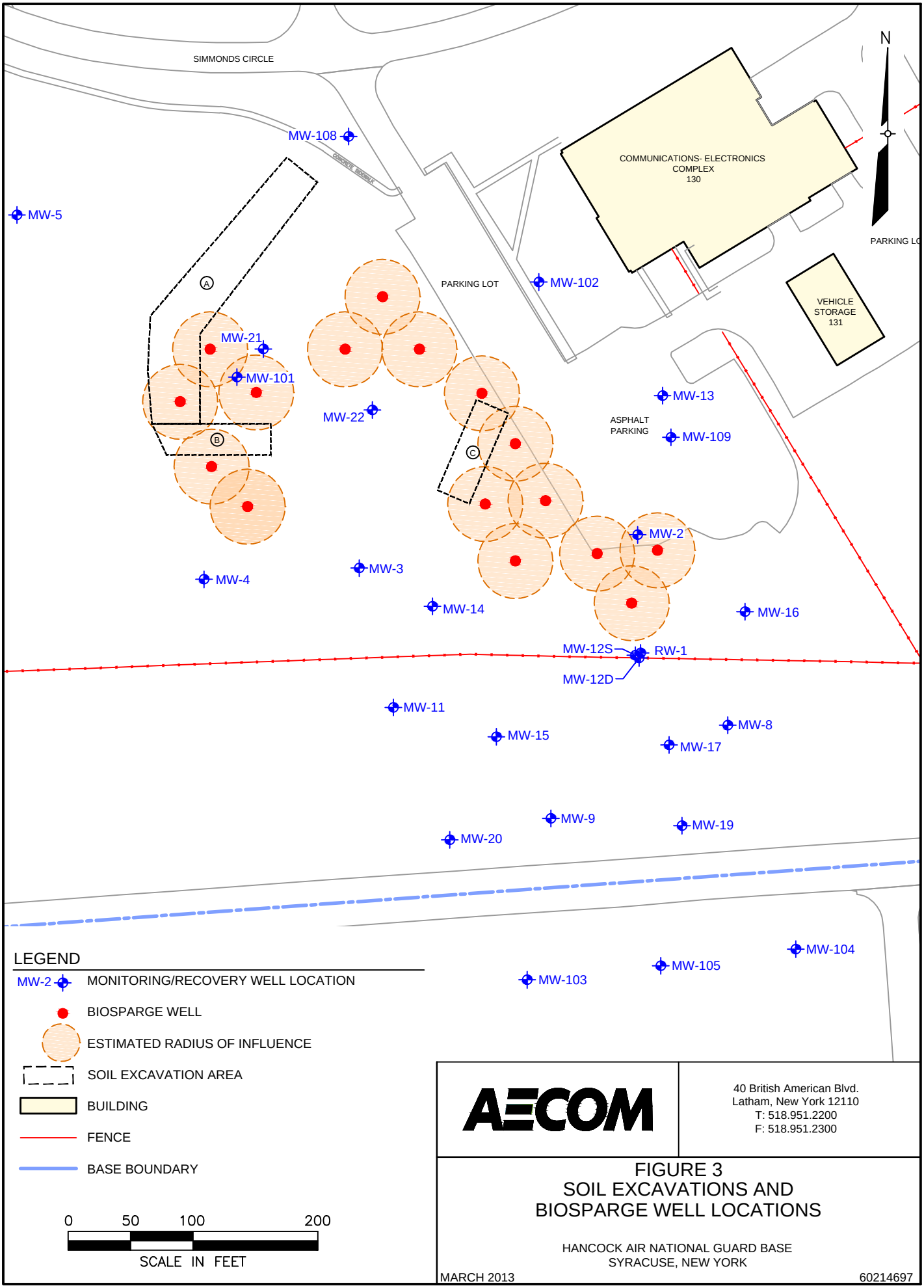

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FIGURE 3
SOIL EXCAVATIONS AND BIOSPARGE WELL LOCATIONS

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MARCH 2013

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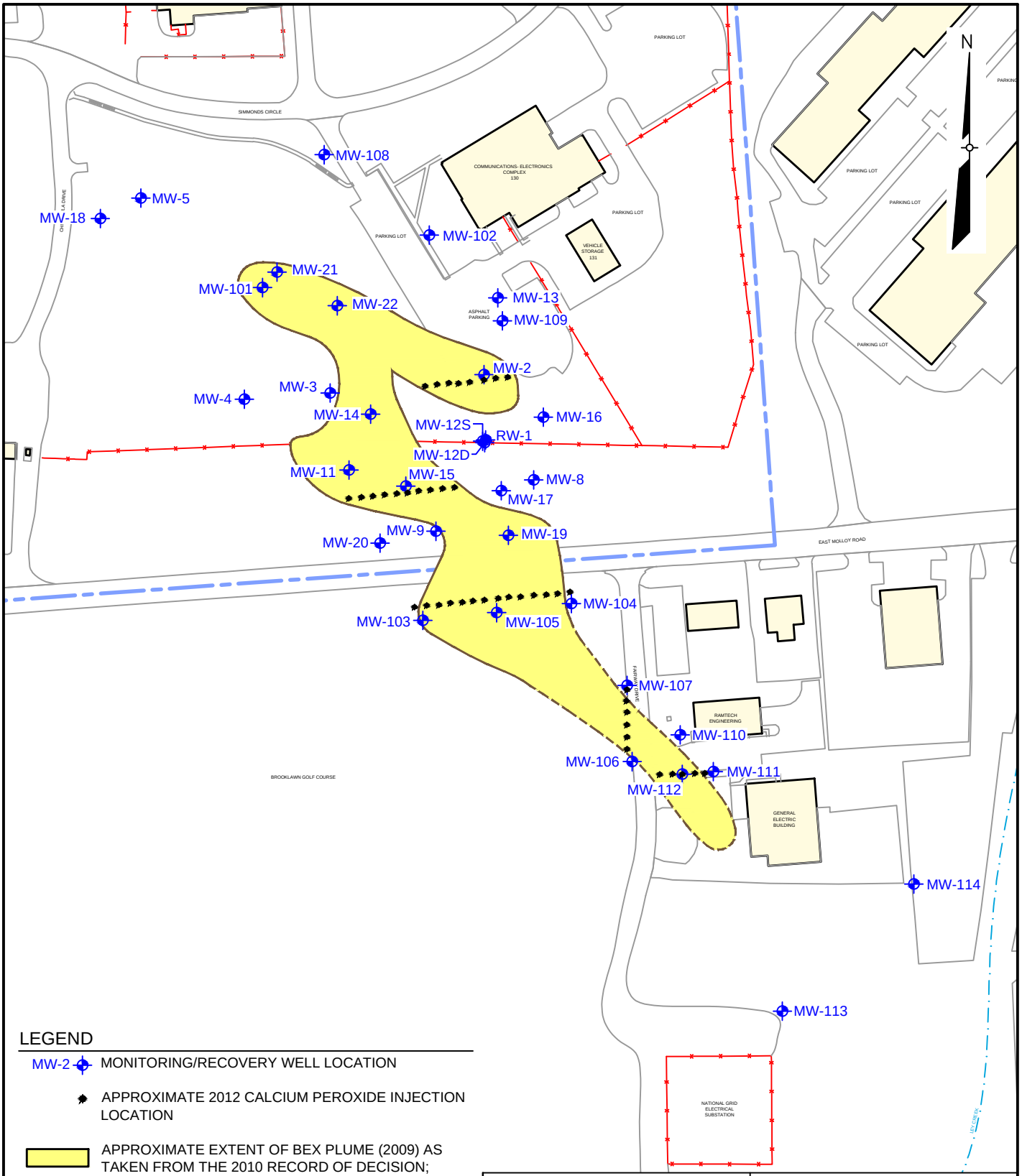

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FIGURE 4
2009 BEX PLUME WITH 2012 CALCIUM PEROXIDE INJECTION LOCATIONS

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MARCH 2013 60214697

L:\Group\earth\Latham NY Work\Hancock\60214697_003 2009 BEX Plume w 2012 Calcium Peroxide Injection Locs.dwg, 3/12/2013 9:33:32 AM, Splawnm

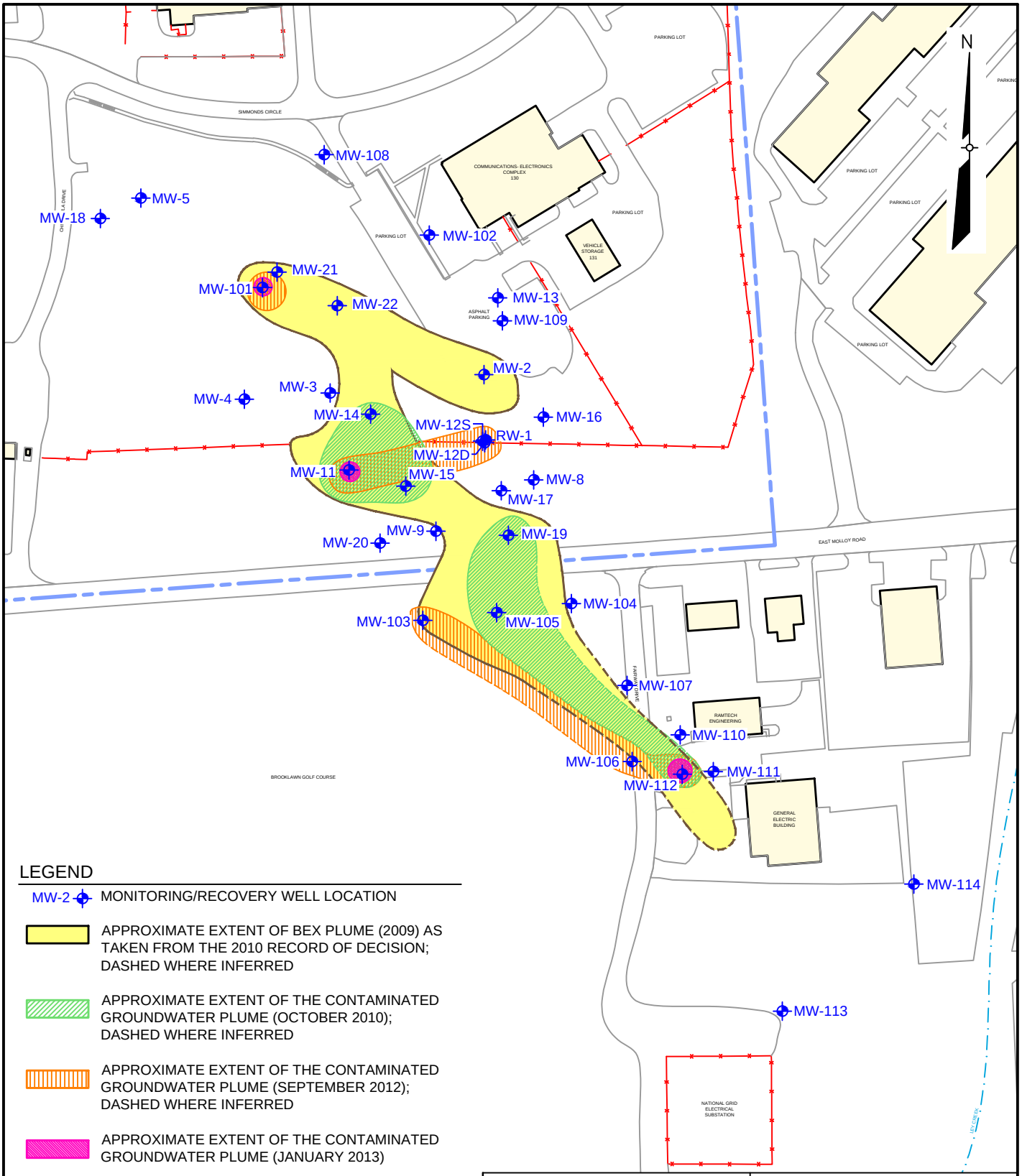

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FIGURE 5
GROUNDWATER CONTAMINATION PLUMES 2009 THROUGH PRESENT

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MARCH 2013 60214697

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Tables

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Table 1
Groundwater Sampling Results
Hancock Air National Guard Base, Syracuse, NY

Well ID	NYSDEC	MW-2			MW-3			MW-4			MW-5			MW-8			MW-9		
Sample Date	Stnd or GV	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13
VOCs µg/L																			
Benzene	1	-	-	-	-	-	-	-	-		-	-		-	-		-	-	-
Ethyl Benzene	5	-	-	-	-	-	-	-	-		-	-		-	-		-	-	-
Total Xylene	5	-	-	-	-	-	-	-	-		-	-		-	-		-	-	-

Well ID	NYSDEC	MW-11			MW-14			MW-15			MW-16			MW-17			MW-18		
Sample Date	Stnd or GV	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13
VOCs µg/L																			
Benzene	1	26	3.1	4.7	1.7	0.98 J	-	5.3	-	-	-	-		-	-	-	-	-	
Ethyl Benzene	5	7.8	-	-	-	-	-	9.8	-	0.62 J	-	-		0.95 J	-	-	-	-	
Total Xylene	5	9.5	-	-	-	-	-	0.72 J	-	-	-	-		1.2 J	-	-	-	-	

Well ID	NYSDEC	MW-19			MW-20			MW-22			RW-1			MW-101			MW-102		
Sample Date	Stnd or GV	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13
VOCs µg/L																			
Benzene	1	<6.2	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	
Ethyl Benzene	5	100	-	-	-	-		-	-	-	3.8	13	-	3.2	5.2	1.9	-	-	
Total Xylene	5	18	-	-	-	-		-	-	-	2.8	27	-	2.0	26	26	-	-	

Well ID	NYSDEC	MW-103			MW-104			MW-105			MW-106			MW-107			MW-108		
Sample Date	Stnd or GV	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13
VOCs µg/L																			
Benzene	1	-	5.9	-	-	-	-	5.5	-	-	-	1.4	-	-	-	-	-	-	
Ethyl Benzene	5	0.24 J	-	-	-	-	-	97	1.7	-	-	-	-	-	-	-	-	-	
Total Xylene	5	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	

Well ID	NYSDEC	MW-109			MW-110			MW-111			MW-112			MW-113			MW-114		
Sample Date	Stnd or GV	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13	Oct-10	Sep-12	Jan-13
VOCs µg/L																			
Benzene	1	-	-		-	-	-	-	-	-	0.36 J	-	0.78J	-	-		-	-	
Ethyl Benzene	5	-	-		-	-	-	-	-	-	10	53	29	-	-		-	-	
Total Xylene	5	-	-		-	-	-	-	-	-	2.7	67	18	-	-		-	-	

Notes:
NYSDEC GV or Stnd - Results compared to the New York State Department of Environmental Conservations (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), 1998, standards (Stnd) and guidance values (GV)
VOCs - Volatile organic compounds determined by United States Environmental Protection Agency (USEPA) Method 8260
µg/L - Micrograms per liter
-- - The compound was not detected at a concentration above the laboratory reporting limit
Blank cells indicate that the compound was not analyzed for
Shading indicates compounds detected above NYSDEC standards/guidance values
J - The analyte was positively identified, the quantitation is an approximation

Table 2
Groundwater Parameters
Hancock Air National Guard Base, Syracuse, NY

	MW-2		MW-3		MW-4		MW-5		MW-8		MW-9		MW-11		MW-14		MW-15		MW-16		MW-17		MW-18		MW-19	
Date	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)
Oct-10	0.45	42.1	1.22	83.9	2.93	6.2	3.23	66	0.32	-97.4	0.85	43.8	0.36	-24.9	0.44	23.1	0.42	-7.1	0.84	114.8	0.58	-6.5	3.86	61.7	0.45	-66
Nov-11	5.31	-318.8	2.32	-218.8	1.5	-210.2	5.83	-277.5	-	-	-	-	-	-	0.7	-268.6	-	-	-	-	-	-	4.86	-277.9	-	-
Sep-12	6.3	-57	0.58	-79.5	0.66	-2.2	-	-	3.9	-88.2	4.34	-69.1	0.72	-122	1.04	-94.5	4.04	-142.9	1.04	214.4	0.38	-111	0.79	-93.6	0.34	-103.5
Dec-12	5.11	-133.1	7.06	-93.8	2.91	-87.7	4	27.1	4.1	-10.8	4.81	47.2	3.73	-99.4	3.04	-46.5	2.96	-75.7	5.82	-14.2	8.02	-54.6	6.17	67.6	5.23	-67.1
Jan-13	1.34	-88	-0.03	-1.3	-	-	-	-	-	-	10.76	-8	4.75	-106.9	0.25	-52.9	2.39	-111.3	-	-	3.11	-96.3	-	-	-0.36	-47.4

Table 2
Groundwater Parameters
Hancock Air National Guard Base, Syracuse, NY

	MW-20		MW-22		MW-101		MW-102		MW-103		MW-104		MW-105		MW-106		MW-107		MW-110		MW-111		MW-112		RW-1	
Date	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)	DO (mg/L)	ORP (mV)
Oct-10	0.61	8.9	1.87	-17.7	0.58	-5.5	0.45	30.7	0.51	3.3	1.75	25.9	0.68	2.6	0.68	30.3	2.57	34.2	0.5	25.3	0.69	-35.7	0.82	-106.9	0.46	-145.8
Nov-11	-	-	3.82	-249.2	-	-	0.14	-334.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sep-12	1.08	-94.2	9.31	9.1	1.23	-128.1	3.37	-89.3	2.75	-66.4	1.66	-38.9	4.09	-139.5	1.9	0.8	3.63	-124.4	-	-	-	-	-	-	0.4	-101.1
Dec-12	3.4	-78.1	10.69	-24.9	4.13	-71.8	0.68	-52.8	4.1	-70.9	3.77	46.8	3.46	-112.4	2.04	-70.3	11.43	-53.8	-	-	-	-	-	-	3.08	-115.6
Jan-13	-	-	3.88	168.8	2.65	-102	-	-	-0.1	-78.9	5.24	-15.4	0.01	-119.8	1.14	-68.4	5.09	14.8	0.24	70.9	1.78	-1.1	2.47	-146	2.62	6.2

Table 3
Proposed Groundwater Monitoring Well Network
Hancock Air National Guard Base, Syracuse, NY

Previous Groundwater Monitoring Well Network	Proposed Groundwater Monitoring Well Network
MW-2	--
MW-3	--
MW-4	--
MW-5	--
MW-8	--
MW-9	--
MW-11	MW-11
MW-14	--
MW-15	MW-15
MW-16	--
MW-17	--
MW-18	--
MW-19	--
MW-20	--
MW-22	--
MW-101	MW-101
MW-102	--
MW-103	MW-103
MW-104	--
MW-105	MW-105
MW-106	MW-106
MW-107	--
MW-108	--
MW-109	--
MW-110	--
MW-111	--
MW-112	MW-112
MW-113	--
MW-114	--
RW-1	RW-1

Notes:
The proposed groundwater monitoring well network is based on the results of the baseline (September 2012) and performance monitoring (January 2013) groundwater sampling events. Wells that did not have any compounds of concern detected above laboratory reporting limits during those sampling events (--) are proposed to be dropped from the sampling plan.

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Appendix A

Well Inspection Forms

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SITE NAME: Hancock

SITE ID.: 6071469?
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WEll ID.: MW-2

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) ...3 bolts missing	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: NA
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): flushmount
PROTECTIVE CASING MATERIAL TYPE: steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 13.35
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 9.08
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: NA

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:

Temp	15.99	DO%	54.2	pH	6.69
Spec Cond	1.521	DO	5.32	ORP	-318.8
Spec Cond	1.260				

Sketch

SITE NAME: Hancock

SITE ID.: 602146.97
INSPECTOR: CWC/AV
DATE/TIME: 11/30
WELL ID.: ~~MW-4~~ MW-3

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: MW-3

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) 2 bolts missing	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: N/A
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): flushmount
PROTECTIVE CASING MATERIAL TYPE: Steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): _____

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below) Steel (4")	X	
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 13.70
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 8.51
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: Sched 40
PHYSICAL CONDITION OF VISIBLE WELL CASING: good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE _____
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: NA

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

open field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

NA

REMARKS:
2 Steel casings
Temp 13.06 DO% 22.1 ORP -218.8
Spec Cond .34 DO 2.32 pH 5.97
Spec Cond .242

Sketch

SITE NAME: Hancock

SITE ID.: 60214697
INSPECTOR: GC/AL
DATE/TIME: 11/30/11
WELL ID.: MW-4

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	
WELL COORDINATES? NYTM X_____ NYTM Y_____		
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____		
GPS Method (circle) Trimble And/Or Magellan		
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:		
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) 2 bolts missing	X	
HEADSPACE READING (ppm) AND INSTRUMENT USED	NA	
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	flushmount	
PROTECTIVE CASING MATERIAL TYPE:		
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):		
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	~~X~~	X
MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	15.60	
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	8.59	
MEASURE WELL DIAMETER (Inches):	2"	
WELL CASING MATERIAL:	4" Steel	
PHYSICAL CONDITION OF VISIBLE WELL CASING:	(rust)	
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	NA	
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	No	

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Good → In open field

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Open grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:

Double cased → Steel casing Temp: 12.93°C Spec Cond: 0.434 ms/cm
DO: 14.5% DO: 1.50 mg/L 0.335 ms/cm
pH: 6.58 ORP: -202

Sketch

SITE NAME: Hancock

SITE ID.: 6021697
INSPECTOR: GW/BV
DATE/TIME: 11/30/11
WELL ID.: MW-5

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	
WELL COORDINATES? NYTM X_____ NYTM Y_____		
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____		
GPS Method (circle) Trimble And/Or Magellan		

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)		

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) many bolts	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: NA

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)

PROTECTIVE CASING MATERIAL TYPE:

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?		X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 15.22

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 5.75

MEASURE WELL DIAMETER (Inches): 2"

WELL CASING MATERIAL: ~~steel~~ PVC

PHYSICAL CONDITION OF VISIBLE WELL CASING:

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

NA

REMARKS:

Temp 12.60 DO%10 50.7 pH 6.68

Spec Cond .549 DO 5.83 ORP -277.5

Spec Cond .419

Sketch

SITE NAME: Hancock

SITE ID.: 602146 97
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WEll ID.: MW-11

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	
WELL COORDINATES? NYTM X_____ NYTM Y_____		
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____		
GPS Method (circle) Trimble And/Or Magellan		
WELL I.D. VISIBLE?	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:		
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	3 ft Stickup
PROTECTIVE CASING MATERIAL TYPE:	Steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	

	YES	NO
LOCK PRESENT?	X	X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?		X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	17.74
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	11.90
MEASURE WELL DIAMETER (Inches):	2"
WELL CASING MATERIAL:	Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING:	Good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	NA
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	Far, new system trenching

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Good → In open field

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Open grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:

Temp 12.50 DO% 4.5 pH 6.51
Spec Cond 1.077 DO 0.47 ORP -355.3
Spec Cond 0.520

Sketch

SITE NAME: Hancock

SITE ID.: 6024697
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WELL ID.: MW-12D

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) ..... heaved off the well to the East ~ 1 ft.		X
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)		X

HEADSPACE READING (ppm) AND INSTRUMENT USED.....
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)
PROTECTIVE CASING MATERIAL TYPE: .....
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?		X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 53.45
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 7.90
MEASURE WELL DIAMETER (Inches): ..... 2"
WELL CASING MATERIAL: ..... Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... Bad
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
NA

REMARKS:
Well in acceptable shape. Temp 11.50 DO% 19.7 pH 6.49
Spec Cond 1.313 DO 2.05 ORP -341.6
Spec Cond 0.781

Sketch

SITE NAME: Hancock

SITE ID.: 6021697
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WELL ID.: MW-12S

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)		X

Stickup casing is bent to be almost parallel to ground. Well rendered useless due to damage.

HEADSPACE READING (ppm) AND INSTRUMENT USED:
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): Stick-up
PROTECTIVE CASING MATERIAL TYPE:
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?		X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):
MEASURE WELL DIAMETER (Inches):
WELL CASING MATERIAL:
PHYSICAL CONDITION OF VISIBLE WELL CASING:
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

NA

REMARKS:

Temp DO% pH
Spec Cond DO ORP
Spec Cond

Sketch

SITE NAME: Hancock

SITE ID.: 6021697
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WELL ID.: MW-13

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: Sewer Co.

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: NA
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): flush
PROTECTIVE CASING MATERIAL TYPE:
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?		

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 16.70
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 8.96
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: NA

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:
Casing causes depression in pavement where H2O pools over well
Temp 14.96
Spec cond 4.374 DO% Sketch 23.3 pH 6.75
Spec Cond 3.555 DO 2.33 ORP -293.0

SITE NAME: Hancock

SITE ID.: 60214697
INSPECTOR: GW/BV
DATE/TIME: 11/30/11
WELL ID.: MW-14

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: MW-14

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: N/A
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): 3.5 ft
PROTECTIVE CASING MATERIAL TYPE: Steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): _____

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 18.09
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 12.44
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: Good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE _____
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: NA

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT
(e.g. Gas station, salt pile, etc.):

REMARKS:
Temp 12.63 Spec Cond 8.162 DO% 6.8 pH 6.60
" " 0.887 DO 0.70 ORP -108.6
J - Plug sticks up so that Sketch casing does not sit snug

SITE NAME: Hancock

SITE ID.: 6021497
INSPECTOR: AV/GW
DATE/TIME: 11/30/11
WELL ID.: MW-16

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	✓	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?	✓	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	✓	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	✓	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	✓	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	✓	

HEADSPACE READING (ppm) AND INSTRUMENT USED: —
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): 3'
PROTECTIVE CASING MATERIAL TYPE: Steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 8"

	YES	NO
LOCK PRESENT?	✓	
LOCK FUNCTIONAL?		✓
DID YOU REPLACE THE LOCK?		✓
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		✓
WELL MEASURING POINT VISIBLE?	✓	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 18.82
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 11.95
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: Good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE —
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: No

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:
Temp 14.11 Spec Cond 1.939 DO% 2.9 pH 6.81
" " 1.535 DO 0.30 ORP -30 1.0

Sketch

SITE NAME: Hancock

SITE ID.: 6021497
INSPECTOR: GW/HV
DATE/TIME: 11/30/11
WELL ID.: MW-16

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): Flushmount
PROTECTIVE CASING MATERIAL TYPE:
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 15.30
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 5.20
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: Good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: far

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
NA

REMARKS:
Well depressed below grass. Temp 13.30 DO% 46.6 pH 6.57
~ 10' N of Sipling tree Spec Cond 0.156 DO 4.86 ORP -277.9
Sketch
Spec Cond 0.123

SITE NAME: Hancock

SITE ID.: 602/4697
INSPECTOR: GG/AV
DATE/TIME: 11/30/11
WELL ID.: MW-28 In SB-21 area

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)		

	YES	NO
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:		
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	flushmount
PROTECTIVE CASING MATERIAL TYPE:	Steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	

	YES	NO
LOCK PRESENT?	✓	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	✓	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	17.20
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	10.0
MEASURE WELL DIAMETER (Inches):	2"
WELL CASING MATERIAL:	Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING:	Good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
NA

REMARKS:
Temp 13.29 DO% 36.6 pH 6.62
Spec Cond 0.592 DO 3.52 ORP -249.2
Spec Cond 0.466

Sketch

SITE NAME: Hancock

SITE ID.: 602/4697

INSPECTOR: GLW

DATE/TIME: 11/30/11

WELL ID.: MW-101

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	✓	

WELL COORDINATES? NYTM X_____ NYTM Y_____

PDOP Reading from Trimble Pathfinder:_____ Satelites:_____

GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		✓
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	✓	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT?	✓	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	✓	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	✓	

HEADSPACE READING (ppm) AND INSTRUMENT USED	–
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	flushmount
PROTECTIVE CASING MATERIAL TYPE:	
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	

	YES	NO
LOCK PRESENT?	✓	
LOCK FUNCTIONAL?		✓
DID YOU REPLACE THE LOCK?		✓
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		✓
WELL MEASURING POINT VISIBLE?	✓	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	~~21.41~~ 21.41 (DTB)
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	DTP: 9.99 DTW: 10.04
MEASURE WELL DIAMETER (Inches):	2"
WELL CASING MATERIAL:	Sched. 40
PHYSICAL CONDITION OF VISIBLE WELL CASING:	good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	Sharpie on plug
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	far, but system trenching near

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

in open field - good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

open grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

NA

REMARKS:

performed skim test on well today

Sketch

SITE NAME: Hancock

SITE ID.: 602/4697
INSPECTOR: CW/AV
DATE/TIME: 11/30/11
WELl ID.: MW-102

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED:
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable):
PROTECTIVE CASING MATERIAL TYPE:
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?		

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 22.49
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 8.57
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: sched 40
PHYSICAL CONDITION OF VISIBLE WELL CASING: good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE: -
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: ~25'

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

in grassy area

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.)

NA

REMARKS:

Temp 14.73 Spec Cond 2.793 DO% 1.5 pH 6.68
" " 2.243 DO 0.14 ORP -334.5

Sketch

SITE NAME: Hancock

SITE ID.: 602146 97
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WELl ID.: MW-108

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	
WELL COORDINATES? NYTM X_____ NYTM Y_____		
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____		
GPS Method (circle) Trimble And/Or Magellan		

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) Missing 3 bolts	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): Flushmount

PROTECTIVE CASING MATERIAL TYPE: Steel

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)	X	
WELL MEASURING POINT VISIBLE?		X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 19.28

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 8.45

MEASURE WELL DIAMETER (Inches): 2"

WELL CASING MATERIAL: Steel

PHYSICAL CONDITION OF VISIBLE WELL CASING: good

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

NA

REMARKS: Casing filling w/ water

Sketch

SITE NAME: Hancock

SITE ID.: 60214697
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WELL ID.: ~~MW-13~~ MW-109

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: NA
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): flush
PROTECTIVE CASING MATERIAL TYPE:
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?		
LOCK FUNCTIONAL?		
DID YOU REPLACE THE LOCK?		
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		
WELL MEASURING POINT VISIBLE?		

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 14.54
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 8.8 ft
MEASURE WELL DIAMETER (Inches): 2"
WELL CASING MATERIAL: steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: Rv

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open, grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
N/A

REMARKS:
YSI did not fit into well

Sketch

SITE NAME: Hancock

SITE ID.: 60219697
INSPECTOR: GW/AV
DATE/TIME: 11/30/11
WELl ID.: RW-1

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X_____ NYTM Y_____
PDOP Reading from Trimble Pathfinder:_____ Satelites:_____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: N/A
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 2.5Ft ~~Steel~~ stick-up
PROTECTIVE CASING MATERIAL TYPE: Steel
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 19.65
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 9.93
MEASURE WELL DIAMETER (Inches): 8"
WELL CASING MATERIAL: Steel
PHYSICAL CONDITION OF VISIBLE WELL CASING: Good
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Good

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Open field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT
(e.g. Gas station, salt pile, etc.):

REMARKS:
Temp 13.50 DO % 2.8 ORP ~~-291~~ -291.2
Spec Cond 1.108 DO 0.30 pH 6.71
Spec Cond 0.864

Sketch

Appendix B

Groundwater Sampling Forms

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AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AFB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-2	Date: 9-20-12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E. Cain Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2 #12014	Sampling Equipment: peristaltic pump	PID Type/ID #:
	Water Level Indicator Type/ID #: solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 12.67
	Ground Condition of Well: dr	Well Mouth PID (ppm): —	Total Well Depth (ft): 13.40
	Approximate Pump Intake Depth (ft): ~13' bgs		
	Remarks: little muddy water then dry		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-20-12	9:20	—	—	—	—	—	—	—	—	—	—	—	start
"	9:26	Dry Let sit to Recharge											
"	10:25	12.70	Repurged dry - purged ~250mL Letting Recharge										
"	10:55	12.75	collected sample	purged dry - let recharge - attempt to get water for readings									
"	11:15	13.10 Dry	250mL	0.150	18.12	2,502	6.30	6.89	-57.0	15.5	—	—	
			n/c total										

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW2-092012 10:55	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-3	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	~~PID Type/ID #:~~
	Water Level Indicator Type/ID #: Interface Probe #19356	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	~~Ambient PID (ppm):~~	Initial Depth to Water (ft): 12.66
	Ground Condition of Well: good	~~Well Mouth PID (ppm):~~	Total Well Depth (ft): 13.71
	Approximate Pump Intake Depth (ft): 13.5		
	Remarks: well dried immediately & allowed to recharge - Collected Sample w/ Bailer		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	~~Pump Refill/Discharge~~ (Seconds)	~~PSI (pump)~~	Note
9/20/12	1045	as it dried	1 volume	—	17.27	0.965	0.58	5.91	-79.5	5.0			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW3-092012 @ 1500	~~(3)~~ 40 mL VOAs (1)	HCl	VOCs by 8260B BEX only
after allowing 4+ hrs for recharge, only enough volume to fill one vial & it's highly turbid			

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-4	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: BLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	~~PID Type/ID #:~~
	Water Level Indicator Type/ID #: Interface Probe #1935	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	~~Ambient PID (ppm):~~	Initial Depth to Water (ft): 12.33
	Ground Condition of Well: good	~~Well Mouth PID (ppm):~~	Total Well Depth (ft): 18.65
	Approximate Pump Intake Depth (ft): 18		
	Remarks: ~~Z~~ purged well dry due to drop in WL		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate ~~(Lpm)~~ mL/min	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	~~Pump Refill/Discharge (Seconds)~~	~~PSI (pump)~~	Note
9/20/12	0943	13.51	-	115	15.11	0.541	2.32	6.51	-9.7	8.7			clear
	0948	14.10	<0.25	100	14.98	0.532	0.97	6.31	7.9	10.2			
	0953	14.59	0.25	100	1503	0.534	0.78	6.26	7.4	8.1			
	0958	15.05	0.45	100	15.30	0.540	0.66	6.24	-2.2	8.0			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sampled MW4-092012 @1000 before purging dry - if/when enough water comes back in well it will be resampled - Resampled at 1110 & collected Dup - 092012-002	(3) 40 mL VOAs	HCl	VOCs by 8260B ~~BEX~~ only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-8	Date: 9-19-12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: ELath Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2 12014	Sampling Equipment: ~~Mt~~ peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: ~~Tz~~ Solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 11.46
	Ground Condition of Well: oh	Well Mouth PID (ppm): —	Total Well Depth (ft): 16.51
	Approximate Pump Intake Depth (ft): ~14' btoc		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-19-12	13:35	11.46	—	—	—	—	—	—	—	—	—	—	start purge
"	13:40	11.80	—	0.150	13.92	2.436	5.00	6.87	-67.5	12.2	—	—	
"	13:45	11.86	—	0.150	13.87	2.455	4.65	6.81	-78.7	11.5	—	—	
"	13:50	11.86	—	0.150	13.62	2.433	4.00	6.81	-90.5	9.9	—	—	
"	13:55	11.86	1 gal	0.150	13.56	2.389	3.90	6.82	-89.8	9.5	—	—	
"	14:00	11.86	—	0.150	13.53	2.365	3.90	6.83	-88.2	7.8	—	—	
"	14:05	sampled.	1.5 gal total										

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW8- 091912 14:05	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-9	Date: 9-19-12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E. Laity Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920V2 #12014	Sampling Equipment: peri pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: Solinist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): —	Initial Depth to Water (ft): 10.42
	Ground Condition of Well: ok	Well Mouth PID (ppm): —	Total Well Depth (ft): 13.50
	Approximate Pump Intake Depth (ft): 12' bgs		
	Remarks: well drawing down, purge @ lowest setting.		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-19-12	10:45	—	—	—	—	—	—	—	—	—	—	—	Start
"	10:50	11.37	—	—	13.16	0.833	4.85	6.59	-84.1	29.8	—	—	Turn down pump
"	10:55	11.91	—	100	13.26	0.791	4.35	6.44	-73.3	23.4	—	—	
"	11:00	12.31	—	100	13.29	0.791	4.34	6.41	-69.1	14.0	—	—	
"	11:05	Grab sample											
	15:50	Returned to well — Re charged					to 11.15 —	Bailed	fresh	sample @			15:50
		Disposed of 11:05	sample.										

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW9-091912 ~~11:05~~ 15:50	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AN[illegible]B - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-11	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 # 5087	Sampling Equipment: peristaltic pump	~~PID Type/ID #:~~
	Water Level Indicator Type/ID #: interface probe #19356	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	~~Ambient PID (ppm):~~	Initial Depth to Water (ft): 13.05
	Ground Condition of Well: good	~~Well Mouth PID (ppm):~~	Total Well Depth (ft): 16.67
	Approximate Pump Intake Depth (ft): 16.0		
	Remarks: PDB sample collected from this well yesterday		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	1054	13.05	–	325	12.57	1.513	2.27	7.34	-120.2	608.9			Sl. Br. cloudy odorous
	1059	13.05	0.40	300	12.54	1.474	1.07	7.19	-119.9	225.2			"
	1104	13.05	0.90	300	12.52	1.488	0.88	7.17	-120.3	82.8			"
	1109	13.05	1.25	300	12.46	1.501	0.78	7.15	-121.0	37.3			clear
	1114	13.05	1.75	300	12.48	1.488	0.77	7.16	-121.6	21.1			"
	1119	13.05	2.15	300	12.50	1.485	0.72	7.16	-122.0	14.4			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW11-091912 @ 1120 & MW11-091912-MS MW11-091912-MSD	(3) 40 mL VOAs (2) each	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AN[illegible]B - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-14	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: 2696	Sampling Equipment: YSI 6920	PID Type/ID #: 8
	Water Level Indicator Type/ID #: Solinst / 0031	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft): 15.94
	Ground Condition of Well: Stick up - Good	Well Mouth PID (ppm): X	Total Well Depth (ft): 18.05
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/20/12	10:13	15.94	—	0.350	13.46	1.100	1.40	7.21	-70.7	88.9			Murky
	10:18	16.1	0.5	0.200	13.27	1.081	0.93	7.48	-96.5	11.5			Cl
	10:23	16.1	0.75	0.200	13.34	1.069	0.97	7.59	-100.2	5.0			Cl
	10:28	16.02	1.00	0.200	13.53	1.073	1.12	7.62	-100.9	5.5			Cl
	10:33	16.02	1.25	0.200	13.85	1.081	1.12	7.64	-100.4	7.6			Cl
	10:38	16.02	1.35	0.150	13.71	1.080	0.96	7.65	-99.2	4.2			Cl
	10:43	16.02	1.50	0.150	13.69	1.063	0.95	7.68	-97.4	3.4			Cl
	10:48	16.02	2	0.150	13.70	1.069	1.04	7.68	-94.5	3.8			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW14-092012/10:48 MW14-092012-MSD/10:48 MW14-092012-MS/10:48	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-15	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E. Lair/Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920V2 #12014	Sampling Equipment: peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 15.41
	Ground Condition of Well: dk	Well Mouth PID (ppm): —	Total Well Depth (ft): 17.77
	Approximate Pump Intake Depth (ft): 17' btoc		
	Remarks: slight odor		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-19-12	12:50	—	—	—	—	—	—	—	—	—	—	—	start purge
"	12:55	15.45	—	0.200	13.09	1.169	5.12	6.54	-102.5	15.8	—	—	odor
"	13:00	15.46	—	0.200	12.79	1.360	4.47	6.75	-130.2	10.9	—	—	
"	13:05	15:46	—	0.200	12.76	1.392	4.12	6.82	-140.9	3.4	—	—	
"	13:10	15:46	1gal	0.200	12.71	1.397	4.06	6.84	-142.5	1.3	—	—	
"	13:15	15.46	1	0.200	12.70	1.397	4.04	6.85	-142.9	1.1	—	—	
"	13:20	Sampled.	1.5gal	total	purged								

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW15 - 091912 13:20	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW16	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: 2676	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: Solinst/0031	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm):	Initial Depth to Water (ft): 15.94
	Ground Condition of Well: Stick Up - Good	Well Mouth PID (ppm):	Total Well Depth (ft): 18.85
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/20/12	8:40	15.94	—	0.200	13.50	1.527	1.66	7.48	221.9	12.6			C1
	8:45	16.04	0.25	0.200	13.58	1.468	1.70	7.41	223.8	5.1			C1
	8:50	16.14	0.5	0.200	13.64	1.479	1.66	7.40	222.1	20.5			C1
	8:55	16.18	0.75	0.200	13.71	1.500	1.29	7.41	218.8	11.5			C1
	9:00	16.20	1.00	0.200	13.71	1.512	1.09	7.42	215.1	6.6			C1
	9:05	16.20	1.25	0.200	13.83	1.528	1.05	7.44	211.1	5.3			C1
	9:10	16.20	1.50	0.200	13.86	1.538	1.04	7.45	214	5.0			C1

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW16-092012/9:10	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW17	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: 2676	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: Water level meter/ 0031	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft): 13.96
	Ground Condition of Well: Stick up Good	Well Mouth PID (ppm): X	Total Well Depth (ft): 17.07
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	13:39	13.96	—	0.300	13.85	1.189	0.99	6.97	-34.0	13.6			Cl
	13:44	14.50	0.25 Gal	0.150	13.65	1.187	0.34	6.92	-51.5	1.9			Cl
"	13:49	15.50	1 Gal	0.300	13.87	1.188	0.49	6.85	-57.9	2.1			Cl
	14:00	15.00	1 GAL	0.200	13.69	1.151	0.65	7.02	-70.1	20.8			Cl
	14:05	15.00	1.25 Gal	0.200	13.37	1.142	0.40	7.07	-97.4	5.3			Cl
	14:10	15.20	1.50 Gal	0.200	13.33	1.134	0.32	7.10	-108.1	1.8			Cl
"	14:15	15.20	1.75	0.200	13.30	1.130	0.38	7.10	-111.0	1.4			Cl

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW17-091912 / 14:15	(3) 40 mL VOAs	HCl	VOCs by 8260B
[illegible]			
Attempted to pump dry. Stab. Sized @ 1358. Continue w/ readings			

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AN B - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-18	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: CLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	PID Type/ID #:
	Water Level Indicator Type/ID #: Interface Probe #9356	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm):	Initial Depth to Water (ft): 11.08
	Ground Condition of Well: good	Well Mouth PID (ppm):	Total Well Depth (ft): 13.00
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/20/12	0839	11.55	-	175	14.36	0.905	2.46	6.55	-129.0	50.2			Sl. or. Br.
	0844	11.74	<0.25	150	14.49	0.784	1.14	7.03	-154.8	4.4			clear
	0849	11.84	0.35	150	14.70	0.751	1.12	6.99	-126.8	2.5			"
	0854	12.05	0.45	150	14.70	0.744	0.93	6.92	-95.0	10.2			"
	0859	12.07	0.55	125	14.85	0.753	0.88	6.92	-93.4	10.7			
	0904	12.11	0.70	125	14.97	0.747	0.79	6.92	-93.6	11.3			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW18-092012@0905	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AFB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW19	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: Water lvl meter / 0031	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: 2676	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft): 10.31
	Ground Condition of Well: Good	Well Mouth PID (ppm): X	Total Well Depth (ft): 13.95
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	10:50	10.31	—	0.300	13.67	0.796	7.45	8.00	-114.2	46.0			Cl
	10:55	10.36	0.25	0.300	13.24	0.802	0.45	7.61	-106.9	13.7			Cl
	11:00	10.36	0.75	0.300	13.32	0.829	0.23	7.45	-105.6	1.4			Cl
	11:05	10.36	1.25	0.300	13.40	0.822	0.26	7.43	-106.6	1.7			Cl
	11:10	10.36	1.75	0.300	13.43	0.807	0.30	7.41	-105.0	1.8			Cl
	11:15	10.36	2.25	0.300	13.38	0.803	0.34	7.39	-103.5	2.3			Cl

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW19-091912 / 11:15	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW 20	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: [illegible]	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: Solinst Water level	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft): 11.54
	Ground Condition of Well: Good	Well Mouth PID (ppm): X	Total Well Depth (ft): 14.58
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	12:54	11.54	—	0.300	13.20	0.504	2.89	7.91	13.7	2.7			CL
	12:59	12.02	0.5	0.250	13.21	0.501	1.49	7.39	-18.3	2.3			CL
	13:04	12.24	1.0	0.250	13.09	0.496	1.30	7.35	-66.6	2.0			CL
	13:09	12.30	1.25	0.250	13.00	0.494	1.23	7.34	-78.9	2.0			CL
	13:14	12.36	1.50	0.250	12.95	0.495	1.13	7.34	-87.3	2.1			CL
	13:19	12.40	1.75	0.250	12.90	0.495	1.10	7.34	-90.0	2.1			CL
	13:24	12.42	2.25	0.250	12.90	0.497	1.08	7.34	-94.2	1.7			CL

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW20-091912 / 13:24	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-22	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: CLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	PID Type/ID #:
	Water Level Indicator Type/ID #: Interface Probe #19356	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm):	Initial Depth to Water (ft): 13.85
	Ground Condition of Well: good	Well Mouth PID (ppm):	Total Well Depth (ft): 17.13
	Approximate Pump Intake Depth (ft): 16.5		
	Remarks: PDB sample collected from this well yesterday		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	0949	14.36	-	200	14.96	1.444	9.97	8.08	-17.0	41.0			clear
	0954	14.50	0.5	200	14.63	1.448	9.81	8.13	-5.2	26.5			
	0959	14.54	0.75	200	14.64	1.439	9.50	8.06	3.1	17.0			
	1004	14.54	0.95	200	14.65	1.431	9.38	7.93	7.6	10.3			
	1009	14.54	1.20	200	14.72	1.422	9.31	7.90	9.1	6.5			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW22-091912 @ 1010	(3) 40 mL VOAs	HCl	VOCs by 8260B (BEX only)

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW 101	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: 2676	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: 0031 / Water lvl meter	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): N/	Initial Depth to Water (ft): 13.13
	Ground Condition of Well: Good	Well Mouth PID (ppm): N/	Total Well Depth (ft): 21.05
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	9:41	13.13	—	0.350	14.04	1.230	3.14	7.74	-56.7	466.6			Cl/Sheen/odor
	9:46	13.13		0.350	13.90	1.234	0.84	7.64	-62.5	447.6			Cl/Sheen/odor
	9:51	13.13		0.350	13.97	1.201	0.29	7.53	-88.7	8.6			Cl/Sheen/odor
	9:56	13.13	1.25	0.350	13.98	1.185	0.43	7.51	-104.9	1.4			
	10:01	13.13	1.50	0.350	14.01	1.179	0.54	7.50	-115.2	0.3			
	10:06	13.13	1.50	0.350	14.06	1.170	0.57	7.56	-96.5	0.5			
	10:11	13.13	1.75	0.350	14.18	1.179	1.20	7.53	-118.1	0.4			
	10:16	13.13	2.0	0.300	14.20	1.180	1.24	7.51	-123.5	0.4			
	10:21	13.13	2.5	0.300	14.19	1.181	1.23	7.51	-128.1	0.3			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW101-091912 / 10:21	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-102	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: EJ/HJ Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2 #12014	Sampling Equipment: peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: Solonist model #122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 12.4
	Ground Condition of Well: good	Well Mouth PID (ppm): —	Total Well Depth (ft): 22.53
	Approximate Pump Intake Depth (ft): ~20' bgs		
	Remarks: 60°F sunny, observed mm size bubbles coming up from well		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-20-12	9:40	12.40	—	—	—	—	—	—	—	—	—	—	start
"	9:45	12.41	—	0.200	16.70	2.158	4.49	7.05	-82.2	23	—	—	
"	9:50	12.41	—	0.200	16.53	2.073	3.55	6.88	-90.8	12.8	—	—	
"	9:55	12.41	~0.5	0.200	16.63	2.052	3.47	6.87	-93.8	11.2	—	—	
"	10:00	12.41	0.75	0.200	16.68	2.067	3.43	6.86	-93.8	9.6	—	—	
"	10:05	12.41	1 gal	0.200	16.84	2.079	3.39	6.86	-91.9	8.9	—	—	
"	10:10	12.41	—	0.200	16.80	2.091	3.37	6.84	-89.3	7.5	—	—	
"	10:15	sampled	1.5 gal total										

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW102 - 092012 10:15	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-103	Date: 9/18/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 | 5087	Sampling Equipment: Peri pump & dedicated tubing	PID Type/ID #:
	Water Level Indicator Type/ID #: Interface Probe | 19356	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm):	Initial Depth to Water (ft): 11.91
	Ground Condition of Well: good	Well Mouth PID (ppm):	Total Well Depth (ft): 29.42
	Approximate Pump Intake Depth (ft): 28.5		
	Remarks: PDB sample collected prior to purge		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm) mL/min	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
09/18/12	1555	11.89	initial	275	14.44	1.109	4.85	6.42	-10.4	1179.5			Br. Cloudy
	1600	11.89	0.25	300	12.98	1.054	2.85	6.75	-58.2	1172.0			"
	1605	11.89	0.75	300	12.79	1.034	2.59	6.79	-66.8	1092.1			"
	1610	11.89	1.05	300	12.75	1.033	2.83	6.82	-68.8	537.2			"
	1615	11.89	1.50	300	12.72	1.033	2.72	6.84	-69.0	297.1			"
	1620	11.89	1.80	300	12.56	1.030	2.76	6.86	-65.3	174.9			"
	1625	11.89	2.25	300	12.64	1.031	2.74	6.88	-67.5	189.2			Sl. Br. Cl.
	1630	11.89	2.55	300	12.61	1.032	2.74	6.89	-65.4	119.2			"
	1635	11.89	3.05	300	12.64	1.031	2.75	6.90	-66.4	109.1			"
													Sl. cloudy

Pumping Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW103-091812 @1636 on 9/18/12	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW104	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI / 2676	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: water level meter/0031 Solinst	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft): 8.82
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft): 24.45
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	15:05	8.82	—	0.250	14.98	1.564	4.42	7.49	27.1	78.2			Murky
	15:10	8.86	0.5	0.250	14.66	1.560	3.89	7.46	33.0	73.2			Murky
	15:15	8.86	0.75	0.250	14.60	1.551	3.44	7.43	22.5	63.5			Clear
	15:20	8.86	1Gal	0.250	14.43	1.531	2.86	7.42	6.5	64.7			Clear
	1525	8.86	1.25	0.250	14.48	1.501	2.23	7.40	-13.0	14.5			Clear
	1530	8.86	1.5	0.250	14.69	1.474	1.72	7.40	-28.9	13.0			Clear
	1535	8.86	1.75	0.250	14.34	1.437	1.66	7.40	-38.9	14.8			Clear

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW104-091912/15:35	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-105	Date: 9/18/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: EC Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920	Sampling Equipment: ~~YSI 6920~~ peripump	PID Type/ID #: —
	Water Level Indicator Type/ID #: Solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 10.75
	Ground Condition of Well: ok	Well Mouth PID (ppm): —	Total Well Depth (ft): 35
	Approximate Pump Intake Depth (ft): ~~[illegible]~~ 28' btoc		
	Remarks: PDB sample collected prior to purging		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/18/12	1600	10.75	—	—	—	—	—	—	—	—	—	—	
~~1600~~ "	1605	10.75	—	0.225	14.78	1.705	5.27	6.70	-120.6	25.1			start purge
"	1610	10.75	—	0.200	13.85	1.734	4.59	6.82	-128.8	22.8			
"	1615	10.75	—	0.200	14.08	1.727	4.32	6.87	-134.1	23.1			
"	1620	10.75	—	0.200	13.99	1.736	4.19	6.90	-136.8	17.3			
"	1625	10.75	—	0.200	13.88	1.742	4.13	6.91	-137.8	15.0			
"	16:30	10.75	1 gal	0.200	13.89	1.742	4.05	6.93	-138.7	11.2			
"	16:35	10.75	—	0.200	13.73	1.750	4.07	6.94	-139.6	9.3			
"	16:40	sampled	1.5	0.200	13.60	1.749	4.09	6.94	-139.5	9.3			

Pumping Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW105 - 091812 16:40	(3) 40 mL VOAs (2)	HCl	VOCs by 8260B (BEX only)

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW 106	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: 2676	Sampling Equipment: YSI 6920	PID Type/ID #: N/A
	Water Level Indicator Type/ID #: Earth Tec water lvl meter 0031	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): 0	Initial Depth to Water (ft): 3.6Ft
	Ground Condition of Well: Good	Well Mouth PID (ppm): 0	Total Well Depth (ft): 25.41
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate ~~(Lpm)~~	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	8:32	3.6Ft		0.350	14.78	1.040	10.4	7.39	211.3	15.9			Clear
	8:37	3.6Ft		0.350	14.46	1.028	5.3	7.31	196.3	17.4			Clear
	8:42	3.6Ft		0.350	14.13	0.993	2.8	7.31	78.3	6.8			
	8:47	3.6Ft		0.350	14.25	0.981	2.4	7.33	46.7	6.2			
	8:52	3.6Ft		0.350	14.19	0.973	2.1	7.34	28.1	1.6			
	8:57	3.6Ft		0.350	14.10	0.963	2.0	7.35	12.3	2.9			-
	9:02	3.6Ft		0.350	14.11	0.959	1.9	7.36	8.8	2.6			
	9:07	3.6Ft	3GAL	0.350	14.07	0.952	1.9	7.37	0.8	2.3			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sample ID # MW106-091912 9:07 AM	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-107	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E.Leith/ Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2 #12014	Sampling Equipment: peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 6.56
	Ground Condition of Well: ok	Well Mouth PID (ppm): —	Total Well Depth (ft): 23.91
	Approximate Pump Intake Depth (ft): 20' btoc		
	Remarks: 60°F sprinkles		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-19-12	14:30	6.56	—	—	—	—	—	—	—	—	—	—	start
"	14:35	6.58	—	0.200	14.53	1.841	4.85	7.01	-116.2	21.7	—	—	
"	14:40	6.56	0.5	0.200	14.72	1.901	3.83	6.99	-126.5	23.5	—	—	
"	14:45	6.56	—	0.200	14.71	1.919	3.77	6.98	-126.8	21.8	—	—	
"	14:50	6.56	—	0.200	14.66	1.924	3.75	6.98	-126.7	20.1	—	—	
"	14:55	6.56	1gal	0.200	14.69	1.936	3.67	6.97	-126.3	14.9	—	—	
"	15:00	6.56	"	0.200	14.65	1.931	3.66	6.97	-125.6	11.3	—	—	
"	15:05	6.56	2gal total	0.200	14.67	1.927	3.63	6.96	-124.4	9.3	—	—	
	15:10	sampled											

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW107 - 091912 15:10	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-108	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E.L.K. Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2	Sampling Equipment: peri pump	PID Type/ID #:
	Water Level Indicator Type/ID #: Solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 12.61
	Ground Condition of Well: ok	Well Mouth PID (ppm): —	Total Well Depth (ft): 19.31
	Approximate Pump Intake Depth (ft): 16' btoc		
	Remarks: lt. rain. purged iron Bacteria for 1st several min, Then hooked up Flow Thru cell		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	9:40	12.61	—	—	—	—	—	—	—	—	—	—	Start purge
"	9:45	12.65	—	0.150	14.44	2.324	4.91	6.96	3.0	143	—	—	
"	9:50	—	—	0.150	—	—	—	—	—	—	—	—	
"	9:55	12.65	—	0.150	14.41	2.319	4.37	6.90	-14.7	99.3	—	—	
"	10:00	12.65	~0.5	0.150	14.57	2.326	4.10	6.87	-35.4	65.5	—	—	
"	10:03	Battery	died										
"	10:10	hooked up to car 12.47		0.150	14.74	2.332	3.97	6.85	-50.7	43.0	—	—	
"	10:15	13.66	~1gal	0.175	14.71	2.340	3.91	6.85	-55.4	22.5	—	—	
"	10:20	12.66	—	0.175	14.79	2.341	3.79	6.85	-56.4	12.1	—	—	
"	10:25	12.66	~1.5gal	0.175	14.81	2.341	3.72	6.85	-57.9	9.0	—	—	
"	10:30	sampled											

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW108- 091912 10:30	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-109	Date: 9-20-12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E.Gaitly Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2 #12014	Sampling Equipment: peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: Solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 12.35
	Ground Condition of Well: ok.	Well Mouth PID (ppm): —	Total Well Depth (ft): 14.35
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9-20-12	8:15	12.35	—	—	—	—	—	—	—	—	—	—	start
"	8:20	—	—	—	—	—	—	—	—	—	—	—	—
"	8:25	12.65	—	0.200	16.04	2.062	6.13	6.68	128.4	49.5	—	—	
"	8:30	12.65	—	0.200	16.04	2.175	5.60	6.89	118.1	37.0	—	—	
"	8:35	12.65	—	0.200	16.18	2.209	5.47	6.92	101.8	23.0	—	—	
"	8:40	12.65	0.5gal	0.200	16.29	2.239	5.49	6.93	60.6	15.8	—	—	
"	8:45	12.66	0.75	0.200	16.43	2.246	5.50	6.93	33.7	13.8	—	—	
"	8:50	12.67	1gal	0.200	16.44	2.252	5.52	6.93	17.2	13.0	—	—	
"	8:55	12.69	0	0.200	16.51	2.261	5.53	6.93	6.1	11.7	—	—	
"	9:00	12.69	1.5gal	0.200	16.57	2.265	5.53	6.94	8.2	10.2	—	—	
"	9:05	12.69	2gal	0.20	16.63	2.267	5.55	6.94	11.9	9.8	—	—	

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW109-092012 9:10	(3) 40 mL VOAs	HCl	VOCs by 8260B BTEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-110	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	PID Type/ID #:
	Water Level Indicator Type/ID #: Interface probe #1938	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5"	Ambient PID (ppm):	Initial Depth to Water (ft): 4.82
	Ground Condition of Well: good	Well Mouth PID (ppm):	Total Well Depth (ft): 22.63
	Approximate Pump Intake Depth (ft): 22' Bg		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/19/12	1514	4.82	–	200	15.11	1.920	4.85	7.47	-6.1	67.6			sl. cloudy
	1519	4.82	0.25	200	14.48	2.019	0.52	7.15	8.0	29.5			"
	1524	4.82	0.5	200	14.46	2.018	0.42	7.12	12.8	24.4			clear
	1529	4.82	0.90	225	14.29	2.027	0.35	7.12	18.6	13.5			clear
	1534	4.82	1.20	225	14.14	2.025	0.31	7.11	22.7	7.9			"
	1539	4.82	1.5	225	14.08	2.029	0.30	7.10	26.1	3.7			"

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW110-091912 @ 1541	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock	LocID: MW-111	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: E.L.K. Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 V2 #12014	Sampling Equipment: peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: solonist model 122	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5" PVC	Ambient PID (ppm): —	Initial Depth to Water (ft): 3.41
	Ground Condition of Well: good	Well Mouth PID (ppm): —	Total Well Depth (ft): 16.00'
	Approximate Pump Intake Depth (ft): center of well screen		
	Remarks: used existing tubing in well, 1 Duplicate collected @ this well		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
~~9/19/12~~	8:05	3.41	—	—	—	—	—	—	—	—	—	—	start purge
9/19/12	8:10	3.45	—	0.200	15.74	2061	6.00	6.44	152.9	16.7	—	—	
"	8:15	3.45	—	0.200	15.80	2,179	~~4.08~~ 6.77	6.77	86.4	12.7	—	—	
"	8:20	3.45	—	0.200	15.93	2,185	3.87	6.84	49.2	6.7	—	—	
"	8:25	3.47	—	0.200	16.11	2,189	3.74	6.86	30.5	3.8	—	—	
"	8:30	3.47	—	0.200	16.31	2,189	3.62	6.87	18.3	2.9	—	—	
"	8:35	3.47	1gal	0.200	16.11	2,185	3.61	6.87	9.4	1.9	—	—	
"	8:40	3.47	—	0.200	15.96	2,182	3.61	6.87	3.9	1.9	—	—	
"	8:45	3.48	—	0.200	16.19	2,176	3.58	6.87	1.1	1.2			
"	8:50	3.48	2gal	0.200	16.05	2.173	3.57	6.87	-0.4	1.4	—	—	
"	8:55	sampled.	2.5gal total purged.										

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/-0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW111 - 091912 8:55	(3) 40 mL VOAs (3)	HCl	VOCs by 8260B BTEX only
DUP - 091912 - 001 8:00 ↑ Time listed on vials			

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AN GB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-112	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	PID Type/ID #: ~~PID Type/ID #:~~
	Water Level Indicator Type/ID #: Interface Probe #1932	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5"	~~Ambient PID (ppm):~~	Initial Depth to Water (ft): 3.55
	Ground Condition of Well: good	~~Well Mouth PID (ppm):~~	Total Well Depth (ft): 17.00
	Approximate Pump Intake Depth (ft): 16.25		
	Remarks: PDB sample collected yesterday from well		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm) mL/min	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	~~Pump Refill/Discharge (Seconds)~~	~~PSI (pump)~~	Note
9/18/12	0833	3.61	–	300	16.56	0.944	3.41	6.84	-3.2	322.3			sm. Bl. flecks
	0838	3.61	0.45	325	16.58	1.047	2.75	7.11	-66.5	121.9			"
	0843	3.61	0.85	325	16.84	1.123	2.44	7.18	-92.8	25.6			clear
	0848	3.61	1.30	325	16.67	1.241	2.18	7.20	-102.1	33.0			"
	0853	3.61	1.75	325	16.61	1.316	2.01	7.20	-106.5	19.7			"
	0858	3.61	2.05	325	16.57	1.339	2.00	7.20	-108.1	14.4			"

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW112-091912 @ 0859	(3) 40 mL VOAs ~~(4)~~ (3)	HCl	VOCs by 8260B (BEX only)

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-113	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: Peristaltic pump	~~PID Type/ID #:~~
	Water Level Indicator Type/ID #: Interface probe #1935	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5	~~Ambient PID (ppm):~~	Initial Depth to Water (ft): 2.46
	Ground Condition of Well: good	~~Well Mouth PID (ppm):~~	Total Well Depth (ft): 26.61
	Approximate Pump Intake Depth (ft): 25.75		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)c	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	~~Pump Refill/Discharge (Seconds)~~	~~PSI (pump)~~	Note
9/19/12	1413	2.58	–	200	13.76	1.319	4.05	7.52	-72.6	32.1			clear
	1418	2.58	0.25	200	13.17	1.330	0.80	7.34	-80.2	18.8			
	1423	2.58	0.5	200	13.10	1.331	0.54	7.31	-81.1	14.4			
	1428	2.58	0.75	200	13.08	1.332	0.45	7.30	-80.4	4.1			
	1433	2.58	1.0	200	13.07	1.333	0.41	7.30	-80.4	0.2			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW113-091912 @ 1434	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AN[illegible]B - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-114	Date: 9/19/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 6920 #5087	Sampling Equipment: peristaltic pump	PID Type/ID #: —
	Water Level Indicator Type/ID #: Interface Probe #19350	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1.5	Ambient PID (ppm):	Initial Depth to Water (ft): ~2" from TOIC
	Ground Condition of Well: good	Well Mouth PID (ppm):	Total Well Depth (ft): 18.30
	Approximate Pump Intake Depth (ft): 17.75		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
09/19/12	1308	~3"	—	250	15.30	1.385	2.29	7.46	-69.0	72.9			clear
	1313	"	0.45	225	15.20	1.372	0.64	7.35	-84.2	59.6			"
	1318	"	0.70	200	15.34	1.357	0.59	7.33	-85.1	12.3			"
	1323	"	1.0	200	15.42	1.352	0.54	7.33	-85.7	3.4			"

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW114-091912 @ 1325	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AFB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: RW-1	Date: 9/20/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: 2696	Sampling Equipment: YSI 6920	PID Type/ID #: X
	Water Level Indicator Type/ID #: Solinst/0031	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 8"	Ambient PID (ppm): X	Initial Depth to Water (ft): 13.42
	Ground Condition of Well: Stickup - Good	Well Mouth PID (ppm): X	Total Well Depth (ft): 19.50
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
9/20/12	9:30	13.42	—	0.400	14.61	1.051	1.93	7.49	-59.9	2.0			C1
	9:35	13.70	0.5	0.350	14.58	1.044	0.34	7.05	-70.6	3.2			C1
	9:40	13.86	1 Gal	0.350	14.62	1.043	0.29	6.98	-79.6	3.0			C1
	9:45	14.00	1.5	0.350	14.66	1.041	0.30	6.94	-88.3	1.5			C1
	9:50	14.08	2.0	0.350	14.65	1.038	0.36	6.93	-96.7	2.9			C1
	9:55	14.10	2.5	0.350	14.50	1.008	0.40	6.94	-101.1	2.4			C1

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
RW1-092012 / 9:55	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW2	Date: 1/9/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 9.70
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/8/13	12:00	~~9.70~~	0	.1	12.66	3.504	5.59	7.07	-31.7	768	—	—	
	12:05	9.75	.25	.1	11.92	3.460	1.68	6.97	-106.9	266	—	—	
	12:10	9.76	<.5	.1	11.91	3.400	1.47	6.93	-108.2	143	—	—	
	12:15	9.80	.5	.1	11.05	3.359	1.51	6.91	-108.9	83.10	—	—	
	12:20	9.81	>.5	.1	10.77	3.307	1.46	6.90	-103.6	49.5	—	—	
	12:25	9.82	<.75	.1	10.79	3.250	1.39	6.88	-98.2	38.5	—	—	
	12:30	9.82	<.75	.1	10.72	3.226	1.36	6.88	-90.7	26.5	—	—	
	12:35	9.83	<1	.1	10.75	3.185	1.34	6.86	-88.6	24.3	—	—	

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sampled @ 12:35 and collected ~~Dup-010813 0001~~ Dup-010813 0001	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-3	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 600 & HACH 21002	Sampling Equipment: Peri. Pump	PID Type/ID #: NA
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): NA	Initial Depth to Water (ft): 9.57
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
Sulfur smell 1/8/13	11:57	10.26	—	175	8.86	0.218	0.12	6.72	6.1	40.8	—	—	Clear
	12:02	11.17	0.20	125	9.82	0.210	-0.12	6.39	5.8	29.0	—	—	Clear
	12:07	11.74	0.40	125	9.78	0.207	-0.03	6.33	-1.3	29.1	—	—	Clear
	12:12												
	12:17												

DO
-0.06
-1.3
-0.3

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start purge @ 11:57 Purged dry due to drop in water level @ 12:11 (1Gal) Collect Sample MW3-010913 @1137 on 1/9/13	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-9	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: CLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment: Bailer	PID Type/ID #: NA
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): NA	Initial Depth to Water (ft): 6.36
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/8/13	9:21	—	—		8.92	0.729	1.88	6.04	12.3	11.6	—	—	Clear
	9:26		3/4 Gal	—	9.92	0.700	3.17	6.09	12.3	570	—	—	Clear
	16:02	-	-	-	8.48	0.624	10.76	7.23	-8.0	19.8			

DO%
15.4
27.8

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start purge @ 9:21	(3) 40 mL VOAs	HCl	VOCs by 8260B
Purged Dry @ 1.25 gals @ 9:28			
Sample @ 16:02 MW09-010813			

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-11	Date: 1/7/2013
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment: YSI 600 + Lamotte	PID Type/ID #: X
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm): X	Initial Depth to Water (ft): 10.00
	Ground Condition of Well: Good	Well Mouth PID (ppm): X	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
01/07/13	14:32	10:00	0	.1	8.20	1.109	13.21	6.70	-72.5	max	—	—	
	14:37	10.0	.25	.1	8.04	1.091	10.94	6.90	-90.7	max	—	—	
	14:42	10.0	.5	.1	8.40	1.098	8.72	6.99	-99.2	711	—	—	
	14:47	10.0	.60	.1	8.48	1.093	7.27	7.03	-102	348	—	—	
	14:52	10.0	.75	.1	8.51	1.087	6.09	7.05	-104.6	196	—	—	
	14:57	10.0	.80	.1	8.75	1.085	5.71	7.05	-104.5	143	—	—	
	15:02	10.0	1	.1	8.72	1.087	5.34	7.07	-104.9	106	—	—	
	15:07	10.0	1.25	.1	8.87	1.097	4.96	7.09	-107.0	65.4	—	—	
	15:12	10.0	1.50	.1	9.15	1.105	4.75	7.10	-106.9	41.9	—	—	

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW11-010713 @ 15:12	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW14	Date: 1/9/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 12.85
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/9/13	11:08	12.89	0	.1	10.2	.741	1.23	6.92	-44.5	205.4 ~~85.4~~	—	—	Water is
"	11:13	12.84	<.25	.1	9.63	.741	0.32	6.95	-47.7	197	—	—	pink
	11:18	12.86	.5	.1	10.08	.757	.24	6.98	-44.7	120	—	—	
	11:23	12.90	.6	.1	10.14	.762	.20	6.99	-42.8	91.9	—	—	
	11:28	12.90	.7	.1	10.15	.769	.09	7.01	-42.8	72.0	—	—	
	11:33	12.90	.8	.1	10.45	.776	.16	7.02	-45.6	48.4	—	—	
	11:38	12.90	1.0	.1	10.67	.787	.23	7.05	-49.8	41.7	—	—	
	11:43	12.90	1.25	.1	10.73	.788	.25	7.06	-52.9	32.8	—	—	

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sample MW14-010913 @ 11:43	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-15	Date: 1/7/2013
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SAR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment: YSI 600 + Hach	PID Type/ID #:
	Water Level Indicator Type/ID #: Geotech / 0061	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft):
	Ground Condition of Well: Good	Well Mouth PID (ppm): X	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note	PID
01/07/2013	14:29	12.59	—	200	9.04	1.950	6.22	14.00	-123.8	27.1	—	—	Clear	119.8
	14:34	12.59	0.25	200	8.62	1.941	6.56	6.85	-132.0	54.9	—	—	clear	42
	14:39	12.59	0.50	200	9.87	2.004	3.97	6.95	-119.2	17.4	—	—	Clear	36.7
	14:44	12.59	0.90	300	10.02	2.030	3.71	6.99	-121.6	8.72	—	—	Clear	32.3
	14:49	12.59	1.25	300	9.99	2.054	3.39	7.08	-118.8	5.84	—	—	Clear	28.4
	1454	12.59	1.5	300	10.16	2.069	3.10	7.12	-107.8	5.09	—	—	Clear	25.4
	1459	12.59	1.90	300	10.16	2.076	2.53	7.14	-107.2	3.36	—	—	Clear	22.6
	1504	12.59	2.25	300	10.20	2.074	2.49	7.14	-111.4	2.76	—	—	Clear	22.8
↓	1509	12.59	2.60	300	10.19	2.073	2.39	7.16	-111.3	2.26	—	—	Clear	19.6

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start purge @ 14:29 Sampled @ 15:09 MW15-010713	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-17	Date: 1/7/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SMP Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment: YSI 600 + Hatch	PID Type/ID #: 7
	Water Level Indicator Type/ID #: Geotech / 00601	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft):
	Ground Condition of Well: Good	Well Mouth PID (ppm): X	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note	DO%
01/07/13	1523	12.16	—	250	8.66	2.525	5.37	6.88	-67.9	20.6	—	—	Clear	55.1
	1528	12.87	0.25	200	9.36	2.517	4.39	6.77	-80.6	23.9	—	—	Clear	38.8
	1533	12.91	0.40	200	9.31	2.530	5.95	6.75	-82.9	19.8	—	—	Clear	55.0
	1538	13.05	0.60	200	9.26	2.526	5.08	6.75	-84.0	14.7	—	—	Clear	48.7
	1543	13.22	0.80	150	9.01	2.527	4.82	6.77	-87.1	9.48	—	—	Clear	41.2
	1548	13.31	1.10	125	9.33	2.506	3.45	6.81	-90.9	9.21	—	—	Clear	30.4
	1553	13.37	1.25	125	9.14	2.503	3.81	6.83	-93.6	6.29	—	—	Clear	32.1
	1558	13.44	1.40	125	9.26	2.491	3.11	6.85	-96.3	5.20	—	—		

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start purge @ 15:23 Sampled @ 1558 MW17-010713	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW19	Date: 1/9/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft):
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/9/13	12:10	7.43	0	.1	9.92	1.645	.92	7.02	30.0	65.8	—	—	
	12:15	7.45	.2	.1	9.56	1.679	.78	6.84	31.5	45.1	—	—	
	12:20	7.45	.3	.1	9.70	1.676	.70	6.81	25.7	36.9	—	—	
	12:25	7.45	.5	.1	9.65	1.644	.59	6.81	11.8	39.7	—	—	
	12:30	7.45	.6	.1	9.75	1.635	.42	6.81	-12.7	43.2	—	—	
	12:35	7.45	.8	.1	9.67	1.566	.02	6.82	-29.4	44.2	—	—	
	12:40	7.45	1.0	.1	9.70	1.524	-.27	6.83	-40.6	37.0	—	—	
	12:45	7.45	1.25	.1	9.70	1.472	-.36	6.83	-47.4	30.5	—	—	

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sample MW19-010913 @ 12:45	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW-19	Date:
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 7.55
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/7/13	15:32	7.62	0	.1	9.23	1.752	6.50	6.89	-29.0	686	—	—	
	15:37	7.62	.25	.1	8.65	1.745	6.33	6.87	-23.7	310	—	—	
	15:42	7.62	.5	.1	8.37	1.733	5.71	6.86	-15.4	159	—	—	
	15:47	7.62	.6	.1	8.39	1.737	5.29	6.86	-11.3	91.3	—	—	
	15:52	7.60	.75	.1	8.72*	1.738	4.98	6.87	-9.2	43.5	—	—	
	15:57	7.60	.80	.1	8.78	1.733	4.15	6.86	-7.2	41.8	—	—	
	16:02	7.60	1	.1	8.76	1.723	3.88	6.87	-8.0	35.1	—	—	
	16:07	7.60	1.15	.1	9.07	1.690	3.63	6.87	-18.0	58.4	—	—	

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW19-010713@16:07	(3) 40 mL VOAs	HCl	VOCs by 8260B

* Sun began shinning on to flow

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW-22	Date: 1/9/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: GLW Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 600 + HACH 2100Q	Sampling Equipment: Peri. pump	PID Type/ID #: NA
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): NA	Initial Depth to Water (ft): 11.09
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note	DO%
01/09/13	9:24	11.01	—	250	10.24	0.530	7.11	6.70	217.8	59.8			Clear	62.5
	9:29	11.11	0.5	200	12.02	0.541	6.10	6.87	197.5	34.8			Clear	55.0
	9:34	11.11	0.8	200	12.16	0.540	5.99	6.91	186.3	18.3			Clear	52.1
	9:39	11.11	1.25	200	12.28	0.540	4.85	6.92	181.7	15.6			Clear	45.5
	9:44	11.11	1.60	200	12.28	0.540	4.50	6.92	176.2	7.53			Clear	42.2
	9:49	11.18	1.95	200	12.43	0.543	4.30	6.92	172.2	4.44			Clear	39.6
	9:54	11.01	2.20	200	12.00	0.536	4.17	6.93	169.1	3.29			Clear	38.9
	9:59	11.01	2.40	200	11.84	0.534	4.00	6.92	167.0	2.67			Clear	37.0
	10:04	11.01	2.60	200	11.74	0.532	3.94	6.92	168.3	2.57			Clear	36.0
	10:09	11.01	2.8	200	11.64	0.530	3.88	6.92	168.8	1.79			Clear	35.4
	10:14													

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start Purge @ 9:24 Sampled @ 10:09 Dup Collected Dup-010913 002	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW-101	Date: 1/9/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 600+HACH 2100Q	Sampling Equipment: Peri Pump	PID Type/ID #: NA
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2	Ambient PID (ppm): NA	Initial Depth to Water (ft):
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
01/09/13	10:35	9.81	—	200	9.25	1.200	3.75	7.15	-82.4	134	—	—	Cloudy
	10:40	9.81	0.2	200	10.35	1.255	3.07	7.18	-96.9	34.7	—	—	Cloudy
	1045	9.81	0.5	200	10.65	1.263	3.07	7.18	-105.2	24.7	—	—	Clear
	1050	9.81	0.75	200	10.76	1.288	2.91	7.17	-108.4	19.6	—	—	Clear
	1055	9.81	1.0	200	10.99	1.317	2.87	7.17	-105.8	14.7	—	—	Clear
	11:00	9.81	1.25	200	11.03	1.329	2.64	7.18	-104.9	14.8	—	—	Clear
	1105	9.81	1.50	200	11.10	1.344	2.59	7.19	-105.2	14.5	—	—	Clear
	1110	9.81	1.75	200	11.08	1.343	2.63	7.19	-105.5	14.2	—	—	Clear
	1115	9.81	2.0	200	11.14	1.352	2.65	7.19	-102.0		—	—	Clear

Note	
1070	
30.1	
28.0	
26.4	
25.8	
27.0	
24.5	
24.0	
24.0	
23.2	

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start purge @ 10:35 Sampled @ 1115	(3) 40 mL VOAs	HCl	VOCs by 8260B BEX only

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-103	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SAR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment: YSI 650, Hatch 21000	PID Type/ID #:
	Water Level Indicator Type/ID #: Geotech / Ocel	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm):	Initial Depth to Water (ft):
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note	DO %
01/08/13	1433	9.04	—	200	9.52	0.852	2.90	6.88	-38.8	207			Cloudy	22.0
	1438	9.04	0.20	175	10.38	1.025	0.82	6.90	-52.8	682			Cloudy	6.5
	1443	9.04	0.40	175	10.42	1.041	0.17	6.90	-62.2	414			Cloudy	1.4
	1448	9.04	0.60	175	10.46	1.045	-0.03	6.90	-67.1	259			Cloudy	-0.4
	1453	9.04	0.70	175	10.50	1.045	-0.27	6.90	-72.7	124			Cloudy	-2.3
	1458	9.04	0.80	175	10.39	1.035	-0.28	6.90	-76.1	89.6			Cloudy	-2.5
	1503	9.04	0.90	175	10.33	1.030	-0.26	6.91	-77.4	58.5			Clear	-2.4
	1508	9.04	1.00	175	10.39	1.033	-0.23	6.91	-77.3	36.6			Clear	-2.2
	1515	9.04	2.00	175	10.32	1.019	-0.11	6.91	-77.9	29.3			clear	-1.9
	1518	9.04	2.25	175	10.31	1.015	-0.12	6.91	-78.4	23.0			clear	-1.4
	1523	9.04	2.5	175	10.29	1.009	-0.10	6.92	-78.9	18.0			clear	-1.0

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start purge @ 1433 Sampled @ 1524 MS + MSD taken	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK AN[illegible]B - ERP SITE 15

LOCATION	Site:	LocID: MW-104	Date: 01/09/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SAR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 65a / Hatch 2100	Sampling Equipment: Peri Pump	PID Type/ID #: X
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft):
	Ground Condition of Well: Good	Well Mouth PID (ppm): X	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note	DO%
01/09/13	1210	6.32	—	250	9.72	1.269	6.25	7.51	-2.0	86.5	—	—	Clear	60.4
	1215	6.32	0.4	250	10.92	1.358	6.50	7.33	+5.4	55.8	—	—	Clear	59.1
	1220	6.32	0.6	250	11.30	1.402	6.28	7.24	5.0	57.5	—	—	Clear	59.1
	1225	6.32	0.75	250	11.28	1.419	6.02	7.20	-3.5	39.4	—	—	Clear	51.9
	1230	6.32	1.25	250	11.25	1.426	5.84	7.18	-7.9	29.6	—	—	Clear	52.3
	1235	6.32	1.75	250	11.22	1.430	5.10	7.16	-12.2	17.9	—	—	Clear	46.0
	1240	6.32	2.0	250	11.23	1.432	[illegible]	7.15	-14.3	11.7	—	—	Clear	39.3
	1245	6.32	2.25	250	11.24	1.448	[illegible]	7.14	-15.4	11.0	—	—	Clear	46.1

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start Purge @ 12:10 Sampled @ 1245	(3) 40 mL VOAs	HCl	VOCs by 8260B

AECOM

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-105	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SAR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 600 & HACH 2000Q	Sampling Equipment: YSI 650 / Hatch 21000	PID Type/ID #: NA
	Water Level Indicator Type/ID #: Geotech / 0061	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm): X	Initial Depth to Water (ft): 8.09
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note	DO%
1/8/13	15:46	8.01	—	175	9.21	0.911	0.09	7.09	-68.8	158	—	—	Clear	0.6
	15:51	8.01	0.50	175	10.23	1.030	0.06	7.11	-90.9	156	—	—	Clear	0.5
	15:56	8.01	0.875	175	10.27	1.034	0.06	7.12	-100.1	111	—	—	Clear	0.5
	16:01	8.01	1.0	175	10.43	1.028	0.05	7.14	-110.1	75.8	—	—	clear	0.5
	16:06	8.01	1.25	175	10.48	1.029	0.03	7.14	-115.4	44.0	—	—	clear	0.3
	16:11	8.01	1.5	175	10.50	1.026	0.01	7.15	-119.8	38.5	—	—	clear	0.1

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start Purge @ 1546 Sample MW105-010813 Collected @ 1613	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW106	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 163
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
01-08-13	10~~25~~	1.68	0	.1	8.81	.676	~~0.85~~	7.79	-94.8	417	—	—	
	10:30	1.68	.5	.1	10.03	.687	1.51	7.42	-96.8	253	—	—	
	10:35	1.65	.75	.1	8.61	.665	2.52	7.41	-87.8	177	—	—	
	10:40	1.65	.80	.1	7.75	.630	1.44	7.39	-83.1	109	—	—	
	10:45	1.65	1	.1	7.32	.626	1.37	7.37	-80.6	65.3	—	—	
	10:50	1.65	1.05	.1	7.15	.625	1.49	7.36	-78.6	65.3	—	—	
	10:55	1.65	1.25	.1	8.52	.639	0.85	7.36	-73.5	52.3	—	—	
	11:00	1.65	1.33	.1	9.06	.650	.91	7.36	-70.1	52.1	—	—	
	11:05	1.65	1.50	.1	9.28	.656	1.33	7.34	-68.0	32.4	—	—	
	11:10	1.65	1.60	.1	8.41	.639	1.14	7.33	-68.4				

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW106-010813 @ 11:10	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW107	Date: 01-08-13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: TS Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #: YSI 650	Sampling Equipment: Peristaltic	PID Type/ID #: —
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 2"	Ambient PID (ppm):	Initial Depth to Water (ft): 4.36
	Ground Condition of Well: good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1-8-13	0915	4.40	0	0.1	9.04	1.157	~~7.5~~ 6.00	6.86	-113.2	456	—	—	
	920	4.38	.25	0.1	8.70	1.139	6.00	7.03	-94.3	145	—	—	
	9:25	4.38	.33	0.1	8.18	1.118	~~4.25~~ 4.25	7.07	-89.0	103	—	—	
	9:30	4.38	<.50	0.1	7.18	1.082	4.30	7.11	-62.7	69.0	—	—	
	9:35	4.38	.50	0.1	6.93	1.069	3.91	7.12	-55.8	47.3	—	—	
	9:40	4.38	.50	0.1	6.64	1.053	3.73	7.13	-48.7	34.4	—	—	
	9:45	4.38	<.75	0.1	6.32	1.025	3.66	7.14	-26.3	25.2	—	—	
	9:50	4.38	<.75	0.1	6.29	0.946	3.20	7.14	-0.8	17.9	—	—	
	9:55	4.38	.75	0.1	6.36	0.846	3.44	7.14	-7.1	20.0	—	—	
	10:00	4.38	<1.0	0.1	6.68	0.838	4.63	7.13	-0.2	15.4	—	—	
	10:05	4.38	1.0	0.1	6.93	0.803	5.09	7.11	14.8	14.2	—	—	

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
MW107-010813	(3) 40 mL VOAs	HCl	VOCs by 8260B
Sampled at 10:05			

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site: Hancock ANGB	LocID: MW-11B	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: SNR Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment: YSI 650 / Hatch Submersible	PID Type/ID #:
	Water Level Indicator Type/ID #: Geotech / Oct 1	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in): 1 1/2"	Ambient PID (ppm):	Initial Depth to Water (ft):
	Ground Condition of Well: Good	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/8/13	10:03	3.02	—	200	8.65	[illegible]	0.24	6.80	131.8	33.3	—	—	Clear
	10:08	3.02	0.30	200	10.58	1.270	0.18	6.97	103.5	16.8	—	—	Clear
	10:13	3.02	0.50	200	10.79	1.239	0.17	7.01	93.0	12.8	—	—	Clear
	10:18	3.02	0.75	200	11.07	1.260	0.19	7.03	86.2	85.1	—	—	Clear
	10:23	3.02	1.0	200	11.31	1.277	0.25	7.04	80.4	46.7	—	—	Cloudy
	10:28	3.02	1.25	200	11.33	1.282	0.18	7.04	75.1	26.8	—	—	Cloudy
	10:33	3.02	1.50	200	11.47	1.291	0.24	7.04	70.9	20.7	—	—	Cloudy

Pumping Rate:<=0.5 L/min Drawdown: <0.33 ft Measurements:3-5 min Stabilization:+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) All for 3 consecutive readings

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Start Purge @ 10:03 Sampled @ 10:33	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW111	Date: 1/8/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 1.97
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/8/13	14:25	1.97	0	.1	10.09	1.083	6.73	7.70	-20.6	284	—	—	
	14:30	1.98	<.25	.1	9.63	1.054	3.72	7.38	-17.8	104	—	—	
	14:35	2.00	>.25	.1	9.77	1.035	2.75	7.30	-15.2	55.3	—	—	
	14:40	2.00	<.5	.1	9.85	1.031	2.55	7.27	-12.7	46.2	—	—	
	14:45	2.00	.5	.1	10.05	1.030	2.45	7.23	-9.8	27.5	—	—	
	14:50	2.00	<.75	.1	10.19	1.027	2.04	7.19	-5.8	25.3	—	—	
	14:55	2.00	<1	.1	10.36	1.029	1.81	7.18	-1.4	13.2			
	1500	2.00	1	.1	10.49	1.024	1.83	7.16	-0.7	13.5			
	1505	2.00	1	.1	10.43	1.029	1.78	7.15	-1.1	11.5			

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sample MW111-010513 @ 15:05	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: MW112	Date: 1/8/12
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 1.94
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/8/12	15:20	1.96	0	.1	10.38	1.152	4.74	7.33	-126.2	92.1	—	—	
	15:25	1.96	.4	.1	9.48	1.233	2.63	7.29	-138.7	82.3	—	—	
	15:30	1.95	.5	.1	9.30	1.239	2.59	7.28	-143.7	54.2	—	—	
	15:35	1.95	.6	.1	9.16	1.241	2.63	7.28	-145.2	41.2	—	—	
	15:40	1.95	.7	.1	9.05	1.241	2.56	7.29	-145.7	28.1	—	—	
	15:45	1.95	.75	.1	9.05	1.242	2.47	7.29	-146.0	26.4	—	—	
	~~15:50~~												

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sample MW112-010813 @ 15:45	(3) 40 mL VOAs	HCl	VOCs by 8260B

MONITORING WELL SAMPLE COLLECTION FORM
HANCOCK ANGB - ERP SITE 15

LOCATION	Site:	LocID: RW1	Date: 1/9/13
	Project Name: Hancock ANGB ERP Site 15	Project #: 60214697	Recorded By: Checked By:
EQUIPMENT	H2O Quality Meter Type/ID #:	Sampling Equipment:	PID Type/ID #:
	Water Level Indicator Type/ID #:	Equipment Decon.: Liquinox and Potable Wash/Potable Rinse/Distilled Rinse	
WELL INFO	Casing I.D. (in):	Ambient PID (ppm):	Initial Depth to Water (ft): 10.4
	Ground Condition of Well:	Well Mouth PID (ppm):	Total Well Depth (ft):
	Approximate Pump Intake Depth (ft):		
	Remarks:		

Date (mm/dd/yy)	Time (24 hr)	Water Level (FTOC)	Volume Removed (Gals)	Pumping Rate (Lpm)	Temp. (C)	Specific Conduct. (mS/cm)	DO (mg/L)	pH	ORP (mv)	Turb. (NTU)	Pump Refill/Discharge (Seconds)	PSI (pump)	Note
1/9/13	9:25	10.46	0	.1	9.41	.591	23.94	6.59	96.4	53.9	—	—	
	9:30	10.46	.20	.1	8.24	.554	12.13	6.73	56.5	36.1	—	—	
	9:35	10.47	.25	.1	7.78	.537	9.56	6.79	44.0	27.2	—	—	
	9:40	10.49	.40	.1	8.43	.540	7.70	6.84	33.7	25.3	—	—	
	9:45	10.49	.50	.1	8.30	.537	6.76	6.86	25.0	27.3	—	—	
	9:50	10.49	.60	.1	8.35	.539	5.61	6.88	20.5	23.7	—	—	
	9:55	10.51	.70	.1	8.52	.540	4.88	6.89	17.2	27.9	—	—	
	10:00	10.51	.80	.1	8.58	.540	4.59	6.89	15.2	24.7	—	—	
	10:05	10.51	.90	.1	7.79	.530	3.87	6.90	11.8	24.8	—	—	
	10:10	10.51	1.0	.1	8.70	.535	3.10	6.91	8.5	25.6	—	—	
	10:15	10.51	1.1	.1	8.98	.539	2.62	6.91	6.2	25.4	—	—	

Pumping Rate:<=0.5 L/min **Drawdown:** <0.33 ft **Measurements:**3-5 min **Stabilization:**+/- 0.5 C, +/- 3% conductivity, +/- 10% DO, +/- 0.1 pH, +/-10 mv ORP, +/- 10% turb (<= 10 NTU ideal) **All for 3 consecutive readings**

Sample ID #(s)/Time(s)	# of conts./Vol./Type	Preservative	Parameter(s)
Sample RW1-010913 @ 10:15 collect MS/MSD	(3) 40 mL VOAs	HCl	VOCs by 8260B

Appendix C

Laboratory Data Packages

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW111-091912 **Project:**
Lab ID: L2028-01 **Collection Date:** 09/19/12 8:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 15:02	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 15:02	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 15:02	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 15:02	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 15:02	68454
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/01/2012 15:02	68454
Surrogate: 1,2-Dichloroethane-d4	93.8		70-120	%REC	1	10/01/2012 15:02	68454
Surrogate: Toluene-d8	95.9		85-120	%REC	1	10/01/2012 15:02	68454
Surrogate: Bromofluorobenzene	93.9		75-120	%REC	1	10/01/2012 15:02	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW112-091912 **Project:**
Lab ID: L2028-02 **Collection Date:** 09/19/12 8:59

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 15:26	68454
Ethylbenzene	53		1.0	ug/L	1	10/01/2012 15:26	68454
m,p-Xylene	67		1.0	ug/L	1	10/01/2012 15:26	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 15:26	68454
Xylene (Total)	67		1.0	ug/L	1	10/01/2012 15:26	68454
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/01/2012 15:26	68454
Surrogate: 1,2-Dichloroethane-d4	95.1		70-120	%REC	1	10/01/2012 15:26	68454
Surrogate: Toluene-d8	95.0		85-120	%REC	1	10/01/2012 15:26	68454
Surrogate: Bromofluorobenzene	96.5		75-120	%REC	1	10/01/2012 15:26	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW106-091912 **Project:**
Lab ID: L2028-03 **Collection Date:** 09/19/12 9:07

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	1.4		1.0	ug/L	1	10/01/2012 15:49	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 15:49	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 15:49	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 15:49	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 15:49	68454
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/01/2012 15:49	68454
Surrogate: 1,2-Dichloroethane-d4	96.2		70-120	%REC	1	10/01/2012 15:49	68454
Surrogate: Toluene-d8	95.3		85-120	%REC	1	10/01/2012 15:49	68454
Surrogate: Bromofluorobenzene	95.4		75-120	%REC	1	10/01/2012 15:49	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW22-091912 **Project:**
Lab ID: L2028-04 **Collection Date:** 09/19/12 10:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 16:13	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 16:13	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 16:13	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 16:13	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 16:13	68454
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/01/2012 16:13	68454
Surrogate: 1,2-Dichloroethane-d4	96.3		70-120	%REC	1	10/01/2012 16:13	68454
Surrogate: Toluene-d8	94.1		85-120	%REC	1	10/01/2012 16:13	68454
Surrogate: Bromofluorobenzene	94.2		75-120	%REC	1	10/01/2012 16:13	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW101-091912 **Project:**
Lab ID: L2028-05 **Collection Date:** 09/19/12 10:21

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 16:36	68454
Ethylbenzene	5.2		1.0	ug/L	1	10/01/2012 16:36	68454
m,p-Xylene	25		1.0	ug/L	1	10/01/2012 16:36	68454
o-Xylene	0.73	J	1.0	ug/L	1	10/01/2012 16:36	68454
Xylene (Total)	26		1.0	ug/L	1	10/01/2012 16:36	68454
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/01/2012 16:36	68454
Surrogate: 1,2-Dichloroethane-d4	98.9		70-120	%REC	1	10/01/2012 16:36	68454
Surrogate: Toluene-d8	96.1		85-120	%REC	1	10/01/2012 16:36	68454
Surrogate: Bromofluorobenzene	96.3		75-120	%REC	1	10/01/2012 16:36	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW108-091912 **Project:**
Lab ID: L2028-06 **Collection Date:** 09/19/12 10:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 17:00	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 17:00	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 17:00	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 17:00	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 17:00	68454
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/01/2012 17:00	68454
Surrogate: 1,2-Dichloroethane-d4	98.6		70-120	%REC	1	10/01/2012 17:00	68454
Surrogate: Toluene-d8	95.3		85-120	%REC	1	10/01/2012 17:00	68454
Surrogate: Bromofluorobenzene	96.1		75-120	%REC	1	10/01/2012 17:00	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW19-091912 **Project:**
Lab ID: L2028-07 **Collection Date:** 09/19/12 11:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 17:23	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 17:23	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 17:23	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 17:23	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 17:23	68454
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/01/2012 17:23	68454
Surrogate: 1,2-Dichloroethane-d4	95.5		70-120	%REC	1	10/01/2012 17:23	68454
Surrogate: Toluene-d8	96.2		85-120	%REC	1	10/01/2012 17:23	68454
Surrogate: Bromofluorobenzene	98.5		75-120	%REC	1	10/01/2012 17:23	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: DUP-091912-001 **Project:**
Lab ID: L2028-08 **Collection Date:** 09/19/12 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 17:47	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 17:47	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 17:47	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 17:47	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 17:47	68454
Surrogate: Dibromofluoromethane	103		85-115	%REC	1	10/01/2012 17:47	68454
Surrogate: 1,2-Dichloroethane-d4	102		70-120	%REC	1	10/01/2012 17:47	68454
Surrogate: Toluene-d8	94.6		85-120	%REC	1	10/01/2012 17:47	68454
Surrogate: Bromofluorobenzene	95.4		75-120	%REC	1	10/01/2012 17:47	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: TB-091912-001 **Project:**
Lab ID: L2028-09 **Collection Date:** 09/19/12 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 12:17	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 12:17	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 12:17	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 12:17	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 12:17	68454
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/01/2012 12:17	68454
Surrogate: 1,2-Dichloroethane-d4	96.6		70-120	%REC	1	10/01/2012 12:17	68454
Surrogate: Toluene-d8	96.2		85-120	%REC	1	10/01/2012 12:17	68454
Surrogate: Bromofluorobenzene	92.8		75-120	%REC	1	10/01/2012 12:17	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW11-091912 **Project:**
Lab ID: L2028-10 **Collection Date:** 09/19/12 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	3.1		1.0	ug/L	1	10/02/2012 0:30	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 0:30	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 0:30	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 0:30	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 0:30	68461
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/02/2012 0:30	68461
Surrogate: 1,2-Dichloroethane-d4	93.8		70-120	%REC	1	10/02/2012 0:30	68461
Surrogate: Toluene-d8	94.5		85-120	%REC	1	10/02/2012 0:30	68461
Surrogate: Bromofluorobenzene	98.3		75-120	%REC	1	10/02/2012 0:30	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW15-091912 **Project:**
Lab ID: L2028-11 **Collection Date:** 09/19/12 13:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 18:11	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 18:11	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 18:11	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 18:11	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 18:11	68454
Surrogate: Dibromofluoromethane	97.6		85-115	%REC	1	10/01/2012 18:11	68454
Surrogate: 1,2-Dichloroethane-d4	98.7		70-120	%REC	1	10/01/2012 18:11	68454
Surrogate: Toluene-d8	95.1		85-120	%REC	1	10/01/2012 18:11	68454
Surrogate: Bromofluorobenzene	95.8		75-120	%REC	1	10/01/2012 18:11	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW20-091912 **Project:**
Lab ID: L2028-12 **Collection Date:** 09/19/12 13:24

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/01/2012 18:34	68454
Ethylbenzene	ND		1.0	ug/L	1	10/01/2012 18:34	68454
m,p-Xylene	ND		1.0	ug/L	1	10/01/2012 18:34	68454
o-Xylene	ND		1.0	ug/L	1	10/01/2012 18:34	68454
Xylene (Total)	ND		1.0	ug/L	1	10/01/2012 18:34	68454
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/01/2012 18:34	68454
Surrogate: 1,2-Dichloroethane-d4	96.1		70-120	%REC	1	10/01/2012 18:34	68454
Surrogate: Toluene-d8	95.9		85-120	%REC	1	10/01/2012 18:34	68454
Surrogate: Bromofluorobenzene	96.9		75-120	%REC	1	10/01/2012 18:34	68454

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW114-091912 **Project:**
Lab ID: L2028-13 **Collection Date:** 09/19/12 13:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 0:54	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 0:54	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 0:54	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 0:54	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 0:54	68461
Surrogate: Dibromofluoromethane	99.4		85-115	%REC	1	10/02/2012 0:54	68461
Surrogate: 1,2-Dichloroethane-d4	99.7		70-120	%REC	1	10/02/2012 0:54	68461
Surrogate: Toluene-d8	96.2		85-120	%REC	1	10/02/2012 0:54	68461
Surrogate: Bromofluorobenzene	93.5		75-120	%REC	1	10/02/2012 0:54	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW8-091912 **Project:**
Lab ID: L2028-14 **Collection Date:** 09/19/12 14:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 1:17	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 1:17	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 1:17	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 1:17	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 1:17	68461
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 1:17	68461
Surrogate: 1,2-Dichloroethane-d4	97.6		70-120	%REC	1	10/02/2012 1:17	68461
Surrogate: Toluene-d8	94.3		85-120	%REC	1	10/02/2012 1:17	68461
Surrogate: Bromofluorobenzene	92.0		75-120	%REC	1	10/02/2012 1:17	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW17-091912 **Project:**
Lab ID: L2028-15 **Collection Date:** 09/19/12 14:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 1:41	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 1:41	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 1:41	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 1:41	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 1:41	68461
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 1:41	68461
Surrogate: 1,2-Dichloroethane-d4	101		70-120	%REC	1	10/02/2012 1:41	68461
Surrogate: Toluene-d8	95.1		85-120	%REC	1	10/02/2012 1:41	68461
Surrogate: Bromofluorobenzene	94.7		75-120	%REC	1	10/02/2012 1:41	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW113-091912 **Project:**
Lab ID: L2028-16 **Collection Date:** 09/19/12 14:34

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 2:04	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 2:04	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 2:04	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 2:04	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 2:04	68461
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/02/2012 2:04	68461
Surrogate: 1,2-Dichloroethane-d4	95.8		70-120	%REC	1	10/02/2012 2:04	68461
Surrogate: Toluene-d8	95.6		85-120	%REC	1	10/02/2012 2:04	68461
Surrogate: Bromofluorobenzene	95.4		75-120	%REC	1	10/02/2012 2:04	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW107-091912 **Project:**
Lab ID: L2028-17 **Collection Date:** 09/19/12 15:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 2:28	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 2:28	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 2:28	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 2:28	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 2:28	68461
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 2:28	68461
Surrogate: 1,2-Dichloroethane-d4	93.8		70-120	%REC	1	10/02/2012 2:28	68461
Surrogate: Toluene-d8	94.4		85-120	%REC	1	10/02/2012 2:28	68461
Surrogate: Bromofluorobenzene	93.6		75-120	%REC	1	10/02/2012 2:28	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW104-091912 **Project:**
Lab ID: L2028-18 **Collection Date:** 09/19/12 15:35

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 2:51	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 2:51	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 2:51	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 2:51	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 2:51	68461
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 2:51	68461
Surrogate: 1,2-Dichloroethane-d4	95.9		70-120	%REC	1	10/02/2012 2:51	68461
Surrogate: Toluene-d8	95.2		85-120	%REC	1	10/02/2012 2:51	68461
Surrogate: Bromofluorobenzene	93.2		75-120	%REC	1	10/02/2012 2:51	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW110-091912 **Project:**
Lab ID: L2028-19 **Collection Date:** 09/19/12 15:41

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 3:15	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 3:15	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 3:15	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 3:15	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 3:15	68461
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 3:15	68461
Surrogate: 1,2-Dichloroethane-d4	99.3		70-120	%REC	1	10/02/2012 3:15	68461
Surrogate: Toluene-d8	95.2		85-120	%REC	1	10/02/2012 3:15	68461
Surrogate: Bromofluorobenzene	94.7		75-120	%REC	1	10/02/2012 3:15	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW9-091912 **Project:**
Lab ID: L2028-20 **Collection Date:** 09/19/12 15:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 3:38	68461
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 3:38	68461
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 3:38	68461
o-Xylene	ND		1.0	ug/L	1	10/02/2012 3:38	68461
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 3:38	68461
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 3:38	68461
Surrogate: 1,2-Dichloroethane-d4	94.7		70-120	%REC	1	10/02/2012 3:38	68461
Surrogate: Toluene-d8	95.5		85-120	%REC	1	10/02/2012 3:38	68461
Surrogate: Bromofluorobenzene	94.5		75-120	%REC	1	10/02/2012 3:38	68461

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW18-092012 **Project:**
Lab ID: L2029-01 **Collection Date:** 09/20/12 9:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 18:30	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 18:30	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 18:30	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 18:30	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 18:30	68488
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 18:30	68488
Surrogate: 1,2-Dichloroethane-d4	101		70-120	%REC	1	10/02/2012 18:30	68488
Surrogate: Toluene-d8	98.6		85-120	%REC	1	10/02/2012 18:30	68488
Surrogate: Bromofluorobenzene	97.1		75-120	%REC	1	10/02/2012 18:30	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW16-092012 **Project:**
Lab ID: L2029-02 **Collection Date:** 09/20/12 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 18:55	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 18:55	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 18:55	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 18:55	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 18:55	68488
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/02/2012 18:55	68488
Surrogate: 1,2-Dichloroethane-d4	100		70-120	%REC	1	10/02/2012 18:55	68488
Surrogate: Toluene-d8	98.5		85-120	%REC	1	10/02/2012 18:55	68488
Surrogate: Bromofluorobenzene	96.1		75-120	%REC	1	10/02/2012 18:55	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW109-092012 **Project:**
Lab ID: L2029-03 **Collection Date:** 09/20/12 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 19:20	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 19:20	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 19:20	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 19:20	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 19:20	68488
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 19:20	68488
Surrogate: 1,2-Dichloroethane-d4	102		70-120	%REC	1	10/02/2012 19:20	68488
Surrogate: Toluene-d8	98.7		85-120	%REC	1	10/02/2012 19:20	68488
Surrogate: Bromofluorobenzene	96.7		75-120	%REC	1	10/02/2012 19:20	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: RW1-092012 **Project:**
Lab ID: L2029-04 **Collection Date:** 09/20/12 9:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 19:46	68488
Ethylbenzene	13		1.0	ug/L	1	10/02/2012 19:46	68488
m,p-Xylene	26		1.0	ug/L	1	10/02/2012 19:46	68488
o-Xylene	0.93	J	1.0	ug/L	1	10/02/2012 19:46	68488
Xylene (Total)	27		1.0	ug/L	1	10/02/2012 19:46	68488
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 19:46	68488
Surrogate: 1,2-Dichloroethane-d4	102		70-120	%REC	1	10/02/2012 19:46	68488
Surrogate: Toluene-d8	101		85-120	%REC	1	10/02/2012 19:46	68488
Surrogate: Bromofluorobenzene	102		75-120	%REC	1	10/02/2012 19:46	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW102-092012 **Project:**
Lab ID: L2029-05 **Collection Date:** 09/20/12 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 20:11	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 20:11	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 20:11	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 20:11	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 20:11	68488
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/02/2012 20:11	68488
Surrogate: 1,2-Dichloroethane-d4	101		70-120	%REC	1	10/02/2012 20:11	68488
Surrogate: Toluene-d8	99.4		85-120	%REC	1	10/02/2012 20:11	68488
Surrogate: Bromofluorobenzene	97.1		75-120	%REC	1	10/02/2012 20:11	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW14-092012 **Project:**
Lab ID: L2029-06 **Collection Date:** 09/20/12 10:48

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	0.98	J	1.0	ug/L	1	10/02/2012 20:36	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 20:36	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 20:36	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 20:36	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 20:36	68488
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 20:36	68488
Surrogate: 1,2-Dichloroethane-d4	102		70-120	%REC	1	10/02/2012 20:36	68488
Surrogate: Toluene-d8	100		85-120	%REC	1	10/02/2012 20:36	68488
Surrogate: Bromofluorobenzene	96.8		75-120	%REC	1	10/02/2012 20:36	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW2-092012 **Project:**
Lab ID: L2029-07 **Collection Date:** 09/20/12 10:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 21:01	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 21:01	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 21:01	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 21:01	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 21:01	68488
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 21:01	68488
Surrogate: 1,2-Dichloroethane-d4	101		70-120	%REC	1	10/02/2012 21:01	68488
Surrogate: Toluene-d8	99.7		85-120	%REC	1	10/02/2012 21:01	68488
Surrogate: Bromofluorobenzene	98.0		75-120	%REC	1	10/02/2012 21:01	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW4-092012 **Project:**
Lab ID: L2029-08 **Collection Date:** 09/20/12 11:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 21:27	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 21:27	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 21:27	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 21:27	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 21:27	68488
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	10/02/2012 21:27	68488
Surrogate: 1,2-Dichloroethane-d4	101		70-120	%REC	1	10/02/2012 21:27	68488
Surrogate: Toluene-d8	99.4		85-120	%REC	1	10/02/2012 21:27	68488
Surrogate: Bromofluorobenzene	98.1		75-120	%REC	1	10/02/2012 21:27	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: AB-092012-002 **Project:**
Lab ID: L2029-09 **Collection Date:** 09/20/12 11:35

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 21:52	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 21:52	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 21:52	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 21:52	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 21:52	68488
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 21:52	68488
Surrogate: 1,2-Dichloroethane-d4	102		70-120	%REC	1	10/02/2012 21:52	68488
Surrogate: Toluene-d8	99.2		85-120	%REC	1	10/02/2012 21:52	68488
Surrogate: Bromofluorobenzene	97.5		75-120	%REC	1	10/02/2012 21:52	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW3-092012 **Project:**
Lab ID: L2029-10 **Collection Date:** 09/20/12 15:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 22:17	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 22:17	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 22:17	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 22:17	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 22:17	68488
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	10/02/2012 22:17	68488
Surrogate: 1,2-Dichloroethane-d4	100		70-120	%REC	1	10/02/2012 22:17	68488
Surrogate: Toluene-d8	100		85-120	%REC	1	10/02/2012 22:17	68488
Surrogate: Bromofluorobenzene	97.7		75-120	%REC	1	10/02/2012 22:17	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: DUP-092012-002 **Project:**
Lab ID: L2029-11 **Collection Date:** 09/20/12 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	10/02/2012 22:42	68488
Ethylbenzene	ND		1.0	ug/L	1	10/02/2012 22:42	68488
m,p-Xylene	ND		1.0	ug/L	1	10/02/2012 22:42	68488
o-Xylene	ND		1.0	ug/L	1	10/02/2012 22:42	68488
Xylene (Total)	ND		1.0	ug/L	1	10/02/2012 22:42	68488
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	10/02/2012 22:42	68488
Surrogate: 1,2-Dichloroethane-d4	101		70-120	%REC	1	10/02/2012 22:42	68488
Surrogate: Toluene-d8	98.8		85-120	%REC	1	10/02/2012 22:42	68488
Surrogate: Bromofluorobenzene	97.4		75-120	%REC	1	10/02/2012 22:42	68488

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW101-091812-PDB
Project:
Lab ID: L2029-12
Collection Date: 09/18/12 10:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 15:04	68412
Ethylbenzene	9.4		1.0	ug/L	1	09/28/2012 15:04	68412
m,p-Xylene	57		1.0	ug/L	1	09/28/2012 15:04	68412
o-Xylene	1.3		1.0	ug/L	1	09/28/2012 15:04	68412
Xylene (Total)	58		1.0	ug/L	1	09/28/2012 15:04	68412
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	09/28/2012 15:04	68412
Surrogate: 1,2-Dichloroethane-d4	96.7		70-120	%REC	1	09/28/2012 15:04	68412
Surrogate: Toluene-d8	95.3		85-120	%REC	1	09/28/2012 15:04	68412
Surrogate: Bromofluorobenzene	98.2		75-120	%REC	1	09/28/2012 15:04	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW22-091812-PDB
Project:
Lab ID: L2029-13
Collection Date: 09/18/12 11:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 15:28	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 15:28	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 15:28	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 15:28	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 15:28	68412
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	09/28/2012 15:28	68412
Surrogate: 1,2-Dichloroethane-d4	98.4		70-120	%REC	1	09/28/2012 15:28	68412
Surrogate: Toluene-d8	96.1		85-120	%REC	1	09/28/2012 15:28	68412
Surrogate: Bromofluorobenzene	96.0		75-120	%REC	1	09/28/2012 15:28	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW11-091812-PDB
Project:
Lab ID: L2029-14
Collection Date: 09/18/12 11:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	1.9		1.0	ug/L	1	09/28/2012 15:51	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 15:51	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 15:51	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 15:51	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 15:51	68412
Surrogate: Dibromofluoromethane	100		85-115	%REC	1	09/28/2012 15:51	68412
Surrogate: 1,2-Dichloroethane-d4	96.2		70-120	%REC	1	09/28/2012 15:51	68412
Surrogate: Toluene-d8	96.4		85-120	%REC	1	09/28/2012 15:51	68412
Surrogate: Bromofluorobenzene	94.1		75-120	%REC	1	09/28/2012 15:51	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW19-091812-PDB
Project:
Lab ID: L2029-15
Collection Date: 09/18/12 11:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 16:15	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 16:15	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 16:15	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 16:15	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 16:15	68412
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	09/28/2012 16:15	68412
Surrogate: 1,2-Dichloroethane-d4	98.0		70-120	%REC	1	09/28/2012 16:15	68412
Surrogate: Toluene-d8	94.7		85-120	%REC	1	09/28/2012 16:15	68412
Surrogate: Bromofluorobenzene	96.2		75-120	%REC	1	09/28/2012 16:15	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW106-091812-PDB
Project:
Lab ID: L2029-16
Collection Date: 09/18/12 13:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 16:38	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 16:38	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 16:38	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 16:38	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 16:38	68412
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	09/28/2012 16:38	68412
Surrogate: 1,2-Dichloroethane-d4	93.0		70-120	%REC	1	09/28/2012 16:38	68412
Surrogate: Toluene-d8	96.5		85-120	%REC	1	09/28/2012 16:38	68412
Surrogate: Bromofluorobenzene	95.6		75-120	%REC	1	09/28/2012 16:38	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW112-091812-PDB
Project:
Lab ID: L2029-17
Collection Date: 09/18/12 13:35

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 17:02	68412
Ethylbenzene	20		1.0	ug/L	1	09/28/2012 17:02	68412
m,p-Xylene	13		1.0	ug/L	1	09/28/2012 17:02	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 17:02	68412
Xylene (Total)	13		1.0	ug/L	1	09/28/2012 17:02	68412
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	09/28/2012 17:02	68412
Surrogate: 1,2-Dichloroethane-d4	98.8		70-120	%REC	1	09/28/2012 17:02	68412
Surrogate: Toluene-d8	94.6		85-120	%REC	1	09/28/2012 17:02	68412
Surrogate: Bromofluorobenzene	92.6		75-120	%REC	1	09/28/2012 17:02	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: AB-091812-001 **Project:**
Lab ID: L2029-18 **Collection Date:** 09/18/12 13:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 17:25	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 17:25	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 17:25	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 17:25	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 17:25	68412
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	09/28/2012 17:25	68412
Surrogate: 1,2-Dichloroethane-d4	97.8		70-120	%REC	1	09/28/2012 17:25	68412
Surrogate: Toluene-d8	95.4		85-120	%REC	1	09/28/2012 17:25	68412
Surrogate: Bromofluorobenzene	91.6		75-120	%REC	1	09/28/2012 17:25	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW105-091812-PDB
Project:
Lab ID: L2029-19
Collection Date: 09/18/12 14:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 17:48	68412
Ethylbenzene	0.95	J	1.0	ug/L	1	09/28/2012 17:48	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 17:48	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 17:48	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 17:48	68412
Surrogate: Dibromofluoromethane	102		85-115	%REC	1	09/28/2012 17:48	68412
Surrogate: 1,2-Dichloroethane-d4	96.8		70-120	%REC	1	09/28/2012 17:48	68412
Surrogate: Toluene-d8	96.5		85-120	%REC	1	09/28/2012 17:48	68412
Surrogate: Bromofluorobenzene	94.5		75-120	%REC	1	09/28/2012 17:48	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW103-091812-PDB
Project:
Lab ID: L2029-20
Collection Date: 09/18/12 14:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 18:12	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 18:12	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 18:12	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 18:12	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 18:12	68412
Surrogate: Dibromofluoromethane	99.8		85-115	%REC	1	09/28/2012 18:12	68412
Surrogate: 1,2-Dichloroethane-d4	94.5		70-120	%REC	1	09/28/2012 18:12	68412
Surrogate: Toluene-d8	96.5		85-120	%REC	1	09/28/2012 18:12	68412
Surrogate: Bromofluorobenzene	94.3		75-120	%REC	1	09/28/2012 18:12	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW103-091812 **Project:**
Lab ID: L2029-21 **Collection Date:** 09/18/12 16:36

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	5.9		1.0	ug/L	1	09/28/2012 18:35	68412
Ethylbenzene	ND		1.0	ug/L	1	09/28/2012 18:35	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 18:35	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 18:35	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 18:35	68412
Surrogate: Dibromofluoromethane	101		85-115	%REC	1	09/28/2012 18:35	68412
Surrogate: 1,2-Dichloroethane-d4	95.7		70-120	%REC	1	09/28/2012 18:35	68412
Surrogate: Toluene-d8	96.2		85-120	%REC	1	09/28/2012 18:35	68412
Surrogate: Bromofluorobenzene	96.6		75-120	%REC	1	09/28/2012 18:35	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

10/11/2012

Client: AECOM Technical Services, Inc.
Client Sample ID: MW105-091812 **Project:**
Lab ID: L2029-22 **Collection Date:** 09/18/12 16:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS							**SW8260_W**
Benzene	ND		1.0	ug/L	1	09/28/2012 18:59	68412
Ethylbenzene	1.7		1.0	ug/L	1	09/28/2012 18:59	68412
m,p-Xylene	ND		1.0	ug/L	1	09/28/2012 18:59	68412
o-Xylene	ND		1.0	ug/L	1	09/28/2012 18:59	68412
Xylene (Total)	ND		1.0	ug/L	1	09/28/2012 18:59	68412
Surrogate: Dibromofluoromethane	98.2		85-115	%REC	1	09/28/2012 18:59	68412
Surrogate: 1,2-Dichloroethane-d4	97.6		70-120	%REC	1	09/28/2012 18:59	68412
Surrogate: Toluene-d8	95.1		85-120	%REC	1	09/28/2012 18:59	68412
Surrogate: Bromofluorobenzene	96.8		75-120	%REC	1	09/28/2012 18:59	68412

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Report Date:
28-Jan-13 12:27

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

AECOM Technical Services, Inc.
40 British American Boulevard
Latham, NY 12110

Work Order: M0018
Project : Hancock ANGB
Project #: HANCOCK ANGB, 1/2013

Attn: John Santacroce

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
M0018-01	MW11-010713	Aqueous	07-Jan-13 15:12	10-Jan-13 11:05
M0018-02	MW15-010713	Aqueous	07-Jan-13 15:09	10-Jan-13 11:05
M0018-03	MW17-010713	Aqueous	07-Jan-13 15:58	10-Jan-13 11:05
M0018-04	TB-010713 001	Aqueous	07-Jan-13 00:00	10-Jan-13 11:05
M0018-05	MW107-010813	Aqueous	08-Jan-13 10:05	10-Jan-13 11:05
M0018-06	MW110-010813	Aqueous	08-Jan-13 10:33	10-Jan-13 11:05
M0018-07	MW106-010813	Aqueous	08-Jan-13 11:10	10-Jan-13 11:05
M0018-08	MW2-010813	Aqueous	08-Jan-13 12:35	10-Jan-13 11:05
M0018-09	MW111-010813	Aqueous	08-Jan-13 15:05	10-Jan-13 11:05
M0018-10	MW103-010813	Aqueous	08-Jan-13 15:24	10-Jan-13 11:05
M0018-11	MW112-010813	Aqueous	08-Jan-13 15:45	10-Jan-13 11:05
M0018-12	MW09-010813	Aqueous	08-Jan-13 16:02	10-Jan-13 11:05
M0018-13	MW105-010813	Aqueous	08-Jan-13 16:13	10-Jan-13 11:05
M0018-14	DUP-010813 001	Aqueous	08-Jan-13 00:00	10-Jan-13 11:05
M0018-15	MW22-010913	Aqueous	09-Jan-13 10:09	10-Jan-13 11:05
M0018-16	RW1-010913	Aqueous	09-Jan-13 10:15	10-Jan-13 11:05
M0018-17	MW101-010913	Aqueous	09-Jan-13 11:15	10-Jan-13 11:05
M0018-18	MW3-010913	Aqueous	09-Jan-13 11:37	10-Jan-13 11:05
M0018-19	MW14-010913	Aqueous	09-Jan-13 11:43	10-Jan-13 11:05
M0018-20	MW104-010913	Aqueous	09-Jan-13 12:45	10-Jan-13 11:05
M0018-21	MW19-010913	Aqueous	09-Jan-13 12:45	10-Jan-13 11:05
M0018-22	DUP-010913 002	Aqueous	09-Jan-13 00:00	10-Jan-13 11:05
M0018-23	AB-010913	Aqueous	09-Jan-13 12:50	10-Jan-13 11:05

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirments have been meet.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.com.

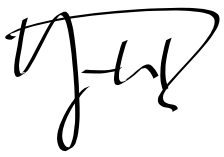
Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2247 Testing

Authorized by:



Yihai Ding
Laboratory Director

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

* Data Summary Pack *

175 Metro Center Boulevard · Warwick, RI 02886-1755 · 401-732-3400 · FAX 401-732-3499
www.spectrum-analytical.com

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0018

Client ID: EARTH_NY
Project: Hancock ANGB
WO Name: Hancock ANGB
Location: HANCOCK_ANGB, HANCOCK ANGB, 1/2013
Comments: Send copy of invoice to John Santacroce at Latham office.

Case:
SDG:
HC Due: 01/29/13
Fax Due:
Fax Report: ☐
PO: 60214697, 11S-14728-DC30
Report Level: LEVEL 4A
Special Program: DoD
EDD: ERPIMS_5

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0018-01A	MW11-010713	01/07/2013 15:12	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-02A	MW15-010713	01/07/2013 15:09	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-03A	MW17-010713	01/07/2013 15:58	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-04A	TB-010713 001	01/07/2013 00:00	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-05A	MW107-010813	01/08/2013 10:05	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-06A	MW110-010813	01/08/2013 10:33	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-07A	MW106-010813	01/08/2013 11:10	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-08A	MW2-010813	01/08/2013 12:35	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-09A	MW111-010813	01/08/2013 15:05	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-10A	MW103-010813	01/08/2013 15:24	01/10/2013	Aqueous	SW8260_W	/ BEX list			Y	Y	VOA
M0018-11A	MW112-010813	01/08/2013 15:45	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-12A	MW09-010813	01/08/2013 16:02	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-13A	MW105-010813	01/08/2013 16:13	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-14A	DUP-010813 001	01/08/2013 00:00	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-15A	MW22-010913	01/09/2013 10:09	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-16A	RW1-010913	01/09/2013 10:15	01/10/2013	Aqueous	SW8260_W	/ BEX list			Y	Y	VOA
M0018-17A	MW101-010913	01/09/2013 11:15	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-18A	MW3-010913	01/09/2013 11:37	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0018

Client ID: EARTH_NY
Project: Hancock ANGB
WO Name: Hancock ANGB
Location: HANCOCK_ANGB, HANCOCK ANGB, 1/2013
Comments: Send copy of invoice to John Santacroce at Latham office.

Case:
SDG:
HC Due: 01/29/13
Fax Due:
Fax Report: ☐
Report Level: LEVEL 4A
Special Program: DoD
EDD: ERPIMS_5
PO: 60214697, 11S-14728-DC30

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0018-19A	MW14-010913	01/09/2013 11:43	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-20A	MW104-010913	01/09/2013 12:45	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-21A	MW19-010913	01/09/2013 12:45	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-22A	DUP-010913 002	01/09/2013 00:00	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA
M0018-23A	AB-010913	01/09/2013 12:50	01/10/2013	Aqueous	SW8260_W	/ BEX list				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

* Volatiles *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: Hancock ANGB

Laboratory Workorder / SDG #: M0018

SW846 8260C, VOC by GC-MS

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 8260C

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: V5
Instrument Type: GCMS-VOA
Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890
GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Matrix spikes were performed on samples: MW103-010813 (M0018-10AMS), MW103-010813 (M0018-10AMSD), RW1-010913 (M0018-16AMS) and RW1-010913 (M0018-16AMSD).

Percent recoveries were within the QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

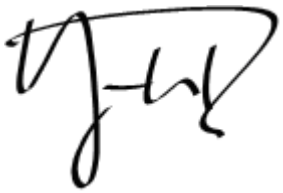
F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.



Signed:_____ _____

Date:_____1/28/2013_____

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

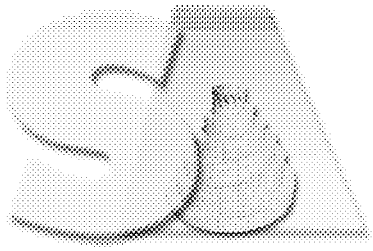
E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.



SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11-010713

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1294.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	4.7		0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW15-010713

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-02A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1295.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.62	J	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW17-010713

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-03A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1296.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-010713 001

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-04A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1297.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW107-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-05A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1298.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW110-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-06A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1299.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW106-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-07A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1300.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-08A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1301.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW111-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-09A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1302.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW103-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-10A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1303.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW112-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-11A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1306.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.78	J	0.33	0.50	1.0
100-41-4	Ethylbenzene	29		0.35	0.50	1.0
179601-23-1	m,p-Xylene	17		0.77	1.0	1.0
95-47-6	o-Xylene	0.57	J	0.36	0.50	1.0
1330-20-7	Xylene (Total)	18		0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW09-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-12A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1307.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW105-010813

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-13A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1308.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-010813 001

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-14A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1309.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW22-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-15A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1310.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW1-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-16A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1330.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/14/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW101-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-17A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1311.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	1.9		0.35	0.50	1.0
179601-23-1	m,p-Xylene	25		0.77	1.0	1.0
95-47-6	o-Xylene	0.63	J	0.36	0.50	1.0
1330-20-7	Xylene (Total)	26		0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-18A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1312.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-19A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1313.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW104-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-20A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1314.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW19-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-21A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1315.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-010913 002

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-22A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1316.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AB-010913

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-23A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1333.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/14/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-70069

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-70069

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1293.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-70083

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-70083

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1323.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 01/14/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.33	0.50	1.0
100-41-4	Ethylbenzene	0.50	U	0.35	0.50	1.0
179601-23-1	m,p-Xylene	1.0	U	0.77	1.0	1.0
95-47-6	o-Xylene	0.50	U	0.36	0.50	1.0
1330-20-7	Xylene (Total)	1.0	U	0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-70069

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: LCS-70069

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1292.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	50		0.33	0.50	5.0
100-41-4	Ethylbenzene	50		0.35	0.50	5.0
179601-23-1	m,p-Xylene	97		0.77	1.0	5.0
95-47-6	o-Xylene	48		0.36	0.50	5.0
1330-20-7	Xylene (Total)	140		0.36	1.0	5.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-70083

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: LCS-70083

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1322.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 01/14/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	52		0.33	0.50	5.0
100-41-4	Ethylbenzene	48		0.35	0.50	5.0
179601-23-1	m,p-Xylene	97		0.77	1.0	5.0
95-47-6	o-Xylene	49		0.36	0.50	5.0
1330-20-7	Xylene (Total)	150		0.36	1.0	5.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW103-010813MS

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-10AMS

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1304.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	51		0.33	0.50	1.0
100-41-4	Ethylbenzene	49		0.35	0.50	1.0
179601-23-1	m,p-Xylene	97		0.77	1.0	1.0
95-47-6	o-Xylene	48		0.36	0.50	1.0
1330-20-7	Xylene (Total)	140		0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW103-010813MSD

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-10AMSD

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1305.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/11/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	50		0.33	0.50	1.0
100-41-4	Ethylbenzene	49		0.35	0.50	1.0
179601-23-1	m,p-Xylene	98		0.77	1.0	1.0
95-47-6	o-Xylene	48		0.36	0.50	1.0
1330-20-7	Xylene (Total)	150		0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW1-010913MS

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-16AMS

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1331.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/14/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	53		0.33	0.50	1.0
100-41-4	Ethylbenzene	50		0.35	0.50	1.0
179601-23-1	m,p-Xylene	98		0.77	1.0	1.0
95-47-6	o-Xylene	50		0.36	0.50	1.0
1330-20-7	Xylene (Total)	150		0.36	1.0	1.0

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW1-010913MSD

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M0018-16AMSD

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V5O1332.D

Level: (TRACE/LOW/MED) LOW Date Received: 01/10/2013

% Moisture: not dec. Date Analyzed: 01/14/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION: UG/L	Q	DL	LOD	LOQ
71-43-2	Benzene	52		0.33	0.50	1.0
100-41-4	Ethylbenzene	49		0.35	0.50	1.0
179601-23-1	m,p-Xylene	99		0.77	1.0	1.0
95-47-6	o-Xylene	49		0.36	0.50	1.0
1330-20-7	Xylene (Total)	150		0.36	1.0	1.0

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Level: (TRACE or LOW) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-70069	102	108	99	100				0
02	MB-70069	101	96	102	102				0
03	MW11-010713	100	100	102	103				0
04	MW15-010713	100	99	102	103				0
05	MW17-010713	100	100	101	101				0
06	TB-010713 001	101	96	102	101				0
07	MW107-010813	100	98	103	103				0
08	MW110-010813	101	99	102	103				0
09	MW106-010813	102	99	100	98				0
10	MW2-010813	97	99	101	102				0
11	MW111-010813	100	102	99	101				0
12	MW103-010813	99	97	102	103				0
13	MW103-010813 MS	99	107	99	103				0
14	MW103-010813 MSD	100	103	102	104				0
15	MW112-010813	101	98	104	104				0
16	MW09-010813	102	98	102	104				0
17	MW105-010813	99	99	101	103				0
18	DUP-010813 001	101	97	102	100				0
19	MW22-010913	99	99	102	101				0
20	MW101-010913	101	100	105	103				0
21	MW3-010913	100	95	101	102				0
22	MW14-010913	101	104	103	102				0
23	MW104-010913	101	94	103	104				0
24	MW19-010913	101	99	104	106				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(85-115)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(70-120)
VDMC3	(TOL) = Toluene-d8	(85-120)
VDMC4	(BFB) = Bromofluorobenzene	(75-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som12.12.17.A

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Level: (TRACE or LOW) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
25	DUP-010913 002	100	93	105	103				0
26	LCS-70083	103	109	99	105				0
27	MB-70083	104	98	100	104				0
28	RW1-010913	100	98	99	103				0
29	RW1-010913MS	104	109	102	105				0
30	RW1-010913MS D	105	105	99	104				0
31	AB-010913	102	96	100	103				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(85-115)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(70-120)
VDMC3	(TOL) = Toluene-d8	(85-120)
VDMC4	(BFB) = Bromofluorobenzene	(75-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som12.12.17.A

3A - FORM III VOA-1

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix Spike - EPA Sample No.: MW103-010813 Level: (TRACE or LOW) LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	#	QC. LIMITS REC.
Benzene	50.0000	0.0000	50.5003	101		80-120
Ethylbenzene	50.0000	0.0000	48.6433	97		75-125
m,p-Xylene	100.0000	0.0000	96.5001	97		75-130
o-Xylene	50.0000	0.0000	48.3795	97		80-120
Xylene (Total)	150.0000	0.0000	144.8796	97		81-121

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Benzene	50.0000	49.5574	99		2		0-40	80-120
Ethylbenzene	50.0000	49.0522	98		1		0-40	75-125
m,p-Xylene	100.0000	97.8873	98		1		0-40	75-130
o-Xylene	50.0000	47.8354	96		1		0-40	80-120
Xylene (Total)	150.0000	145.7227	97		1		0-40	81-121

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3A - FORM III VOA-1

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Matrix Spike - EPA Sample No.: RW1-010913 Level: (TRACE or LOW) LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	#	QC. LIMITS REC.
Benzene	50.0000	0.0000	52.8811	106		80-120
Ethylbenzene	50.0000	0.0000	49.5113	99		75-125
m,p-Xylene	100.0000	0.0000	97.9769	98		75-130
o-Xylene	50.0000	0.0000	49.7351	99		80-120
Xylene (Total)	150.0000	0.0000	147.7119	98		81-121

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Benzene	50.0000	51.7801	104		2		0-40	80-120
Ethylbenzene	50.0000	49.4359	99		0		0-40	75-125
m,p-Xylene	100.0000	98.6335	99		1		0-40	75-130
o-Xylene	50.0000	49.1274	98		1		0-40	80-120
Xylene (Total)	150.0000	147.7609	99		0		0-40	81-121

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-70069

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Lab Sample ID: LCS-70069 LCS Lot No.:

Date Extracted: 01/11/2013 Date Analyzed (1): 01/11/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Benzene	50.0000	0.0000	49.7321	99		80 - 120
Ethylbenzene	50.0000	0.0000	49.6215	99		75 - 125
m,p-Xylene	100.0000	0.0000	96.9902	97		75 - 130
o-Xylene	50.0000	0.0000	47.8174	96		80 - 120
Xylene (Total)	150.0000	0.0000	144.8076	97		81 - 121

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-70083

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Lab Sample ID: LCS-70083 LCS Lot No.:

Date Extracted: 01/14/2013 Date Analyzed (1): 01/14/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Benzene	50.0000	0.0000	51.8598	104		80 - 120
Ethylbenzene	50.0000	0.0000	48.2446	96		75 - 125
m,p-Xylene	100.0000	0.0000	97.3942	97		75 - 130
o-Xylene	50.0000	0.0000	48.6734	97		80 - 120
Xylene (Total)	150.0000	0.0000	146.0675	97		81 - 121

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-70069

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Lab File ID: V5O1293.D Lab Sample ID: MB-70069

Instrument ID: V5

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 01/11/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 11:21

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-70069	LCS-70069	V5O1292.D	10:54
02	MW11-010713	M0018-01A	V5O1294.D	11:48
03	MW15-010713	M0018-02A	V5O1295.D	12:15
04	MW17-010713	M0018-03A	V5O1296.D	12:41
05	TB-010713 001	M0018-04A	V5O1297.D	13:09
06	MW107-010813	M0018-05A	V5O1298.D	13:35
07	MW110-010813	M0018-06A	V5O1299.D	14:03
08	MW106-010813	M0018-07A	V5O1300.D	14:31
09	MW2-010813	M0018-08A	V5O1301.D	14:59
10	MW111-010813	M0018-09A	V5O1302.D	15:28
11	MW103-010813	M0018-10A	V5O1303.D	15:57
12	MW103-010813 MS	M0018-10AMS	V5O1304.D	16:24
13	MW103-010813 MSD	M0018-10AMSD	V5O1305.D	16:52
14	MW112-010813	M0018-11A	V5O1306.D	17:20
15	MW09-010813	M0018-12A	V5O1307.D	17:48
16	MW105-010813	M0018-13A	V5O1308.D	18:16
17	DUP-010813 001	M0018-14A	V5O1309.D	18:43
18	MW22-010913	M0018-15A	V5O1310.D	19:12
19	MW101-010913	M0018-17A	V5O1311.D	19:39
20	MW3-010913	M0018-18A	V5O1312.D	20:08
21	MW14-010913	M0018-19A	V5O1313.D	20:37
22	MW104-010913	M0018-20A	V5O1314.D	21:05
23	MW19-010913	M0018-21A	V5O1315.D	21:32
24	DUP-010913 002	M0018-22A	V5O1316.D	21:59

COMMENTS:

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-70083

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

Lab File ID: V5O1323.D Lab Sample ID: MB-70083

Instrument ID: V5

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 01/14/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 12:30

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-70083	LCS-70083	V5O1322.D	11:26
02	RW1-010913	M0018-16A	V5O1330.D	16:19
03	RW1-010913MS	M0018-16AMS	V5O1331.D	16:51
04	RW1-010913MSD	M0018-16AMSD	V5O1332.D	17:21
05	AB-010913	M0018-23A	V5O1333.D	17:45

COMMENTS:

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 01/09/2013 01/09/2013

EPA Sample No.(VSTD#####): VSTD0505R Date Analyzed: 01/11/2013

Lab File ID (Standard): V5O1291.D Time Analyzed: 10:28

Instrument ID: V5 Heated Purge: (Y/N) N

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	637674		4.479		682606		7.674		393144		10.74	
	UPPER LIMIT	1275348		4.979		1365212		8.174		786288		11.24	
	LOWER LIMIT	318837		3.979		341303		7.174		196572		10.24	
	EPA SAMPLE NO.												
01	LCS-70069	648155		4.479		678343		7.673		396769		10.729	
02	MB-70069	642047		4.479		653135		7.674		385081		10.729	
03	MW11-010713	635699		4.476		652660		7.671		376399		10.737	
04	MW15-010713	624371		4.479		632054		7.673		367525		10.729	
05	MW17-010713	616449		4.475		630578		7.669		362715		10.736	
06	TB-010713 001	607229		4.485		634670		7.668		365644		10.735	
07	MW107-010813	599712		4.474		605028		7.668		351557		10.735	
08	MW110-010813	584986		4.485		597290		7.667		344019		10.734	
09	MW106-010813	576451		4.478		604058		7.673		342815		10.728	
10	MW2-010813	568551		4.479		584961		7.673		334557		10.728	
11	MW111-010813	574972		4.478		599492		7.672		341996		10.727	
12	MW103-010813	583400		4.478		600785		7.673		349683		10.728	
13	MW103-010813 MS	578167		4.476		601230		7.670		347105		10.737	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 01/09/2013 01/09/2013

EPA Sample No.(VSTD#####): VSTD0505R Date Analyzed: 01/11/2013

Lab File ID (Standard): V5O1291.D Time Analyzed: 10:28

Instrument ID: V5 Heated Purge: (Y/N) N

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	637674		4.479		682606		7.674		393144		10.74	
	UPPER LIMIT	1275348		4.979		1365212		8.174		786288		11.24	
	LOWER LIMIT	318837		3.979		341303		7.174		196572		10.24	
	EPA SAMPLE NO.												
14	MW103-010813 MSD	616588		4.479		618993		7.673		365131		10.728	
15	MW112-010813	595969		4.479		608461		7.673		357846		10.728	
16	MW09-010813	589429		4.473		600772		7.667		347945		10.734	
17	MW105-010813	582777		4.475		588004		7.670		336218		10.737	
18	DUP-010813 001	576963		4.473		594398		7.668		331322		10.735	
19	MW22-010913	561761		4.484		582147		7.667		326007		10.734	
20	MW101-010913	562001		4.478		580519		7.673		343962		10.728	
21	MW3-010913	581762		4.475		598794		7.670		340083		10.737	
22	MW14-010913	574905		4.484		593703		7.667		338506		10.734	
23	MW104-010913	559490		4.478		568403		7.673		330712		10.728	
24	MW19-010913	561369		4.473		569812		7.667		327746		10.734	
25	DUP-010913 002	556329		4.474		560745		7.669		320866		10.735	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0018 Mod. Ref No.: SDG No.: SM0018

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 01/09/2013 01/09/2013

EPA Sample No.(VSTD#####): VSTD0505S Date Analyzed: 01/14/2013

Lab File ID (Standard): V5O1321.D Time Analyzed: 10:54

Instrument ID: V5 Heated Purge: (Y/N) N

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	637284		4.478		674383		7.673		400920		10.739	
	UPPER LIMIT	1274568		4.978		1348766		8.173		801840		11.239	
	LOWER LIMIT	318642		3.978		337192		7.173		200460		10.239	
	EPA SAMPLE NO.												
01	LCS-70083	613483		4.484		672209		7.667		400882		10.734	
02	MB-70083	616192		4.477		656742		7.671		379255		10.738	
03	RW1-010913	566723		4.479		599529		7.674		348088		10.729	
04	RW1-010913MS	564336		4.474		604092		7.669		362977		10.736	
05	RW1-010913MSD	629377		4.479		664627		7.674		395576		10.729	
06	AB-010913	607525		4.479		640066		7.673		375918		10.728	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.