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Hercules Incorporated

Voluntary Investigation and Remediation Plan – Semiannual Progress Report #3

Hercules Incorporated
3000 Louisville Road
Savannah, Georgia

September 15, 2014

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Voluntary Investigation and Remediation Plan – Semiannual Progress Report #3

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I certify that I am a qualified groundwater scientist who has received a baccalaureate or postgraduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by me or by a subordinate working under my direction.

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Facility Name

Voluntary Investigation and Remediation Plan Semiannual Progress Report #3
Document Title

Georgia EPD HSI Site #10696

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1. Introduction

This Voluntary Investigation and Remediation Plan (VIRP) Semiannual Progress Report (Progress Report) has been prepared to meet requirements outlined in the Georgia Voluntary Remediation Program Act (VRPA). Information and data contained in this VIRP are provided in a streamlined format and additional information, if required, can be provided to the Georgia Environmental Protection Division (EPD) upon request.

Hercules Incorporated (Hercules), a wholly owned subsidiary of Ashland Inc., sold its distribution business and its associated assets to Solenis International, L.P. (Solenis) on July 31, 2014. Accordingly, Solenis is now the owner and operator of the facility located at 3000 Louisville Road, Savannah, Georgia. Hercules, however, retains responsibility for the remediation activities at the site relating to matters that occurred prior to the sale date. The facility is comprised of 14 separately deeded parcels of land (approximately 32.5 acres) bordered by railroad tracks, wetlands, and industrial and residential properties. Two of the 14 property parcels (Parcel ID 2-0734-01-001 and Parcel ID 2-0734-03-001), comprising of 28.42 acres, are the two approved properties in the Voluntary Remediation Program (VRP) and are currently included on the Hazardous Site Inventory (HSI) as ID No. 10696. Hercules has evaluated the ownership of land within the boundaries of the facility where right-of-ways, easements, and/or reconfiguration of properties has occurred since the original deed was filed. Data obtained during this review confirms that Hercules retains ownership of the remediation efforts for the two parcels as shown in **Figure 1** which provides the location of the Hercules land tracts superimposed on a topographic map of the area. The term “site” is used throughout this report to refer to the two tracts that comprise HSI Site ID 10696 that are owned by Solenis but whose environmental impacts are being managed by Hercules. **Figure 2** provides an aerial view of the VRP properties, and **Figure 3** illustrates the layout of the VRP properties and monitoring well locations. A tax map updated to show specific information on land tracks and ownership is provided in **Appendix A**.

2. Site History

The site was first developed in 1922 by Paper Makers Chemical Corporation for pulp and paper chemical manufacturing and was purchased by Hercules in 1931. Historical site operations have included distillation of crude tall oil (CTO) and production of sizing, release agents, emulsifiers, coating agents, defoamers, fatty acid esters, disproportionated rosin, and polyamides. The tall oil distillation and rosin production operations have ceased and the plant currently only produces chemicals used in the

paper processing industry. The following list outlines release, response, and remedial action history.

- Georgia EPD determined on March 9, 2001 that a release exceeding a reportable quantity had occurred at the facility based upon information provided in release notifications dated June 15, 2000 (caustic release in the Size Tank Farm Area), July 13, 2000 (asbestos and benzene in the 50s Tank Area), and August 11, 2000 (acrolein release in the Hard Resins Area), and the plant was placed on the Georgia HSI.

- Hercules submitted an amended release notification on March 9, 2001, documenting removal actions completed in the Hard Resins Area for acrolein-contaminated soil and providing additional analytical data gathered during the 2001 Phase II investigation.

- Multiple Compliance Status Report (CSR) documents have been submitted between 2002 and 2009.

- A Corrective Action Plan (CAP) was submitted in 2008

- A response to EPD's comments on the March 2009 CSR was submitted in February 2011

- A VIRP was submitted in lieu of a Revised CAP on April 9, 2012

- The VIRP was approved by EPD on March 15, 2013

- The first Progress Report was submitted via email on December 10, 2013.

- The second Progress Report was submitted on March 15, 2014.

During the various subsurface investigations, regulated substances have been detected in site groundwater and soil. In addition, trace concentrations of regulated substances have been detected in surface water and sediment samples collected from Dundee Canal downstream of the site. A list of regulated substances detected at the site along with the applicable delineation standards was provided in the VIRP. The EPD provided revised Risk Reduction Standards (RRSs) to Hercules following the submittal of the VIRP in a letter dated January 10, 2014. Hercules intends to use these

RRSs for the VRP properties for delineation and clean-up standards. The approved RRSs are provided as **Table 1**.

3. Summary of Work Completed this Period

The work performed at the site during this period involved the following actions:

1. Collected water level measurements from 34 wells

2. Collected groundwater samples from six wells for laboratory analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260B and semivolatile organic compounds (SVOCs) by USEPA Method 8270D

3. Collected groundwater samples from 1 well for polychlorinated biphenyls (PCBs) by USEPA Method 8082A (including 1262 and 1268) and USEPA Method 1668B.

4. Collected groundwater samples from 1 well for asbestos containing material (ACM) by USEPA Method 100.2.

5. Discrete soil samples were collected at historical locations where composite samples were obtained.

6. Additional soil samples were collected to delineate regulated substances (Acrolein, Aniline, and 1,1-Biphenyl) and to investigate the potential for impacts at potential historical source areas as outlined in the VIRP.

7. Sediment and Surface Water samples were collected.

8. Slug tests were performed on nine wells to evaluate water-bearing zone hydraulic parameters.

Details of data collected and interpretations of the groundwater sampling and water level data (task 1 through 4) are provided in the following sections. Data from the soil investigation activities (task 5 through 8 above) will be provided in the Progress Report #4 that will be submitted to the EPD by March 15, 2015.

3.1 Hydraulic Gradient

The static depth to water was measured in all accessible site wells on May 22, 2014. These measurements were used to develop a potentiometric surface contour map for the shallow water unit and to calculate a hydraulic gradient. The general groundwater flow direction based on these measurements was convergent toward Dundee Canal, which is consistent with historical data. The hydraulic gradient was calculated from potentiometric surface elevations of wells located perpendicular to groundwater flow from both sides of Dundee Canal. The average hydraulic gradient is 0.006 ft/ft, which is typical of shallow aquifers in the Coastal Plain depositional environment. The hydraulic gradient was calculated to be 0.008 ft/ft on the west side of Dundee Canal based on water level measurements from MW-F13 and MW-F17. On the east side of Dundee Canal, the hydraulic gradient is also 0.006 ft/ft as calculated from monitoring wells MW-F9 and MW-F5. A summary of well construction details is included as **Table 2**. Water level elevations are included as **Table 3** and a potentiometric surface contour map is provided as **Figure 4**.

3.2 Groundwater Sample Data Summary

Semiannual groundwater sampling was conducted in May 2014 and will continue until compliance with final cleanup standards is demonstrated for a period of two years or as to be determined by the director of the VRPA and to be agreed upon by Hercules. Semiannual monitoring consists of the collection of water-level measurements from 37 onsite wells and the collection of groundwater samples from the following monitoring wells: MW-F3R, MW-F5, MW-F7, MW-F8, MW-F21, MW-27, MW-29, and MWD-30. Well head integrity inspection records indicated that monitoring wells MW-F6, MW-26, and MW-28 were documented as being destroyed or inaccessible during this event. These wells are not part of the semiannual sampling program but will be further evaluated to determine if they should be repaired or replaced prior to the next semiannual monitoring event.

Well purging and sampling methods utilized a peristaltic pump and low-flow, low-purge volume sampling methodologies following the USEPA Region 4 Science and Ecosystem Support Division (SESD) operating procedures for groundwater sampling to ensure a representative sample is collected and to minimize the quantity of well purge water generated during sampling. During purging and sampling, the tubing intake was placed within the screened interval at the zone of sampling. Flow rates did not exceed the recharge rate of the aquifers monitored by measuring the top of the water column with a water level indicator while purging. With respect to the groundwater chemistry,

an adequate purge was achieved when the pH, specific conductance, and temperature of the groundwater had stabilized and the turbidity had either stabilized or was below 10 Nephelometric Turbidity Units (NTUs) (twice the Primary Drinking Water Standard of 5 NTUs). Every effort was made to achieve turbidity levels of less than 10 NTUs; however, the last reading achieved at MW-29 was 15.4 NTU. Stabilization occurred when pH measurements remained constant within 0.1 Standard Unit, specific conductance varies no more than 10 percent, and the temperature was constant to within one degree C for at least three consecutive readings. Groundwater samples were collected following USEPA-accepted sampling methods when water quality parameters had been reached. Well purging and sampling logs from the May 2014 monitoring event are provided as **Appendix B**.

The groundwater samples collected in May 2014 are analyzed for VOCs by USEPA Method 8260B and SVOCs by USEPA Method 8270D in monitoring wells MW-F5, MW-F7, MW-F21, MW-27, MW-29, and MWD-30. Monitoring well MW-F3R was sampled for PCBs analysis by USEPA Methods 8082A (including Aroclor 1262 and 1268) and biphenyl congeners analysis using USEPA Method 1668B. Monitoring well MW-F8 was sampled for ACM by USEPA Method 100.2. A planned sampling table (PST) is provided as **Table 4** that gives additional information on sample collected for laboratory analyses.

Analytical results from the May 2014 groundwater sampling event indicate a very limited distribution of constituents of concern (COCs) at the site and that no result exceeded Type 4 RRSs. Only one monitoring well, MW-F21, has exceedances of Type 1 RRSs. Benzene was detected in this well at a concentration of 7.4 µg/L; slightly above the Type 1 RRS of 5 µg/L. Additionally, bis(2-chloroethyl)ether was detected in this well at 1.2 µg/L which was above the lowest accurate laboratory reporting limit of 1 µg/L. The Type 1 RRS for bis(2-chloroethyl)ether is 0.03 µg/L and the laboratory is not able to accurately report results below their reporting level of 1 µg/L. There are no previous detections of this compound at the site in any monitoring well. All Laboratory analytical results indicate that constituent concentrations for samples collected from the remaining wells were either below laboratory detection limits or have detections below the Type 1 RRSs. Deep aquifer monitoring well MWD-30 is below detection limits for all analyzed constituents.

MW-F8 was added to the semiannual monitoring network to monitor groundwater downgradient of the proposed engineering control for the soil impacts in the vicinity of the Former Fatty Acid 50s Tank Area. Groundwater samples from this well were

analyzed for ACM only. Analytical results indicate that ACM is not present above the laboratory detection limit of 0.19 million of fibers per liter.

A groundwater sample was also collected from MW-F3R to analyze for the presence of PCBs and PCBs congeners. This well is located in the Former CTO tank area, previously used for storage of potentially PCB-containing oils. Results of the analysis indicate that there are no PCBs above the laboratory detection limits in groundwater.

A summary of groundwater results from the May 2014 semiannual monitoring event for the shallow and deep aquifers is illustrated on **Figures 5a** and **5b**, respectively. A figure illustrating the results of the PCB and asbestos analysis is provided as **Figure 5c**. Analytical summary tables are provided as **Table 5a** and **5b**, and laboratory analytical reports are included as **Appendix C**.

3.3 Delineation Status

3.3.1 Groundwater

Groundwater data from historical and the May 2014 monitoring event were compared to the Type 1 RRS and only one well, MW-F21, has concentrations greater than the Type 1 RRS (see Figure 5a). This well is located in the proximity of the ASTs 30's area and is delineated by downgradient monitoring well MW-F5, upgradient wells MW-F7, MW-27, and MW-29, and from historical groundwater analytical results from upgradient wells MW-8 and MW-9. Groundwater is vertically delineated by MWD-30. Additionally, PCBs and ACM were below laboratory detection limits in MW-F3R and MW-F8, respectively. Therefore, groundwater delineation is complete for all site COCs.

3.3.2 Sediment and Surface water

Sediment and surface water samples were collected the week of August 25, 2014 and were analyzed for VOCs and SVOCs plus ammonia and fluoride in the surface water samples, and total organic carbon (TOC) and grain size analysis in the sediment samples. The analytical data from these samples are pending; therefore, the results and an evaluation of the data will be provided in the Progress Report #4 scheduled to be submitted to the EPD by March 15, 2015.

3.3.3 Soil

The soil investigation outlined in the VIRP was completed the week of August 18, 2014. These additional soil samples were collected to provide laboratory confirmation of soil quality at locations that were: (1) evaluated previously using composite soil samples, or (2) at locations that were previously-identified as potential contaminant source areas. The analytical data from these samples are pending; therefore, the results and an evaluation of the data will be provided in the next Progress Report #4 scheduled to be submitted to the EPD by March 15, 2015.

3.3.4 Hydraulic Slug Testing

Hydraulic testing was conducted on September 28-29, 2014 at 9 wells on the VRP properties to evaluate the hydraulic parameters of the shallow and deep aquifers. These tests were conducted by performing a minimum of two slug-out tests to measure the rate of recharge. The tests were performed by first determining the static water level followed by deploying a Level-Troll 700 transducer and a 3-foot slug. The water level was continually monitored and once it reached static levels, the slug was quickly removed. The water level was again monitored and once the level reached at least 90-percent of the static level, the test was considered complete and the logging was suspended. These data are currently being evaluated and the results will be provided in the next Progress Report #4 scheduled to be submitted to the EPD by March 15, 2015.

4. Updated Conceptual Site Model

Site investigations of soil and groundwater have occurred since 2000 to identify potential source areas of hazardous constituents, and to provide horizontal and vertical delineation of impacts. As indicated in Section 3.3, groundwater impacts are delineated horizontally and vertically and impacts are confined to the site. Delineation of impacts in soil is not yet complete but available data indicate that impacts are confined to isolated areas of the site. The general lack of source-areas combined with the low hydraulic conductivity typical of the shallow saturated zone has resulted in minimal vertical and lateral areas of hazardous constituent impact. Geologic cross sections have been prepared to illustrate the current subsurface conditions at the site and transect locations are provided on **Figure 6**. The cross-sectional geologic interpretations of subsurface conditions provided on **Figure 7** (along the groundwater

flow direction) and **Figure 8** (perpendicular to site-wide groundwater flow) include the May 2014 groundwater analytical results. These two cross sections, and potentially one additional cross section, will be updated with the results of the recent soil investigation and provided in the March 2015 Progress Report.

5. Status of Proposed Future Work

The VIRP outlined additional actions and the field work associated with those planned activities has been completed. However, the data are not yet fully available to complete the site evaluation and a list of the remaining planned actions outlined in the VIRP is provided below:

- A Migration Pathway Assessment will be performed and potential receptors will be evaluated.
- A Human Health Risk Assessment and an Ecological Risk Assessment will be performed.
- Groundwater modeling will be completed to demonstrate compliance with site-specific cleanup standards at the downgradient point of exposure.
- A vapor intrusion pathway risk evaluation will be completed to assess the potential exposure of site workers to constituents migrating from the subsurface into indoor air

The semiannual groundwater sampling program that began in November 2013 will continue until compliance with final cleanup standards is demonstrated for a period of two years or as to be determined by the director of the VRPA and to be agreed upon by Hercules. As indicated above, semiannual monitoring consists of the collection of water-level measurements from up to 37 onsite wells and the collection of groundwater samples from the following 8 monitoring wells: MW-F21, MW-F3R, MW-F5, MW-F7, MW-F8, MW-27, MW-29, and MWD-30.

6. Schedule

An updated project schedule for work elements outlined in the VIRP is provided on **Figure 9**.

7. Reporting

Semiannual Progress Reports will be submitted to provide updates of the progress and implementation of the VIRP throughout the program and will include an updated CSM as necessary to accurately reflect site conditions. Additionally, the projected milestone schedule will be updated to show progress on VIRP objectives (**Figure 9**).

A CSR will be prepared for submittal to EPD following the conclusion of data collection and interpretation activities outlined in the Progress Reports. The CSR will confirm the completion of the corrective action specified in the VIRP and certify compliance of the site with the applicable cleanup standards.

8. References

ARCADIS, 2011. Response to Georgia EPD Comments, EPD Comment Letter Dated October 25, 2010. February 2011.

ARCADIS, 2012. Voluntary Investigation and Remediation Plan, April 9, 2013.

United States Environmental Protection Agency (USEPA). 2013e. Region 4 Science and Ecosystem Support Division Field Sampling Quality Control, SESDPROC-011-R4. February.

Tables

Table 1
Risk Reduction Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Soil		Groundwater	
		EPD Approved	EPD Approved	EPD Approved	EPD Approved
	CAS	Type 1 RRS	Type 4 RRS	Type 1 RRS	Type 4 RRS
	Number	(mg/kg)	(mg/kg)	(mg/L)	(mg/L)
Volatile Organic Compounds					
Acetone	67-64-1	400	400	9	46
Acetonitrile	75-05-8	20	20	0.2	0.2
Acetophenone	98-86-2	400	400	4	10
Acrolein	107-02-8	0.1	70	0.7	0.7
Benzene	71-43-2	0.5	0.5	0.0054	0.0087
Biphenyl	92-52-4	1	1	0.01	0.01
Carbon disulfide	75-15-0	400	400	4	4
Chlorobenzene	108-90-7	10	10	0.1	0.14
trans-1,4-Dichlorobutene	110-57-6	0.11	0.1	0.002	0.001
1,2-Dichloropropane	78-87-5	0.5	0.2	0.005	0.002
1,4-Dichloro-2-butene	764-41-0	0.11	0.5	0.001	0.0074
Ethylbenzene	100-41-4	70	70	0.7	0.7
Ethyl Methacrylate	97-63-2	300	300	3	3
Isobutyl alcohol	78-83-1	1000	1000	10	31
Methyl ethyl ketone	78-93-3	200	200	2.3	12
Methyl isobutyl ketone	108-10-1	200	200	2	4.2
Styrene	100-42-5	14	14	0.5	2.6
Tetrachloroethene	127-18-4	0.5	0.5	0.019	0.098
Toluene	108-88-3	100	100	1	5.2
Xylenes (total)	1330-20-7	1000	1000	10	10
m-Xylene	108-38-3	20	20	0.58	0.29
o-Xylene	95-47-6	20	20	0.58	0.29
p-Xylene	106-42-3	20	20	0.58	0.29
m & p-Xylenes	179601-23-1	NA	NA	NA	NA
Semi Volatile Organic Compounds					
Aniline	62-53-3	2	2	0.11	0.5
Bis(2-ethylhexyl)phthalate	117-81-7	50	50	0.061	0.2
Butyl benzyl phthalate	85-68-7	50	218.54	3.129	15.061
Total Cresols	1319-77-3	3.8	8.1	1.6	10
m & p-Cresols	65794-96-9	NA	NA	NA	NA
m-Cresol	108-39-4	3.8	4.1	0.78	5.1
o-Cresol	95-48-7	3.8	4.1	0.78	5.1
p-Cresol	106-44-5	3.8	8	1.56	10
Dibenzofuran	132-64-9	1	1.9	0.016	0.01
2,4-Dimethylphenol	105-67-9	70	70	0.7	2
m-Dinitrobenzene	99-65-0	1.05	1.05	0.011	0.01
Di-n-octyl phthalate	117-84-0	70	70	0.7	0.7
1,4-Dioxane	123-91-1	7	7	0.07	0.07
Formaldehyde	50-00-0	100	100	1	20
N-Nitrosodi-n-butylamine	924-16-3	1	1	0.01	0.01
N-Nitroso-n-methylethylamine	10595-95-6	0.68	1	0.01	0.01
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	83-32-9	300	300	2	6.1
Acenaphthylene	208-96-8	130	130	0.1	0.01
Anthracene	120-12-7	500	1009	4.7	31
Benzo(a)anthracene	56-55-3	5	5	0.01	0.01
Benzo(a)pyrene	50-32-8	1.64	1.64	0.01	0.01
Benzo(b)fluoranthene	205-99-2	5	5	0.01	0.01
Benzo(g,h,i)perylene	191-24-2	500	500	0.01	0.01
Benzo(k)fluoranthene	207-08-9	13.7	46	0.012	0.039
Chrysene	218-01-9	43	142	0.12	0.04

Table 1
Risk Reduction Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

			Soil		Groundwater	
			EPD Approved	EPD Approved	EPD Approved	EPD Approved
		CAS	Type 1 RRS	Type 4 RRS	Type 1 RRS	Type 4 RRS
		Number	(mg/kg)	(mg/kg)	(mg/L)	(mg/L)
Dibenzo(a,h)anthracene		53-70-3	2	5	0.01	0.01
Fluoranthene		206-44-0	500	500	1	4.1
Fluorene		86-73-7	360	360	1	4.1
Indeno(1,2,3-cd)pyrene		193-39-5	5	15	0.01	0.01
Naphthalene		91-20-3	100	100	0.02	0.02
Phenanthrene		85-01-8	110	110	0.01	0.01
Pyrene		129-00-0	500	500	1	3.1
Dioxins						
2,3,7,8-TCDD TEQ		1746-01-6	1.15E-04	4.98E-03	0.00001	0.00001
Pesticides						
Endrin		72-20-8	10	10	0.0047	0.031
Endrin aldehyde		7421-93-4	10	10	0.0001	0.0001
4,4'-DDT		50-29-3	0.84	3	0.0025	0.0084
Methoxychlor		72-43-5	10	28	0.078	0.51
Parathion		56-38-2	20	20	0.2	0.61
Polychlorinated Biphenyls						
Aroclor 1254		11097-69-1	1.55	1.55	0.0005	0.0014
Aroclor 1260		11096-82-5	1.55	1.55	0.0005	0.0014
Total PCBs		1336-36-3	1.55	1.55	0.0005	0.0014
Inorganics						
Ammonia (as N)		7664-41-7	3000	3000	30	30
Asbestos	*	1332-21-4	1	1	7	7
Fluoride		16984-48-8	NA	NA	4	4.1

Notes:
* Asbestos soil standards are reported in % and groundwater standards are reported in millions of fibers per liter.
CAS - Chemical Abstract Services.
mg/kg - Milligrams per kilogram.
mg/L - Milligrams per liter.
NA - Not applicable.

Table 2
Well Construction
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Well Id	Install Date	Total Depth (btoc)[1]	Approximate Total Depth (bgs)[2]	Casing Length (bgs)	Screen Interval (bgs)		Well Completion	Site Area	Installer	Ground Elevation (Historical)	Top of Casing Elevation (Historical)	Ground Elevation (2011)	Top of Casing Elevation (2011)	Well Diameter	Construction Material
Shallow Monitoring Wells															
MWA*	--	--	10.4	--	--	10.4	--	Resin Areas	--	--	--	--	--	--	--
MWB*	--	--	10.2	--	--	10.2	--	Resin Areas	--	--	--	--	--	--	--
MWC*	--	--	10.2	--	--	10.2	--	Resin Areas	--	--	--	--	--	--	--
MWD*	--	--	8.8	--	--	8.8	--	Resin Areas	--	--	--	--	--	--	--
MW-F1	10/19/2000	22.58	20	10	10	20	Stick-up	Resin Areas	AGM	8.1	10.62	7.13	9.55	2	PVC
MW-F2	10/24/2000	11.82	10	5	5	10	--	Resin Areas	AGM	8.89	8.58	7.70	7.51	2	PVC
MW-F3*	10/19/2000	--	20	10	10	20	--	Resin Areas	AGM	10	9.94	--	--	2	PVC
MW-F3R	11/6/2008	22.90	20	10	10	20	Stick-up	Resin Areas	WPC	9.36	13.63	8.32	12.53	2	PVC
MW-F4*	10/18/2000	--	20	10	10	20	--	Resin Areas	AGM	9.6	12.09	--	--	2	PVC
MW-F5	10/18/2000	22.26	20	10	10	20	Stick-up	Resin Areas	AGM	10.01	12.62	9.07	11.49	2	PVC
MW-F6	10/19/2000	19.73	20	10	10	20	Flush mount	Resin Areas	AGM	10.01	10.03	8.97	8.59	2	PVC
MW-F7	10/18/2000	23.14	20	10	10	20	Stick-up	Resin Areas	AGM	11.59	14.03	10.70	13.23	2	PVC
MW-F8	10/20/2000	20.60	20	10	10	20	Stick-up	Resin Areas	AGM	12.25	12.5	11.22	12.59	2	PVC
MW-F9	10/17/2000	NM	20	10	10	20	--	Resin Areas	AGM	13	12.84	12.00	11.78	2	PVC
MW-F10*	10/17/2000	NM	20	10	10	20	--	Resin Areas	AGM	10.56	10.5	--	--	2	PVC
MW-F11	10/18/2000	19.66	20	10	10	20	Flush mount	Resin Areas	AGM	9.83	9.3	8.80	8.58	2	PVC
MW-F12	10/18/2000	20.47	20	10	10	20	Flush mount	Resin Areas	AGM	10.54	10.1	9.47	9.34	2	PVC
MW-F13	10/17/2000	23.32	20	10	10	20	Stick-up	Resin Areas	AGM	16.34	19.46	15.66	18.47	2	PVC
MW-F14	10/16/2000	22.52	20	10	10	20	Stick-up	Resin Areas	AGM	6.93	9.33	6.05	8.38	2	PVC
MW-F15	10/19/2000	19.98	20	10	10	20	Flush mount	Resin Areas	AGM	10.61	10.7	9.87	9.79	2	PVC
MW-F16	10/16/2000	22.42	20	10	10	20	Stick-up	Resin Areas	AGM	6.83	9.46	6.03	8.51	2	PVC
MW-F17	10/17/2000	22.83	20	10	10	20	Stick-up	Resin Areas	AGM	9.59	12.34	8.93	11.36	2	PVC
MW-F19	10/16/2000	22.84	20	10	10	20	Stick-up	Resin Areas	AGM	8.6	11.46	7.68	10.47	2	PVC
MW-F20*	10/23/2000	--	13	3	3	13	--	Resin Areas	AGM	10.07	9.89	--	--	2	PVC
MW-F21	10/23/2000	23.33	20	10	10	20	Stick-up	Resin Areas	AGM	11.11	13.54	9.96	12.46	2	PVC
MW-22	10/29/2002	21.39	20	10	10	20	Stick-up	Shallow Background Well	MACTEC	8.69	7.8	7.36	10.06	2	PVC
MW-23	10/28/2002	23.41	20	10	10	20	Stick-up	Resin Areas	MACTEC	7.31	9.64	7.08	9.4	2	PVC
MW-24	10/28/2002	22.95	20	10	10	20	Stick-up	Resin Areas	MACTEC	8.02	10.52	7.71	10.23	2	PVC
MW-25	10/29/2002	21.34	20	10	10	20	Stick-up	Shallow Background Well	MACTEC	10.99	13.17	10.32	12.72	2	PVC
MW-26	10/30/2002	24.01	20	10	10	20	Stick-up	Size Tank Farm	MACTEC	13.4	15.98	13.69	15.69	2	PVC
MW-27	12/17/2002	19.99	20	10	10	20	Flush mount	Resin Areas	MACTEC	11.39	10.52	10.36	10.23	2	PVC
MW-28	12/17/2002	24.54	20	10	10	20	Stick-up	Shallow Background Well	MACTEC	7.909	10.801	7.60	10.5	2	PVC
MW-29	11/6/2008	22.50	20	10	10	20	Stick-up	Resin Areas	WPC	10.65	13.85	9.58	12.8	2	PVC
MW-32	11/18/2008	21.98	20	10	10	20	Stick-up	Shallow Background Well	WPC	5.72	7.9	5.30	7.05	2	PVC

Table 2
Well Construction
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Well Id	Install Date	Total Depth (btoc)[1]	Approximate Total Depth (bgs)[2]	Casing Length (bgs)	Screen Interval (bgs)		Well Completion	Site Area	Installer	Ground Elevation (Historical)	Top of Casing Elevation (Historical)	Ground Elevation (2011)	Top of Casing Elevation (2011)	Well Diameter	Construction Material
Deep Monitoring Wells															
MWD-22	10/29/2002	42.61	50	40	40	50	Stick-up	Resin Areas	MACTEC	7.8	10.15	7.71	10.05	2	PVC
MWD-23	11/1/2002	48.98	50	40	40	50	Stick-up	Resin Areas	MACTEC	7.13	9.46	6.83	9.27	2	PVC
MWD-24	10/29/2002	47.43	50	40	40	50	Stick-up	Deep Background Well	MACTEC	8.05	10.6	7.67	10.34	2	PVC
MWD-25	10/30/2002	48.07	50	40	40	50	Stick-up	Deep Background Well	MACTEC	10.89	8.11	10.26	12.58	2	PVC
MWD-27	12/17/2002	45.02	50	40	40	50	Flush mount	Resin Areas	MACTEC		10.404	10.25	10.09	2	PVC
MWD-28	12/17/2002	49.05	50	40	40	50	Stick-up	Deep Background Well	MACTEC	8.217	11.089	7.27	10.66	2	PVC
MWD-29	11/10/2008	51.10	50	40	40	50	Stick-up	Resin Areas	WPC	10.65	14.59	9.51	13.56	2	PVC
MWD-30	11/11/2008	52.78	50	40	40	50	Stick-up	Resin Areas	WPC	11.11	14.48	10.06	13.41	2	PVC
MWD-F1	10/17/2000	103.30	100	80	80	100	Stick-up	Resin Areas	AGM	7.99	10.39	6.92	9.25	2	PVC
MWD-F2	10/17/2000	103.25	100	80	80	100	Stick-up	Resin Areas	AGM	8.7	11.5	7.80	10.52	2	PVC
MWD-F3	10/18/2000	90.22	87	67	67	87	Stick-up	Resin Areas	AGM	9.58	12.21	8.77	11.23	2	PVC
Temporary Wells															
Well-1	1/7/1998	--	19	--	--	19	--	Size Tank Farm	Ferguson-Harbour	--	--			--	--
Well-2	1/7/1998	--	17	--	--	17	--	Size Tank Farm	Ferguson-Harbour	--	--			--	--
Well-3	1/7/1998	--	17	--	--	17	--	Size Tank Farm	Ferguson-Harbour	--	--			--	--
TMW-5	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-6	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-7	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-10	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-11	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-12	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-13	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-14	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-15	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-16	7/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
TMW-17	6/6/2000	--	~12-16	--	--	~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--			--	--
Onsite Production Wells															
Well 1 (12")	~1955	--	1000	270	open borehole		--	--	--	--	--			12	--
Well 2 (10")	~1950	--	750	250	open borehole		--	--	--	--	--			10	--
Well 3 (8")	Before January 1956	--	--	--	--	--	--	--	--	--	--			8	--

-- Unknown or not applicable
MWA*–= Abandoned Well; MW-F10 was destroyed
[1] - Total depth below top of casing (btoc) measured on January 26, 2011. Wells MW-F2, MW-F9, and MW-F10 could not be located. Water level tape not long enough to measure total depth btoc of MWD-F2 and MWD-F3.
[2] - Total depth below ground surface for wells with riser aboveground is approximated based on limited well construction/boring log information. The length of aboveground risers will be measured during next field event for confirmation of total depth bgs.
[3] - The riser length is approximated based on historical survey data. The length of aboveground risers will be measured during the next field event.

Table 3
Groundwater Elevation Data
VIRP Semiannual Progress Report
Ashland - Hercules
3000 Louisville Road
Savannah, Georgia

		November 11, 2013		May 22, 2014	
Well Number	**Top of Casing Elevation (feet msl)**	**Depth to Water (feet)**	**Groundwater Elevation (feet msl)**	**Depth to Water (feet)**	**Groundwater Elevation (feet msl)**
MW-F1	9.55	5.11	4.44	4.56	4.99
MW-F2	7.51	6.13	1.38	5.59	1.92
MW-F3R	12.53	7.75	4.78	7.38	5.15
MW-F5	11.49	6.88	4.61	6.53	4.96
MW-F6	8.59	NM	NM	NM	NM
MW-F7	13.23	6.61	6.62	5.57	7.66
MW-F8	12.59	6.19	6.40	5.01	7.58
MW-F9	11.78	4.89	6.89	3.82	7.96
MW-F11	8.58	2.97	5.61	2.27	6.31
MW-F12	9.34	3.70	5.64	2.13	7.21
MW-F13	18.47	11.88	6.59	10.25	8.22
MW-F14	8.38	3.21	5.17	3.21	5.17
MW-F15	9.79	4.65	5.14	4.55	5.24
MW-F16	8.51	4.06	4.45	3.44	5.07
MW-F17	11.36	6.42	4.94	6.00	5.36
MW-F19	10.47	5.38	5.09	4.62	5.85
MW-F21	12.46	7.08	5.38	6.27	6.19
MW-22	10.06	9.35	0.71	3.60	6.46
MW-23	9.4	6.89	2.51	7.40	2.00
MW-24	10.23	5.55	4.68	4.67	5.56
MW-25	12.72	6.51	6.21	5.75	6.97
MW-26	15.69	NM	NM	Destroyed	
MW-27	10.23	3.39	6.84	2.44	7.79
MW-28	10.5	7.73	2.77	Destroyed	
MW-29	12.8	6.04	6.76	5.25	7.55
MW-32	7.05	4.81	2.24	4.50	2.55
Deep Monitoring Wells					
MWD-22	10.05	4.55	5.50	2.91	7.14
MWD-23	9.27	8.23	1.04	6.17	3.10
MWD-24	10.34	5.49	4.85	4.96	5.38
MWD-25	12.58	7.35	5.23	6.57	6.01
MWD-27	10.09	4.23	5.86	3.4	6.69
MWD-28	10.66	NM	NM	11.01	-0.35
MWD-29	13.56	8.13	5.43	7.14	6.42
MWD-30	13.41	9.21	4.20	8.48	4.93
MWD-F1	9.25	31.82	-22.57	31.28	-22.03
MWD-F2	10.52	22.45	-11.93	21.81	-11.29
MWD-F3	11.23	18.11	-6.88	17.52	-6.29

Table 4
Planned Sampling Table
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Sample Info	Analyses			
Well ID	**VOCs**	**SVOCs**	**Aroclors and congeners**	**ACM (asbestos)**
Glassware	40mL VOA glass	1L Amber glass	2 - 1L Amber	2 - 1L Plastic
Method	8260B	8270D	8082A (include 1262 and 1268), 1668B	600-R-93-116
MW-F3R			X	
MW-F5	X	X		
MW-F7	X	X		
MW-F8				X
MW-F21	X	X		
MW-27	X	X		
MW-29	X	X		
MWD-30	X	X		

Table 5a
Groundwater Analytical Data, VOCs and SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Location ID				MW-27	MW-29	MWD-30	MW-F21	MW-F5	MW-F7
Sample Matrix		Type 1	Type 4	GW	GW	GW	GW	GW	GW
Sample Date		RRS	RRS	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014
Unit	CAS No.	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VOCs (8260B)									
1,1,1,2-Tetrachloroethane	630-20-6	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	71-55-6	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	79-00-5	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	75-34-3	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	75-35-4	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	107-06-2	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	78-87-5	5	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	78-93-3	2,300	12,000	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlor-1,3-Butadiene	126-99-8	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Methyl-1-propanol	78-83-1	10,000	31,000	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U
4-Methyl-2-Pentanone	108-10-1	2,000	4,200	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	67-64-1	9,000	46,000	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Acetonitrile	75-05-8	200	200	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U
Acrolein	107-02-8	700	700	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Acrylonitrile	107-13-1	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Allyl chloride	107-05-1	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	71-43-2	5	9	< 1.0 U	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U
Bromodichloromethane	75-27-4	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	75-25-2	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	74-83-9	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon Disulfide	75-15-0	4,000	4,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Carbon Tetrachloride	56-23-5	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CFC-11	75-69-4	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CFC-12	75-71-8	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	108-90-7	100	140	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorodibromomethane	124-48-1	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	75-00-3	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroform	67-66-3	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	74-87-3	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	10061-01-5	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	74-95-3	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichloromethane	75-09-2	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Ethyl Methacrylate	97-63-2	3,000	3,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	100-41-4	700	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Iodomethane	74-88-4	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Methyl Methacrylate	80-62-6	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl N-Butyl Ketone	591-78-6	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methylacrylonitrile	126-98-7	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Pentachloroethane	76-01-7	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Propane Nitrile	107-12-0	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Styrene (Monomer)	100-42-5	500	2,600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	127-18-4	--	--	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.3
Toluene	108-88-3	1,000	5,200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Total Xylenes	1330-20-7	10,000	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
trans-1,2-Dichloroethene	156-60-5	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,4-Dichlorobutene	110-57-6	2	1	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Trichloroethene	79-01-6	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl acetate	108-05-4	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Vinyl chloride	75-01-4	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

Table 5a
Groundwater Analytical Data, VOCs and SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Location ID				MW-27	MW-29	MWD-30	MW-F21	MW-F5	MW-F7
Sample Matrix		Type 1	Type 4	GW	GW	GW	GW	GW	GW
Sample Date		RRS	RRS	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014
Unit	CAS No.	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SVOCs (8270D)									
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,2,4-Trichlorobenzene	120-82-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,2-Dichlorobenzene	95-50-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,3,5-Trinitrobenzene	99-35-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,3-Dichlorobenzene	541-73-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,3-Dinitrobenzene	99-65-0	11	10	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,4-Dichlorobenzene	106-46-7	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1,4-Dioxane	123-91-1	70	70	< 2.0 U	< 2.0 U	< 2.1 U	11	< 1.9 U	< 2.0 U
1,4-Naphthoquinone	130-15-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
1-Naphthylamine	134-32-7	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
2,2-Oxybis(1-Chloropropane)	108-60-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,3,4,6-Tetrachlorophenol	58-90-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,4,5-Trichlorophenol	95-95-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,4,6-Trichlorophenol	88-06-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,4-Dichlorophenol	120-83-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,4-Dimethylphenol	105-67-9	700	2,000	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
2,4-Dinitrophenol	51-28-5	--	--	< 9.9 U	< 9.9 U	< 11 U	< 10 U	< 9.6 U	< 10 U
2,4-Dinitrotoluene	121-14-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,6-Dichlorophenol	87-65-0	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2,6-Dinitrotoluene	606-20-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2-Acetylaminofluorene	53-96-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2-Chloronaphthalene	91-58-7	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2-Chlorophenol	95-57-8	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2-Methyl-4,6-dinitrophenol	534-52-1	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
2-Methylnaphthalene	91-57-6	--	--	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
2-Methylphenol	95-48-7	780	5,100	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
2-Naphthylamine	91-59-8	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
2-Nitroaniline	88-74-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2-Nitrophenol	88-75-5	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
2-Picoline	109-06-8	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
3,3-Dichlorobenzidine	91-94-1	--	--	< 20 U	< 20 U	< 21 U	< 21 U	< 19 U	< 20 U
3,3-Dimethylbenzidine	119-93-7	--	--	< 20 U	< 20 U	< 21 U	< 21 U	< 19 U	< 20 U
3-Methylchloranthrene	56-49-5	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
3-Nitroaniline	99-09-2	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
4-Aminobiphenyl	92-67-1	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
4-Bromophenyl phenyl ether	101-55-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
4-Chloro-3-Methylphenol	59-50-7	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
4-Chlorophenyl phenyl ether	7005-72-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
4-Dimethylaminoazobenzene	60-11-7	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
4-Methylphenol	106-44-5	1,560	10,000	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
4-Nitroaniline	100-01-6	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
4-Nitrophenol	100-02-7	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
4-Nitroquinoline-N-Oxide	56-57-5	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
5-Nitro-o-Toluidine	99-55-8	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
7,12-Dimethylbenz(a)anthracene	57-97-6	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Acenaphthene	83-32-9	2,000	6,100	< 0.20 U	< 0.20 U	< 0.21 U	1.7	10	< 0.20 U
Acenaphthylene	208-96-8	100	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Acetophenone	98-86-2	4,000	10,000	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Aniline	62-53-3	110	500	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
Anthracene	120-12-7	4,700	31,000	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Aramite	140-57-8	--	--	< 1.5 U*	< 1.5 U*	< 1.6 U*	< 1.6 U*	< 1.4 U*	< 1.5 U*
Benzo(a)anthracene	56-55-3	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Benzo(a)pyrene	50-32-8	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Benzo(b)fluoranthene	205-99-2	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Benzo(g,h,i)perylene	191-24-2	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Benzo(k)fluoranthene	207-08-9	12	39	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Benzyl Alcohol	100-51-6	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
bis(2-Chloroethoxy)methane	111-91-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
bis(2-Chloroethyl)ether	111-44-4	0.03	--	< 0.99 U	< 0.99 U	< 1.1 U	**1.2****	< 0.96 U	< 1.0 U
bis(2-Ethylhexyl)phthalate	117-81-7	61	200	6.1	< 2.0 U	< 2.1 U	3.8	< 1.9 U	< 2.0 U

Table 5a
Groundwater Analytical Data, VOCs and SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Location ID				MW-27	MW-29	MWD-30	MW-F21	MW-F5	MW-F7
Sample Matrix		Type 1	Type 4	GW	GW	GW	GW	GW	GW
Sample Date		RRS	RRS	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014
Unit	CAS No.	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Butyl benzyl phthalate	85-68-7	3,129	15,061	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Chrysene	218-01-9	120	40	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Diallate	2303-16-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Dibenzo(a,h)anthracene	53-70-3	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Dibenzofuran	132-64-9	16	10	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Diethyl phthalate	84-66-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Dimethoate	60-51-5	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
Dimethyl phthalate	131-11-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Dimethylphenethylamine	122-09-8	--	--	< 9.9 U	< 9.9 U	< 11 U	< 10 U	< 9.6 U	< 10 U
Di-n-butyl phthalate	84-74-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Di-n-octyl phthalate	117-84-0	700	700	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Dinoseb	88-85-7	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
Disulfoton	298-04-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Ethyl Methanesulfonate	62-50-0	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
Famphur	52-85-7	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Fluoranthene	206-44-0	1,000	4,100	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Fluorene	86-73-7	1,000	4,100	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Hexachloro-1,3-butadiene	87-68-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Hexachlorobenzene	118-74-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Hexachlorocyclopentadiene	77-47-4	--	--	< 2.0 U*	< 2.0 U*	< 2.1 U*	< 2.1 U*	< 1.9 U*	< 2.0 U*
Hexachloroethane	67-72-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Hexachlorophene	70-30-4	--	--	< 490 U*	< 500 U*	< 530 U*	< 520 U*	< 480 U*	< 500 U*
Hexachloropropene	1888-71-7	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Indeno(1,2,3-cd)pyrene	193-39-5	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Isophorone	78-59-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Isosafrole	120-58-1	--	--	< 0.99 U*	< 0.99 U*	< 1.1 U*	< 1.0 U*	< 0.96 U*	< 1.0 U*
Methapyrilene	91-80-5	--	--	< 200 U	< 200 U	< 210 U	< 210 U	< 190 U	< 200 U
Methyl Methanesulfonate	66-27-3	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
Methyl Parathion	298-00-0	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Naphthalene	91-20-3	20	20	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Nitrobenzene	98-95-3	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
N-Nitrosodiethylamine	55-18-5	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
N-Nitrosodimethylamine	62-75-9	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
n-Nitrosodi-n-butylamine	924-16-3	10	10	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
n-Nitrosodi-n-propylamine	621-64-7	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
N-nitrosodiphenylamine	86-30-6	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
N-Nitrosomorpholine	59-89-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
N-Nitroso-N-methylethylamine	10595-95-6	10	10	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
N-Nitrosopiperidine	100-75-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
N-Nitrosopyrrolidine	930-55-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
o,o,o-Triethyl phosphorothioate	126-68-1	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
o,o-Diethyl o-pyrazinyl phosphorothioate	297-97-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
o-Toluidine	95-53-4	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Parathion	56-38-2	200	610	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
p-Chloroaniline	106-47-8	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.1 U	< 1.9 U	< 2.0 U
Pentachlorobenzene	608-93-5	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Pentachloronitrobenzene	82-68-8	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Pentachlorophenol	87-86-5	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
Phenacetin	62-44-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Phenanthrene	85-01-8	10	10	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Phenol	108-95-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	12	< 0.96 U	< 1.0 U
Phorate	298-02-2	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
p-Phenylenediamine	106-50-3	--	--	< 200 U	< 200 U	< 210 U	< 210 U	< 190 U	< 200 U
Propyzamide	23950-58-5	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U
Pyrene	129-00-0	1,000	3,100	< 0.20 U	< 0.20 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.20 U
Pyridine	110-86-1	--	--	< 4.9 U	< 5.0 U	< 5.3 U	< 5.2 U	< 4.8 U	< 5.0 U
Safrole	94-59-7	--	--	< 0.99 U*	< 0.99 U*	< 1.1 U*	< 1.0 U*	< 0.96 U*	< 1.0 U*
Sulfotep	3689-24-5	--	--	< 0.99 U	< 0.99 U	< 1.1 U	< 1.0 U	< 0.96 U	< 1.0 U

Notes
-- Not sampled/ No RRS
Bold values are above Type 1 RRS
Highlighted values are above Type 4 RRS
* LCS or LCSD exceeds the control limits
** No histroical hits of bis(2-chloroethyl)ether have been detected above the reporting limit of
CAS - Chemical Abstract Services
ug/L - micrograms per liter

Table 5b
Groundwater Analytical Data, PCBs and ACM
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Location ID				MW-F3R	MW-F8
Sample Matrix				GW	GW
Sample Date		**Type 1**	**Type 4**	5/22/2014	5/22/2014
Unit	**CAS No.**	**RRS (ug/L)**	**RRS (ug/L)**	ug/L	ug/L
Dioxin like PCBs (E1668C)					
PCB-105	32598-14-4			< 0.00002 U	--
PCB-114	74472-37-0			< 0.00002 U	--
PCB-118	31508-00-6			< 0.00002 U	--
PCB-123	65510-44-3			< 0.00002 U	--
PCB-126	57465-28-8			< 0.00002 U	--
PCB-156/157	38380-08-4			< 0.00004 UC	--
PCB-157	69782-90-7			< 0.00004 UC156	--
PCB-167	52663-72-6			< 0.00002 U	--
PCB-169	32774-16-6			< 0.00002 U	--
PCB-189	39635-31-9			< 0.00002 U	--
PCB-77	32598-13-3			< 0.00002 U	--
PCB-81	70362-50-4			< 0.00002 U	--
Polychlorinated biphenyls	1336-36-3	0.5	1.4	< 0.002 U	--
Aroclor mixtures (8082A)					
Aroclor 1016	12674-11-2			< 1.0 U	--
Aroclor 1221	11104-28-2			< 2.0 U	--
Aroclor 1232	11141-16-5			< 1.0 U	--
Aroclor 1242	53469-21-9			< 1.0 U	--
Aroclor 1248	12672-29-6			< 1.0 U	--
Aroclor 1254	11097-69-1	0.5	1.4	< 1.0 U	--
Aroclor 1260	11096-82-5	0.5	1.4	< 1.0 U	--
Aroclor 1262	37324-23-5			< 1.0 U	--
Aroclor 1268	11100-14-4			< 1.0 U	--
ACM (100.2)					
Asbestos*	1332-21-4	7000	7000	--	<0.19

Notes
-- Not sampled/ No RRS
Bold values are above Type 1 RRS
Highlighted values are above Type 4 RRS
CAS - Chemical Abstract Services
ug/L - micrograms per liter
* Asbestos soil standards are reported in % and groundwater standards are reported in millions of fibers per liter.

Figures

LEGEND

HSI 10696 Site Boundary

PROJECTION: NAD83 State Plane Georgia East Feet

SOURCES:
1) ESRI Online Services (USA Topo Maps).
2) Parcels: SAGIS (2008).

REFERENCE:
U.S.G.S. 7.5 Minute Series Topographic Quadrangles:
Garden City, Georgia 1981,
Savannah, Georgia 1979.
CONTOUR INTERVAL: 20 foot.

0 1,500 3,000

SCALE IN FEET

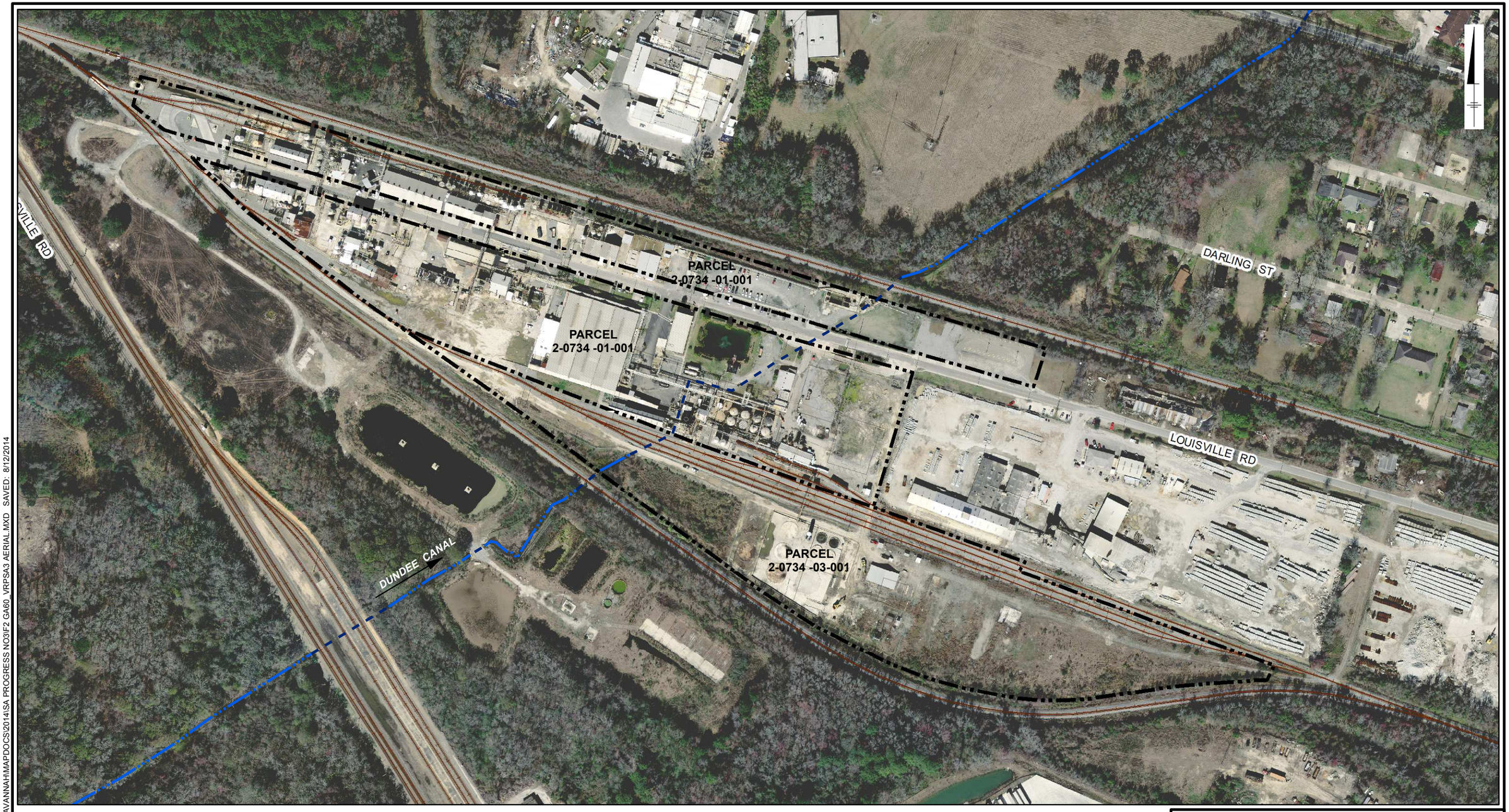
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Site Location Map

ARCADIS

FIGURE
1

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F1 GA60_VRPSA3 REG.MXD SAVED: 8/12/2014



BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

LEGEND

- HSI 10696 Site Boundary
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 240 480
SCALE IN FEET

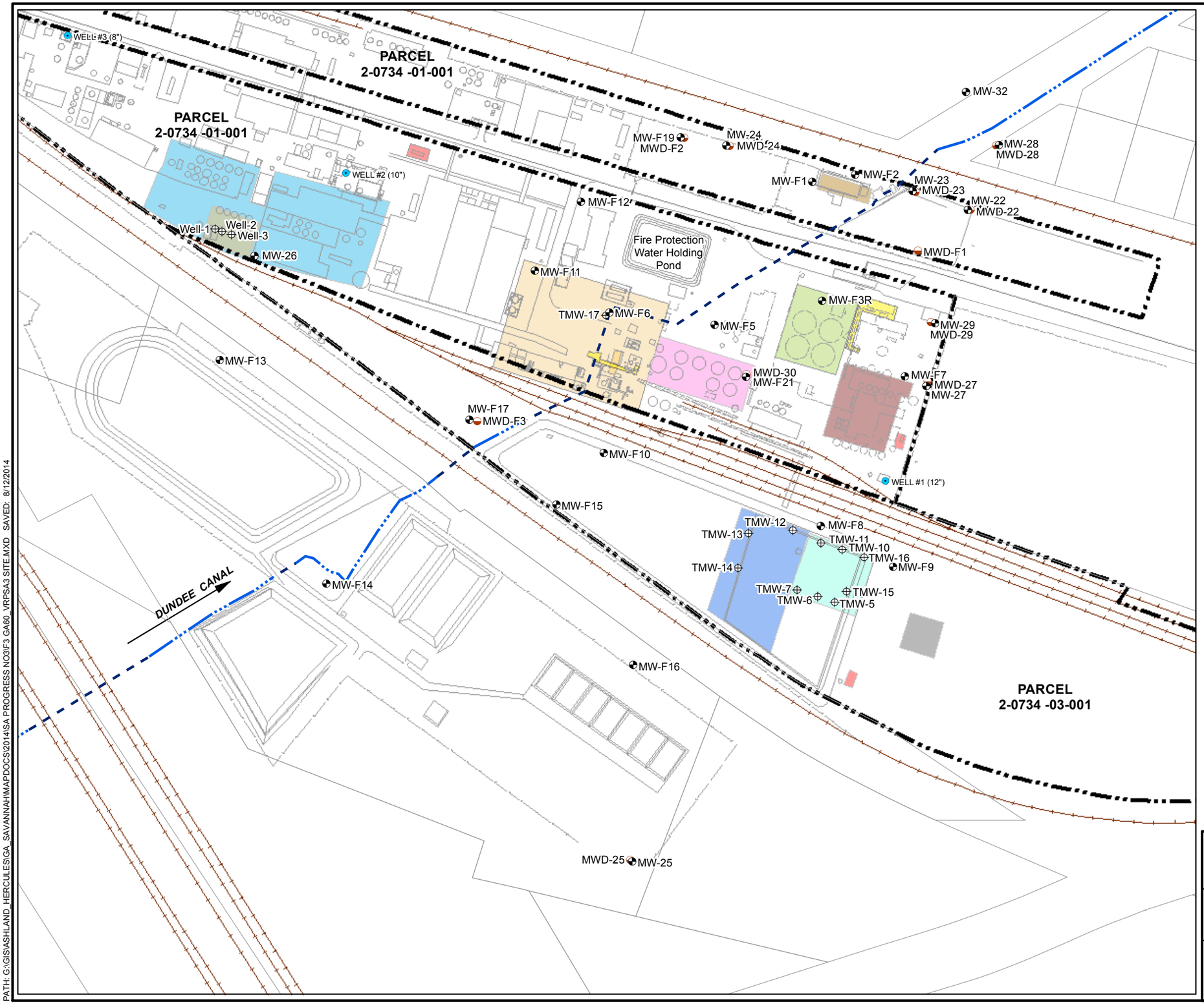
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Site Layout – Aerial View

ARCADIS

FIGURE
2

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F2 GA60_VRPSA3 AERIAL.MXD SAVED: 8/12/2014



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (deep)
- Temporary Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 160 320

SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

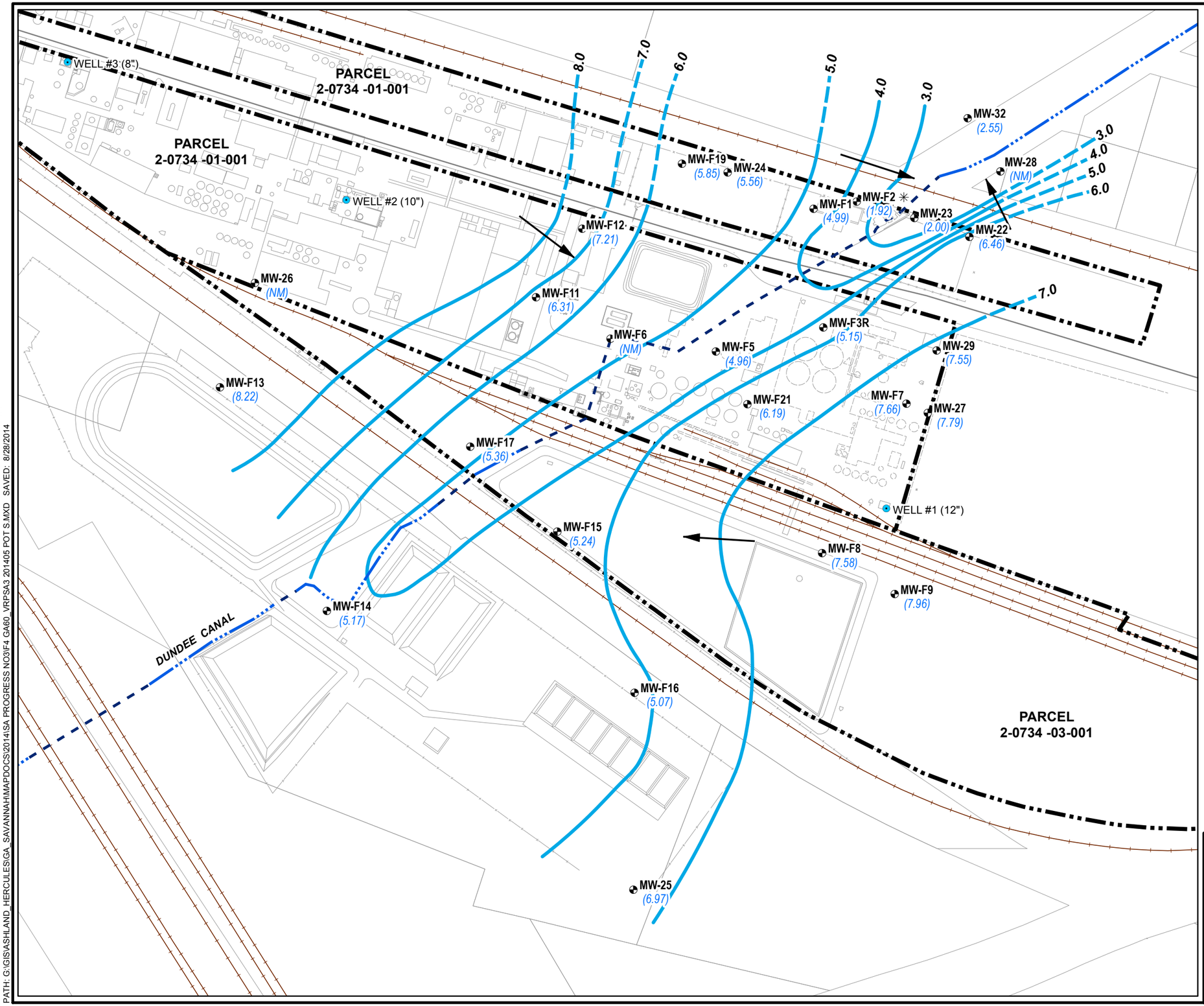
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Site Map

ARCADIS

FIGURE
3

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F3 GA60_VRPSA3 SITE.MXD SAVED: 8/12/2014



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Production Well
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Groundwater Contour Line (ft amsl)
- (inferred where dashed)
- Groundwater Flow Direction
- (6.84) Groundwater Elevation (ft amsl) Measured May 22, 2014
- ✳ Not Used to Construct Contours

0 160 320

SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

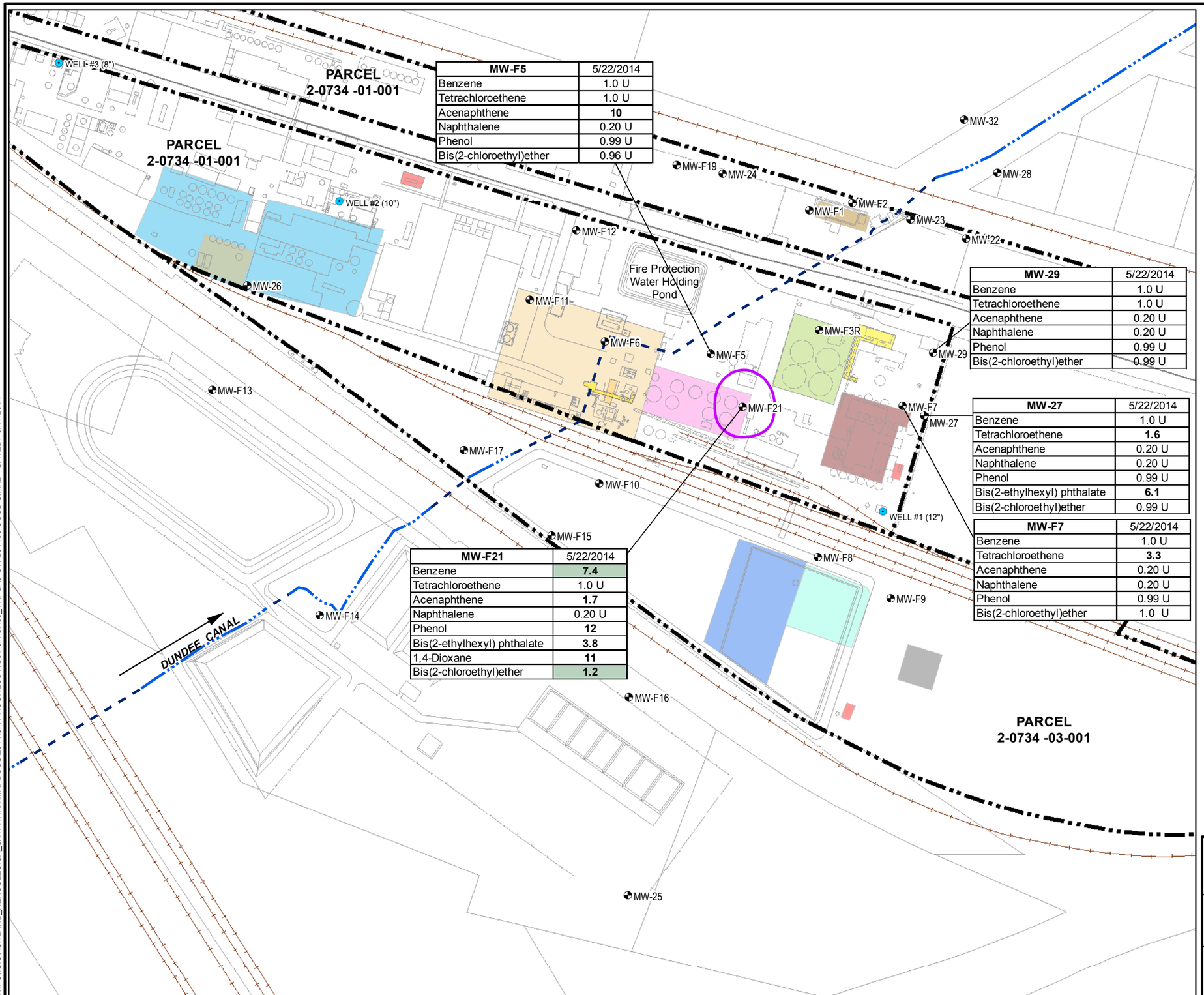
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Shallow Potentiometric Surface Map
May 22, 2014

ARCADIS

FIGURE
4

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F4 GA60_VRPSA3 201405 POT S.MXD SAVED: 8/28/2014



MW-F5	5/22/2014
Benzene	1.0 U
Tetrachloroethene	1.0 U
Acenaphthene	**10**
Naphthalene	0.20 U
Phenol	0.99 U
Bis(2-chloroethyl)ether	0.96 U

MW-29	5/22/2014
Benzene	1.0 U
Tetrachloroethene	1.0 U
Acenaphthene	0.20 U
Naphthalene	0.20 U
Phenol	0.99 U
Bis(2-chloroethyl)ether	0.99 U

MW-27	5/22/2014
Benzene	1.0 U
Tetrachloroethene	**1.6**
Acenaphthene	0.20 U
Naphthalene	0.20 U
Phenol	0.99 U
Bis(2-ethylhexyl) phthalate	**6.1**
Bis(2-chloroethyl)ether	0.99 U

MW-F7	5/22/2014
Benzene	1.0 U
Tetrachloroethene	**3.3**
Acenaphthene	0.20 U
Naphthalene	0.20 U
Phenol	0.99 U
Bis(2-chloroethyl)ether	1.0 U

MW-F21	5/22/2014
Benzene	**7.4**
Tetrachloroethene	1.0 U
Acenaphthene	**1.7**
Naphthalene	0.20 U
Phenol	**12**
Bis(2-ethylhexyl) phthalate	**3.8**
1,4-Dioxane	**11**
Bis(2-chloroethyl)ether	**1.2**

LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Type 1/Type 4 RRS Isocontour

Constituent	Type 1 RRS	Type 4 RRS
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Tetrachloroethene	5	98
Semi-Volatile Organic Compounds (SVOCs)		
Acenaphthene	2000	6100
Naphthalene	20	20
Phenol	--	--
Bis(2-ethylhexyl) phthalate	61	200
1,4-Dioxane	70	70
Bis(2-chloroethyl)ether	0.03	--

NOTES:
1) Analytical results represent data from May 22, 2014, sampling event.
2) All concentrations reported in micrograms per liter (µg/L).
3) **BOLD** -Concentration exceeds Type I RRS.

U - Indicates the analyte was analyzed for but not detected.

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

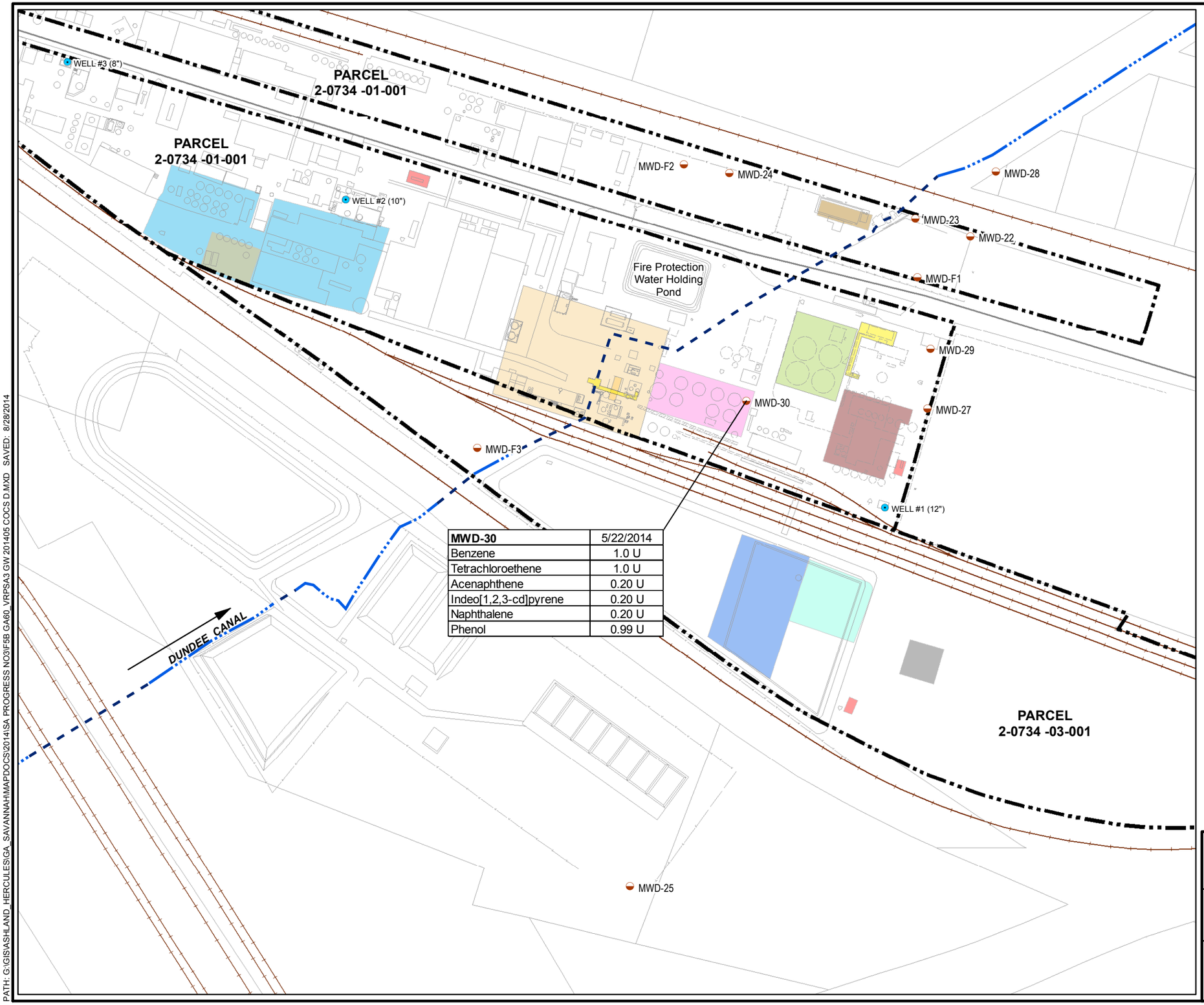
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Constituents of Concern in Groundwater (Shallow Aquifer), May 2014

ARCADIS

FIGURE
5a

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: CCSMITH PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F5A GA60_VRPSA3 GW 201405 COCS S.MXD SAVED: 9/11/2014



MWD-30	5/22/2014
Benzene	1.0 U
Tetrachloroethene	1.0 U
Acenaphthene	0.20 U
Indeo[1,2,3-cd]pyrene	0.20 U
Naphthalene	0.20 U
Phenol	0.99 U

LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (deep)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

Constituent	Type 1 RRS	Type 4 RRS
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Tetrachloroethene	5	98
Semi-Volatile Organic Compounds (SVOCs)		
Acenaphthene	2000	6100
Indeo[1,2,3-cd]pyrene	10	10
Naphthalene	20	20
Phenol	--	--
Bis(2-ethylhexyl) phthalate	61	200
1,4-Dioxane	70	70
Bis(2-chloroethyl)ether	0.03	--

NOTES:
1) Analytical results represent data from May 22, 2014, sampling event.
2) All concentrations reported in micrograms per liter (µg/L).

U - Indicates the analyte was analyzed for but not detected.

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

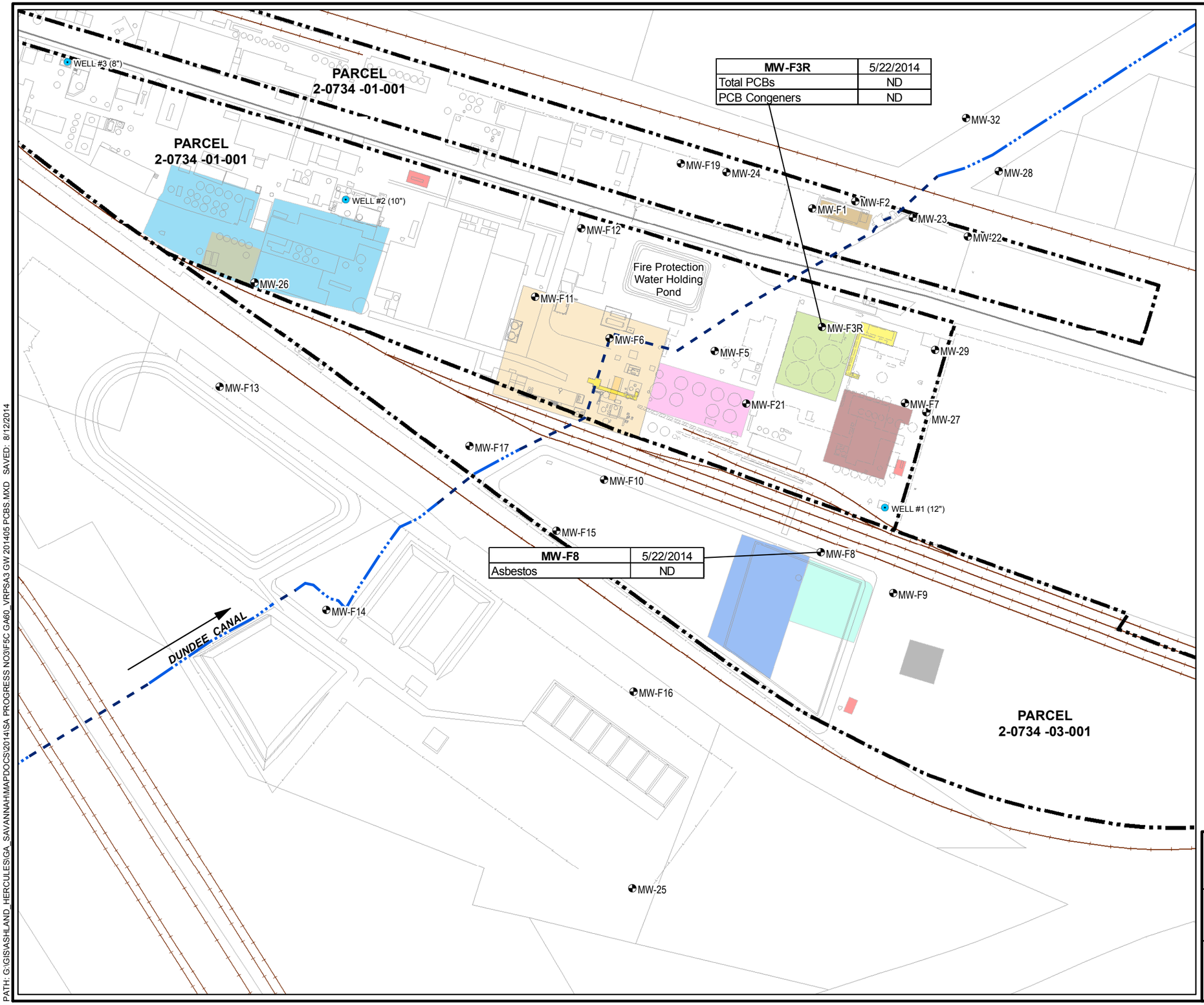
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Constituents of Concern in Groundwater (Deep Aquifer), May 2014

ARCADIS

FIGURE
5b

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F5B GA60_VRPSA3 GW 201405 COCS D.MXD SAVED: 8/28/2014



MW-F3R	5/22/2014
Total PCBs	ND
PCB Congeners	ND

MW-F8	5/22/2014
Asbestos	ND

LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

NOTES:
1) Analytical results represent PCBs and Asbestos data from May 22, 2014, sampling event.

ND - Indicates the analyte was analyzed for but not detected.

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

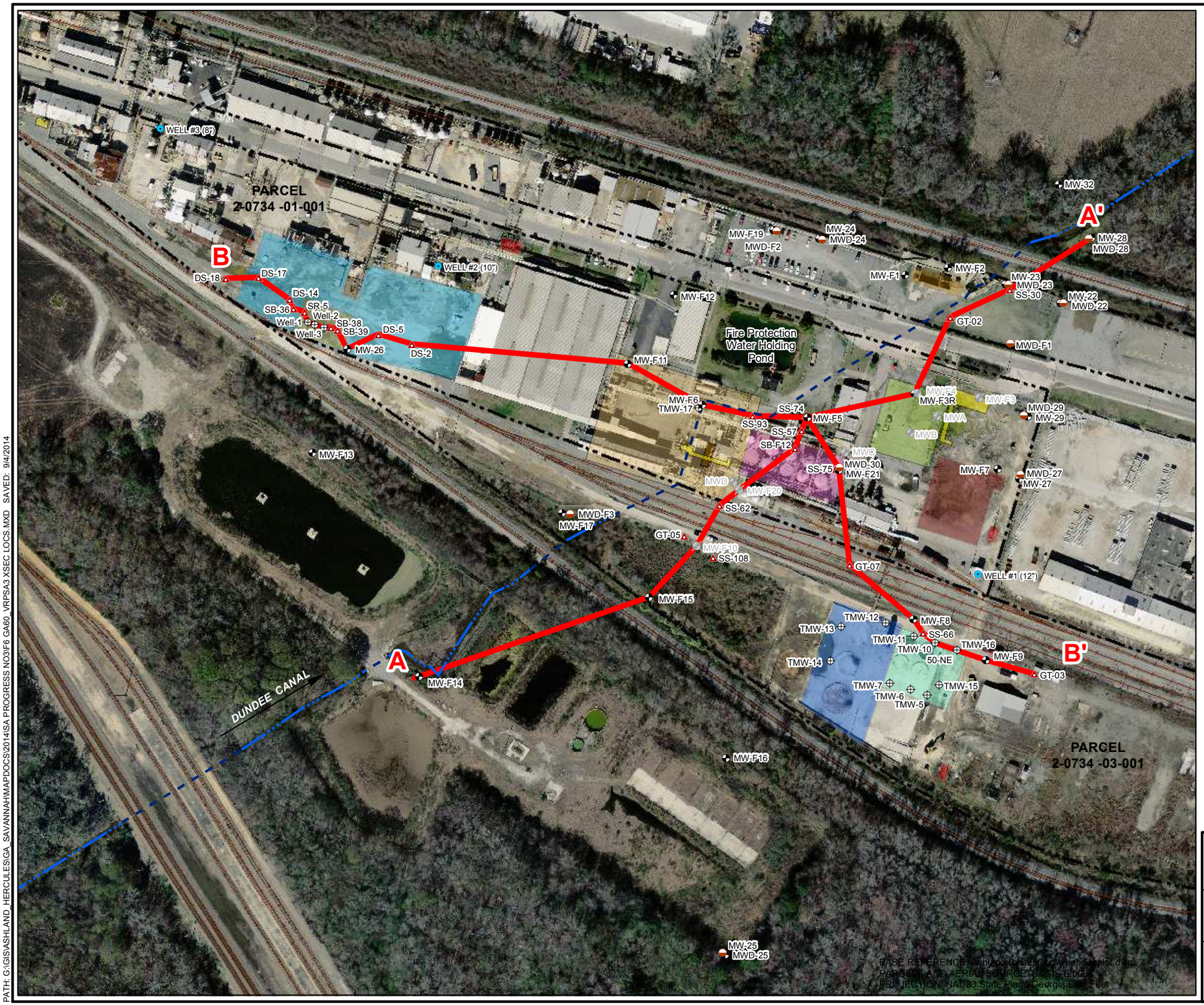
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

PCBs and Asbestos in Groundwater (Shallow Aquifer), May 2014

ARCADIS

FIGURE
5c

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F5C GA60_VRPSA3 GW 201405 PCBS.MXD SAVED: 8/12/2014



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Temporary Monitoring Well (shallow)
- Monitoring Well (deep)
- Monitoring Well (abandoned)
- Production Well
- Soil Sample (1998-2008)
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS AND AERIAL SOURCE: SAGIS (2008).
PROJECTION: NAD_1983_StatePlane_Georgia_East_FIPS_1001_Feet

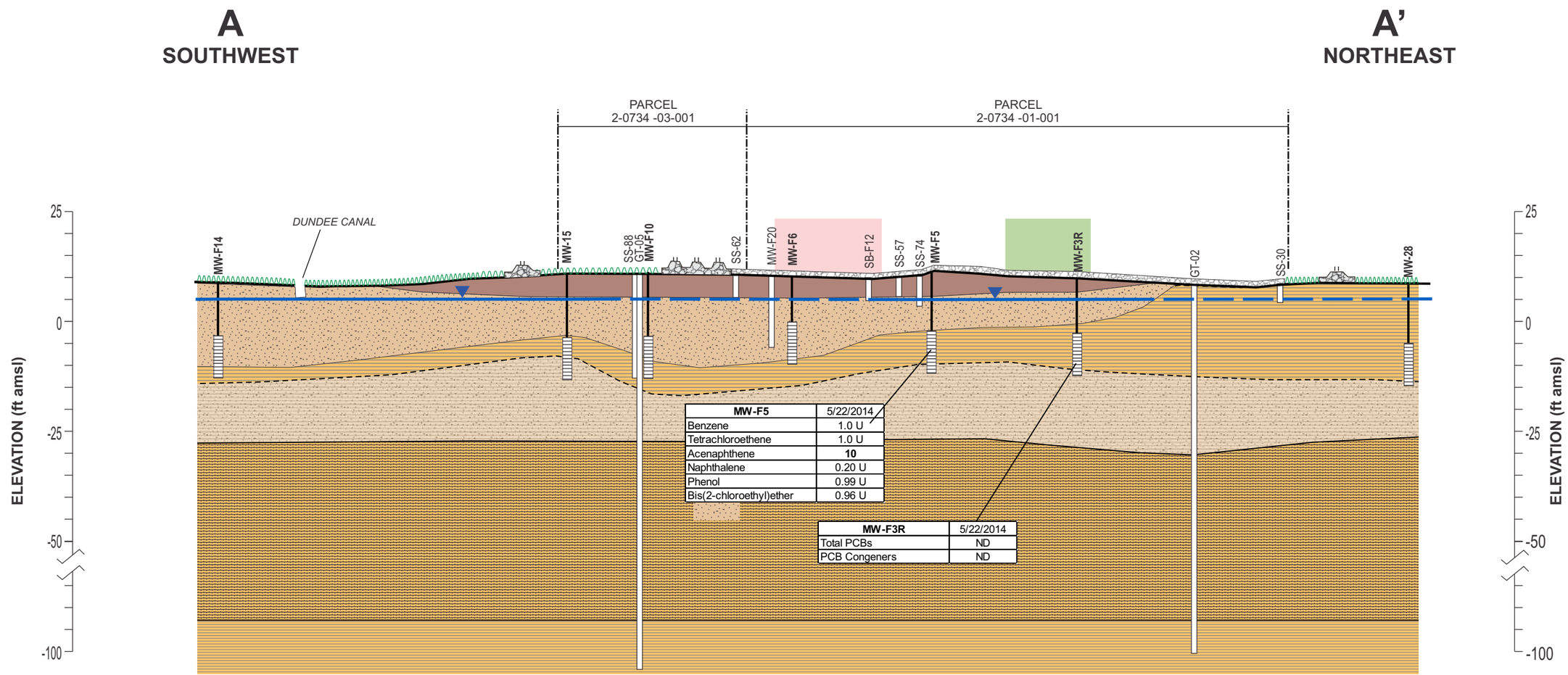
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Geologic Cross-Section Locations

ARCADIS

FIGURE
6

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F6 GA60_VRPSA3 XSEC LOCS.MXD SAVED: 9/4/2014



LEGEND

- Water-Table (May 2014) (inferred where dashed)
- Soil Boring
- Monitoring Well Screened Interval
- Railroad Easement
- Concrete/Asphalt
- Grass
- FILL MATERIAL, gravel, silty, sandy
- SAND, fine-grained, silty, clayey
- CLAY, high-plasticity (inferred where dashed)
- SAND, clayey, silty; with shell fragments (inferred where dashed)
- SILT, sandy (inferred where dashed)
- AQUITARD
- ASTs 30's
- Former CTO Tank Area (Tall Oil Release)

NOTES:
1) Analytical results represent data from May 22, 2014, sampling event.
2) All concentrations reported in micrograms per liter (µg/L).

U - Indicates the analyte was analyzed for but not detected.

Constituent	Type 1 RRS	Type 4 RRS
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Tetrachloroethene	5	98
Semi-Volatile Organic Compounds (SVOCs)		
Acenaphthene	2000	6100
Naphthalene	20	20
Phenol	--	--
Bis(2-ethylhexyl) phthalate	61	200
1,4-Dioxane	70	70
Bis(2-chloroethyl)ether	0.03	--

0 125' 250'
HORIZONTAL SCALE

VERTICAL EXAGGERATION: 5X

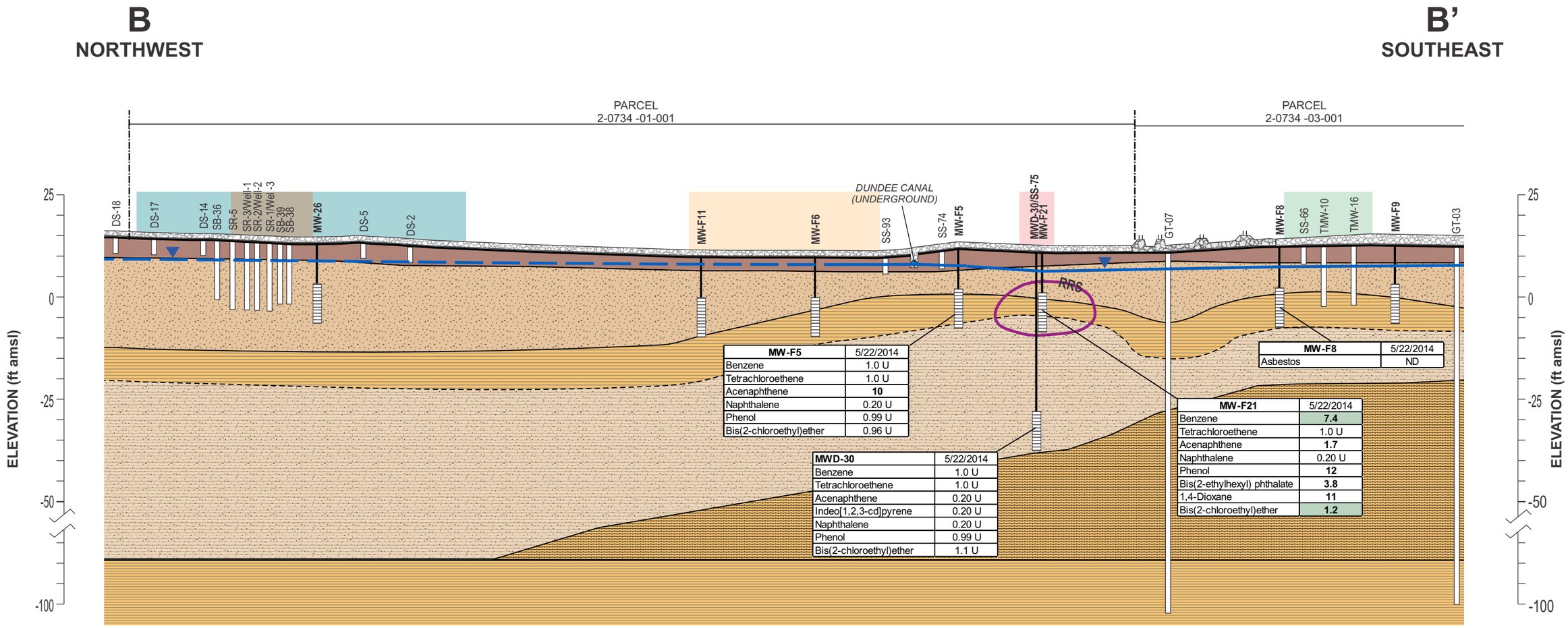
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Distribution of Select Constituents along Geologic Cross-Section A-A'

ARCADIS

FIGURE
7

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM
PROJECT: OH007000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F8 GA60_VRPSA3 XSEC BB.cdr SAVED: 9/11/2014



MW-F5	5/22/2014
Benzene	1.0 U
Tetrachloroethene	1.0 U
Acenaphthene	**10**
Naphthalene	0.20 U
Phenol	0.99 U
Bis(2-chloroethyl)ether	0.96 U

MWD-30	5/22/2014
Benzene	1.0 U
Tetrachloroethene	1.0 U
Acenaphthene	0.20 U
Indeo[1,2,3-cd]pyrene	0.20 U
Naphthalene	0.20 U
Phenol	0.99 U
Bis(2-chloroethyl)ether	1.1 U

MW-F8	5/22/2014
Asbestos	ND

MW-F21	5/22/2014
Benzene	**7.4**
Tetrachloroethene	1.0 U
Acenaphthene	**1.7**
Naphthalene	0.20 U
Phenol	**12**
Bis(2-ethylhexyl) phthalate	**3.8**
1,4-Dioxane	**11**
Bis(2-chloroethyl)ether	**1.2**

LEGEND

- Water-Table (May 2014) (inferred where dashed)
- Soil Boring
- Monitoring Well Screened Interval
- Railroad Easement
- Concrete/Asphalt
- Grass
- 7.4 — Concentrations Exceed Type 1 Risk Reduction Standards (RRS)
- Concentrations Exceed Type 1 (RRS)
- FILL MATERIAL, gravel, silty, sandy
- SAND, fine-grained, silty, clayey
- CLAY, high-plasticity (inferred where dashed)
- SAND, clayey, silty; with shell fragments (inferred where dashed)
- SILT, sandy (inferred where dashed)
- AQUITARD
- Former Dry Size Area
- Tank Area
- Hard Resins Area
- ASTs 30's
- Former Fatty Acids ASTs 50's

NOTES:
1) Analytical results represent data from May 22, 2014, sampling event.
2) All concentrations reported in micrograms per liter (µg/L).

U - Indicates the analyte was analyzed for but not detected.

Constituent	Type 1 RRS	Type 4 RRS
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Tetrachloroethene	5	98
Semi-Volatile Organic Compounds (SVOCs)		
Acenaphthene	2000	6100
Naphthalene	20	20
Phenol	--	--
Bis(2-ethylhexyl) phthalate	61	200
1,4-Dioxane	70	70
Bis(2-chloroethyl)ether	0.03	--

0 125' 250'
HORIZONTAL SCALE
VERTICAL EXAGGERATION: 5X

HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #3

Distribution of Select Constituents along Geologic Cross-Section B-B'

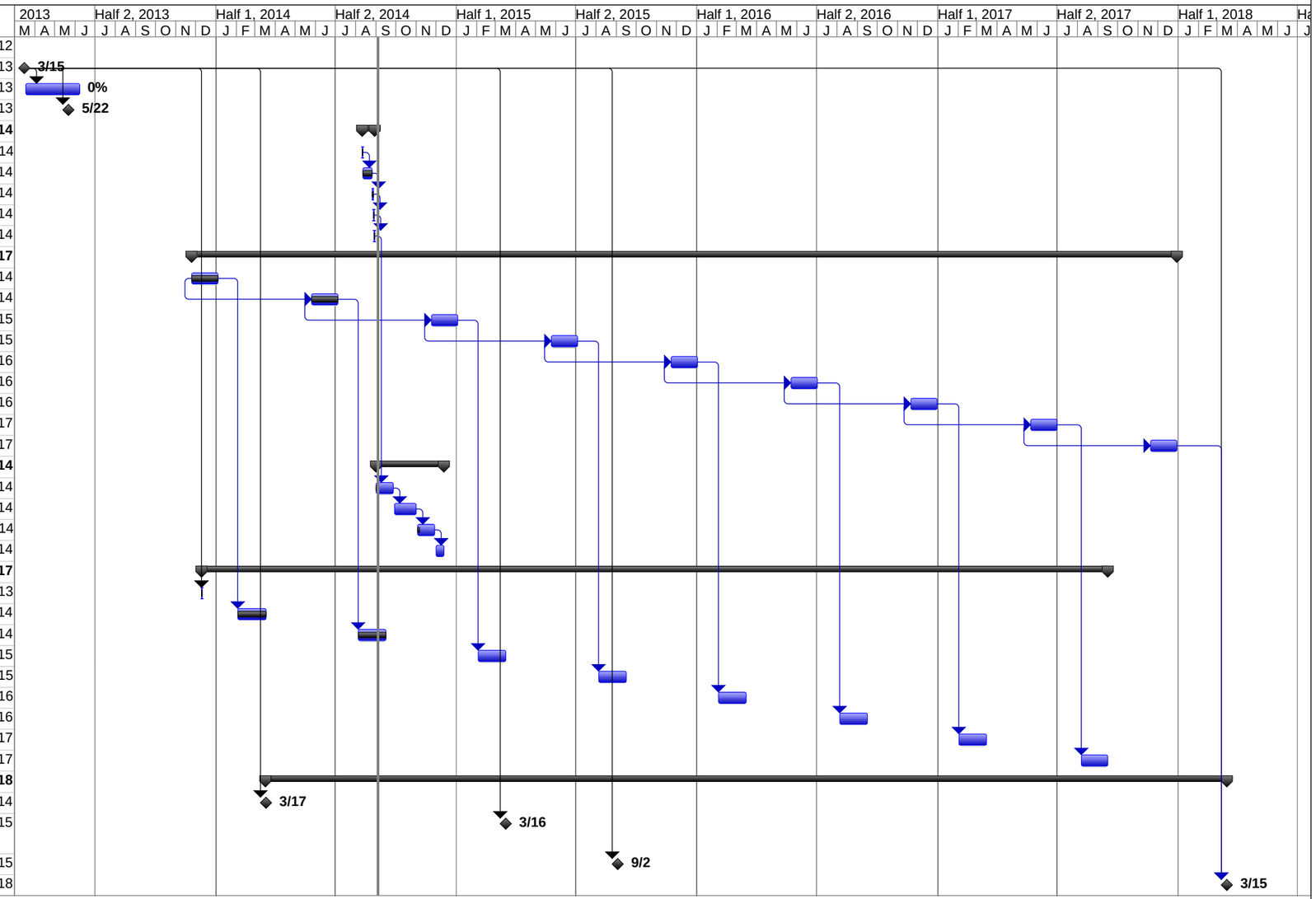
ARCADIS

FIGURE
8

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM
PROJECT: OH007000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\SA PROGRESS NO3\F8 GA60_VRPSA3 XSEC BB.cdr SAVED: 9/11/2014

Figure 9
Hercules Incorporated
3000 Louisville Road, Savannah, Georgia
Updated Voluntary Remediation Program Milestone Schedule

ID		Task Name	Duration	Start	Finish
1	✓	Submit VRP Application	1 day	Mon 4/9/12	Mon 4/9/12
2	✓	EPD Approval of VRP Application	1 day	Fri 3/15/13	Fri 3/15/13
3		Prepare Investigation Work Plan	60 days	Mon 3/18/13	Fri 6/7/13
4	✓	Record deed notice	0 days	Wed 5/22/13	Wed 5/22/13
5	✓	**Field Activities**	**15 days**	**Mon 8/11/14**	**Fri 8/29/14**
6	✓	Mobilize for data collection	1 day	Mon 8/11/14	Mon 8/11/14
7	✓	Confirmatory soil sampling	10 days	Tue 8/12/14	Mon 8/25/14
8	✓	Slug testing	2 days	Tue 8/26/14	Wed 8/27/14
9	✓	Well gauging	1 day	Thu 8/28/14	Thu 8/28/14
10	✓	Surface water/ sediment sampling	1 day	Fri 8/29/14	Fri 8/29/14
11		**Semiannual groundwater sampling**	**1070 days**	**Mon 11/25/13**	**Fri 12/29/17**
12	✓	Sampling and analysis event	30 days	Mon 11/25/13	Fri 1/3/14
13	✓	Sampling and analysis event	30 days	Mon 5/26/14	Fri 7/4/14
14		Sampling and analysis event	30 days	Mon 11/24/14	Fri 1/2/15
15		Sampling and analysis event	30 days	Mon 5/25/15	Fri 7/3/15
16		Sampling and analysis event	30 days	Mon 11/23/15	Fri 1/1/16
17		Sampling and analysis event	30 days	Mon 5/23/16	Fri 7/1/16
18		Sampling and analysis event	30 days	Mon 11/21/16	Fri 12/30/16
19		Sampling and analysis event	30 days	Mon 5/22/17	Fri 6/30/17
20		Sampling and analysis event	30 days	Mon 11/20/17	Fri 12/29/17
21		**Data analysis**	**75 days**	**Mon 9/1/14**	**Fri 12/12/14**
22		Delineation assessment	20 days	Mon 9/1/14	Fri 9/26/14
23		Human health risk assessment	25 days	Mon 9/29/14	Fri 10/31/14
24		Ecological risk assessment	20 days	Mon 11/3/14	Fri 11/28/14
25		CSM update	10 days	Mon 12/1/14	Fri 12/12/14
26		**Reporting**	**984 days**	**Tue 12/10/13**	**Fri 9/15/17**
27	✓	Semiannual Progress Update #1	1 day	Tue 12/10/13	Tue 12/10/13
28	✓	Semiannual Progress Report #2	31 days	Mon 2/3/14	Mon 3/17/14
29	✓	Semiannual Progress Report #3	30 days	Tue 8/5/14	Mon 9/15/14
30		Semiannual Progress Report #4	30 days	Tue 2/3/15	Mon 3/16/15
31		Semiannual Progress Report #5	30 days	Wed 8/5/15	Tue 9/15/15
32		Semiannual Progress Report #6	30 days	Wed 2/3/16	Tue 3/15/16
33		Semiannual Progress Report #7	30 days	Fri 8/5/16	Thu 9/15/16
34		Semiannual Progress Report #8	30 days	Thu 2/2/17	Wed 3/15/17
35		Semiannual Progress Report #9	30 days	Mon 8/7/17	Fri 9/15/17
36		**Required Performance Milestones**	**1044 days**	**Mon 3/17/14**	**Thu 3/15/18**
37	✓	Horizontal delineation complete (onsite)	1 day	Mon 3/17/14	Mon 3/17/14
38		Horizontal delineation complete (off-site)	1 day	Mon 3/16/15	Mon 3/16/15
39		Submit updated CSM	1 day	Wed 9/2/15	Wed 9/2/15
40		CSR submittal	1 day	Thu 3/15/18	Thu 3/15/18



Project: 2014_09_04_Savannah Herc
Date: Thu 9/4/14

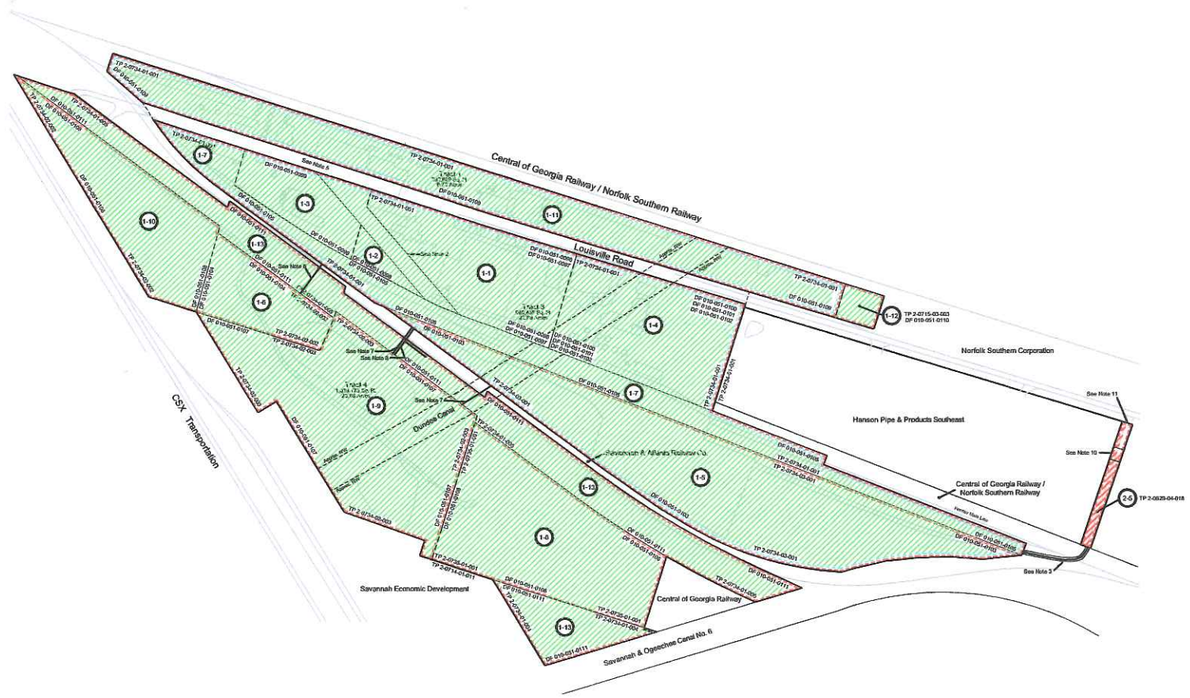
Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

Appendix A

Tax Parcel Map

HERCULES INCORPORATED

3000 LOUISVILLE ROAD, SAVANNAH, CHATHAM COUNTY, GEORGIA



Parcels Currently Owned by Hercules Incorporated
Approximately 53.27 Acres

Parcel	Deed File	Grantor	Deed Source	Area	Comments
1-1	010-051-0096	Western Paper Makers Chemical	Deed Book 31-Z, Folio 193	3.49 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
	010-051-0097	Paper Makers Chemical Corp.	Deed Book 31-X, Folio 353		A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-2	010-051-0098	Paper Makers Chemical Corp.	Deed Book 31-Y, Folio 032	0.33 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-3	010-051-0099	Paper Makers Chemical Corp.	Deed Book 31-X, Folio 354	1.42 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-4	010-051-0100	James R. Sheldon, Executor	Deed Book 41-X, Folio 197	4.08 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
	010-051-0101	Emma W. Morellas	Deed Book 41-Y, Folio 086		
	010-051-0102	James R. Sheldon	Deed Book 41-X, Folio 214		
1-5	* 010-051-0103	Savannah & Atlanta Railway Co.	Deed Book 65-Q, Folio 441	8.47 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-6	010-051-0104	R.F. Simmons	Deed Book 66-B, Folio 355	1.73 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-7	010-051-0105	Savannah & Atlanta Railway Co.	Deed Book 97-D, Folio 645	4.22 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-8	010-051-0106	Sidney L. Raskin, et,al	Deed Book 99-A, Folio 253	5.33 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-9	010-051-0107	Jack W. Shearouse	Deed Book 99-O, Folio 017	7.02 Acres	A part of Parcel 1 as shown on the Boundary and Site Survey for the Bank of America of
1-10	010-051-0108	Jewel Tuten Hoggan	Deed Book 118-Y, Folio 842	3.31 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-11	010-051-0109	Central of Georgia Railroad Co.	Deed Book 121-C, Folio 218	6.41 Acres	A part of Tract 1 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-12	010-051-0110	Central of Georgia Railroad Co.	Deed Book 126-T, Folio 474	0.31 Acres	A part of Tract 1 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-13	010-051-0111	CSX Transportation Inc.	Deed Book 135-B, Folio 113	5.21 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
	010-051-0111			1.26 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
N/A				0.68 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
Total				53.27 Acres	

Parcels Formerly Owned by Hercules Incorporated

Parcel	Deed File	Grantor	Deed Source	Area	Comments
2-5	*010-051-0103	Savannah & Atlanta Railway Co.	Deed Book 65-Q, Folio 441	0.31 Acres	Acreage shown is calculated from the deed plot.

Tax Parcel Summary

Parcel	Tax Parcel	Deed Reference	Assessor Area	Survey/Calc. Area	Comments
1-1	2-0734-01-001	All of Deed Book 31-Z, Folio 193	14.43 Acres	3.49 Acres	
		All of Deed Book 31-X, Folio 353			
1-2		All of Deed Book 31-Y, Folio 032		0.33 Acres	
1-3		All of Deed Book 31-X, Folio 354		1.42 Acres	
1-4		All of Deed Book 41-X, Folio 197		4.08 Acres	
		All of Deed Book 41-Y, Folio 086			
		All of Deed Book 41-X, Folio 214			
1-7		All of Deed Book 97-D, Folio 645		4.22 Acres	
1-11		All of Deed Book 121-C, Folio 218		6.41 Acres	
N/A		N/A		0.68 Acres	
1-5	2-0734-03-001	Part of Deed Book 65-Q, Folio 441	7.86 Acres	8.47 Acres	
1-6	2-0734-02-002	All of Deed Book 66-B, Folio 355	6.24 Acres	1.73 Acres	
1-10		All of Deed Book 118-Y, Folio 842		3.31 Acres	
1-8	2-0735-01-001	All of Deed Book 99-A, Folio 253	7.85 Acres	5.33 Acres	
1-9	2-0734-02-003	All of Deed Book 99-O, Folio 017	7.19 Acres	7.02 Acres	
1-12	2-0715-03-003	All of Deed Book 126-T, Folio 474	0.31 Acres	0.31 Acres	
1-13	2-0734-01-004	Part of Deed Book 135-B, Folio 113	1.08 Acres	1.26 Acres	
1-13	2-0734-01-005	Part of Deed Book 135-B, Folio 113	8.11 Acres	5.21 Acres	
Total			53.07 Acres	53.27 Acres	

Notes

1. Property lines shown are take from survey plats by Conner and Associates dated March 16, 2001.
2. A deed of correction by and between Charles Lamas to Western Paper Makers Chemical dated August 1, 1922 of record in Deed Book 17-K, Page 249 states "This error in description was due to the fact that the surveyor did not show the right-of way of the Midland Railroad which crosses Patterson's four acres in a curve near the northwestern boundary. This was due to the fact that the Midland Railroad has been abandoned and its tracks taken up. All of this right-of-way we understand is now under fence by the Paper Makers Chemical Corporation."
3. On October 7, 1976, the Central of Georgia Railroad Company granted unto Hercules, Incorporated, a license to construct, maintain and use as a private access road upon and along, and across at grade, the right-of-way or property of the Railroad. Please note Item 4 of this agreement states "This license is a personal privilege to Licensee hereunder, and shall not be transferred or assigned without the written consent of Railroad."
4. All of Tract 1 with the exception of Parcel 1-12, and all of Tract 3 are subject to an Affidavit Pursuant to the Voluntary Remediation Program Act - Officer's Affidavit, Hercules Incorporated dated May 1, 2013.
5. On March 11, 1966, the Board of County Commissioners granted to Hercules Powder Company a perpetual right-of-way and easement to construct and maintain a sanitary sewer, storm sewer and industrial sewer over and along this portion of Louisville Road. This record is found in Minute Book A-7.
6. Approximate location of a pipe bridge and gravel walkway crossing as shown on the Hercules Facilities map dated September 28, 1982 and referenced as an agreement acquired on June 8, 1959 from the Savannah and Atlanta Railway Company.
7. Approximate location of a pipe crossing as shown on the Hercules Facilities map dated September 28, 1982 and referenced as an agreement acquired on February 14, 1972 from the Seaboard Coast Line Railroad and Central of Georgia Railway Company.
8. Approximate location of a wire crossing as shown on the Hercules Facilities map dated September 28, 1982 and referenced as an agreement acquired on March 19, 1973 from the Central of Georgia Railway Company.
9. The Dundee Canal is shown in its approximate location based on surveys by Conner and Associates dated Match 16, 2001 for Hercules Incorporated and a survey by Kern-Coleman & Company dated May 29, 2008 for the Seaboard System Railroad.
10. 40 Ft. Access Easement per agreement dated November 24, 1998 by and between Hercules Incorporated and Sherman International Corp. as shown on attached plat by Barrett Land Surveying, Inc., dated November 18, 1997
11. See letter agreement dated May 23, 1967 by and between Hercules Incorporated and Ken-Block Company granting permission to maintain a fence over and across the property of Hercules Incorporated.

Legend

- Property currently owned by Hercules Incorporated
- Boundary line per deed record.
- Surveyed tract boundary line.
- Tax Parcel Boundary.
- Area subject to Voluntary Remediation Program Act.
- TP — Tax Parcel Number.
- DF — Ashland Inc. Deed File Reference.

Graphic Scale

0 200 400 800

Scale: 1 inch = 200 feet

Parcel Map

Revised	
Date	By
Mar. 5, 2014	BCP

Site: Hercules Incorporated
3000 Louisville Road
Savannah, GA 31410

ASHLAND — Ashland Inc. Corporate Real Estate Lexington, Kentucky

Drawn: Sep. 17, 2013	By: Barry Peters	Revised: As Shown	
Master File No.: MF-GA-H	Scale: 1 Inch = 200 Feet	Drawing No.: SAVANNAHBASE	

Appendix B

Purging and Sampling Logs

GROUNDWATER SAMPLING LOG

SITE NAME Ashland Hercules Savannah	SITE LOCATION Savannah, GA
WELL ID MW-77 (05 2214)	DATE 5-22-14

PURGING DATA

WELL DIAMETER (inches) 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet) 2.42	PURGE PUMP TYPE OR BAILER: Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
0913	0	0	0.1	2.50	4.65	22.54	256	2.34	51.9	243.9
0950	0.75	0.75	0.1	2.51	4.60	22.25	255	0.93	19.4	274.7
0953	0.3	1.05	0.1	2.51	4.60	22.75	255	0.90	9.8	281.6
0956	0.3	1.35	0.1	2.51	4.59	22.25	255	0.95	6.51	284.8
0959	0.3	1.65	0.1	2.52	4.58	22.33	255	1.02	4.99	288.7

TUBING INSIDE DIA. CAPACITY (Liters/Ft.) 1/8" = 0.0024, 3/16" = 0.0054, 1/4" = 0.0097, 5/16" = 0.0151, 3/8" = 0.0217, 1/2" = 0.0386, 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURES	SAMPLING TIME
Andy Fitzner / Antea Group	Andy Fitzner	1000
FIELD DECONTAMINATION Y N	FIELD-FILTERED Y (N) FILTER SIZE ____ µm Filtration Equipment Type:	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 mL	HCL	8260B
2	1L	None	8270 C Appendix 9

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Hercules Savannah	SITE LOCATION: Savannah, GA
WELL ID: MW-27 (052214)	DATE: 5-22-14

PURGING DATA

WELL DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER
2	10 feet to 20 feet	5.25	Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1045	0	0	0.1	5.45	4.78	24.10	329	5.01	63	249.6
1052	0.75	0.75	0.1	5.48	4.69	23.00	325	0.68	23.6	261.0
1055	0.3	1.05	0.1	5.48	4.68	23.02	324	0.91	21.2	262.4
1058	0.3	1.35	0.1	5.47	4.68	23.03	324	0.89	15.9	263.6
1101	0.3	1.65	0.1	5.49	4.67	22.89	325	0.84	15.3	266.3
1104	0.3	1.95	0.1	5.51	4.67	22.82	324	0.93	15.4	267.6

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING TIME:
Andy Fitzner / Antea Group	Andy Fitzner	1105
FIELD DECONTAMINATION Y N	FIELD-FILTERED Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 mL	HCL	8260B
2	1 L	None	8270C

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME Ashland Hercules Savannah	SITE LOCATION Savannah, GA
WELL ID MW [illegible] (057714)	DATE 5-7-14

PURGING DATA

WELL DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER
2	10 feet to 20 feet	5.62	Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1125	0	0	0.1	5.71	4.61	24.71	760	2.50	15.8	274.3
1132	0.75	0.75	0.1	5.82	4.67	24.45	274	1.05	6.19	272.5
1135	0.3	1.05	0.1	5.82	4.70	24.46	220	0.96	4.39	271.0
1138	0.3	1.35	0.1	5.82	4.71	24.48	284	1.06	4.18	271.1

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024, 3/16" = 0.0054, 1/4" = 0.0097, 5/16" = 0.0151, 3/8" = 0.0217, 1/2" = 0.0386, 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURES	SAMPLING TIME
Andy Fitzner / Antea Group	[signature]	1140
FIELD DECONTAMINATION Y N	FIELD-FILTERED Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 mL	HCL	8260B
2	1L	None	8270C

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Hercules Savannah	SITE LOCATION: Savannah, GA
WELL ID: MW F-3R (052214)	DATE: 5-22-14

PURGING DATA

WELL DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER
2	10 feet to 20 feet	7.35	Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1205	0	0	0.25	7.35	6.79	25.85	677	3.06	12.5	-53.5
1208	0.75	0.75	0.25	7.35	6.87	24.75	677	0.67	6.80	-66.3
1211	0.75	1.5	0.25	7.35	6.87	24.67	680	0.76	3.87	-59.5
1214	0.75	2.25	0.25	7.35	6.91	24.45	685	0.74	2.17	-62.1

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURES	SAMPLING TIME
Andy Fitzner / Antea Group	Andy Fitzner	1215
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
2	1L	None	1668C
2	1L	None	8081B / 8082A PCB

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Hercules Savannah	SITE LOCATION: Savannah, GA
WELL ID: MWF-5 (052714)	DATE: 5-27-14

PURGING DATA

WELL DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER
2	10 feet to 20 feet		Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1240	0	0	0.2	6.66	6.87	23.55	848	2.50	76.8	-113.7
1244	0.2	0.6	0.2	6.68	6.86	23.24	838	0.55	11.9	-109.5
1247	0.6	1.4	0.2	6.88	6.87	23.20	802	0.80	8.16	-104.5
1250	0.6	2.0	0.2	6.68	6.87	23.18	785	0.65	5.57	-104.5
1253	0.6	2.6	0.2	6.68	6.87	23.20	780	0.72	4.35	-105.7

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURES	SAMPLING TIME: 1255
Andy Fitzner / Antea Group	[signature]	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: (Y) N

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40mL	HCl	8260B
2	1L	None	8270C
3	40mL	HCl	8260B

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME Ashland Hercules Savannah	SITE LOCATION Savannah, GA
WELL ID MWF-21 (052214)	DATE 5-22-14

PURGING DATA

WELL DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER
2	10 feet to 20 feet	5.25	Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1316	0	0	0.1	6.67	5.87	26.06	739	1.35	37.8	33.4
1323	0.75	0.75	0.1	6.82	5.82	26.19	734	0.75	9.83	31.8
1326	0.3	1.05	0.1	6.83	5.80	26.02	732	0.66	9.06	33.3
1329	0.3	1.35	0.1	6.85	5.80	26.03	729	0.51	8.53	33.1

TUBING INSIDE DIA. CAPACITY (Liters/Ft): 1/8" = 0.0024, 3/16" = 0.0054, 1/4" = 0.0097, 5/16" = 0.0151, 3/8" = 0.0217, 1/2" = 0.0386, 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURES	SAMPLING TIME
Andy Fitzner / Antea Group	Andy Fitzner	1330
FIELD DECONTAMINATION Y N	FIELD-FILTERED Y (N) FILTER SIZE ____ µm Filtration Equipment Type	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40mL	HCL	8260B
2	1L	None	8270C

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Hercules Savannah	SITE LOCATION: Savannah, GA
WELL ID: MW D-30 (052214)	DATE: 5-22-14

PURGING DATA

WELL DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER
2	40 feet to 50 feet	8.28	Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 55 feet) + 0.5 liters = 1 liters

TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1349	0	0	0.1	9.51	7.35	27.35	362	5.63	5.35	-40.2
1359	1	1	0.1	10.50	7.40	27.49	358	3.76	7.71	9.9
1402	0.3	1.3	0.1	10.50	7.39	27.69	358	3.61	7.76	16.5
1405	0.3	1.6	0.1	10.51	7.40	27.87	358	3.62	3.45	17.9

TUBING INSIDE DIA. CAPACITY (Liters/Ft.) 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURES	SAMPLING TIME
Andy Fitzner / Antea Group	[signature]	1406
FIELD DECONTAMINATION Y N	FIELD-FILTERED Y (N) FILTER SIZE ____ µm Filtration Equipment Type:	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40mL	HCL	8260B
2	1L	None	8270C

REMARKS

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Hercules Savannah	SITE LOCATION: Savannah, GA
WELL ID: MW F-8 (052214)	DATE: 5-22-14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 5.35	PURGE PUMP TYPE OR BAILER: Purge Pump

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 liters + (0.0097 liters/foot X 25 feet) + 0.5 liters = 0.75 liters

TIME	VOLUME PURGED (liters)	CUMUL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1450	0	0	0.25	5.41	5.98	24.22	258	3.15	307	12.1
1502	0.75	0.75	0.25	5.46	5.86	23.71	255	1.46	58.3	16.1
1505	0.75	1.5	0.25	5.54	5.82	23.67	254	0.93	19.7	17.0
1508	0.75	2.25	0.25	5.60	5.76	23.29	240	0.47	7.82	21.9
1511	0.75	3.00	0.25	5.63	5.71	23.28	231	0.41	7.87	28.3
1514	0.75	3.75	0.25	5.64	5.67	23.22	222	0.37	4.74	31.2

TUBING INSIDE DIA. CAPACITY (Liters/Ft.) 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Andy Fitzner / Antea Group	SAMPLER(S) SIGNATURES: [signature]	SAMPLING TIME:
FIELD DECONTAMINATION Y N	FIELD-FILTERED Y (N) FILTER SIZE ____ µm Filtration Equipment Type:	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
2	1L	None	600-R-93-116 Asbestos

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU OR ± 10%
Temp.:	± 0.5 Degrees C
pH:	± 0.1 SU
Specific Conductance:	± 3%
Drawdown:	0.33 ft from Initial
Dissolved Oxygen:	± 0.5 mg/L
ORP:	± 10mV

Site: Hercules Savannah
Date: 5-22-13
Time: 800
Initials: AF

Field Equipment Calibration Record

Sonde ID:
Handset ID: 11K100341
Battery Voltage %:

QED MP20 and Turbidity Meter CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes____ No____ Date:____ Time:____	
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		30.08
Determin elevation-corrected Barometric Pressure to enter into as calibration standard:	See Section 4.1.3 in QED MP20 Manual "Barometric Pressure Functions" BP' = BP-2.5(A/100)	30.08
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:	764.032 See attached Table 6.2-6.	8.2 ~~764.032~~
DO concentration before Calibration (mg/L):	8.2	8.32
DO concentration after Calibration (mg/L):		8.20
% Recovery (actual/theory x 100)	See attached Table 6.2-6. Range is 90 to 110% Recovery	

Note: Reference elevation for the_____ site is _____ ft

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1413
Temperature (°C)		25.46
Reading before Calibration (mS/cm)		1,477
Reading AFTER Calibration (mS/cm)		1,413

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.00
pH 7.0 value after calibration:		7.00
pH 7.0 mV **(range is -50 to +50 mV)**:		
pH 10 value before calibration:		10.10
pH 10 value after calibration:		10.00
pH 10 mV **(range is -130 to -230 mV)**:		
pH 4.0 value before calibration:		4.00
pH 4.0 value after calibration:		4.00
pH 4.0 mV **(range is 130 to 230 mV)**:		

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		24.88
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	231.156
Reading before calibration (mV):		193.4
Reading after calibration (mV):		231.2

Note: mV theory will change with temperature, so calculate based on your current MP20 temp.

TURBIDITY Meter Type/Model:					
0.17	0 NTU Turbidity Standard		Before Cal: 0.17	After Cal:	0.13
15	10 NTU Turbidity Standard		Before Cal: 15.0	After Cal:	15.0
	100 NTU Turbidity Standard		Before Cal: 99.2	After Cal:	99.9
750	CALIBRATION SUCCESSFUL? yes		715		751

Serial Number 71559

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
Savannah Hercules		

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Terra Lanier		

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
[illegible]	[illegible] 1655	770-917-[illegible]

CLIENT NAME	CLIENT E-MAIL
Arcadis	[illegible]@arcadis-us.com

CLIENT ADDRESS: 1000 Cobb Place Blvd Suite 500 Kennesaw, GA

COMPANY CONTRACTING THIS WORK (if applicable):

MATRIX TYPE (COMPOSITE (C) OR GRAB (G) INDICATE): AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: 8260B; 8270C; 1668C; 8081B/8082A PCB

PAGE 1 OF 1

STANDARD REPORT DELIVERY ◉

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

PRESERVATIVE: HCL; None

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8260B (HCL)	8270C (None)	1668C	8081B/8082A PCB							REMARKS
5-22-14	1000	MW-27 (052214)		X				3	2									
5-22-14	1105	MW-29 (052214)		X				3	2									
5-22-14	1140	MWF-7 (052214)		X				3	2									
5-22-14	1215	MWF-3R (052214)		X						2	2							
5-22-14	1255	MWF-5 (052214)		X				3	2									
5-22-14	1330	MWF-21 (052214)		X				3	2									
5-22-14	1406	MWD-30 (052214)		X				3	2									
5-22-14		Dup-1		X				3										
5-22-14		TB-1		X				2										

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	5-22-14	1555						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO	LABORATORY REMARKS
[signature]	5-2[illegible]		YES ○ NO ○			

TAL8240-680 (1008)

Appendix C

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-101589-1
Client Project/Site: Hercules Savannah / Remediation

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Mr. David M Wilderman, P.G.

Kathryn Smith

Authorized for release by:
6/13/2014 9:03:04 PM

Kathryn Smith, Project Manager II
(912)354-7858
kathy.smith@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
H	Sample was prepped or analyzed beyond the specified holding time

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Dioxin

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
C156	The compound co-eluted with PCB-156

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
Asbestos	EPA 100.2 Asbestos in Drinking Water	NONE	EMSL

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-101589-1	MW-27 (052214)	Water	05/22/14 10:00	05/22/14 15:55
680-101589-2	MW-29 (052214)	Water	05/22/14 11:05	05/22/14 15:55
680-101589-3	MW-F7 (052214)	Water	05/22/14 11:40	05/22/14 15:55
680-101589-4	MW-F3R (052214)	Water	05/22/14 12:15	05/22/14 15:55
680-101589-5	MW-F5 (052214)	Water	05/22/14 12:55	05/22/14 15:55
680-101589-6	MW-F21 (052214)	Water	05/22/14 13:30	05/22/14 15:55
680-101589-7	MWD-30 (052214)	Water	05/22/14 14:06	05/22/14 15:55
680-101589-8	Dup-1	Water	05/22/14 00:00	05/22/14 15:55
680-101589-9	TB-1	Water	05/22/14 00:00	05/22/14 15:55
680-101589-10	MWF-8 (052214)	Water	05/22/14 15:15	05/22/14 15:55

Job ID: 680-101589-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah / Remediation

Report Number: 680-101589-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT
The samples were received on 05/22/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8º C and 1.6º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples MW-27 (052214) (680-101589-1), MW-29 (052214) (680-101589-2), MW-F7 (052214) (680-101589-3), MW-F5 (052214) (680-101589-5), MW-F21 (052214) (680-101589-6), MWD-30 (052214) (680-101589-7), Dup-1 (680-101589-8) and TB-1 (680-101589-9) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/05/2014 and 06/06/2014.

This following sample was analyzed nineteen minutes outside of holding time and has been flagged with a H data qualifier: Dup-1 (680-101589-8).

No difficulties were encountered during the volatiles analysis.
All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL
Samples MW-27 (052214) (680-101589-1), MW-29 (052214) (680-101589-2), MW-F7 (052214) (680-101589-3), MW-F5 (052214) (680-101589-5), MW-F21 (052214) (680-101589-6) and MWD-30 (052214) (680-101589-7) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/28/2014 and analyzed on 06/11/2014.

Hexachlorocyclopentadiene failed the recovery criteria low for LCS 680-331059/21-A.

No other difficulties were encountered during the SVOAs analysis.
All other quality control parameters were within the acceptance limits.

PESTICIDES AND PCBS
Sample MW-F3R (052214) (680-101589-4) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 05/29/2014 and analyzed on 05/31/2014.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

No difficulties were encountered during the Pesticides and PCBs analysis.
All quality control parameters were within the acceptance limits.

Job ID: 680-101589-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

CHLORINATED BIPHENYL CONGENERS

Sample MW-F3R (052214) (680-101589-4) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were prepared on 05/28/2014 and analyzed on 05/31/2014.

No difficulties were encountered during the chlorinated biphenyl congeners analysis.
All quality control parameters were within the acceptance limits.

Client Sample ID: MW-27 (052214)

Lab Sample ID: 680-101589-1

Date Collected: 05/22/14 10:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 21:31	1
Styrene	1.0	U	1.0		ug/L			06/05/14 21:31	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 21:31	1
Acrolein	20	U	20		ug/L			06/05/14 21:31	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 21:31	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Propionitrile	20	U	20		ug/L			06/05/14 21:31	1
Acrylonitrile	20	U	20		ug/L			06/05/14 21:31	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 21:31	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 21:31	1
Toluene	1.0	U	1.0		ug/L			06/05/14 21:31	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 21:31	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 21:31	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 21:31	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 21:31	1
Tetrachloroethene	**1.6**		1.0		ug/L			06/05/14 21:31	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 21:31	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 21:31	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 21:31	1
2-Hexanone	10	U	10		ug/L			06/05/14 21:31	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Acetone	25	U	25		ug/L			06/05/14 21:31	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 21:31	1
Benzene	1.0	U	1.0		ug/L			06/05/14 21:31	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 21:31	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 21:31	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 21:31	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 21:31	1
Acetonitrile	40	U	40		ug/L			06/05/14 21:31	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 21:31	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 21:31	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 21:31	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 21:31	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 21:31	1
Isobutanol	40	U	40		ug/L			06/05/14 21:31	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 21:31	1
2-Butanone	10	U	10		ug/L			06/05/14 21:31	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 21:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 21:31	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 21:31	1

Client Sample ID: MW-27 (052214)

Lab Sample ID: 680-101589-1

Date Collected: 05/22/14 10:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*		*06/05/14 21:31*	*1*
Dibromofluoromethane	*108*		*70 - 130*		*06/05/14 21:31*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/05/14 21:31*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Acenaphthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Acenaphthylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Chrysene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Fluorene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Naphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Phenanthrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 15:59	1
Bis(2-ethylhexyl) phthalate	**6.1**		2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,2,4,5-Tetrachlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,2,4-Trichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,2-Dichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,3,5-Trinitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,3-Dichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,3-Dinitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,4-Dichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,4-Dioxane	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
1,4-Naphthoquinone	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
1-Naphthylamine	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
bis (2-chloroisopropyl) ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,3,4,6-Tetrachlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,4,5-Trichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,4,6-Trichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,4-Dichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,4-Dinitrophenol	9.9	U	9.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,4-Dinitrotoluene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,6-Dichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2,6-Dinitrotoluene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Acetylaminofluorene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Chloronaphthalene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Chlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1

Client Sample ID: MW-27 (052214)

Lab Sample ID: 680-101589-1

Date Collected: 05/22/14 10:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Naphthylamine	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Nitroaniline	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Nitrophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Picoline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
2-Toluidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		05/28/14 16:02	06/11/14 15:59	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		05/28/14 16:02	06/11/14 15:59	1
3-Methylcholanthrene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
3-Nitroaniline	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
4,6-Dinitro-2-methylphenol	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Aminobiphenyl	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Bromophenyl phenyl ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Chloro-3-methylphenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Chloroaniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Chlorophenyl phenyl ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Nitroaniline	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Nitrophenol	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
7,12-Dimethylbenz(a)anthracene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Acetophenone	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
alpha,alpha-Dimethyl phenethylamine	9.9	U	9.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
Aniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Aramite, Total	1.5	U *	1.5		ug/L		05/28/14 16:02	06/11/14 15:59	1
Benzyl alcohol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Bis(2-chloroethoxy)methane	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Bis(2-chloroethyl)ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Butyl benzyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Diallate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Dibenzofuran	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Diethyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Dimethoate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Dimethyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Dinoseb	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Disulfoton	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Ethyl Parathion	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Famphur	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Hexachlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Hexachlorobutadiene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Hexachlorocyclopentadiene	2.0	U *	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Hexachloroethane	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Hexachlorophene	490	U *	490		ug/L		05/28/14 16:02	06/11/14 15:59	1
Isophorone	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Isosafrole	0.99	U *	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Methapyrilene	200	U	200		ug/L		05/28/14 16:02	06/11/14 15:59	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
Methyl parathion	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1

Client Sample ID: MW-27 (052214)

Lab Sample ID: 680-101589-1

Date Collected: 05/22/14 10:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
o,o',o''-Triethylphosphorothioate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
p-Dimethylamino azobenzene	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
Pentachlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Pentachloronitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Pentachlorophenol	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
Phenacetin	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Phenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Phorate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Pronamide	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Pyridine	4.9	U	4.9		ug/L		05/28/14 16:02	06/11/14 15:59	1
Safrole, Total	0.99	U *	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Sulfotepp	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Thionazin	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Di-n-octyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitro-o-toluidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosodiethylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosodimethylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosodi-n-butylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosodi-n-propylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosodiphenylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosomorpholine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosopiperidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
N-Nitrosopyrrolidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
p-Phenylene diamine	200	U	200		ug/L		05/28/14 16:02	06/11/14 15:59	1
Di-n-butyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1
Hexachloropropene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*63*		*27 - 130*	*05/28/14 16:02*	*06/11/14 15:59*	*1*
Nitrobenzene-d5 (Surr)	*72*		*32 - 130*	*05/28/14 16:02*	*06/11/14 15:59*	*1*
Terphenyl-d14 (Surr)	*92*		*36 - 130*	*05/28/14 16:02*	*06/11/14 15:59*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*30 - 130*	*05/28/14 16:02*	*06/11/14 15:59*	*1*
2-Fluorophenol (Surr)	*60*		*25 - 130*	*05/28/14 16:02*	*06/11/14 15:59*	*1*
2-Fluorobiphenyl	*76*		*34 - 130*	*05/28/14 16:02*	*06/11/14 15:59*	*1*

Client Sample ID: MW-29 (052214)

Lab Sample ID: 680-101589-2

Date Collected: 05/22/14 11:05

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Styrene	1.0	U	1.0		ug/L			06/05/14 21:59	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Acrolein	20	U	20		ug/L			06/05/14 21:59	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 21:59	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Propionitrile	20	U	20		ug/L			06/05/14 21:59	1
Acrylonitrile	20	U	20		ug/L			06/05/14 21:59	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 21:59	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 21:59	1
Toluene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 21:59	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 21:59	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 21:59	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Tetrachloroethene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 21:59	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 21:59	1
2-Hexanone	10	U	10		ug/L			06/05/14 21:59	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Acetone	25	U	25		ug/L			06/05/14 21:59	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 21:59	1
Benzene	1.0	U	1.0		ug/L			06/05/14 21:59	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 21:59	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 21:59	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 21:59	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 21:59	1
Acetonitrile	40	U	40		ug/L			06/05/14 21:59	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 21:59	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 21:59	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 21:59	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 21:59	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 21:59	1
Isobutanol	40	U	40		ug/L			06/05/14 21:59	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 21:59	1
2-Butanone	10	U	10		ug/L			06/05/14 21:59	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 21:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 21:59	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 21:59	1

Client Sample ID: MW-29 (052214)
Date Collected: 05/22/14 11:05
Date Received: 05/22/14 15:55

Lab Sample ID: 680-101589-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*		*06/05/14 21:59*	*1*
Dibromofluoromethane	*108*		*70 - 130*		*06/05/14 21:59*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/05/14 21:59*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Acenaphthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Acenaphthylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Chrysene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Fluorene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Naphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Phenanthrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:24	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,2,4,5-Tetrachlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,2,4-Trichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,2-Dichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,3,5-Trinitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,3-Dichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,3-Dinitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,4-Dichlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,4-Dioxane	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
1,4-Naphthoquinone	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
1-Naphthylamine	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
bis (2-chloroisopropyl) ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,3,4,6-Tetrachlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,4,5-Trichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,4,6-Trichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,4-Dichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,4-Dinitrophenol	9.9	U	9.9		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,4-Dinitrotoluene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,6-Dichlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2,6-Dinitrotoluene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Acetylaminofluorene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Chloronaphthalene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Chlorophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1

Client Sample ID: MW-29 (052214)

Date Collected: 05/22/14 11:05
Date Received: 05/22/14 15:55

Lab Sample ID: 680-101589-2

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Naphthylamine	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Nitroaniline	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Nitrophenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Picoline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
2-Toluidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		05/28/14 16:02	06/11/14 16:24	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		05/28/14 16:02	06/11/14 16:24	1
3-Methylcholanthrene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
3-Nitroaniline	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Bromophenyl phenyl ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Chloro-3-methylphenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Chloroaniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Chlorophenyl phenyl ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Nitroaniline	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Nitrophenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
7,12-Dimethylbenz(a)anthracene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Acetophenone	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
alpha,alpha-Dimethyl phenethylamine	9.9	U	9.9		ug/L		05/28/14 16:02	06/11/14 16:24	1
Aniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Aramite, Total	1.5	U *	1.5		ug/L		05/28/14 16:02	06/11/14 16:24	1
Benzyl alcohol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Bis(2-chloroethoxy)methane	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Bis(2-chloroethyl)ether	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Butyl benzyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Diallate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Dibenzofuran	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Diethyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Dimethoate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Dimethyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Dinoseb	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Disulfoton	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Ethyl Parathion	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Famphur	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Hexachlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Hexachlorobutadiene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Hexachlorocyclopentadiene	2.0	U *	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Hexachloroethane	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Hexachlorophene	500	U *	500		ug/L		05/28/14 16:02	06/11/14 16:24	1
Isophorone	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Isosafrole	0.99	U *	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Methapyrilene	200	U	200		ug/L		05/28/14 16:02	06/11/14 16:24	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Methyl parathion	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1

Client Sample ID: MW-29 (052214)
Date Collected: 05/22/14 11:05
Date Received: 05/22/14 15:55

Lab Sample ID: 680-101589-2
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
o,o',o''-Triethylphosphorothioate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Pentachlorobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Pentachloronitrobenzene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Pentachlorophenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Phenacetin	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Phenol	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Phorate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Pronamide	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Pyridine	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
Safrole, Total	0.99	U *	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Sulfotepp	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Thionazin	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Di-n-octyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitro-o-toluidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosodiethylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosodimethylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosodi-n-butylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosodi-n-propylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosodiphenylamine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosomorpholine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosopiperidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
N-Nitrosopyrrolidine	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
p-Phenylene diamine	200	U	200		ug/L		05/28/14 16:02	06/11/14 16:24	1
Di-n-butyl phthalate	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1
Hexachloropropene	0.99	U	0.99		ug/L		05/28/14 16:02	06/11/14 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*64*		*27 - 130*	*05/28/14 16:02*	*06/11/14 16:24*	*1*
Nitrobenzene-d5 (Surr)	*76*		*32 - 130*	*05/28/14 16:02*	*06/11/14 16:24*	*1*
Terphenyl-d14 (Surr)	*87*		*36 - 130*	*05/28/14 16:02*	*06/11/14 16:24*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*30 - 130*	*05/28/14 16:02*	*06/11/14 16:24*	*1*
2-Fluorophenol (Surr)	*61*		*25 - 130*	*05/28/14 16:02*	*06/11/14 16:24*	*1*
2-Fluorobiphenyl	*76*		*34 - 130*	*05/28/14 16:02*	*06/11/14 16:24*	*1*

Client Sample ID: MW-F7 (052214)

Lab Sample ID: 680-101589-3

Date Collected: 05/22/14 11:40

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 22:27	1
Styrene	1.0	U	1.0		ug/L			06/05/14 22:27	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 22:27	1
Acrolein	20	U	20		ug/L			06/05/14 22:27	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 22:27	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Propionitrile	20	U	20		ug/L			06/05/14 22:27	1
Acrylonitrile	20	U	20		ug/L			06/05/14 22:27	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 22:27	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 22:27	1
Toluene	1.0	U	1.0		ug/L			06/05/14 22:27	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 22:27	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 22:27	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 22:27	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 22:27	1
Tetrachloroethene	**3.3**		1.0		ug/L			06/05/14 22:27	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 22:27	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 22:27	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 22:27	1
2-Hexanone	10	U	10		ug/L			06/05/14 22:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Acetone	25	U	25		ug/L			06/05/14 22:27	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 22:27	1
Benzene	1.0	U	1.0		ug/L			06/05/14 22:27	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 22:27	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 22:27	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 22:27	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 22:27	1
Acetonitrile	40	U	40		ug/L			06/05/14 22:27	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 22:27	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 22:27	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 22:27	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 22:27	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 22:27	1
Isobutanol	40	U	40		ug/L			06/05/14 22:27	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 22:27	1
2-Butanone	10	U	10		ug/L			06/05/14 22:27	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 22:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 22:27	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 22:27	1

Client Sample ID: MW-F7 (052214)

Lab Sample ID: 680-101589-3

Date Collected: 05/22/14 11:40

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 130*		*06/05/14 22:27*	*1*
Dibromofluoromethane	*110*		*70 - 130*		*06/05/14 22:27*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/05/14 22:27*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Acenaphthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Acenaphthylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Chrysene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Fluorene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Naphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Phenanthrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/11/14 16:49	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,4-Dioxane	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1,4-Naphthoquinone	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
1-Naphthylamine	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,4-Dinitrophenol	10	U	10		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Chlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1

Client Sample ID: MW-F7 (052214)

Lab Sample ID: 680-101589-3

Date Collected: 05/22/14 11:40

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Naphthylamine	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Nitroaniline	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Nitrophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Picoline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
2-Toluidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		05/28/14 16:02	06/11/14 16:49	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		05/28/14 16:02	06/11/14 16:49	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
3-Nitroaniline	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Chloroaniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Nitroaniline	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Nitrophenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Acetophenone	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		05/28/14 16:02	06/11/14 16:49	1
Aniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Aramite, Total	1.5	U *	1.5		ug/L		05/28/14 16:02	06/11/14 16:49	1
Benzyl alcohol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Diallate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Dibenzofuran	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Diethyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Dimethoate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Dimethyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Dinoseb	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Disulfoton	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Ethyl Parathion	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Famphur	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Hexachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Hexachlorocyclopentadiene	2.0	U *	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Hexachloroethane	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Hexachlorophene	500	U *	500		ug/L		05/28/14 16:02	06/11/14 16:49	1
Isophorone	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Isosafrole	1.0	U *	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Methapyrilene	200	U	200		ug/L		05/28/14 16:02	06/11/14 16:49	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Methyl parathion	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1

Client Sample ID: MW-F7 (052214)

Lab Sample ID: 680-101589-3

Date Collected: 05/22/14 11:40

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Pentachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Pentachlorophenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Phenacetin	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Phenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Phorate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Pronamide	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Pyridine	5.0	U	5.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Safrole, Total	1.0	U *	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Sulfotepp	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Thionazin	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
p-Phenylene diamine	200	U	200		ug/L		05/28/14 16:02	06/11/14 16:49	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1
Hexachloropropene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*61*		*27 - 130*	*05/28/14 16:02*	*06/11/14 16:49*	*1*
Nitrobenzene-d5 (Surr)	*71*		*32 - 130*	*05/28/14 16:02*	*06/11/14 16:49*	*1*
Terphenyl-d14 (Surr)	*84*		*36 - 130*	*05/28/14 16:02*	*06/11/14 16:49*	*1*
2,4,6-Tribromophenol (Surr)	*80*		*30 - 130*	*05/28/14 16:02*	*06/11/14 16:49*	*1*
2-Fluorophenol (Surr)	*55*		*25 - 130*	*05/28/14 16:02*	*06/11/14 16:49*	*1*
2-Fluorobiphenyl	*75*		*34 - 130*	*05/28/14 16:02*	*06/11/14 16:49*	*1*

Client Sample ID: MW-F3R (052214)

Lab Sample ID: 680-101589-4

Date Collected: 05/22/14 12:15

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1221	2.0	U	2.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1232	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1242	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1248	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1254	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1260	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1262	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1
PCB-1268	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*29*		*14 - 130*	*05/29/14 15:31*	*05/31/14 15:24*	*1*
Tetrachloro-m-xylene	*58*		*40 - 130*	*05/29/14 15:31*	*05/31/14 15:24*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-105	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-114	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-118	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-123	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-126	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-156	40	U C	40		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-157	40	U C156	40		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-167	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-169	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-189	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-77	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
PCB-81	20	U	20		pg/L		05/28/14 12:23	05/31/14 11:17	1
Polychlorinated biphenyls, Total	2000	U	2000		pg/L		05/28/14 12:23	05/31/14 11:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*68*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-105L	*96*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-114L	*95*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-118L	*96*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-123L	*93*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-126L	*98*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-155L	*72*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-156L	*101*	*C*	*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-157L	*101*	*C156*	*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-15L	*88*		*5 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-167L	*96*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-169L	*95*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-188L	*91*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-189L	*95*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-19L	*82*		*5 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-1L	*58*		*5 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-202L	*100*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-205L	*101*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*
PCB-206L	*97*		*10 - 145*	*05/28/14 12:23*	*05/31/14 11:17*	*1*

Client Sample ID: MW-F3R (052214)
Date Collected: 05/22/14 12:15
Date Received: 05/22/14 15:55

Lab Sample ID: 680-101589-4
Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-208L	102		10 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-209L	90		10 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-37L	99		5 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-3L	69		5 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-4L	72		5 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-54L	87		5 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-77L	126		10 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-81L	121		10 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-156L/157L	101		10 - 145	05/28/14 12:23	05/31/14 11:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	81		10 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-178L	84		10 - 145	05/28/14 12:23	05/31/14 11:17	1
PCB-28L	104		5 - 145	05/28/14 12:23	05/31/14 11:17	1

Client Sample ID: MW-F5 (052214)

Lab Sample ID: 680-101589-5

Date Collected: 05/22/14 12:55

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Styrene	1.0	U	1.0		ug/L			06/05/14 22:55	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Acrolein	20	U	20		ug/L			06/05/14 22:55	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 22:55	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Propionitrile	20	U	20		ug/L			06/05/14 22:55	1
Acrylonitrile	20	U	20		ug/L			06/05/14 22:55	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 22:55	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 22:55	1
Toluene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 22:55	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 22:55	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 22:55	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Tetrachloroethene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 22:55	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 22:55	1
2-Hexanone	10	U	10		ug/L			06/05/14 22:55	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Acetone	25	U	25		ug/L			06/05/14 22:55	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 22:55	1
Benzene	1.0	U	1.0		ug/L			06/05/14 22:55	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 22:55	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 22:55	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 22:55	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 22:55	1
Acetonitrile	40	U	40		ug/L			06/05/14 22:55	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 22:55	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 22:55	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 22:55	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 22:55	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 22:55	1
Isobutanol	40	U	40		ug/L			06/05/14 22:55	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 22:55	1
2-Butanone	10	U	10		ug/L			06/05/14 22:55	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 22:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 22:55	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 22:55	1

Client Sample ID: MW-F5 (052214)

Lab Sample ID: 680-101589-5

Date Collected: 05/22/14 12:55

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*70 - 130*		*06/05/14 22:55*	*1*
Dibromofluoromethane	*109*		*70 - 130*		*06/05/14 22:55*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/05/14 22:55*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Acenaphthene	**10**		0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Acenaphthylene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Anthracene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Benzo[a]anthracene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Benzo[a]pyrene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Benzo[b]fluoranthene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Benzo[g,h,i]perylene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Benzo[k]fluoranthene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Chrysene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Dibenz(a,h)anthracene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Fluorene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Fluoranthene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Naphthalene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Phenanthrene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Pyrene	0.19	U	0.19		ug/L		05/28/14 16:02	06/11/14 17:14	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,2,4,5-Tetrachlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,2,4-Trichlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,2-Dichlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,3,5-Trinitrobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,3-Dichlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,3-Dinitrobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,4-Dichlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,4-Dioxane	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
1,4-Naphthoquinone	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
1-Naphthylamine	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
bis (2-chloroisopropyl) ether	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,3,4,6-Tetrachlorophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,4,5-Trichlorophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,4,6-Trichlorophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,4-Dichlorophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,4-Dimethylphenol	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,4-Dinitrophenol	9.6	U	9.6		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,4-Dinitrotoluene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,6-Dichlorophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2,6-Dinitrotoluene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Acetylaminofluorene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Chloronaphthalene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Chlorophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1

Client Sample ID: MW-F5 (052214)

Date Collected: 05/22/14 12:55
Date Received: 05/22/14 15:55

Lab Sample ID: 680-101589-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Naphthylamine	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Nitroaniline	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Nitrophenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Picoline	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
2-Toluidine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
3 & 4 Methylphenol	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
3,3'-Dichlorobenzidine	19	U	19		ug/L		05/28/14 16:02	06/11/14 17:14	1
3,3'-Dimethylbenzidine	19	U	19		ug/L		05/28/14 16:02	06/11/14 17:14	1
3-Methylcholanthrene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
3-Nitroaniline	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Aminobiphenyl	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Bromophenyl phenyl ether	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Chloro-3-methylphenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Chloroaniline	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Chlorophenyl phenyl ether	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Nitroaniline	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Nitrophenol	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
4-Nitroquinoline-1-oxide	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
7,12-Dimethylbenz(a)anthracene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Acetophenone	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
alpha,alpha-Dimethyl phenethylamine	9.6	U	9.6		ug/L		05/28/14 16:02	06/11/14 17:14	1
Aniline	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Aramite, Total	1.4	U *	1.4		ug/L		05/28/14 16:02	06/11/14 17:14	1
Benzyl alcohol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Bis(2-chloroethoxy)methane	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Bis(2-chloroethyl)ether	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Butyl benzyl phthalate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Diallate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Dibenzofuran	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Diethyl phthalate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Dimethoate	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Dimethyl phthalate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Dinoseb	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Disulfoton	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Ethyl methanesulfonate	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Ethyl Parathion	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Famphur	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Hexachlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Hexachlorobutadiene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Hexachlorocyclopentadiene	1.9	U *	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Hexachloroethane	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Hexachlorophene	480	U *	480		ug/L		05/28/14 16:02	06/11/14 17:14	1
Isophorone	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Isosafrole	0.96	U *	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Methapyrilene	190	U	190		ug/L		05/28/14 16:02	06/11/14 17:14	1
Methyl methanesulfonate	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
Methyl parathion	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1

Client Sample ID: MW-F5 (052214)

Lab Sample ID: 680-101589-5

Date Collected: 05/22/14 12:55

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
o,o',o''-Triethylphosphorothioate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
p-Dimethylamino azobenzene	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
Pentachlorobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Pentachloronitrobenzene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Pentachlorophenol	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
Phenacetin	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Phenol	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Phorate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Pronamide	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Pyridine	4.8	U	4.8		ug/L		05/28/14 16:02	06/11/14 17:14	1
Safrole, Total	0.96	U *	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Sulfotepp	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Thionazin	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Di-n-octyl phthalate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitro-o-toluidine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosodiethylamine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosodimethylamine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosodi-n-butylamine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosodi-n-propylamine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosodiphenylamine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosomethylethylamine	1.9	U	1.9		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosomorpholine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosopiperidine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
N-Nitrosopyrrolidine	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
p-Phenylene diamine	190	U	190		ug/L		05/28/14 16:02	06/11/14 17:14	1
Di-n-butyl phthalate	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1
Hexachloropropene	0.96	U	0.96		ug/L		05/28/14 16:02	06/11/14 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*63*		*27 - 130*	*05/28/14 16:02*	*06/11/14 17:14*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 130*	*05/28/14 16:02*	*06/11/14 17:14*	*1*
Terphenyl-d14 (Surr)	*82*		*36 - 130*	*05/28/14 16:02*	*06/11/14 17:14*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*30 - 130*	*05/28/14 16:02*	*06/11/14 17:14*	*1*
2-Fluorophenol (Surr)	*60*		*25 - 130*	*05/28/14 16:02*	*06/11/14 17:14*	*1*
2-Fluorobiphenyl	*79*		*34 - 130*	*05/28/14 16:02*	*06/11/14 17:14*	*1*

Client Sample ID: MW-F21 (052214)

Lab Sample ID: 680-101589-6

Date Collected: 05/22/14 13:30

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Styrene	1.0	U	1.0		ug/L			06/05/14 23:23	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Acrolein	20	U	20		ug/L			06/05/14 23:23	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 23:23	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Propionitrile	20	U	20		ug/L			06/05/14 23:23	1
Acrylonitrile	20	U	20		ug/L			06/05/14 23:23	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 23:23	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 23:23	1
Toluene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 23:23	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 23:23	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 23:23	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Tetrachloroethene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 23:23	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 23:23	1
2-Hexanone	10	U	10		ug/L			06/05/14 23:23	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Acetone	25	U	25		ug/L			06/05/14 23:23	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 23:23	1
Benzene	**7.4**		1.0		ug/L			06/05/14 23:23	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 23:23	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 23:23	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 23:23	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 23:23	1
Acetonitrile	40	U	40		ug/L			06/05/14 23:23	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 23:23	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 23:23	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 23:23	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 23:23	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 23:23	1
Isobutanol	40	U	40		ug/L			06/05/14 23:23	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 23:23	1
2-Butanone	10	U	10		ug/L			06/05/14 23:23	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 23:23	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 23:23	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 23:23	1

Client Sample ID: MW-F21 (052214)

Lab Sample ID: 680-101589-6

Date Collected: 05/22/14 13:30

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*		*06/05/14 23:23*	*1*
Dibromofluoromethane	*109*		*70 - 130*		*06/05/14 23:23*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/05/14 23:23*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Acenaphthene	**1.7**		0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Acenaphthylene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Anthracene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Benzo[a]anthracene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Benzo[a]pyrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Benzo[b]fluoranthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Benzo[g,h,i]perylene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Benzo[k]fluoranthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Chrysene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Dibenz(a,h)anthracene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Fluorene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Fluoranthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Indeno[1,2,3-cd]pyrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Naphthalene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Phenanthrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Pyrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 17:39	1
Bis(2-ethylhexyl) phthalate	**3.8**		2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,4-Dioxane	**11**		2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
1,4-Naphthoquinone	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
1-Naphthylamine	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,4-Dimethylphenol	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,4-Dinitrophenol	10	U	10		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Chlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1

Client Sample ID: MW-F21 (052214)

Lab Sample ID: 680-101589-6

Date Collected: 05/22/14 13:30

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Naphthylamine	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Nitroaniline	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Nitrophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Picoline	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
2-Toluidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
3 & 4 Methylphenol	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
3,3'-Dichlorobenzidine	21	U	21		ug/L		05/28/14 16:02	06/11/14 17:39	1
3,3'-Dimethylbenzidine	21	U	21		ug/L		05/28/14 16:02	06/11/14 17:39	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
3-Nitroaniline	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
4,6-Dinitro-2-methylphenol	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Aminobiphenyl	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Chloroaniline	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Nitroaniline	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Nitrophenol	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
4-Nitroquinoline-1-oxide	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Acetophenone	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		05/28/14 16:02	06/11/14 17:39	1
Aniline	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Aramite, Total	1.6	U *	1.6		ug/L		05/28/14 16:02	06/11/14 17:39	1
Benzyl alcohol	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Bis(2-chloroethyl)ether	**1.2**		1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Diallate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Dibenzofuran	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Diethyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Dimethoate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Dimethyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Dinoseb	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Disulfoton	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Ethyl methanesulfonate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Ethyl Parathion	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Famphur	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Hexachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Hexachlorocyclopentadiene	2.1	U *	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Hexachloroethane	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Hexachlorophene	520	U *	520		ug/L		05/28/14 16:02	06/11/14 17:39	1
Isophorone	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Isosafrole	1.0	U *	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Methapyrilene	210	U	210		ug/L		05/28/14 16:02	06/11/14 17:39	1
Methyl methanesulfonate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
Methyl parathion	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1

Client Sample ID: MW-F21 (052214)

Lab Sample ID: 680-101589-6

Date Collected: 05/22/14 13:30

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
p-Dimethylamino azobenzene	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
Pentachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Pentachlorophenol	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
Phenacetin	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Phenol	**12**		1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Phorate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Pronamide	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Pyridine	5.2	U	5.2		ug/L		05/28/14 16:02	06/11/14 17:39	1
Safrole, Total	1.0	U *	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Sulfotepp	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Thionazin	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosomethylethylamine	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
p-Phenylene diamine	210	U	210		ug/L		05/28/14 16:02	06/11/14 17:39	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1
Hexachloropropene	1.0	U	1.0		ug/L		05/28/14 16:02	06/11/14 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*61*		*27 - 130*	*05/28/14 16:02*	*06/11/14 17:39*	*1*
Nitrobenzene-d5 (Surr)	*77*		*32 - 130*	*05/28/14 16:02*	*06/11/14 17:39*	*1*
Terphenyl-d14 (Surr)	*72*		*36 - 130*	*05/28/14 16:02*	*06/11/14 17:39*	*1*
2,4,6-Tribromophenol (Surr)	*79*		*30 - 130*	*05/28/14 16:02*	*06/11/14 17:39*	*1*
2-Fluorophenol (Surr)	*67*		*25 - 130*	*05/28/14 16:02*	*06/11/14 17:39*	*1*
2-Fluorobiphenyl	*78*		*34 - 130*	*05/28/14 16:02*	*06/11/14 17:39*	*1*

Client Sample ID: MWD-30 (052214)

Lab Sample ID: 680-101589-7

Date Collected: 05/22/14 14:06

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Styrene	1.0	U	1.0		ug/L			06/05/14 23:51	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Acrolein	20	U	20		ug/L			06/05/14 23:51	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 23:51	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Propionitrile	20	U	20		ug/L			06/05/14 23:51	1
Acrylonitrile	20	U	20		ug/L			06/05/14 23:51	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 23:51	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 23:51	1
Toluene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 23:51	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 23:51	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 23:51	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Tetrachloroethene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 23:51	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 23:51	1
2-Hexanone	10	U	10		ug/L			06/05/14 23:51	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Acetone	25	U	25		ug/L			06/05/14 23:51	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 23:51	1
Benzene	1.0	U	1.0		ug/L			06/05/14 23:51	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 23:51	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 23:51	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 23:51	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 23:51	1
Acetonitrile	40	U	40		ug/L			06/05/14 23:51	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 23:51	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 23:51	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 23:51	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 23:51	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 23:51	1
Isobutanol	40	U	40		ug/L			06/05/14 23:51	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 23:51	1
2-Butanone	10	U	10		ug/L			06/05/14 23:51	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 23:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 23:51	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 23:51	1

Client Sample ID: MWD-30 (052214)

Lab Sample ID: 680-101589-7

Date Collected: 05/22/14 14:06

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 130*		*06/05/14 23:51*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*06/05/14 23:51*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/05/14 23:51*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Acenaphthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Acenaphthylene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Anthracene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Benzo[a]anthracene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Benzo[a]pyrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Benzo[b]fluoranthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Benzo[g,h,i]perylene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Benzo[k]fluoranthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Chrysene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Dibenz(a,h)anthracene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Fluorene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Fluoranthene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Indeno[1,2,3-cd]pyrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Naphthalene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Phenanthrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Pyrene	0.21	U	0.21		ug/L		05/28/14 16:02	06/11/14 18:04	1
Bis(2-ethylhexyl) phthalate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,2,4,5-Tetrachlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,2,4-Trichlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,2-Dichlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,3,5-Trinitrobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,3-Dichlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,3-Dinitrobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,4-Dichlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,4-Dioxane	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1,4-Naphthoquinone	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
1-Naphthylamine	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
bis (2-chloroisopropyl) ether	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,3,4,6-Tetrachlorophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,4,5-Trichlorophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,4,6-Trichlorophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,4-Dichlorophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,4-Dimethylphenol	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,4-Dinitrophenol	11	U	11		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,4-Dinitrotoluene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,6-Dichlorophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2,6-Dinitrotoluene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Acetylaminofluorene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Chloronaphthalene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Chlorophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1

Client Sample ID: MWD-30 (052214)

Lab Sample ID: 680-101589-7

Date Collected: 05/22/14 14:06

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Naphthylamine	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Nitroaniline	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Nitrophenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Picoline	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
2-Toluidine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
3 & 4 Methylphenol	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
3,3'-Dichlorobenzidine	21	U	21		ug/L		05/28/14 16:02	06/11/14 18:04	1
3,3'-Dimethylbenzidine	21	U	21		ug/L		05/28/14 16:02	06/11/14 18:04	1
3-Methylcholanthrene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
3-Nitroaniline	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
4,6-Dinitro-2-methylphenol	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Aminobiphenyl	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Bromophenyl phenyl ether	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Chloro-3-methylphenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Chloroaniline	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Chlorophenyl phenyl ether	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Nitroaniline	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Nitrophenol	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
4-Nitroquinoline-1-oxide	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
7,12-Dimethylbenz(a)anthracene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Acetophenone	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
alpha,alpha-Dimethyl phenethylamine	11	U	11		ug/L		05/28/14 16:02	06/11/14 18:04	1
Aniline	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Aramite, Total	1.6	U *	1.6		ug/L		05/28/14 16:02	06/11/14 18:04	1
Benzyl alcohol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Bis(2-chloroethoxy)methane	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Bis(2-chloroethyl)ether	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Butyl benzyl phthalate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Diallate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Dibenzofuran	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Diethyl phthalate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Dimethoate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Dimethyl phthalate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Dinoseb	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Disulfoton	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Ethyl methanesulfonate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Ethyl Parathion	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Famphur	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Hexachlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Hexachlorobutadiene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Hexachlorocyclopentadiene	2.1	U *	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Hexachloroethane	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Hexachlorophene	530	U *	530		ug/L		05/28/14 16:02	06/11/14 18:04	1
Isophorone	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Isosafrole	1.1	U *	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Methapyrilene	210	U	210		ug/L		05/28/14 16:02	06/11/14 18:04	1
Methyl methanesulfonate	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Methyl parathion	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1

Client Sample ID: MWD-30 (052214)

Lab Sample ID: 680-101589-7

Date Collected: 05/22/14 14:06

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
o,o',o''-Triethylphosphorothioate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
p-Dimethylamino azobenzene	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
Pentachlorobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Pentachloronitrobenzene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Pentachlorophenol	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
Phenacetin	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Phenol	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Phorate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Pronamide	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Pyridine	5.3	U	5.3		ug/L		05/28/14 16:02	06/11/14 18:04	1
Safrole, Total	1.1	U *	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Sulfotepp	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Thionazin	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Di-n-octyl phthalate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitro-o-toluidine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosodiethylamine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosodimethylamine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosodi-n-butylamine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosodi-n-propylamine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosodiphenylamine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosomethylethylamine	2.1	U	2.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosomorpholine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosopiperidine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
N-Nitrosopyrrolidine	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
p-Phenylene diamine	210	U	210		ug/L		05/28/14 16:02	06/11/14 18:04	1
Di-n-butyl phthalate	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1
Hexachloropropene	1.1	U	1.1		ug/L		05/28/14 16:02	06/11/14 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*62*		*27 - 130*	*05/28/14 16:02*	*06/11/14 18:04*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 130*	*05/28/14 16:02*	*06/11/14 18:04*	*1*
Terphenyl-d14 (Surr)	*80*		*36 - 130*	*05/28/14 16:02*	*06/11/14 18:04*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*30 - 130*	*05/28/14 16:02*	*06/11/14 18:04*	*1*
2-Fluorophenol (Surr)	*58*		*25 - 130*	*05/28/14 16:02*	*06/11/14 18:04*	*1*
2-Fluorobiphenyl	*72*		*34 - 130*	*05/28/14 16:02*	*06/11/14 18:04*	*1*

Client Sample ID: Dup-1

Lab Sample ID: 680-101589-8

Date Collected: 05/22/14 00:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Styrene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
cis-1,3-Dichloropropene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Acrolein	20	U H	20		ug/L			06/06/14 00:19	1
Allyl chloride	1.0	U H	1.0		ug/L			06/06/14 00:19	1
1,2-Dichloroethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Propionitrile	20	U H	20		ug/L			06/06/14 00:19	1
Acrylonitrile	20	U H	20		ug/L			06/06/14 00:19	1
Vinyl acetate	2.0	U H	2.0		ug/L			06/06/14 00:19	1
4-Methyl-2-pentanone	10	U H	10		ug/L			06/06/14 00:19	1
Toluene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Chlorobenzene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
trans-1,4-Dichloro-2-butene	2.0	U H	2.0		ug/L			06/06/14 00:19	1
Dibromochloromethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Methacrylonitrile	20	U H	20		ug/L			06/06/14 00:19	1
Chloroprene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Tetrachloroethene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Xylenes, Total	2.0	U H	2.0		ug/L			06/06/14 00:19	1
trans-1,2-Dichloroethene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Carbon tetrachloride	1.0	U H	1.0		ug/L			06/06/14 00:19	1
2-Hexanone	10	U H	10		ug/L			06/06/14 00:19	1
1,1,1,2-Tetrachloroethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Acetone	25	U H	25		ug/L			06/06/14 00:19	1
Chloroform	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Benzene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
1,1,1-Trichloroethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Bromomethane	5.0	U H	5.0		ug/L			06/06/14 00:19	1
Chloromethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Iodomethane	5.0	U H	5.0		ug/L			06/06/14 00:19	1
Dibromomethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Chloroethane	5.0	U H	5.0		ug/L			06/06/14 00:19	1
Vinyl chloride	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Acetonitrile	40	U H	40		ug/L			06/06/14 00:19	1
Methylene Chloride	5.0	U H	5.0		ug/L			06/06/14 00:19	1
Carbon disulfide	2.0	U H	2.0		ug/L			06/06/14 00:19	1
Bromoform	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Bromodichloromethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
1,1-Dichloroethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
1,1-Dichloroethene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Trichlorofluoromethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Dichlorodifluoromethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Pentachloroethane	5.0	U H	5.0		ug/L			06/06/14 00:19	1
Isobutanol	40	U H	40		ug/L			06/06/14 00:19	1
1,2-Dichloropropane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
2-Butanone	10	U H	10		ug/L			06/06/14 00:19	1
1,1,2-Trichloroethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Trichloroethene	1.0	U H	1.0		ug/L			06/06/14 00:19	1
1,1,2,2-Tetrachloroethane	1.0	U H	1.0		ug/L			06/06/14 00:19	1
Methyl methacrylate	1.0	U H	1.0		ug/L			06/06/14 00:19	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Client Sample ID: Dup-1

Lab Sample ID: 680-101589-8

Date Collected: 05/22/14 00:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U H	1.0		ug/L			06/06/14 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*		*06/06/14 00:19*	*1*
Dibromofluoromethane	*106*		*70 - 130*		*06/06/14 00:19*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/06/14 00:19*	*1*

Client Sample ID: TB-1

Lab Sample ID: 680-101589-9

Date Collected: 05/22/14 00:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Styrene	1.0	U	1.0		ug/L			06/05/14 20:34	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Acrolein	20	U	20		ug/L			06/05/14 20:34	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 20:34	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Propionitrile	20	U	20		ug/L			06/05/14 20:34	1
Acrylonitrile	20	U	20		ug/L			06/05/14 20:34	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 20:34	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 20:34	1
Toluene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 20:34	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 20:34	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 20:34	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Tetrachloroethene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 20:34	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 20:34	1
2-Hexanone	10	U	10		ug/L			06/05/14 20:34	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Acetone	25	U	25		ug/L			06/05/14 20:34	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 20:34	1
Benzene	1.0	U	1.0		ug/L			06/05/14 20:34	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 20:34	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 20:34	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 20:34	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 20:34	1
Acetonitrile	40	U	40		ug/L			06/05/14 20:34	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 20:34	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 20:34	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 20:34	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 20:34	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 20:34	1
Isobutanol	40	U	40		ug/L			06/05/14 20:34	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 20:34	1
2-Butanone	10	U	10		ug/L			06/05/14 20:34	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 20:34	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 20:34	1
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 20:34	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Client Sample ID: TB-1

Lab Sample ID: 680-101589-9

Date Collected: 05/22/14 00:00

Matrix: Water

Date Received: 05/22/14 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 130*		*06/05/14 20:34*	*1*
Dibromofluoromethane	*108*		*70 - 130*		*06/05/14 20:34*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/05/14 20:34*	*1*

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L	PCB-156L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-101589-4	MW-F3R (052214)	68	96	95	96	93	98	72	101 C
MB 320-43327/1-A	Method Blank	61	85	82	83	81	86	56	93 C

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-157L	PCB-15L	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-19L	PCB-1L
Lab Sample ID	Client Sample ID	(10-145)	(5-145)	(10-145)	(10-145)	(10-145)	(10-145)	(5-145)	(5-145)
680-101589-4	MW-F3R (052214)	101 C156	88	96	95	91	95	82	58
MB 320-43327/1-A	Method Blank	93 C156	80	89	88	72	92	70	52

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-202L	PCB-205L	PCB-206L	PCB-208L	PCB-209L	PCB-37L	PCB-3L	PCB-4L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(5-145)	(5-145)	(5-145)
680-101589-4	MW-F3R (052214)	100	101	97	102	90	99	69	72
MB 320-43327/1-A	Method Blank	87	94	91	95	88	76	64	67

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-54L	PCB-77L	PCB-81L	CB-156L/15				
Lab Sample ID	Client Sample ID	(5-145)	(10-145)	(10-145)	(10-145)				
680-101589-4	MW-F3R (052214)	87	126	121	101				
MB 320-43327/1-A	Method Blank	61	85	85	93				

Surrogate Legend

PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L = PCB-156L
PCB-157L = PCB-157L
PCB-15L = PCB-15L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-19L = PCB-19L
PCB-1L = PCB-1L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L
PCB-37L = PCB-37L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-156L/157L = PCB-156L/157L

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L	PCB-156L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-43327/2-A	Lab Control Sample	66	93	89	91	89	98	68	103 C

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-157L	PCB-15L	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-19L	PCB-1L
Lab Sample ID	**Client Sample ID**	(40-145)	(15-145)	(40-145)	(40-145)	(40-145)	(40-145)	(15-145)	(15-145)
LCS 320-43327/2-A	Lab Control Sample	103 C156	78	100	100	77	93	67	51

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-202L	PCB-205L	PCB-206L	PCB-208L	PCB-209L	PCB-37L	PCB-3L	PCB-4L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(15-145)	(15-145)	(15-145)
LCS 320-43327/2-A	Lab Control Sample	89	99	93	98	88	76	61	65

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-54L	PCB-77L	PCB-81L	CB-156L/15				
Lab Sample ID	**Client Sample ID**	(15-145)	(40-145)	(40-145)	(40-145)				
LCS 320-43327/2-A	Lab Control Sample	61	88	87	103				

Surrogate Legend

PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L = PCB-156L
PCB-157L = PCB-157L
PCB-15L = PCB-15L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-19L = PCB-19L
PCB-1L = PCB-1L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L
PCB-37L = PCB-37L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-156L/157L = PCB-156L/157L

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-332577/9
Matrix: Water
Analysis Batch: 332577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Styrene	1.0	U	1.0		ug/L			06/05/14 20:05	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Acrolein	20	U	20		ug/L			06/05/14 20:05	1
Allyl chloride	1.0	U	1.0		ug/L			06/05/14 20:05	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Propionitrile	20	U	20		ug/L			06/05/14 20:05	1
Acrylonitrile	20	U	20		ug/L			06/05/14 20:05	1
Vinyl acetate	2.0	U	2.0		ug/L			06/05/14 20:05	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/05/14 20:05	1
Toluene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Chlorobenzene	1.0	U	1.0		ug/L			06/05/14 20:05	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			06/05/14 20:05	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Methacrylonitrile	20	U	20		ug/L			06/05/14 20:05	1
Chloroprene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Tetrachloroethene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Xylenes, Total	2.0	U	2.0		ug/L			06/05/14 20:05	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Carbon tetrachloride	1.0	U	1.0		ug/L			06/05/14 20:05	1
2-Hexanone	10	U	10		ug/L			06/05/14 20:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Acetone	25	U	25		ug/L			06/05/14 20:05	1
Chloroform	1.0	U	1.0		ug/L			06/05/14 20:05	1
Benzene	1.0	U	1.0		ug/L			06/05/14 20:05	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Bromomethane	5.0	U	5.0		ug/L			06/05/14 20:05	1
Chloromethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Iodomethane	5.0	U	5.0		ug/L			06/05/14 20:05	1
Dibromomethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Chloroethane	5.0	U	5.0		ug/L			06/05/14 20:05	1
Vinyl chloride	1.0	U	1.0		ug/L			06/05/14 20:05	1
Acetonitrile	40	U	40		ug/L			06/05/14 20:05	1
Methylene Chloride	5.0	U	5.0		ug/L			06/05/14 20:05	1
Carbon disulfide	2.0	U	2.0		ug/L			06/05/14 20:05	1
Bromoform	1.0	U	1.0		ug/L			06/05/14 20:05	1
Bromodichloromethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/05/14 20:05	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Pentachloroethane	5.0	U	5.0		ug/L			06/05/14 20:05	1
Isobutanol	40	U	40		ug/L			06/05/14 20:05	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/05/14 20:05	1
2-Butanone	10	U	10		ug/L			06/05/14 20:05	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/05/14 20:05	1
Trichloroethene	1.0	U	1.0		ug/L			06/05/14 20:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/05/14 20:05	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-332577/9
Matrix: Water
Analysis Batch: 332577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	1.0	U	1.0		ug/L			06/05/14 20:05	1
Ethyl methacrylate	1.0	U	1.0		ug/L			06/05/14 20:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*		*06/05/14 20:05*	*1*
Dibromofluoromethane	*106*		*70 - 130*		*06/05/14 20:05*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/05/14 20:05*	*1*

Lab Sample ID: LCS 680-332577/4
Matrix: Water
Analysis Batch: 332577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	50.0	51.0		ug/L		102	78 - 125
Styrene	50.0	53.0		ug/L		106	75 - 129
cis-1,3-Dichloropropene	50.0	52.0		ug/L		104	73 - 128
1,2-Dichloroethane	50.0	51.3		ug/L		103	75 - 120
4-Methyl-2-pentanone	100	110		ug/L		110	51 - 143
Toluene	50.0	51.9		ug/L		104	77 - 125
Chlorobenzene	50.0	51.1		ug/L		102	79 - 120
Dibromochloromethane	50.0	53.9		ug/L		108	63 - 134
Tetrachloroethene	50.0	53.6		ug/L		107	77 - 128
Xylenes, Total	150	159		ug/L		106	80 - 124
trans-1,2-Dichloroethene	50.0	51.7		ug/L		103	78 - 130
Carbon tetrachloride	50.0	56.8		ug/L		114	70 - 131
2-Hexanone	100	111		ug/L		111	52 - 149
1,1,1,2-Tetrachloroethane	50.0	53.5		ug/L		107	68 - 132
Acetone	100	106		ug/L		106	39 - 162
Chloroform	50.0	50.6		ug/L		101	76 - 128
Benzene	50.0	52.8		ug/L		106	74 - 123
1,1,1-Trichloroethane	50.0	54.0		ug/L		108	76 - 126
Bromomethane	50.0	35.9		ug/L		72	10 - 171
Chloromethane	50.0	63.6		ug/L		127	47 - 151
Dibromomethane	50.0	52.3		ug/L		105	75 - 122
Chloroethane	50.0	65.8		ug/L		132	47 - 148
Vinyl chloride	50.0	54.1		ug/L		108	58 - 141
Methylene Chloride	50.0	51.6		ug/L		103	79 - 124
Carbon disulfide	50.0	55.8		ug/L		112	63 - 142
Bromoform	50.0	49.5		ug/L		99	60 - 134
Bromodichloromethane	50.0	52.8		ug/L		106	72 - 129
1,1-Dichloroethane	50.0	50.8		ug/L		102	69 - 132
1,1-Dichloroethene	50.0	54.9		ug/L		110	73 - 134
Trichlorofluoromethane	50.0	66.1		ug/L		132	66 - 144
Dichlorodifluoromethane	50.0	53.5		ug/L		107	41 - 165
1,2-Dichloropropane	50.0	51.1		ug/L		102	71 - 126
2-Butanone	100	103		ug/L		103	55 - 142
1,1,2-Trichloroethane	50.0	49.1		ug/L		98	69 - 127
Trichloroethene	50.0	50.8		ug/L		102	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-332577/4
Matrix: Water
Analysis Batch: 332577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	50.0	55.0		ug/L		110	71 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 680-332577/5
Matrix: Water
Analysis Batch: 332577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	50.0	51.1		ug/L		102	78 - 125	0	30
Styrene	50.0	51.9		ug/L		104	75 - 129	2	30
cis-1,3-Dichloropropene	50.0	52.8		ug/L		106	73 - 128	2	30
1,2-Dichloroethane	50.0	50.7		ug/L		101	75 - 120	1	30
4-Methyl-2-pentanone	100	112		ug/L		112	51 - 143	3	30
Toluene	50.0	51.6		ug/L		103	77 - 125	1	30
Chlorobenzene	50.0	50.9		ug/L		102	79 - 120	0	30
Dibromochloromethane	50.0	53.8		ug/L		108	63 - 134	0	50
Tetrachloroethene	50.0	53.7		ug/L		107	77 - 128	0	30
Xylenes, Total	150	158		ug/L		105	80 - 124	1	30
trans-1,2-Dichloroethene	50.0	50.1		ug/L		100	78 - 130	3	30
Carbon tetrachloride	50.0	55.9		ug/L		112	70 - 131	2	30
2-Hexanone	100	113		ug/L		113	52 - 149	1	30
1,1,1,2-Tetrachloroethane	50.0	52.3		ug/L		105	68 - 132	2	30
Acetone	100	106		ug/L		106	39 - 162	0	50
Chloroform	50.0	49.8		ug/L		100	76 - 128	2	30
Benzene	50.0	51.7		ug/L		103	74 - 123	2	30
1,1,1-Trichloroethane	50.0	54.6		ug/L		109	76 - 126	1	30
Bromomethane	50.0	36.4		ug/L		73	10 - 171	2	50
Chloromethane	50.0	63.2		ug/L		126	47 - 151	1	30
Dibromomethane	50.0	52.2		ug/L		104	75 - 122	0	30
Chloroethane	50.0	61.7		ug/L		123	47 - 148	7	40
Vinyl chloride	50.0	53.1		ug/L		106	58 - 141	2	30
Methylene Chloride	50.0	51.6		ug/L		103	79 - 124	0	30
Carbon disulfide	50.0	54.4		ug/L		109	63 - 142	3	30
Bromoform	50.0	51.3		ug/L		103	60 - 134	4	30
Bromodichloromethane	50.0	53.1		ug/L		106	72 - 129	1	30
1,1-Dichloroethane	50.0	50.5		ug/L		101	69 - 132	1	30
1,1-Dichloroethene	50.0	54.5		ug/L		109	73 - 134	1	30
Trichlorofluoromethane	50.0	63.6		ug/L		127	66 - 144	4	30
Dichlorodifluoromethane	50.0	52.1		ug/L		104	41 - 165	3	50
1,2-Dichloropropane	50.0	50.9		ug/L		102	71 - 126	0	30
2-Butanone	100	104		ug/L		104	55 - 142	1	30
1,1,2-Trichloroethane	50.0	48.1		ug/L		96	69 - 127	2	30
Trichloroethene	50.0	49.9		ug/L		100	80 - 120	2	30
1,1,2,2-Tetrachloroethane	50.0	56.1		ug/L		112	71 - 127	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-332577/5
Matrix: Water
Analysis Batch: 332577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 130*
Dibromofluoromethane	*100*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-331059/20-A
Matrix: Water
Analysis Batch: 332953

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 331059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Acenaphthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Acenaphthylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Chrysene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Fluorene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Fluoranthene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Naphthalene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Phenanthrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Pyrene	0.20	U	0.20		ug/L		05/28/14 16:02	06/07/14 16:46	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,4-Dioxane	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1,4-Naphthoquinone	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
1-Naphthylamine	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,4-Dinitrophenol	10	U	10		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-331059/20-A
Matrix: Water
Analysis Batch: 332953

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 331059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Chlorophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Naphthylamine	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Nitroaniline	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Nitrophenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Picoline	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
2-Toluidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		05/28/14 16:02	06/07/14 16:46	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		05/28/14 16:02	06/07/14 16:46	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
3-Nitroaniline	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Chloroaniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Nitroaniline	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Nitrophenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Acetophenone	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		05/28/14 16:02	06/07/14 16:46	1
Aniline	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Aramite, Total	1.5	U	1.5		ug/L		05/28/14 16:02	06/07/14 16:46	1
Benzyl alcohol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Diallate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Dibenzofuran	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Diethyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Dimethoate	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Dimethyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Dinoseb	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Disulfoton	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Ethyl Parathion	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Famphur	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Hexachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Hexachloroethane	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Hexachlorophene	500	U	500		ug/L		05/28/14 16:02	06/07/14 16:46	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-331059/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 332953 — **Prep Batch: 331059**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Isosafrole	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Methapyrilene	200	U	200		ug/L		05/28/14 16:02	06/07/14 16:46	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Methyl parathion	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Nitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Pentachlorobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Pentachlorophenol	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Phenacetin	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Phenol	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Phorate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Pronamide	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Pyridine	5.0	U	5.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Safrole, Total	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Sulfotepp	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Thionazin	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
p-Phenylene diamine	200	U	200		ug/L		05/28/14 16:02	06/07/14 16:46	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1
Hexachloropropene	1.0	U	1.0		ug/L		05/28/14 16:02	06/07/14 16:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*68*		*27 - 130*	*05/28/14 16:02*	*06/07/14 16:46*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 130*	*05/28/14 16:02*	*06/07/14 16:46*	*1*
Terphenyl-d14 (Surr)	*90*		*36 - 130*	*05/28/14 16:02*	*06/07/14 16:46*	*1*
2,4,6-Tribromophenol (Surr)	*68*		*30 - 130*	*05/28/14 16:02*	*06/07/14 16:46*	*1*
2-Fluorophenol (Surr)	*67*		*25 - 130*	*05/28/14 16:02*	*06/07/14 16:46*	*1*
2-Fluorobiphenyl	*77*		*34 - 130*	*05/28/14 16:02*	*06/07/14 16:46*	*1*

Lab Sample ID: LCS 680-331059/21-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 332953 — **Prep Batch: 331059**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	10.0	6.25		ug/L		63	51 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-331059/21-A
Matrix: Water
Analysis Batch: 332953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	10.0	7.10		ug/L		71	42 - 130
Acenaphthylene	10.0	6.72		ug/L		67	45 - 130
Anthracene	10.0	8.59		ug/L		86	58 - 130
Benzo[a]anthracene	10.0	8.54		ug/L		85	42 - 143
Benzo[a]pyrene	10.0	8.35		ug/L		83	45 - 151
Benzo[b]fluoranthene	10.0	8.17		ug/L		82	41 - 140
Benzo[g,h,i]perylene	10.0	9.22		ug/L		92	27 - 134
Benzo[k]fluoranthene	10.0	8.18		ug/L		82	45 - 140
Chrysene	10.0	7.95		ug/L		79	40 - 142
Dibenz(a,h)anthracene	10.0	9.08		ug/L		91	38 - 130
Fluorene	10.0	7.76		ug/L		78	48 - 130
Fluoranthene	10.0	9.01		ug/L		90	46 - 136
Indeno[1,2,3-cd]pyrene	10.0	9.24		ug/L		92	12 - 130
Naphthalene	10.0	6.34		ug/L		63	35 - 130
Phenanthrene	10.0	8.38		ug/L		84	45 - 134
Pyrene	10.0	7.94		ug/L		79	47 - 143
Bis(2-ethylhexyl) phthalate	10.0	8.77		ug/L		88	10 - 158
1,2,4,5-Tetrachlorobenzene	10.0	6.16		ug/L		62	10 - 130
1,2,4-Trichlorobenzene	10.0	5.62		ug/L		56	39 - 130
1,2-Dichlorobenzene	10.0	5.17		ug/L		52	36 - 130
1,3-Dichlorobenzene	10.0	4.89		ug/L		49	31 - 130
1,4-Dichlorobenzene	10.0	5.07		ug/L		51	34 - 130
1,4-Dioxane	10.0	4.83		ug/L		48	10 - 130
bis (2-chloroisopropyl) ether	10.0	5.97		ug/L		60	39 - 130
2,3,4,6-Tetrachlorophenol	10.0	8.22		ug/L		82	10 - 130
2,4,5-Trichlorophenol	10.0	8.16		ug/L		82	61 - 130
2,4,6-Trichlorophenol	10.0	7.90		ug/L		79	61 - 130
2,4-Dichlorophenol	10.0	8.24		ug/L		82	58 - 130
2,4-Dimethylphenol	10.0	7.35		ug/L		74	41 - 130
2,4-Dinitrophenol	20.0	10.9		ug/L		54	10 - 200
2,4-Dinitrotoluene	10.0	8.43		ug/L		84	57 - 130
2,6-Dinitrotoluene	10.0	8.43		ug/L		84	53 - 130
2-Chloronaphthalene	10.0	6.31		ug/L		63	48 - 130
2-Chlorophenol	10.0	7.60		ug/L		76	45 - 130
2-Methylphenol	10.0	8.04		ug/L		80	49 - 130
2-Nitroaniline	10.0	8.12		ug/L		81	48 - 130
2-Nitrophenol	10.0	7.73		ug/L		77	49 - 130
3 & 4 Methylphenol	10.0	7.62		ug/L		76	55 - 130
3,3'-Dichlorobenzidine	10.0	8.82	J	ug/L		88	10 - 158
3-Nitroaniline	10.0	8.57		ug/L		86	18 - 147
4,6-Dinitro-2-methylphenol	20.0	14.9		ug/L		74	10 - 182
4-Bromophenyl phenyl ether	10.0	8.69		ug/L		87	44 - 130
4-Chloro-3-methylphenol	10.0	8.42		ug/L		84	54 - 130
4-Chloroaniline	10.0	7.55		ug/L		76	17 - 130
4-Chlorophenyl phenyl ether	10.0	8.12		ug/L		81	52 - 130
4-Nitroaniline	10.0	8.64		ug/L		86	31 - 147
4-Nitrophenol	20.0	16.2		ug/L		81	36 - 132
Acetophenone	10.0	8.25		ug/L		83	45 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-331059/21-A
Matrix: Water
Analysis Batch: 332953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	10.0	6.90		ug/L		69	10 - 130
Benzyl alcohol	10.0	7.85		ug/L		79	34 - 130
Bis(2-chloroethoxy)methane	10.0	7.63		ug/L		76	47 - 130
Bis(2-chloroethyl)ether	10.0	7.27		ug/L		73	36 - 130
Butyl benzyl phthalate	10.0	8.28		ug/L		83	60 - 130
Dibenzofuran	10.0	7.31		ug/L		73	56 - 130
Diethyl phthalate	10.0	8.42		ug/L		84	60 - 130
Dimethyl phthalate	10.0	8.53		ug/L		85	58 - 130
Hexachlorobenzene	10.0	8.29		ug/L		83	49 - 130
Hexachlorobutadiene	10.0	5.38		ug/L		54	36 - 130
Hexachlorocyclopentadiene	10.0	1.46	J *	ug/L		15	16 - 130
Hexachloroethane	10.0	4.60		ug/L		46	32 - 130
Isophorone	10.0	7.17		ug/L		72	45 - 130
Nitrobenzene	10.0	7.67		ug/L		77	45 - 130
Pentachlorophenol	20.0	15.3		ug/L		76	12 - 156
Phenol	10.0	6.93		ug/L		69	44 - 130
Pyridine	10.0	5.29		ug/L		53	10 - 130
Di-n-octyl phthalate	10.0	8.94		ug/L		89	19 - 130
N-Nitrosodimethylamine	10.0	6.11		ug/L		61	29 - 130
N-Nitrosodi-n-propylamine	10.0	7.28		ug/L		73	42 - 130
N-Nitrosodiphenylamine	10.0	8.51		ug/L		85	38 - 130
Di-n-butyl phthalate	10.0	8.70		ug/L		87	59 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*63*		*27 - 130*
Nitrobenzene-d5 (Surr)	*72*		*32 - 130*
Terphenyl-d14 (Surr)	*74*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*78*		*30 - 130*
2-Fluorophenol (Surr)	*64*		*25 - 130*
2-Fluorobiphenyl	*70*		*34 - 130*

Lab Sample ID: LCS 680-331059/24-A
Matrix: Water
Analysis Batch: 332953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	5.54		ug/L		55	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	8.29		ug/L		83	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*68*		*27 - 130*
Nitrobenzene-d5 (Surr)	*82*		*32 - 130*
Terphenyl-d14 (Surr)	*84*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*82*		*30 - 130*
2-Fluorophenol (Surr)	*43*		*25 - 130*
2-Fluorobiphenyl	*78*		*34 - 130*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-331253/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331628 — **Prep Batch: 331253**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1221	2.0	U	2.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1232	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1242	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1248	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1254	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1260	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1262	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1
PCB-1268	1.0	U	1.0		ug/L		05/29/14 15:31	05/31/14 14:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*14 - 130*	*05/29/14 15:31*	*05/31/14 14:38*	*1*
Tetrachloro-m-xylene	*81*		*40 - 130*	*05/29/14 15:31*	*05/31/14 14:38*	*1*

Lab Sample ID: LCS 680-331253/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331628 — **Prep Batch: 331253**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	7.93		ug/L		79	44 - 130
PCB-1260	10.0	7.62		ug/L		76	35 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*51*		*14 - 130*
Tetrachloro-m-xylene	*72*		*40 - 130*

Lab Sample ID: LCSD 680-331253/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331628 — **Prep Batch: 331253**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	10.0	7.63		ug/L		76	44 - 130	4	50
PCB-1260	10.0	8.41		ug/L		84	35 - 130	10	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*55*		*14 - 130*
Tetrachloro-m-xylene	*70*		*40 - 130*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-43327/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 43528 — **Prep Batch: 43327**

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-105	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-43327/1-A
Matrix: Water
Analysis Batch: 43528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43327

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-114	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-118	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-123	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-126	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-156	40	U C	40		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-157	40	U C156	40		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-167	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-169	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-189	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-77	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
PCB-81	20	U	20		pg/L		05/28/14 12:23	05/31/14 08:46	1
Polychlorinated biphenyls, Total	2000	U	2000		pg/L		05/28/14 12:23	05/31/14 08:46	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*61*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-105L	*85*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-114L	*82*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-118L	*83*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-123L	*81*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-126L	*86*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-155L	*56*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-156L	*93*	*C*	*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-157L	*93*	*C156*	*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-15L	*80*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-167L	*89*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-169L	*88*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-188L	*72*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-189L	*92*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-19L	*70*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-1L	*52*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-202L	*87*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-205L	*94*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-206L	*91*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-208L	*95*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-209L	*88*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-37L	*76*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-3L	*64*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-4L	*67*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-54L	*61*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-77L	*85*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-81L	*85*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-156L/157L	*93*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-111L	*72*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-178L	*80*		*10 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*
PCB-28L	*72*		*5 - 145*	*05/28/14 12:23*	*05/31/14 08:46*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-43327/2-A
Matrix: Water
Analysis Batch: 43528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	2000	2090		pg/L		104	60 - 135
PCB-104	2000	2020		pg/L		101	60 - 135
PCB-105	2000	2030		pg/L		101	60 - 135
PCB-114	2000	2020		pg/L		101	60 - 135
PCB-118	2000	2060		pg/L		103	60 - 135
PCB-123	2000	1980		pg/L		99	60 - 135
PCB-126	2000	2040		pg/L		102	60 - 135
PCB-15	2000	1940		pg/L		97	60 - 135
PCB-155	2000	1970		pg/L		99	60 - 135
PCB-156	4000	3870	C	pg/L		97	60 - 135
PCB-157	4000	3870	C156	pg/L		97	60 - 135
PCB-167	2000	1930		pg/L		97	60 - 135
PCB-169	2000	1980		pg/L		99	60 - 135
PCB-188	2000	1910		pg/L		95	60 - 135
PCB-189	2000	1960		pg/L		98	60 - 135
PCB-19	2000	2000		pg/L		100	60 - 135
PCB-202	2000	1900		pg/L		95	60 - 135
PCB-205	2000	1820		pg/L		91	60 - 135
PCB-206	2000	2000		pg/L		100	60 - 135
PCB-208	2000	1960		pg/L		98	60 - 135
PCB-209	2000	1980		pg/L		99	60 - 135
PCB-3	2000	2060		pg/L		103	60 - 135
PCB-37	2000	1960		pg/L		98	60 - 135
PCB-4	2000	1870		pg/L		94	60 - 135
PCB-54	2000	1920		pg/L		96	60 - 135
PCB-77	2000	1950		pg/L		98	60 - 135
PCB-81	2000	1890		pg/L		95	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-104L	*66*		*40 - 145*
PCB-105L	*93*		*40 - 145*
PCB-114L	*89*		*40 - 145*
PCB-118L	*91*		*40 - 145*
PCB-123L	*89*		*40 - 145*
PCB-126L	*98*		*40 - 145*
PCB-155L	*68*		*40 - 145*
PCB-156L	*103*	*C*	*40 - 145*
PCB-157L	*103*	*C156*	*40 - 145*
PCB-15L	*78*		*15 - 145*
PCB-167L	*100*		*40 - 145*
PCB-169L	*100*		*40 - 145*
PCB-188L	*77*		*40 - 145*
PCB-189L	*93*		*40 - 145*
PCB-19L	*67*		*15 - 145*
PCB-1L	*51*		*15 - 145*
PCB-202L	*89*		*40 - 145*
PCB-205L	*99*		*40 - 145*
PCB-206L	*93*		*40 - 145*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-43327/2-A
Matrix: Water
Analysis Batch: 43528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43327

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-208L	98		40 - 145
PCB-209L	88		40 - 145
PCB-37L	76		15 - 145
PCB-3L	61		15 - 145
PCB-4L	65		15 - 145
PCB-54L	61		15 - 145
PCB-77L	88		40 - 145
PCB-81L	87		40 - 145
PCB-156L/157L	103		40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-111L	72		10 - 145
PCB-178L	83		10 - 145
PCB-28L	69		5 - 145

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

GC/MS VOA

Analysis Batch: 332577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-1	MW-27 (052214)	Total/NA	Water	8260B	
680-101589-2	MW-29 (052214)	Total/NA	Water	8260B	
680-101589-3	MW-F7 (052214)	Total/NA	Water	8260B	
680-101589-5	MW-F5 (052214)	Total/NA	Water	8260B	
680-101589-6	MW-F21 (052214)	Total/NA	Water	8260B	
680-101589-7	MWD-30 (052214)	Total/NA	Water	8260B	
680-101589-8	Dup-1	Total/NA	Water	8260B	
680-101589-9	TB-1	Total/NA	Water	8260B	
LCS 680-332577/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-332577/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-332577/9	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 331059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-1	MW-27 (052214)	Total/NA	Water	3520C	
680-101589-2	MW-29 (052214)	Total/NA	Water	3520C	
680-101589-3	MW-F7 (052214)	Total/NA	Water	3520C	
680-101589-5	MW-F5 (052214)	Total/NA	Water	3520C	
680-101589-6	MW-F21 (052214)	Total/NA	Water	3520C	
680-101589-7	MWD-30 (052214)	Total/NA	Water	3520C	
LCS 680-331059/21-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-331059/24-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-331059/20-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 332953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-331059/21-A	Lab Control Sample	Total/NA	Water	8270D LL	331059
LCS 680-331059/24-A	Lab Control Sample	Total/NA	Water	8270D LL	331059
MB 680-331059/20-A	Method Blank	Total/NA	Water	8270D LL	331059

Analysis Batch: 333558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-1	MW-27 (052214)	Total/NA	Water	8270D LL	331059
680-101589-2	MW-29 (052214)	Total/NA	Water	8270D LL	331059
680-101589-3	MW-F7 (052214)	Total/NA	Water	8270D LL	331059
680-101589-5	MW-F5 (052214)	Total/NA	Water	8270D LL	331059
680-101589-6	MW-F21 (052214)	Total/NA	Water	8270D LL	331059
680-101589-7	MWD-30 (052214)	Total/NA	Water	8270D LL	331059

GC Semi VOA

Prep Batch: 331253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-4	MW-F3R (052214)	Total/NA	Water	3520C	
LCS 680-331253/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-331253/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-331253/2-A	Method Blank	Total/NA	Water	3520C	

GC Semi VOA (Continued)

Analysis Batch: 331628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-4	MW-F3R (052214)	Total/NA	Water	8081B/8082A	331253
LCS 680-331253/3-A	Lab Control Sample	Total/NA	Water	8081B/8082A	331253
LCSD 680-331253/4-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	331253
MB 680-331253/2-A	Method Blank	Total/NA	Water	8081B/8082A	331253

Specialty Organics

Prep Batch: 43327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-4	MW-F3R (052214)	Total/NA	Water	HRMS-Sep	
LCS 320-43327/2-A	Lab Control Sample	Total/NA	Water	HRMS-Sep	
MB 320-43327/1-A	Method Blank	Total/NA	Water	HRMS-Sep	

Analysis Batch: 43528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101589-4	MW-F3R (052214)	Total/NA	Water	1668C	43327
LCS 320-43327/2-A	Lab Control Sample	Total/NA	Water	1668C	43327
MB 320-43327/1-A	Method Blank	Total/NA	Water	1668C	43327

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Client Sample ID: MW-27 (052214)

Lab Sample ID: 680-101589-1
Date Collected: 05/22/14 10:00
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 21:31	JD1	TAL SAV
Total/NA	Prep	3520C			1011.1 mL	1.0 mL	331059	05/28/14 16:02	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	1011.1 mL	1.0 mL	333558	06/11/14 15:59	SMC	TAL SAV

Client Sample ID: MW-29 (052214)

Lab Sample ID: 680-101589-2
Date Collected: 05/22/14 11:05
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 21:59	JD1	TAL SAV
Total/NA	Prep	3520C			1006.9 mL	1.0 mL	331059	05/28/14 16:02	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	1006.9 mL	1.0 mL	333558	06/11/14 16:24	SMC	TAL SAV

Client Sample ID: MW-F7 (052214)

Lab Sample ID: 680-101589-3
Date Collected: 05/22/14 11:40
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 22:27	JD1	TAL SAV
Total/NA	Prep	3520C			993.3 mL	1.0 mL	331059	05/28/14 16:02	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	993.3 mL	1.0 mL	333558	06/11/14 16:49	SMC	TAL SAV

Client Sample ID: MW-F3R (052214)

Lab Sample ID: 680-101589-4
Date Collected: 05/22/14 12:15
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			501.1 mL	5.0 mL	331253	05/29/14 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	501.1 mL	5.0 mL	331628	05/31/14 15:24	JCK	TAL SAV
Total/NA	Prep	HRMS-Sep			992.2 mL	20 uL	43327	05/28/14 12:23	GDB	TAL SAC
Total/NA	Analysis	1668C		1	992.2 mL	20 uL	43528	05/31/14 11:17	KSS	TAL SAC

Client Sample ID: MW-F5 (052214)

Lab Sample ID: 680-101589-5
Date Collected: 05/22/14 12:55
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 22:55	JD1	TAL SAV
Total/NA	Prep	3520C			1037.9 mL	1.0 mL	331059	05/28/14 16:02	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	1037.9 mL	1.0 mL	333558	06/11/14 17:14	SMC	TAL SAV

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Client Sample ID: MW-F21 (052214)

Lab Sample ID: 680-101589-6

Date Collected: 05/22/14 13:30
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 23:23	JD1	TAL SAV
Total/NA	Prep	3520C			957.6 mL	1.0 mL	331059	05/28/14 16:02	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	957.6 mL	1.0 mL	333558	06/11/14 17:39	SMC	TAL SAV

Client Sample ID: MWD-30 (052214)

Lab Sample ID: 680-101589-7

Date Collected: 05/22/14 14:06
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 23:51	JD1	TAL SAV
Total/NA	Prep	3520C			949.6 mL	1.0 mL	331059	05/28/14 16:02	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	949.6 mL	1.0 mL	333558	06/11/14 18:04	SMC	TAL SAV

Client Sample ID: Dup-1

Lab Sample ID: 680-101589-8

Date Collected: 05/22/14 00:00
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/06/14 00:19	JD1	TAL SAV

Client Sample ID: TB-1

Lab Sample ID: 680-101589-9

Date Collected: 05/22/14 00:00
Matrix: Water
Date Received: 05/22/14 15:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	332577	06/05/14 20:34	JD1	TAL SAV

Laboratory References:

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	041414472
Customer ID:	STLS77
Customer PO:	68001205
Project ID:	

Attn:	Kathy E Smith TestAmerica Laboratories, Inc. 5102 LaRoche Avenue Savannah, GA 31404	Phone: Fax: Collected: Received: Analyzed:	(912) 354-7858 (912) 352-0165 05/22/2014 05/23/2014 05/28/2014
Proj:	Hercules Savannah / Remediation 680-101589-1		

Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm^2)	Area Analyzed (mm^2)	ASBESTOS				
					Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
							MFL (million fibers per liter)		
MWF-8 (052214) (680-10 041414472-0001	5/23/2014 11:45 AM	50	1282	0.1320	None Detected	ND	0.19	<0.19	0.00 - 0.72

Analyst(s)
Sandy Burany, Ph.D (1)

Stephen Siegel, CIH, Laboratory Manager
or Other Approved Signatory

Any questions please contact Steve Siegel.

Initial report from: 05/28/2014 15:33:36

Sample collection and containers provided by the client, acceptable bottle blank level is defined as ≤0.01MFL>10um. ND=None Detected. This report may not be reproduced, except in full, without written permission by EMSL Analytical, Inc. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report relates only to the samples reported above. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAC NYS ELAP 10872, NJ DEP 03036, FL DOH E87975, PA ID# 68-00367

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

041414472

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Smith, Kathryn E	Carrier Tracking No(s):	COC No: 680-341458.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kathy.smith@testamericainc.com		Page: Page 1 of 1
Company: EMSL Analytical, Inc.				Job #: 680-101589-1
Address: 200 Rt 130 North, ,	Due Date Requested: 6/4/2014			
City: Cinnaminson	TAT Requested (days):			
State, Zip: NJ, 08077				
Phone: 800-220-3675(Tel)	PO #:			
Email:	WO #:			
Project Name: Hercules Savannah / Remediation	Project #: 68001205			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Asbestos)/ Asbestos	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MWF-8(052214) (680-101589-10)	5/22/14	15:15 Eastern		Water			X	2	

RECEIVED EMSL CINNAMINSON, N.J. 2014 MAY 23 A 10: 34

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 05/22/14 1730	Company: TA SV	Received by: [signature] FX	Date/Time: 5/23/14 9:30	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Serial Number 71559

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Savannah Hercules	PROJECT NO.	PROJECT LOCATION (STATE)	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER: Jerry Lanier	P.O. NUMBER	CONTRACT NO.	STANDARD REPORT DELIVERY ●
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 404-952-1635	CLIENT FAX: 770-482-9000	DATE DUE
CLIENT NAME: Arcadis	CLIENT E-MAIL: David.wilderman@arcadis-us.com		EXPEDITED REPORT DELIVERY (SURCHARGE) ○
CLIENT ADDRESS: 1000 Cobb Place Blvd. Suite 500, Kennesaw, GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS / NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	AQUEOUS (WATER)	8260B (HCL)	8270C (None)	1668C	8081B/8082A PCB	REMARKS
5-22-14	1000	MW-27 (052214)	X	3	2			
5-22-14	1105	MW-29 (052214)		3	2			
5-22-14	1140	MWF-7 (052214)		3	2			
5-22-14	1215	MWF-3R (052214)				2	2	
5-22-14	1255	MWF-5 (052214)		3	2			
5-22-14	1330	MWF-21 (052214)		3	2			
5-22-14	1406	MWD-30 (052214)		3	2			
5-22-14		Dup-1		3				
5-22-14		TB-1	X	2				

PRESERVATIVE

680-101589 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	5-22-14	1555						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	5-22-14	1555	YES ○ NO ○		680-101589	1.6/0.8°C

TAL8240-680 (1008)

Serial Number 71558

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Savannah Hercules	PROJECT NO.	PROJECT LOCATION (STATE)	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER: Terry Lanier	P.O. NUMBER	CONTRACT NO.	STANDARD REPORT DELIVERY ☒
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 404-952-1635	CLIENT FAX: 770482-9004	DATE DUE
CLIENT NAME: Arcadis	CLIENT E-MAIL: david.wilderman@arcadis-us.com		EXPEDITED REPORT DELIVERY (SURCHARGE) ☐
CLIENT ADDRESS: 1000 Cobb Place Blvd. Suite 500, Kennesaw, GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: Non Asbestos	PRESERVATIVE	NUMBER OF CONTAINERS SUBMITTED	REMARKS
5-22-14	1515	MWF8(052214)								2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	5-22-14	1555						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	5-22-14	15:55	YES ☐ NO ☐		LAO-101589	1.6/0.8°C

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-101589-1

Login Number: 101589

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-101589-1

Login Number: 101589
List Number: 2
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 05/24/14 10:53 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah / Remediation

TestAmerica Job ID: 680-101589-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14 *
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14 *
GA Dept. of Agriculture	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	803	06-30-14 *
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-14 *
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14 *
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	02-28-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14 *
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14 *
New Jersey	NELAP	2	GA769	06-30-14 *
New Mexico	State Program	6	N/A	06-30-14 *
New York	NELAP	2	10842	03-31-15
North Carolina DENR	State Program	4	269	12-31-14
North Carolina DHHS	State Program	4	13701	07-31-14 *
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-14 *
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia DEP	State Program	3	94	06-30-14 *
West Virginia DHHR	State Program	3	9950C	12-31-14
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14 *

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

* Certification renewal pending - certification considered valid.

Laboratory: TestAmerica Sacramento (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-13 *
Arizona	State Program	9	AZ0708	08-11-14
Arkansas DEQ	State Program	6	88-0691	06-17-14 *
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-14
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-14
Guam	State Program	9	N/A	08-31-14
Hawaii	State Program	9	N/A	01-29-15
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-14
Louisiana	NELAP	6	30612	06-30-14
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-14
New Jersey	NELAP	2	CA005	06-30-14
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-15
Pennsylvania	NELAP	3	9947	03-31-15
South Carolina	State Program	4	87014	06-30-14
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	12-31-14
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-14
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia DHHR	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

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