

**SEMIANNUAL PROGRESS REPORT
FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA**

**By Haley & Aldrich, Inc.
Greenville, South Carolina**

**For Carpenter Technology Corporation
Reading, Pennsylvania**

File No. 38111-010
October 2015





Haley & Aldrich, Inc.
400 Augusta Street
Suite 130
Greenville, SC 29601
864.214.8750

16 October 2015
File No. 38111-010

Georgia Environmental Protection Division
Response and Remediation Program; Release Notification Unit
2 Martin Luther King Jr. Drive, SE
Suite 1462 East
Atlanta, Georgia 30334

Attention: Allan C. Nix, P.G.

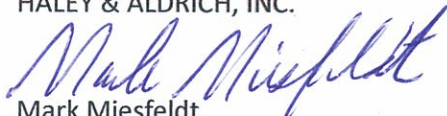
Subject: October 2015 Semi-Annual Progress Report #3
Former General Time Facility
100 Newton Bridge Road- Athens, Georgia
HSI Site Number 10355

Dear Mr. Nix:

Carpenter Technology Corporation (CTC) was accepted into the Georgia Voluntary Remediation Program (VRP) in April 2014, HSI site number 10355. Consistent with the VRP, CTC has submitted Semi-annual Progress Reports to the EPD describing activities that have been conducted during the prior six months. This report is the third progress report being submitted since being approved.

As a condition of approval the Georgia Environmental Protection Division (EPD) requested that CTC conduct semi-annual groundwater and surface water sampling. The results of this sampling effort, which are contained in this report, continue to corroborate the conceptual site model (CSM), as well as to document stable or contracting groundwater plume(s) on and off the property, no off-site vapor intrusion risks, and no adverse effects to potential ecological or human receptors in the North Oconee River. As requested, CTC continues to evaluate potential corrective actions to address the VOC levels detected in samples collected from the MW-16 well pair. Planned activities for the next six months are also outlined in this report.

Sincerely yours,
HALEY & ALDRICH, INC.


Mark Miesfeldt
Project Manager

List of Tables

Table No.	Title
I.	Groundwater Monitoring Parameters
II.	Groundwater and Surface Water Analytical Results
III.	Potentiometric Surface Data

List of Figures

Figure No.	Title
1	Site Location Map
2	Site Map Showing Sample Locations and Suspected Source Areas
3	Potentiometric Surface September 2015
4	Distribution of TCE in Shallow Groundwater – September 2015
5	Distribution of TCE in Intermediate Groundwater – September 2015
6	Project Milestone Schedule

Appendices

- A Analytical Report
- B Field Sampling Forms
- C Historical Summary of VOC Concentrations
- D Labor Summary

Introduction

The Site is located in an industrial park at 100 Newtown Bridge Road, in Athens, Georgia. A Site location map is provided as Figure 1. The Site is approximately 35 acres with a 325,000 square foot manufacturing building. Additional structures include outbuildings constructed of corrugated metal with concrete slab bases and a security building at the rear of the facility. The topography of the Site slopes gently from northwest to southeast.

The Former General Time facility was accepted into the Georgia Voluntary Remediation Program (VRP) in April 2014, HSI site number 10355.

Activities Conducted During Previous Six Months

The following activities were conducted at the Site since the submittal of Semi-Annual Progress Report #2 in June 2015:

- Haley and Aldrich collected groundwater and surface water samples in September 2015. Groundwater samples were collected on and off the site to document current conditions and corroborate the Conceptual Site Model (CSM).
- Surface water samples were collected in the North Oconee River adjacent to the MW-11 cluster to address potential impacts to human and ecological receptors. A surface water sample was also collected in the North Oconee River near highway 129 to address groundwater discharge into the river. Groundwater and surface water sampling locations are shown on Figure 2.
- CTC continued to evaluate potential remediation technologies and approaches to address the groundwater impacts beneath the former manufacturing building.

Groundwater Monitoring Activities

This section of the report includes a summary of the groundwater monitoring activities conducted during September 2015 as well as the corresponding analytical results, field parameters, water elevations, and groundwater flow information.

Groundwater samples were collected between September 16th and September 19th, 2015. In addition to the field indicator parameters (pH, temperature, specific conductivity, dissolved oxygen, oxidation reduction potential, and turbidity) the samples were analyzed in the laboratory for the site-specific volatile organic constituents of concern (COC's) listed on Table I. The groundwater monitoring network consists of the wells also found on Table I.

Consistent with the previous site-wide monitoring event, groundwater samples were collected from wells constructed on- and off the Site. With the exception of MW-4I, which appeared to have been destroyed by a bush hog, all of the wells included in the 2012 sampling event were located, confirmed to be in good repair, and sampled. Analytical results are provided on Table II.

During the sampling event the depth to groundwater was measured in each well. This information was used to calculate horizontal and vertical groundwater gradients, construct potentiometric surface maps, and assess groundwater flow direction and rate. The laboratory report is provided in Appendix A. Groundwater field sampling forms are provided in Appendix B.

SUMMARY OF GROUNDWATER FLOW

The depth to groundwater was measured in the available wells both on- and off-Site during this sampling event. The water table elevations were subsequently calculated using the surveyed well casing elevations and the measured depth to groundwater. These data are summarized on Table III.

The September 2015 groundwater elevations from intermediate wells were used to construct the potentiometric surface map shown on Figure 3. The potentiometric surface shows the groundwater flow direction is east towards the North Oconee River, consistent with previous interpretations. The average horizontal hydraulic gradient is approximately 0.008 feet/foot, also consistent with previous interpretations. The estimated groundwater flow velocity, utilizing the average hydraulic conductivity of the intermediate zone of 5.2 feet/day and an effective porosity of 25 percent, is approximately 0.17 feet/day or 60 feet/year.

Vertical groundwater gradients were calculated, where possible, using the September 2015 water elevation data. Consistent with historical calculations, there is a low magnitude downward flow potential in the upland area of the Site in the vicinity of the MW-2, MW-9, and MW-16 well pairs. The calculated vertical gradients between the saprolite and bedrock units are an order of magnitude lower than the vertical gradients calculated between the shallow water table and deeper saprolite. As expected, in proximity to the North Oconee River, the vertical gradients in the unconsolidated overburden become slightly positive, or upward, suggesting that groundwater is discharging to surface water in the vicinity of the MW-11 well cluster. However, there remains a low magnitude downward flow potential between the saprolite and the bedrock units. The calculated vertical gradients are provided on the table below.

SUMMARY OF ESTIMATED VERTICAL GROUNDWATER GRADIENTS

Well Pair	Estimated Vertical Gradient*
MW-2S & MW-2I	-0.016 feet/feet
MW-2I & MW-2D	-0.003 feet/feet
MW-9I & MW-9D	-0.016 feet/feet
MW-16I & MW-16D	-0.005 feet/feet
MW-11S & MW-11I	0.068 feet/feet
MW-11I & MW-11D	-0.004 feet/feet

Negative gradient indicates downward groundwater flow potential

* Results were calculated using the EPA's vertical gradient calculator

* The estimated vertical gradient was calculated at the mid-point of the screen

SUMMARY OF GROUNDWATER AND SURFACE MONITORING RESULTS

As indicated in the approved VRP application, the only potentially completed exposure pathways to site COC's are vapor intrusion into indoor air and discharge of affected groundwater to the North Oconee River. Because the on-site building is unoccupied and could not be re-occupied without significant improvements to the roof, the vapor intrusion pathway on-site is deemed incomplete. Potential vapor intrusion at off-site properties was evaluated using the Johnson & Ettinger (J&E) groundwater to indoor air model. As indicated in the June 2015 Semiannual Progress Report, a trichloroethylene (TCE) concentration in groundwater of 8,180 micrograms per liter (ug/L) would be protective for an excess lifetime cancer risk of 1 in 1 million and a hazard index of 1 for vapor intrusion into a commercial building overlying TCE in groundwater. Off-site groundwater concentrations are significantly lower than

the values calculated using J&E regardless of sampling interval; therefore, Haley & Aldrich concludes that the vapor intrusion risk at off-site downgradient properties is negligible. As a result, the only potential exposure pathway to Site-related groundwater contamination is discharge of groundwater to surface water at the North Oconee River, with subsequent exposure to the surface water by aquatic organisms and people who use the river recreationally and as a source of potable water. To date site COC's have not been detected in surface water. Distribution of TCE in shallow and intermediate groundwater is provided in Figures 4 & 5.

Consistent with historical sampling results, provided in Appendix C, the highest VOC concentrations, primarily TCE and its degradation products cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC), continue to be detected in the area where shallow well MW-16I and intermediate wells MW-2I and RW-3 are located. Significant findings from the September 2015 sampling event include:

- TCE concentrations of 13,000 µg/L were detected in shallow well MW-16I. This concentration is several orders of magnitude higher than MW-16D, where a TCE concentration of 110 µg/L was detected. However, the concentration of TCE has decreased by almost 50% in MW-16I since October 2012 at the time of the initial field scale pilot study. At that time the TCE concentration in well MW-16I was 25,100 µg/L. This supports the conclusion that there is not a continuing source of TCE beneath the former manufacturing building and that the injection of remediation amendments has the potential to significantly reduce VOC concentrations in groundwater.
- In the vicinity of the in-situ bioremediation pilot studies the production of TCE daughter products has increased dramatically to the point where the concentration of the daughter product cis-1,2-DCE now exceeds the parent TCE. At well MW-16I, cis-1,2-DCE was detected at a concentration of 15,000 µg/L versus 13,000 µg/L of TCE.
- TCE and degradation products continue to be detected in the samples collected from the intermediate wells MW-2I and RW-3 located immediately downgradient of the former cistern and TCE spill area. TCE concentrations of 7,800 µg/L and 13,000 µg/L were detected in MW-2I and RW-3, respectively. The historical concentrations of TCE detected in MW-2I are 11,500 µg/L and 16,300 µg/L in RW-3.
- TCE concentrations have declined in off-site monitoring locations. For example, TCE levels have dropped to below detection in well MW-7I providing additional evidence to disconnect the plume emanating from the site from the groundwater impacts detected at the MW-11 cluster. TCE concentrations have also declined in well MW-6I where the concentrations have dropped from 438 µg/L in 2012 to 7 µg/L. TCE was detected in the sample collected at well MW-9I, located south-east of the site, at a concentration of 420 µg/L. Since February 2012 TCE has decreased by approximately 40% at this location. The highest historical concentration found in MW-9I was 1,110 µg/L in December 2012.
- In the MW-11 well cluster, located east of the site by the North Oconee River, TCE was detected in the sample collected from well MW-11I at a concentration of 490 µg/L, while at MW11S TCE was detected at a concentration of 260 µg/L. TCE was not detected in the sample from MW-11D. While the concentrations of VOCs detected at this location vary between sampling events, the values measured during this sampling event fall within the historical ranges.

Surface water samples collected from the North Oconee River on September 18th 2015 continue to show that VOCs are not present in surface water adjacent to the MW-11 well cluster or downstream of the Site; therefore, potential surface water receptors are not being impacted by the VOCs detected in groundwater. The analytical report is provided in Appendix A.

REMEDIATION PROGRAM

As previously reported, CTC has been evaluating in-situ bioremediation since 2012 using different biological amendments to promote degradation of TCE in the groundwater hot-spot under the former manufacturing building. These field scale pilot studies have shown the ability to inject and distribute remediation amendments into the aquifer and to stimulate microbial activity. Unfortunately, it has been difficult to consistently maintain the geochemical conditions within the treatment zone to achieve the desired results. During the next reporting period, CTC intends to build on the previous studies and conduct further testing in this area using remediation amendments that are not sensitive to the geochemical conditions and have the potential to reduce source concentrations and promote natural attenuation in a shorter timeframe. CTC will update EPD on progress in the April 2016 semiannual progress report.

Evidence from the most recent sampling effort document stable or contracting groundwater plume(s) on and off the property, no off-site vapor intrusion risks, and no adverse effects to potential ecological or human receptors in the North Oconee River. Therefore, Haley & Aldrich recommends reducing the sampling program to an annual schedule to monitor natural attenuation. An updated milestone schedule is provided as Figure 6.

As required in the VRP guidance a monthly summary of hours invoiced and description of services provided since the last submittal is provided as Appendix D.

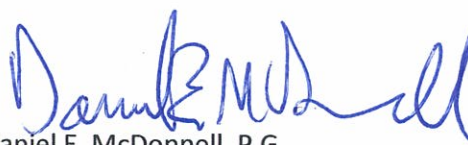
CLOSING

If you have any questions or need additional information, please do not hesitate to call Sean McGowan at 610.334.2701 or Mark Miesfeldt at 864.214.8751.

Sincerely yours,
HALEY & ALDRICH, INC.



Mark Miesfeldt,
Project Manager

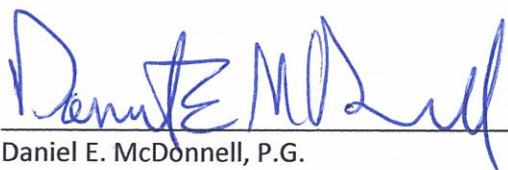


Daniel E. McDonnell, P.G.
Georgia Registration No. PG002083

PROFESSIONAL GEOLOGIST CERTIFICATION

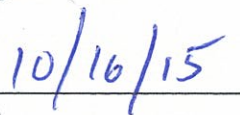
I certify that I am a qualified groundwater scientist who has received a post-graduate degree in the natural sciences, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this VRP Application prepared for Carpenter Technology Corporation for the General Time site, located in Athens, Georgia, was prepared by myself and appropriate qualified subordinates working under my direction.





Daniel E. McDonnell, P.G.

Date



Georgia Professional Geologist Registration No. 002083

TABLES

TABLE I
GROUNDWATER MONITORING PARAMETERS
CARPENTER – GENERAL TIME FACILITY
ATHENS, GEORGIA

WELL ID	WELL TYPE	SEPTEMBER 2015 ANALYTICAL PROGRAM
RW-1	Recovery Well	Water Level Only
RW-2	Recovery Well	Water Level Only
RW-3	Recovery Well	VOCs
RW-4	Recovery Well	VOCs
MW-1S	Shallow Overburden	VOCs
MW-1I	Intermediate Overburden	VOCs
MW-2S	Shallow Overburden	VOCs
MW-2I	Intermediate Overburden	VOCs
MW-2D	Deep Overburden	VOCs
MW-3I	Intermediate Overburden	VOCs
MW-4I	Intermediate Overburden	Destroyed
MW-5I	Intermediate Overburden	VOCs
MW-6I	Intermediate Overburden	VOCs
MW-7I	Intermediate Overburden	VOCs
MW-8I	Intermediate Overburden	VOCs
MW-9I	Intermediate Overburden	VOCs
MW-9D	Deep Overburden	VOCs
MW-10IR	Intermediate Overburden	Water Level Only
MW-10D	Deep Overburden	Water Level Only
MW-11S	Shallow Overburden	VOCs
MW-11I	Intermediate Overburden	VOCs
MW-11D	Deep Overburden	VOCs
MW-12I	Intermediate Overburden	Water Level Only
MW-12D	Deep Overburden	Water Level Only
MW-13I	Intermediate Overburden	Water Level Only
MW-14I	Intermediate Overburden	Water Level Only
MW-14D	Deep Overburden	Water Level Only
MW-15I	Intermediate Overburden	Water Level Only
MW-16I	Shallow Overburden	VOCs
MW-16D	Deep Overburden	VOCs

Notes:

- Volatile Organic Compounds (VOCs) include: February 2012 Target Compound List (TCL) by 8260B: September 2015 Site Specific VOCs - cis-1,2-dichloroethene, 1,1,2-Trichloroethane, 1,1-Dichloroethane, Methylene chloride, trans-1,2-dichloroethene, Trichloroethene, and Vinyl Chloride
- Field Parameters include: water level, ph, conductivity, dissolved oxygen temperature and oxidation reduction potential.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

	Location Name Sample Date	MW-1I 12/21/2011	MW-1I 9/16/2015	MW-1S 12/21/2011	MW-1S 9/16/2015	MW-2D (DUP) 12/22/2011	MW-2D 12/22/2011	MW-2D 2/21/2012	MW-2D 9/17/2015	MW-2I 12/21/2011	MW-2I 2/20/2012	MW-2I 9/16/2015	MW-2S 12/21/2011
Field Parameters													
Conductivity, Field (mS/cm)		0.053	0.065	0.036	0.042	-	0.205	0.167	0.078	0.064	0.068	0.087	0.06
Dissolved Oxygen, Field (mg/L)		8.64	6.58	8.32	0.86	-	1.08	1.1	1.17	2.54	1.5	4.11	6.86
ORP, Field (mV)		142.9	204	149	84	-	-30.1	3.8	104	151.9	61.4	83	156
pH, Field (NTU)		6.25	6.58	5.97	5.17	-	7.89	8.6	4.98	5.89	5.87	6.62	5.58
Temperature, Field (Deg C)		18	19.44	17.4	21.31	-	18.8	13.6	20.06	18.9	17	22.42	19
Turbidity, Field (NTU)		1.4	2.0	5.1	14.6	-	3.4	2.4	0.3	5.1	3	1.0	2.2
General Chemistry (mg/L)													
Alkalinity, Total (as CaCO3)		23.8	-	16.2	-	75.6	77.7	78.4	-	29.2	28.6	-	19.5
Nitrate		0.66	-	0.56	-	< 0.2	< 0.2	< 0.2	-	1.5	0.44	-	0.43
Nitrite (as N)		< 0.1	-	< 0.1	-	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1
Nitrite/Nitrate Nitrogen		0.66	-	0.56	-	< 0.2	< 0.2	< 0.2	-	1.5	0.44	-	0.43
Sulfate		< 5	-	< 5	-	23.8	24.9	22.1	-	< 5	< 5	-	7.9
Sulfide		< 0.1	-	< 0.1	-	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1
Total Organic Carbon (TOC)		< 1	-	< 1	-	1.6	1.7	1.4	-	1.8	2.2	-	3.7
Dissolved Gases(ug/L)													
Methane		< 10	-	< 10	-	< 10	< 10	< 6.6	-	< 10	< 6.6	-	11.2
Volatile Organic Compounds (ug/L)													
1,1,2-Trichloroethane		< 1	< 1	< 1	< 1	< 1	< 1	-	< 5	2.7	-	< 10	< 1
1,1-Dichloroethane		< 1	< 1	< 1	< 1	< 1	< 1	-	< 5	2.1	-	< 10	< 1
cis-1,2-Dichloroethene		< 1	< 1	< 1	< 1	< 1	< 1	< 1	320	924	813	790	1
Methylene chloride		< 2	< 4	< 2	< 4	< 2	< 2	-	< 20	< 2	-	< 40	< 2
trans-1,2-Dichloroethene		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	24.1	< 100	12	< 1
Trichloroethene		< 1	< 1	< 1	< 1	1.1	< 1	< 1	4000	11500	9430	7800	2.9
Vinyl chloride		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	1.3	< 100	< 10	< 1

Notes and Abbreviations:

- 1. Results shown in **bold** were detected.
- 2. < - Not detected above the laboratory detection limit.
- 3. Only detected compounds are shown in table.
- 4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name Sample Date	MW-2S 2/20/2012	MW-2S 9/16/2015	MW-3I 12/27/2011	MW-3I 9/17/2015	MW-4I 12/22/2011	MW-5I 12/27/2011	MW-5I 2/21/2012	MW-5I 9/17/2015	MW-6I 12/19/2011	MW-6I 9/17/2015	MW-7I 12/27/2011	MW-7I 2/21/2012
Field Parameters												
Conductivity, Field (mS/cm)	0.84	0.109	0.092	0.101	0.088	0.101	0.098	0.109	0.74	0.082	0.122	0.124
Dissolved Oxygen, Field (mg/L)	4	3.41	3.34	4.69	2.11	5.5	1.79	1.87	1.33	3.85	0.35	0.12
ORP, Field (mV)	52.1	192	78.6	110	19.5	49.1	73.2	121	209.1	114	45.9	21
pH, Field (NTU)	5.7	6.39	6.27	7.61	6.21	6.53	6.39	6.8	5.64	6.82	6.2	6.19
Temperature, Field (Deg C)	16.2	22.38	18.5	21.59	17.4	20.5	21.7	24.71	19.3	23.84	18.8	19.3
Turbidity, Field (NTU)	4	0.2	4.8	0.2	6.3	5.1	2.3	0.0	7.9	0.0	5	0.9
General Chemistry (mg/L)												
Alkalinity, Total (as CaCO3)	26.5	-	-	-	41	44.1	43.2	-	-	-	57.8	46.4
Nitrate	1.6	-	-	-	0.67	0.84	0.84	-	-	-	< 0.2	< 0.2
Nitrite (as N)	< 0.1	-	-	-	< 0.1	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1
Nitrite/Nitrate Nitrogen	1.6	-	-	-	0.67	0.84	0.84	-	-	-	< 0.2	< 0.2
Sulfate	12	-	-	-	< 5	< 5	< 5	-	-	-	< 5	< 5
Sulfide	< 0.1	-	-	-	< 0.1	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1
Total Organic Carbon (TOC)	2.7	-	-	-	13.6	1.5	1.6	-	-	-	2.4	18.8
Dissolved Gases(ug/L)												
Methane	< 6.6	-	-	-	< 10	< 10	< 6.6	-	-	-	206	135
Volatile Organic Compounds (ug/L)												
1,1,2-Trichloroethane	-	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-
1,1-Dichloroethane	-	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	2.8	2.2	3	70.6	< 1	2.5	2.3
Methylene chloride	-	< 4	< 2	< 4	< 2	< 2	-	< 4	< 2	< 4	< 2	-
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1	1.9	96.1	< 1	81	438	7	2.3	1
Vinyl chloride	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

	Location Name Sample Date	MW-7I 9/17/2015	MW-8I 12/27/2011	MW-8I 9/17/2015	MW-9D 12/21/2011	MW-9D 2/21/2012	MW-9D 9/17/2015	MW-9I 12/21/2011	MW-9I 2/21/2012	MW-9I 9/17/2015	MW-11D 12/22/2011	MW-11D 2/20/2012	MW-11D 9/18/2015
Field Parameters													
Conductivity, Field (mS/cm)		0.126	0.312	0.32	0.166	0.167	0.203	0.122	0.129	0.137	0.98	0.87	0.288
Dissolved Oxygen, Field (mg/L)		0.58	7.85	2.1	0.51	0.27	1.72	0.35	0.39	2.59	0.69	-0.7	1.84
ORP, Field (mV)		129	149	193	-171	-115	51	153.6	73.5	133	-335	-286.9	-75
pH, Field (NTU)		6.46	5.46	5.85	8.62	8.8	7.85	6.18	6.23	6.72	7.03	7.3	6.99
Temperature, Field (Deg C)		23.43	16.2	25.8	19.9	18.4	27.4	19.6	18.4	24.67	16.7	15.7	18.12
Turbidity, Field (NTU)		0.0	4.2	2.5	1.5	4	0.5	3	1.3	0.0	5.1	4.8	2.4
General Chemistry (mg/L)													
Alkalinity, Total (as CaCO3)		-	-	-	84.4	84.8	-	61.7	59.3	-	441	376	-
Nitrate		-	-	-	< 0.2	< 0.2	-	0.48	0.48	-	< 0.2	< 0.2	-
Nitrite (as N)		-	-	-	< 0.1	< 0.1	-	< 0.1	< 0.1	-	1.5	0.77	-
Nitrite/Nitrate Nitrogen		-	-	-	< 0.2	< 0.2	-	0.48	0.48	-	< 0.2	< 0.2	-
Sulfate		-	-	-	9.1	9.2	-	< 5	< 5	-	5.2	7.8	-
Sulfide		-	-	-	< 0.1	< 0.1	-	< 0.1	< 0.1	-	57.8	4.6	-
Total Organic Carbon (TOC)		-	-	-	2.2	2.7	-	2.4	3.2	-	42.8	33.7	-
Dissolved Gases(ug/L)													
Methane		-	-	-	< 10	< 6.6	-	< 10	7.3	-	28000	13000	-
Volatile Organic Compounds (ug/L)													
1,1,2-Trichloroethane		< 1	< 1	< 1	< 1	-	< 1	< 1	-	< 1	< 1	-	< 1
1,1-Dichloroethane		< 1	< 1	< 1	< 1	-	< 1	1.2	-	< 1	< 1	-	< 1
cis-1,2-Dichloroethene		3	< 1	< 1	< 1	< 1	< 1	113	91.9	34	8	7.7	< 1
Methylene chloride		< 4	< 2	< 4	< 2	-	< 4	< 2	-	< 4	< 2	-	< 4
trans-1,2-Dichloroethene		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1
Trichloroethene		< 1	< 1	< 1	< 1	< 1	< 1	1110	1070	420	< 1	< 1	< 1
Vinyl chloride		5	< 1	< 1	1.2	1.2	< 1	< 1	< 10	< 1	< 1	< 1	< 1

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name Sample Date	MW-11I 12/20/2011	MW-11I 2/20/2012	MW-11I 9/18/2015	MW-11S 12/20/2011	MW-11S 2/20/2012	MW-11S 9/18/2015	MW-14D 12/20/2011	MW-14I 12/20/2011	MW-16D 12/22/2011	MW-16D (DUP) 2/22/2012	MW-16D 2/22/2012
Field Parameters											
Conductivity, Field (mS/cm)	0.08	0.08	0.108	0.035	0.053	0.161	0.105	0.06	0.088	-	0.105
Dissolved Oxygen, Field (mg/L)	2.42	1.7	3.1	0.76	0.72	3.67	3.1	1.48	3.51	-	1.97
ORP, Field (mV)	154	136.4	220	187	80.5	261	154.9	85.1	84	-	124.3
pH, Field (NTU)	5.82	5.96	5.82	5.25	5.19	4.56	6.28	6.13	5.85	-	5.99
Temperature, Field (Deg C)	16	15.3	18.74	16.3	13.6	19.83	16	15.4	19.9	-	18.9
Turbidity, Field (NTU)	4.3	2.4	2.4	4.7	4.6	37.5	0.9	5.7	3.1	-	2.3
General Chemistry (mg/L)											
Alkalinity, Total (as CaCO3)	37.9	39.2	-	6.5	9.5	-	51.3	26	30.5	-	-
Nitrate	0.88	0.96	-	0.48	< 0.2	-	< 0.2	< 0.2	1.1	1.2	1.2
Nitrite (as N)	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nitrite/Nitrate Nitrogen	0.88	0.96	-	0.48	< 0.2	-	< 0.2	< 0.2	1.1	1.2	1.2
Sulfate	< 5	< 5	-	< 5	6.1	-	< 5	< 5	10.3	-	-
Sulfide	< 0.1	< 0.1	-	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Organic Carbon (TOC)	1.8	1.8	-	2	2.9	-	1.5	1.5	2.2	1.8	1.9
Dissolved Gases(ug/L)											
Methane	< 10	< 6.6	-	< 10	< 6.6	-	< 10	30	< 10	< 6.6	< 6.6
Volatile Organic Compounds (ug/L)											
1,1,2-Trichloroethane	< 1	-	< 1	< 1	-	< 1	< 1	< 1	< 1	-	-
1,1-Dichloroethane	< 1	-	< 1	< 1	-	< 1	< 1	< 1	< 1	-	-
cis-1,2-Dichloroethene	50	33.4	44	26.7	50.9	30	< 1	< 1	34.2	28.2	28.8
Methylene chloride	< 2	-	< 4	< 2	-	< 4	< 2	< 2	< 2	-	-
trans-1,2-Dichloroethene	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	766	540	490	356	183	260	< 1	< 1	114	90.4	95.9
Vinyl chloride	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Notes and Abbreviations:**
1. Results shown in **bold** were detected.
 2. < - Not detected above the laboratory detection limit.
 3. Only detected compounds are shown in table.
 4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name Sample Date	MW-16D 9/16/2015	MW-16I 12/22/2011	MW-16I 2/22/2012	MW-16I 9/16/2015	RW-1 12/19/2011	RW-1 2/21/2012	RW-2 12/19/2011	RW-2 2/22/2012	RW-3 12/19/2011	RW-3 2/22/2012	RW-3 9/16/2015	RW-4 12/19/2011
Field Parameters												
Conductivity, Field (mS/cm)	0.112	0.498	0.649	0.626	0.04	0.15	0.07	0.72	0.131	0.146	0.282	0.08
Dissolved Oxygen, Field (mg/L)	2.55	1.68	1.12	1.38	0.38	0.2	3.83	2.45	0.43	0.64	1.43	2.99
ORP, Field (mV)	176	125.4	162.4	-21	162.8	3.8	152.9	108.4	102.2	67.6	30	144.2
pH, Field (NTU)	6.37	5.32	5.42	6.31	5.31	5.95	6.13	6.15	8.95	9.5	7.95	6.54
Temperature, Field (Deg C)	20.73	20.2	19.3	21.33	19.8	19.2	19.6	18.2	19.8	17.9	21.68	19.8
Turbidity, Field (NTU)	4.7	5.2	1.9	8.7	-0.2	2.1	11.5	1.5	5.1	4	0.5	5.8
General Chemistry (mg/L)												
Alkalinity, Total (as CaCO3)	-	25.2	-	-	-	-	-	-	-	-	-	-
Nitrate	-	5.9	5.8	-	-	-	-	-	-	-	-	-
Nitrite (as N)	-	0.24	0.18	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	-	6.2	6	-	-	-	-	-	-	-	-	-
Sulfate	-	166	-	-	-	-	-	-	-	-	-	-
Sulfide	-	< 0.1	< 0.1	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	-	11.3	12	-	-	-	-	-	-	-	-	-
Dissolved Gases(ug/L)												
Methane	-	27.7	35.8	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)												
1,1,2-Trichloroethane	< 1	9.1	-	< 20	< 1	-	< 1	-	4.5	-	< 20	< 1
1,1-Dichloroethane	< 1	3.2	-	< 20	< 1	-	< 1	-	6.5	-	< 20	< 1
cis-1,2-Dichloroethene	36	7360	10600	15000	404	784	3	2.6	678	768	770	< 1
Methylene chloride	< 4	5.2	-	< 80	< 2	-	< 2	-	23.6	-	< 80	< 2
trans-1,2-Dichloroethene	< 1	126	< 100	48	< 1	< 5	< 1	< 1	29.2	< 100	33	< 1
Trichloroethene	110	17800	19700	13000	987	2390	39.8	38.9	13100	16300	13000	11.8
Vinyl chloride	< 1	109	164	570	9.6	35.3	< 1	< 1	2.1	< 100	< 20	< 1

Notes and Abbreviations:

- 1. Results shown in **bold** were detected.
- 2. < - Not detected above the laboratory detection limit.
- 3. Only detected compounds are shown in table.
- 4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

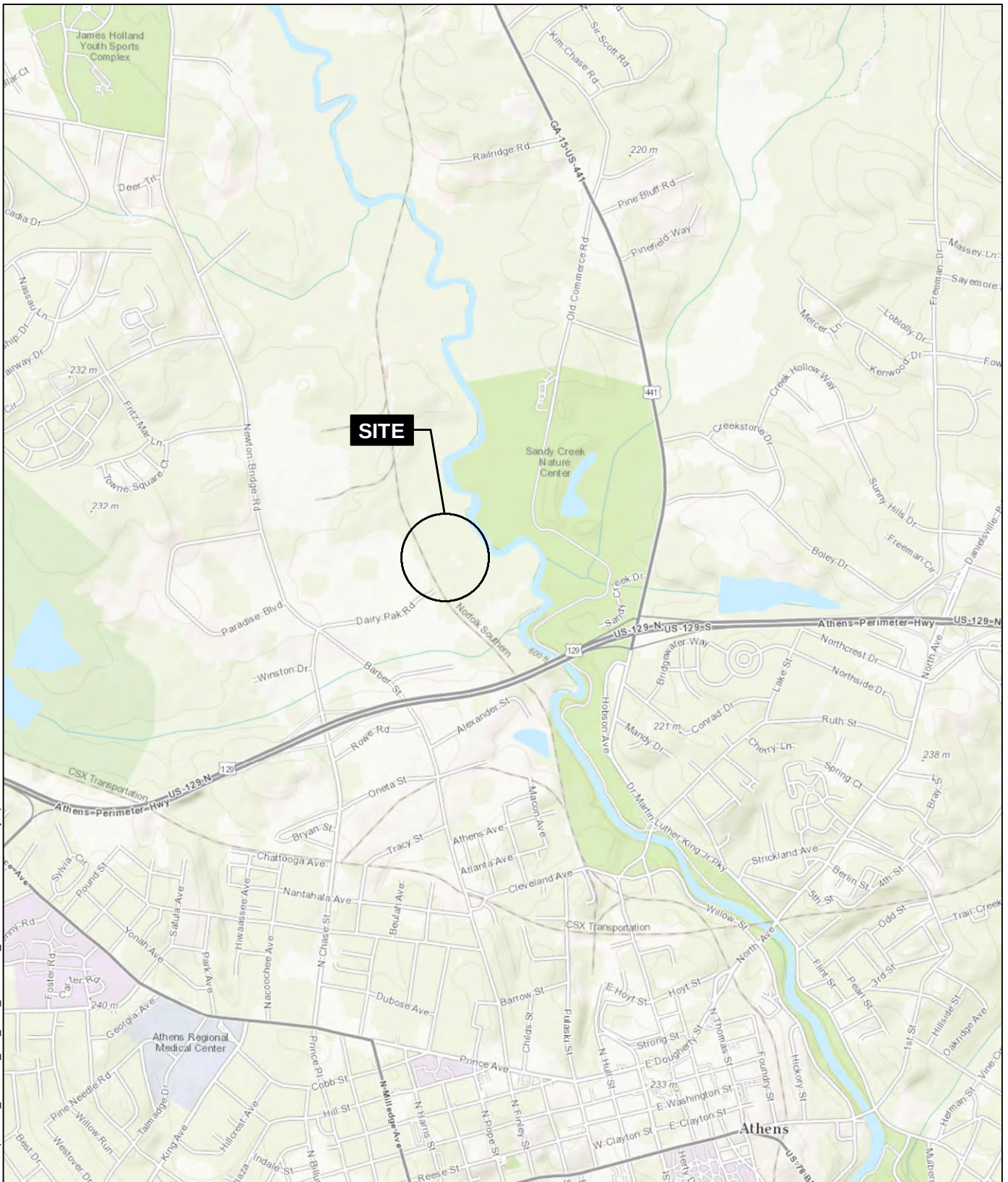
Location Name Sample Date	RW-4 2/22/2012	RW-4 9/16/2015	SW-1 9/18/2015	SW-2 9/18/2015	S-2 12/27/2011	S-5 12/27/2011
Field Parameters						
Conductivity, Field (mS/cm)	0.087	0.111	0.106	0.105	-	-
Dissolved Oxygen, Field (mg/L)	2.6	3.6	6.50	6.86	-	-
ORP, Field (mV)	109.5	193	-44	58	-	-
pH, Field (NTU)	6.66	7.09	7.44	7.49	-	-
Temperature, Field (Deg C)	17.2	20.52	18.66	19.92	-	-
Turbidity, Field (NTU)	4.6	3.7	7.5	19.1	-	-
General Chemistry (mg/L)						
Alkalinity, Total (as CaCO3)	-	-	-	-	-	-
Nitrate	-	-	-	-	-	-
Nitrite (as N)	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	-	-	-	-	-	-
Sulfate	-	-	-	-	-	-
Sulfide	-	-	-	-	-	-
Total Organic Carbon (TOC)	-	-	-	-	-	-
Dissolved Gases(ug/L)						
Methane	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)						
1,1,2-Trichloroethane	-	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	1.7	< 1
Methylene chloride	-	< 4	< 4	< 4	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	7.6	8	< 1	< 1	13.1	< 1
Vinyl chloride	< 1	< 1	< 1	< 1	< 1	< 1

- Notes and Abbreviations:**
1. Results shown in **bold** were detected.
 2. < - Not detected above the laboratory detection limit.
 3. Only detected compounds are shown in table.
 4. - Not analyzed.

TABLE III POTENTIOMETRIC SURFACE DATA CARPENTER - GENERAL TIME FACILITY ATHENS, GEORGIA						
Well Identifier	Date of Measurement	Reference Point Elevation	Screened Interval (feet)	Depth to Water (feet)	Static Water Level Elevation	Notes
MW-1S	9/15/2015	641.3	14.5 - 4.5	7.39	633.91	
MW-1I	9/15/2015	641.1	25 - 20	7.22	633.88	
MW-2S	9/15/2015	637.3	20 - 10	17.51	619.79	
MW-2I	9/15/2015	637.4	86.5 - 76.5	18.60	618.8	
MW-2D	9/15/2015	635.5	226.5 - 216.5	17.39	618.11	
MW-3I	9/15/2015	639.7	99.5 - 89.5	16.33	623.37	
MW-4I	9/15/2015	629.3	64 - 54	-	-	Destroyed
MW-5I	9/15/2015	623.5	41.5 - 31.5	11.74	611.76	
MW-6I	9/15/2015	622.8	71 - 61	9.88	612.92	
MW-7I	9/15/2015	619.1	36.5 - 26.5	9.30	609.80	
MW-8I	9/15/2015	618.7	15 - 5	10.24	608.46	
MW-9I	9/15/2015	613.2	54.5 - 44.5	6.33	606.87	
MW-9D	9/15/2015	613.4	201.4 - 181.4	8.77	604.63	
MW-11S	9/15/2015	611.0	13 - 3	8.98	602.02	
MW-11I	9/15/2015	610.9	32 - 22	8.86	602.04	
MW-11D	9/15/2015	611.9	287.3 - 277.3	9.87	602.03	
MW-16I	9/15/2015	643.6	30 - 20	19.80	623.80	
MW-16D	9/15/2015	643.6	57 - 47	19.94	623.66	
RW-1	9/15/2015	639.7	46.5 - 26.5	18.90	620.80	
RW-2	9/15/2015	639.2	90 - 70	19.12	620.08	
RW-3	9/15/2015	633.9	90 - 70	15.06	618.84	
RW-4	9/15/2015	633.7	95 - 75	13.81	619.89	

FIGURES

GIS FILE PATH: G:\38111_Carpenter\Global\GIS\Maps\2015_09\38111_000_0001_PROJECT_LOCUS.mxd — USER: ajcspe — LAST SAVED: 9/28/2015 2:45:17 PM



MAP SOURCE: ESRI
USGS QUAD: ATHENS WEST
SITE COORDINATES: 82°23'13"N, 33°58'50"W

**HALEY
ALDRICH**

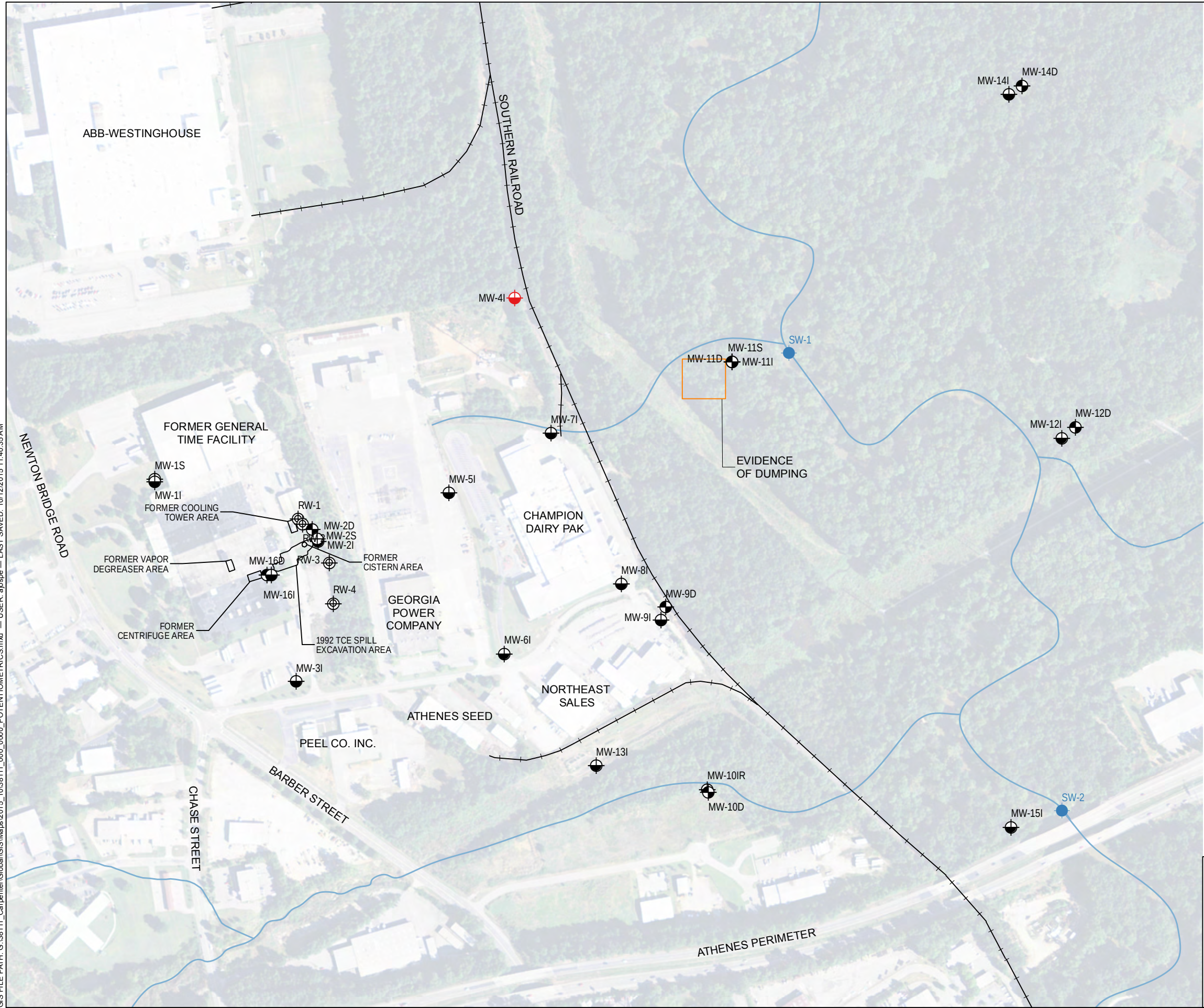
GENERAL TIME FACILITY
ATHENS, GEORGIA

SITE LOCATION MAP

APPROXIMATE SCALE: 1 IN = 2000 FT
OCTOBER 2015

FIGURE 1

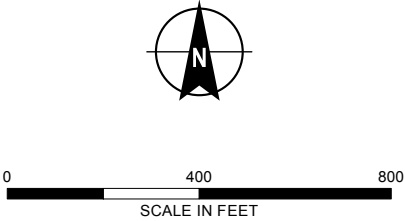
G:\S FILE PATH: G:\38111_Carpenter\Global\GIS\Maps\2015_10\38111_000_0000_POTENTIOMETRICS.mxd — USER: ajcspe — LAST SAVED: 10/12/2015 11:40:35 AM



LEGEND

- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- DESTROYED WELL
- STREAM
- RAILROAD

- NOTES**
- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
 - 2. AERIAL IMAGERY SOURCE: ESRI



**HALEY
ALDRICH**

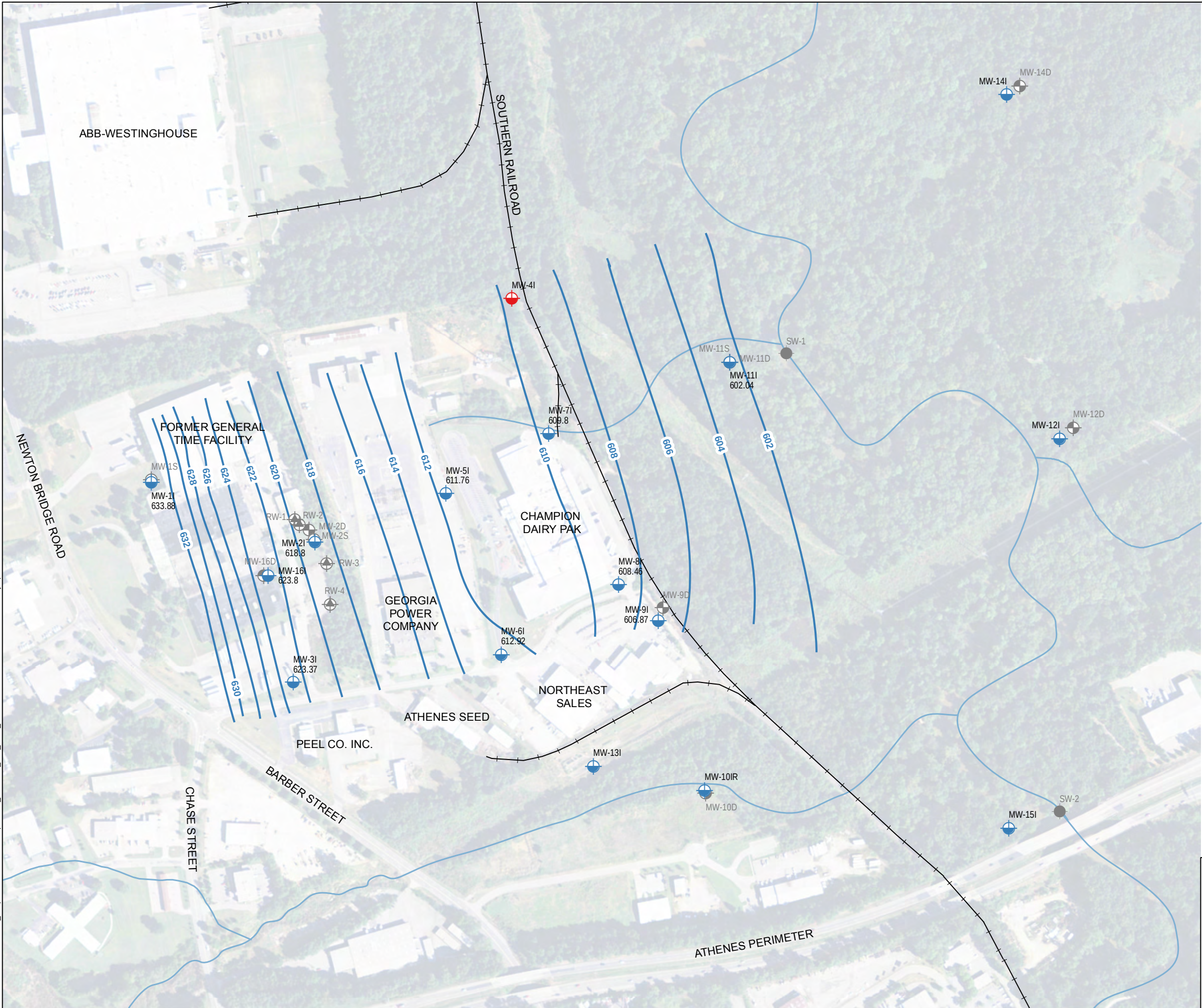
GENERAL TIME FACILITY
ATHENS, GEORGIA

**SITE MAP SHOWING SAMPLE
LOCATIONS AND SUSPECTED
SOURCE AREAS**

OCTOBER 2015

FIGURE 2

G:\S FILE PATH: G:\38111_Carpenter\Global\GIS\Maps\2015_10\38111_000_0000_POTENTIOMETRICS.mxd — USER: ajcspe — LAST SAVED: 10/12/2015 11:40:35 AM



LEGEND

- INTERMEDIATE MONITORING WELL
- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- DESTROYED INTERMEDIATE WELL
- GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)
- STREAM
- RAILROAD

- NOTES**
- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
 - AERIAL IMAGERY SOURCE: ESRI

HALEY
ALDRICH

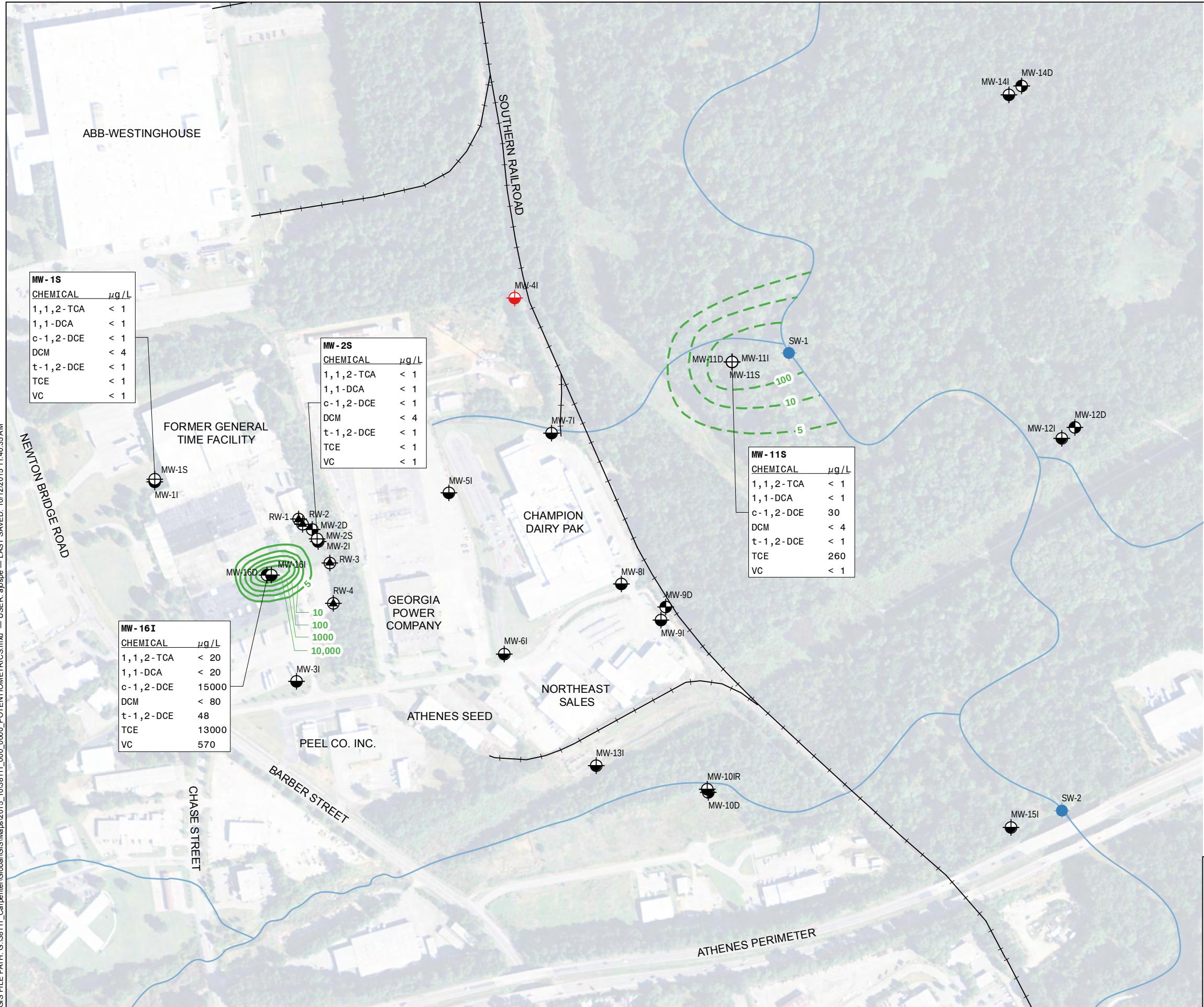
GENERAL TIME FACILITY
ATHENS, GEORGIA

POTENTIOMETRIC SURFACE
SEPTEMBER 2015

OCTOBER 2015

FIGURE 3

GIS FILE PATH: G:\38111_Carpenter\Global\GIS\Maps\2015_10\38111_000_000_POTENTIOMETRICS.mxd — USER: ajcspe — LAST SAVED: 10/12/2015 11:40:35 AM



LEGEND

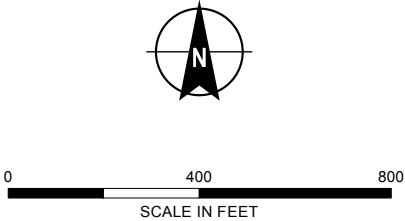
- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- DESTROYED WELL
- TCE ISO-CONCENTRATION CONTOUR µg/L (DASHED WHERE INFERRED)
- STREAM
- RAILROAD

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. AERIAL IMAGERY SOURCE: ESRI

3. ACRONYMS:
1,1,2-TCE = 1,1,2-TRICHLOROETHANE
1,1-DCA = 1,1-DICHLOROETHANE
c-1,2-DCE = cis-1,2-DICHLOROETHENE
DCM = METHYLENE CHLORIDE
t-1,2-DCE = trans-1,2-DICHLOROETHENE
TCE = TRICHLOROETHENE
VC = VINYL CHLORIDE



**HALEY
ALDRICH**

GENERAL TIME FACILITY
ATHENS, GEORGIA

**DISTRIBUTION OF TCE IN
SHALLOW GROUNDWATER
SEPTEMBER 2015**

OCTOBER 2015

FIGURE 4

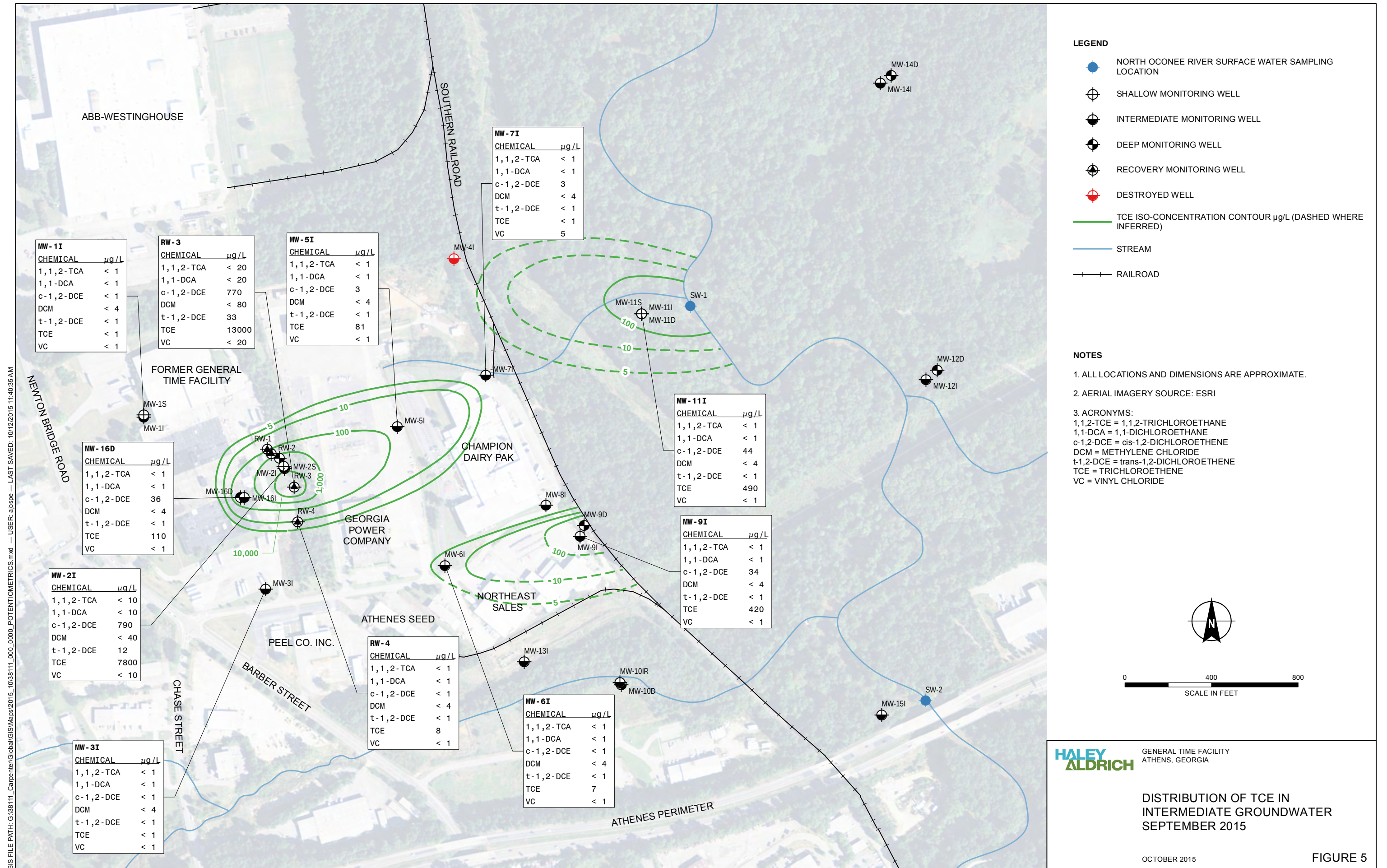


FIGURE 6
PROJECT MILESTONE SCHEDULE
GENERAL TIME FACILITY ATHENS GEORGIA

No.	TASK	2013				2014				2015				2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	VRP Application Submittal																				
2	Delineation	COMPLETE																			
3	Annual Groundwater and Surface Water Sampling																				
4	Initiate Supplemental Remedial Activities																				
6	Semiannual Reporting																				
7	Compliance Status Report Submittal																				

NOTES: VRP application was approved on April 16, 2014

October Semiannual Progress Report Submittals include the annual groundwater and surface water sampling and analysis

APPENDIX A

ANALYTICAL REPORT

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

September 28, 2015

Project: Former General TimeSubmittal Date: 09/19/2015
Group Number: 1594239
PO Number: 38111-010
State of Sample Origin: GA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
MW-1S Grab Groundwater	8054842
MW-1I Grab Groundwater	8054843
RW-3 Grab Groundwater	8054844
RW-4 Grab Groundwater	8054845
MW-16I Grab Groundwater	8054846
MW-16D Grab Groundwater	8054847
MW-2S Grab Groundwater	8054848
MW-2I Grab Groundwater	8054849
MW-3I Grab Groundwater	8054850
MW-6I Grab Groundwater	8054851
MW-5I Grab Groundwater	8054852
MW-9I Grab Groundwater	8054853
MW-8I Grab Groundwater	8054854
MW-7I Grab Groundwater	8054855
MW-11I Grab Groundwater	8054856
MW-11S Grab Groundwater	8054857
SW-2 Grab Surface Water	8054858
SW-1 Grab Surface Water	8054859
MW-2D Grab Groundwater	8054860
MW-9D Grab Groundwater	8054861
MW-11D Grab Groundwater	8054862

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

ELECTRONIC
COPY TO
ELECTRONIC
COPY TO

Carpenter Technology Corp.-PA

Attn: Mike Reichardt

Carpenter Technology Corp.

Attn: Ann Kalbach

Respectfully Submitted,



Stefanie Mielnicki
Project Manager

(312) 590-3133

**Sample Description: MW-1S Grab Groundwater
Former General Time**

**LL Sample # WW 8054842
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/16/2015 09:04 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT1S

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	L152671AA	09/24/2015 16:22	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L152671AA	09/24/2015 16:22	Amanda K Richards	1

**Sample Description: MW-1I Grab Groundwater
Former General Time**

**LL Sample # WW 8054843
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/16/2015 09:07 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT1I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles		SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	L152671AA	09/24/2015 16:44	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L152671AA	09/24/2015 16:44	Amanda K Richards	1

**Sample Description: RW-3 Grab Groundwater
Former General Time**

**LL Sample # WW 8054844
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/16/2015 10:37 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGTR3

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 20	20	20
10335	cis-1,2-Dichloroethene	156-59-2	770	20	20
10335	trans-1,2-Dichloroethene	156-60-5	33	20	20
10335	Methylene Chloride	75-09-2	< 80	80	20
10335	1,1,2-Trichloroethane	79-00-5	< 20	20	20
10335	Trichloroethene	79-01-6	13,000	200	200
10335	Vinyl Chloride	75-01-4	< 20	20	20

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 12:35	Angela D Sneeringer	20
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 12:59	Angela D Sneeringer	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 12:35	Angela D Sneeringer	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 12:59	Angela D Sneeringer	200

Sample Description: RW-4 Grab Groundwater
Former General Time

LL Sample # WW 8054845
LL Group # 1594239
Account # 00435

Project Name: Former General Time

Collected: 09/16/2015 11:00 by SL

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGTR4

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles		SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	8	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 13:22	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 13:22	Angela D Sneeringer	1

**Sample Description: MW-16I Grab Groundwater
Former General Time**

**LL Sample # WW 8054846
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/16/2015 14:07 by SL

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FG16I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 20	20	20
10335	cis-1,2-Dichloroethene	156-59-2	15,000	200	200
10335	trans-1,2-Dichloroethene	156-60-5	48	20	20
10335	Methylene Chloride	75-09-2	< 80	80	20
10335	1,1,2-Trichloroethane	79-00-5	< 20	20	20
10335	Trichloroethene	79-01-6	13,000	200	200
10335	Vinyl Chloride	75-01-4	570	20	20

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 13:46	Angela D Sneeringer	20
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 14:09	Angela D Sneeringer	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 13:46	Angela D Sneeringer	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 14:09	Angela D Sneeringer	200

Sample Description: MW-16D Grab Groundwater
Former General Time

LL Sample # WW 8054847
LL Group # 1594239
Account # 00435

Project Name: Former General Time

Collected: 09/16/2015 14:08 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FG16D

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles		SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	36	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	110	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 14:33	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 14:33	Angela D Sneeringer	1

**Sample Description: MW-2S Grab Groundwater
Former General Time**

**LL Sample # WW 8054848
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/16/2015 15:43 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT2S

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 14:56	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 14:56	Angela D Sneeringer	1

**Sample Description: MW-2I Grab Groundwater
Former General Time**

**LL Sample # WW 8054849
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/16/2015 15:45 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT2I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 10	10	10
10335	cis-1,2-Dichloroethene	156-59-2	790	10	10
10335	trans-1,2-Dichloroethene	156-60-5	12	10	10
10335	Methylene Chloride	75-09-2	< 40	40	10
10335	1,1,2-Trichloroethane	79-00-5	< 10	10	10
10335	Trichloroethene	79-01-6	7,800	100	100
10335	Vinyl Chloride	75-01-4	< 10	10	10

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 15:20	Angela D Sneeringer	10
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 15:43	Angela D Sneeringer	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 15:20	Angela D Sneeringer	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 15:43	Angela D Sneeringer	100

**Sample Description: MW-3I Grab Groundwater
Former General Time**

**LL Sample # WW 8054850
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 09:08 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT3I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 16:07	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 16:07	Angela D Sneeringer	1

**Sample Description: MW-6I Grab Groundwater
Former General Time**

**LL Sample # WW 8054851
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 10:23 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FGT6I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles		SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	7	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 16:30	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 16:30	Angela D Sneeringer	1

**Sample Description: MW-5I Grab Groundwater
Former General Time**

**LL Sample # WW 8054852
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 10:59 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT5I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles		SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	3	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	81	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 16:54	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 16:54	Angela D Sneeringer	1

**Sample Description: MW-9I Grab Groundwater
Former General Time**

**LL Sample # WW 8054853
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 13:23 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FGT9I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	34	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	420	10	10
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 17:17	Angela D Sneeringer	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 17:41	Angela D Sneeringer	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 17:17	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 17:41	Angela D Sneeringer	10

**Sample Description: MW-8I Grab Groundwater
Former General Time**

**LL Sample # WW 8054854
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 14:27 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT8I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 18:04	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 18:04	Angela D Sneeringer	1

**Sample Description: MW-7I Grab Groundwater
Former General Time**

**LL Sample # WW 8054855
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 15:17 by SL

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT7I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	3	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	5	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 18:28	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 18:28	Angela D Sneeringer	1

**Sample Description: MW-11I Grab Groundwater
Former General Time**

**LL Sample # WW 8054856
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/18/2015 08:50 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FG11I

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	44	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	490	10	10
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 18:51	Angela D Sneeringer	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 19:14	Angela D Sneeringer	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 18:51	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 19:14	Angela D Sneeringer	10

**Sample Description: MW-11S Grab Groundwater
Former General Time**

**LL Sample # WW 8054857
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/18/2015 08:35 by SL

Carpenter Technology Corp.-PA

PO Box 14662

Submitted: 09/19/2015 09:45

Reading PA 19612-4662

Reported: 09/28/2015 12:51

FG11S

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	30	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	260	10	10
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 19:38	Angela D Sneeringer	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 20:02	Angela D Sneeringer	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 19:38	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 20:02	Angela D Sneeringer	10

Sample Description: SW-2 Grab Surface Water
Former General Time

LL Sample # WW 8054858
LL Group # 1594239
Account # 00435

Project Name: Former General Time

Collected: 09/18/2015 10:05 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FGTS2

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 20:25	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 20:25	Angela D Sneeringer	1

Sample Description: SW-1 Grab Surface Water
Former General Time

LL Sample # WW 8054859
LL Group # 1594239
Account # 00435

Project Name: Former General Time

Collected: 09/18/2015 09:25 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FGTS1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 20:49	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 20:49	Angela D Sneeringer	1

Sample Description: MW-2D Grab Groundwater
Former General Time

LL Sample # WW 8054860
LL Group # 1594239
Account # 00435

Project Name: Former General Time

Collected: 09/17/2015 09:08 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FGT2D

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles		SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 5	5	5
10335	cis-1,2-Dichloroethene	156-59-2	320	5	5
10335	trans-1,2-Dichloroethene	156-60-5	< 5	5	5
10335	Methylene Chloride	75-09-2	< 20	20	5
10335	1,1,2-Trichloroethane	79-00-5	< 5	5	5
10335	Trichloroethene	79-01-6	4,000	50	50
10335	Vinyl Chloride	75-01-4	< 5	5	5

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 21:12	Angela D Sneeringer	5
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152661AA	09/23/2015 21:36	Angela D Sneeringer	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152661AA	09/23/2015 21:12	Angela D Sneeringer	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T152661AA	09/23/2015 21:36	Angela D Sneeringer	50

**Sample Description: MW-9D Grab Groundwater
Former General Time**

**LL Sample # WW 8054861
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/17/2015 13:29 by SL

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Submitted: 09/19/2015 09:45

Reported: 09/28/2015 12:51

FGT9D

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152671AA	09/24/2015 15:50	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152671AA	09/24/2015 15:50	Daniel H Heller	1

**Sample Description: MW-11D Grab Groundwater
Former General Time**

**LL Sample # WW 8054862
LL Group # 1594239
Account # 00435**

Project Name: Former General Time

Collected: 09/18/2015 09:03 by SL

Carpenter Technology Corp.-PA

Submitted: 09/19/2015 09:45

PO Box 14662

Reported: 09/28/2015 12:51

Reading PA 19612-4662

FG11D

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10335	1,1-Dichloroethane	75-34-3	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 4	4	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/16.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	T152671AA	09/24/2015 16:13	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T152671AA	09/24/2015 16:13	Daniel H Heller	1

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 09/28/2015 12:51

Group Number: 1594239

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: L152671AA Sample number(s): 8054842-8054843								
1,1-Dichloroethane	< 1	1.	ug/l	97	99	80-120	2	30
cis-1,2-Dichloroethene	< 1	1.	ug/l	99	101	80-120	1	30
trans-1,2-Dichloroethene	< 1	1.	ug/l	103	107	80-120	4	30
Methylene Chloride	< 4	4.	ug/l	103	123*	77-121	18	30
1,1,2-Trichloroethane	< 1	1.	ug/l	95	96	80-120	1	30
Trichloroethene	< 1	1.	ug/l	98	100	80-120	2	30
Vinyl Chloride	< 1	1.	ug/l	111	117	69-120	5	30
Batch number: T152661AA Sample number(s): 8054844-8054860								
1,1-Dichloroethane	< 1	1.	ug/l	101	102	80-120	1	30
cis-1,2-Dichloroethene	< 1	1.	ug/l	102	101	80-120	1	30
trans-1,2-Dichloroethene	< 1	1.	ug/l	103	104	80-120	1	30
Methylene Chloride	< 4	4.	ug/l	99	100	77-121	1	30
1,1,2-Trichloroethane	< 1	1.	ug/l	96	95	80-120	1	30
Trichloroethene	< 1	1.	ug/l	101	101	80-120	0	30
Vinyl Chloride	< 1	1.	ug/l	98	99	69-120	2	30
Batch number: T152671AA Sample number(s): 8054861-8054862								
1,1-Dichloroethane	< 1	1.	ug/l	99		80-120		
cis-1,2-Dichloroethene	< 1	1.	ug/l	99		80-120		
trans-1,2-Dichloroethene	< 1	1.	ug/l	102		80-120		
Methylene Chloride	< 4	4.	ug/l	97		77-121		
1,1,2-Trichloroethane	< 1	1.	ug/l	94		80-120		
Trichloroethene	< 1	1.	ug/l	101		80-120		
Vinyl Chloride	< 1	1.	ug/l	98		69-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: T152671AA Sample number(s): 8054861-8054862 UNSPK: P059573									
1,1-Dichloroethane	111	109	80-120	2	30				
cis-1,2-Dichloroethene	111	108	80-120	2	30				
trans-1,2-Dichloroethene	112	113	80-120	1	30				
Methylene Chloride	104	103	77-121	1	30				
1,1,2-Trichloroethane	100	98	80-120	2	30				
Trichloroethene	113	112	80-120	0	30				

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 09/28/2015 12:51

Group Number: 1594239

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Vinyl Chloride	115	112	69-120	3	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: L152671AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8054842	104	103	100	95
8054843	104	102	100	95
Blank	105	106	100	96
LCS	103	101	102	97
LCSD	104	100	102	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: T152661AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8054844	98	98	100	99
8054845	100	98	103	100
8054846	99	97	101	100
8054847	98	98	102	100
8054848	97	97	103	101
8054849	96	96	104	101
8054850	96	97	102	99
8054851	97	97	104	102
8054852	98	97	104	102
8054853	96	98	105	103
8054854	96	96	103	101
8054855	97	97	105	103
8054856	98	96	104	101
8054857	96	96	104	101
8054858	97	96	104	99
8054859	97	99	104	102
8054860	96	97	105	101
Blank	98	98	102	100
LCS	99	100	102	104
LCSD	97	100	102	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: T152671AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8054861	99	99	102	101
8054862	97	98	102	101
Blank	100	99	102	102

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 09/28/2015 12:51

Group Number: 1594239

Surrogate Quality Control

LCS	99	100	103	103
MS	98	102	103	104
MSD	100	98	103	103
Limits:	80-116	77-113	80-113	78-113

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Sample Administration
Receipt Documentation LogDoc Log ID: 106522
Group Number(s): 594239Client: Carpenter Technology**Delivery and Receipt Information**

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>09/19/2015 9:45</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>GA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	No
Custody Seal Intact:	Yes	VOA Vial Headspace $\geq$ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Timothy Cubberley (6520) at 11:07 on 09/19/2015***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	4.8	DT	Wet	Y	Bagged	N

Sample Date/Time Discrepancy Details

<u>Sample ID on COC</u>	<u>Date/Time on Label</u>	<u>Comments</u>
MW-5I	9/17/2015 10:57	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value $\geq$ the Method Detection Limit (MDL or DL) and the $<$ Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

APPENDIX B

FIELD SAMPLING FORMS

WELL CHECKLIST

Page 1 of 1

PROJECT	Former General Time Facility	H&A FILE NO.	38111-010
LOCATION	Athens, Georgia	PROJECT MGR.	M. Miesfeldt
CLIENT	Carpenter Technology Corporation	FIELD REP(S)	Sean Lewis

Well ID	Date	Flush Mount or Stick Up?	Well Head Capped?	Well Head Locked?	Vault Bolted Shut?	Casing Closed and Locked?	Notes
MW-1S	9/15/15	S	✓	X	X	X	7.39
MW-1I	9/15/15	S	✓	X	X	X	7.22
MW-2S	9/15/15	S	✓	X	X	X	17.51
MW-2I	9/15/15	S	✓	X	X	X	17.39 18.60
MW-2D	9/15/15	S	X	X	X	X	17.39
MW-3I	9/15/15	S	✓	X	X	X	16.33
MW-4I							destroyed
MW-5I	9/15/15	F	✓	✓	✓	X	11.74
MW-6I	9/15/15	S	✓	X	X	X	9.88
MW-7I	9/15/15	S	X	X	X	X	9.30
MW-8I	9/15/15	S	✓	X	X	X	10.24
MW-9I	9/15/15	8F	✓	✓	✓	X	6.33
MW-9D	9/15/15	8F	✓	✓ _{sp}	✓	X	8.77
MW-10IR							Unable to locate
MW-10D							Unable to locate
MW-11S	9/15/15	S	✓	X	X	X	8.98
MW-11I	9/15/15	S	✓	X	X	X	8.86
MW-11D	9/15/15	S	✓	X	X	X	9.87
MW-12I							Unable to locate
MW-12D							Unable to locate
MW-13A							Unable to locate
MW-13I							Unable to locate
MW-14I							Unable to locate
MW-14D							Unable to locate
MW-15I							Unable to locate
MW-16I	9/15/15	S	✓	X	X	X	19.80
MW-16D	9/15/15	S	✓	X	X	X	19.94
RW-1	9/15/15	S	✓	X	X	X	18.90
RW-2	9/15/15	S	✓	X	X	X	19.12
RW-3	9/15/15	S	✓	✓	X	X	15.06
RW-4	9/15/15	S	✓	✓	X	X	13.81

B-1 to DTM = 100+

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	_____

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	J. Vonts
DATE	16 Sept 2015

Sampling Data:

Well ID:	MW-1S	Well Depth:	14.5	ft	Initial Depth To Water:	7.40	ft	Purging Device:	Peristaltic
Start time:	830	Depth To Top Of Screen:	9.5	ft	Depth Of Pump Intake:	11.5	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	910	Depth To Bottom Of Screen:	14.5	ft	Measuring Point:	Top PVC-mark		Tubing Type:	Poly-Teflon

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	NA

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Sean Lewis
DATE	9/16/15

Sampling Data:

Well ID:	MW-II	Well Depth:	25.27	ft	Initial Depth To Water:	1.22	ft	Purging Device:	peri pump
Start time:	837	Depth To Top Of Screen:	15.27	ft	Depth Of Pump Intake:	28.00	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	915	Depth To Bottom Of Screen:	25.27	ft	Measuring Point:	top of PVC		Tubing Type:	deflam

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	NA

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	J Vonts
DATE	16 Sept 2015

Sampling Data:

Well ID:	MW-2S	Well Depth:	20.2	ft	Initial Depth To Water:	17.55	ft	Purging Device:	Peristaltic
Start time:	1515	Depth To Top Of Screen:	10.2	ft	Depth Of Pump Intake:	19.0	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1652	Depth To Bottom Of Screen:	20.2	ft	Measuring Point:	Top PVC-mark		Tubing Type:	Poly-Teflon

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	S. Lewis
DATE	9/16/15

Sampling Data:

Well ID:	MW-21	Well Depth:	86.5	ft	Initial Depth To Water:	18.60	ft	Purging Device:	Peri Pump
Start time:	1512	Depth To Top Of Screen:	76.5	ft	Depth Of Pump Intake:	28.00	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1555	Depth To Bottom Of Screen:	86.5	ft	Measuring Point:	Top of PVC		Tubing Type:	flexlon

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	N/A

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	J. Vontz
DATE	17 Sept 2015

Sampling Data:

Well ID:	MW-2D	Well Depth:	226.5	ft	Initial Depth To Water:	17.40	ft	Purging Device:	Peristaltic
Start time:	830	Depth To Top Of Screen:	216.5	ft	Depth Of Pump Intake:	24.0	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	915	Depth To Bottom Of Screen:	226.5	ft	Measuring Point:	Top PVC		Tubing Type:	Polu-Teflon

[illegible]

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft. 3 in = 0.367 gal/ft. 4 in = 0.653 gal/ft. 6 in = 1.469 gal/ft. 1 cu. ft. = 7.48 gal. 1 gal = 3.785 L. 1L = 0.264 gal. 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Sam L
DATE	9/12/15

Sampling Data:

Well ID:	MW-31	Well Depth:	99.25	ft	Initial Depth To Water:	16.33	ft	Purging Device:	Peri pump
Start time:	0840	Depth To Top Of Screen:	89.25	ft	Depth Of Pump Intake:	27.00	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	0915	Depth To Bottom Of Screen:	99.25	ft	Measuring Point:	Top of PVC		Tubing Type:	half in

[illegible]

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft, 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.51/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Seen L
DATE	9/17

Sampling Data:

Well ID:	MW-5I	Well Depth:	41.5	ft	Initial Depth To Water:	11.14	ft	Purging Device:	Perf Pump
Start time:	1037	Depth To Top Of Screen:	31.5	ft	Depth Of Pump Intake:	36.5	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1105	Depth To Bottom Of Screen:	41.5	ft	Measuring Point:	Top of PVC		Tubing Type:	teflon

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Sean L.
DATE	8/17/15

Sampling Data:

Well ID:	MW-61	Well Depth:	70.91	ft	Initial Depth To Water:	9.88	ft	Purging Device:	Peri Pump
Start time:	944	Depth To Top Of Screen:	60.91	ft	Depth Of Pump Intake:	15.00	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1030	Depth To Bottom Of Screen:	70.91	ft	Measuring Point:	Top of PLC		Tubing Type:	flex

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO. 38111-010

PROJECT MGR. M. Miesfeldt

FIELD REP. *Seen L*

DATE 9/17/15

Sampling Data:

Well ID: <u>MW-81</u>	Well Depth: <u>14.86</u> ft	Initial Depth To Water: <u>10.44</u> ft	Purging Device: <u>Peri Pump</u>
Start time: <u>1400</u>	Depth To Top Of Screen: <u>4.86</u> <u>7.52</u> ft	Depth Of Pump Intake: <u>15.00</u> ft	Tubing Present In Well: ☐ Yes ☒ No
Finish Time: <u>1430</u>	Depth To Bottom Of Screen: <u>14.86</u> <u>17.52</u> ft	Measuring Point: <u>Top of PVC</u>	Tubing Type: <u>flex</u>

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Seen L
DATE	9/17/15

Sampling Data:

Well ID:	MW-9I	Well Depth:	54.5	ft	Initial Depth To Water:	6.33	ft	Purging Device:	Peri Pump
Start time:	1250	Depth To Top Of Screen:	44.5	ft	Depth Of Pump Intake:	16.00	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	1330	Depth To Bottom Of Screen:	54.5	ft	Measuring Point:	Top of PVC		Tubing Type:	flexlon

[illegible]

LOW FLOW SAMPLING FORM

Page 11 of 19

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Sean L
DATE	7/18/15

Sampling Data:

Well ID:	MW-111	Well Depth:	32	ft	Initial Depth To Water:	9.87	ft	Purging Device:	Bailer
Start time:		Depth To Top Of Screen:	22	ft	Depth Of Pump Intake:		ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:		Depth To Bottom Of Screen:	32	ft	Measuring Point:			Tubing Type:	flexlon

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	S. Lewis
DATE	8/16/15

Sampling Data:

Well ID:	MW-161	Well Depth:	30.68	ft	Initial Depth To Water:	19.80	ft	Purging Device:	Peri Pump
Start time:	1340	Depth To Top Of Screen:	20.68	ft	Depth Of Pump Intake:	25.00	ft	Tubing Present In Well:	☒ Yes ☐ No
Finish Time:	1415	Depth To Bottom Of Screen:	30.68	ft	Measuring Point:	Top of PVC		Tubing Type:	Ketlon

[illegible]

LOW FLOW SAMPLING FORM

Page 17 of 19

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	N/A

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	J Vonts
DATE	16 Sept 2015

Sampling Data:

Well ID:	<u>RW-3</u>	Well Depth:	<u>89.6</u>	ft	Initial Depth To Water:	<u>15.10</u>	ft	Purging Device:	<u>Peristaltic</u>
Start time:	<u>954</u>	Depth To Top Of Screen:	<u>59.6</u>	ft	Depth Of Pump Intake:	<u>24.0</u>	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	<u>1055</u>	Depth To Bottom Of Screen:	<u>89.6</u>	ft	Measuring Point:	<u>Top PVC-mark</u>		Tubing Type:	<u>Poly-Teflon</u>

[illegible]

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility
LOCATION	Athens, Georgia
CLIENT	Carpenter Technology Corporation
CONTRACTOR	

H&A FILE NO.	38111-010
PROJECT MGR.	M. Miesfeldt
FIELD REP	Sean L
DATE	9/16/15

Sampling Data:

Well ID:	<u>RW-4</u>	Well Depth:	<u>89.61</u>	ft	Initial Depth To Water:	<u>13.81</u>	ft	Purging Device:	<u>Peri Pump</u>
Start time:	<u>1015</u>	Depth To Top Of Screen:	<u>59.61</u>	ft	Depth Of Pump Intake:	<u>20.00</u>	ft	Tubing Present In Well:	☐ Yes ☒ No
Finish Time:	<u>1105</u>	Depth To Bottom Of Screen:	<u>89.61</u>	ft	Measuring Point:	<u>top of PVC</u>		Tubing Type:	<u>to flon</u>

[illegible]

SURFACE WATER SAMPLE LOG

Page 1 of 1

PROJECT	Former General Time Facility	H&A FILE NO.	38117-010
LOCATION	100 Newton Bridge Road, Atlanta, GA	PROJECT MGR.	Mark Miesfeldt
CLIENT	Cappenter Technology Corporation	FIELD REP	Sean Lewis
GEN. CONTRACTOR		DATE	9/18/15

Sample ID SW-1
Date 9/18/15
Time 0925
Weather 80s Clear

DESCRIPTION OF SAMPLE LOCATION:

Name of Water Body North Oconee River
Depth of Water 3.0 ft Velocity 1 ft/sec
Other Comments Brown colored water
Substrate Description _____
Location Near Mill-11 cluster
Description of Nearby Vegetation trees and shrubs

FIELD PARAMETERS:

Sample Method Bailer
Sample Description Water, no odor, slightly brown
Temperature (°C/°F) 18.66 pH 7.44
Dissolved Oxygen (mg/L) 6.50 Conductivity (mS/cm) 0.106
Turbidity (NTU) 7.5 ORP (mV) -44

CONTAINER DESCRIPTION:

Laboratory _____

Bottle Type	Analysis	Preservative
<u>40 ml VOA</u>	<u>VOCS</u>	<u>HCL</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Notes:

SURFACE WATER SAMPLE LOG

Page 1 of 1

PROJECT	Former General Time Facility	H&A FILE NO.	38111-010
LOCATION	106 Newton Bridge Road, Athens, GA	PROJECT MGR.	Mark Miesfeldt
CLIENT	Carpenter Technology Corporation	FIELD REP	Sean Lewis
GEN. CONTRACTOR		DATE	9/18/15

Sample ID SW-2
Date 9/18/15
Time 1005
Weather 80's Clear

DESCRIPTION OF SAMPLE LOCATION:

Name of Water Body North Oconee River
Depth of Water unknown Velocity unknown
Other Comments brown colored water
Substrate Description _____
Location Bridge near mi-151
Description of Nearby Vegetation Trees and shrubs

FIELD PARAMETERS:

Sample Method Barler
Sample Description clear with a slight brown color
Temperature (°C/°F) 19.92 pH 7.49
Dissolved Oxygen (mg/L) 6.86 Conductivity (mS/cm) 0.108
Turbidity (NTU) 19.1 ORP (mV) 58

CONTAINER DESCRIPTION:

Laboratory _____

Bottle Type	Analysis	Preservative
<u>40ml VOA</u>	<u>VOCs</u>	<u>HCL</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Notes:

APPENDIX C

HISTORICAL SUMMARY OF VOC CONCENTRATIONS

Appendix C. Summary of VOC Concentrations in Groundwater. General Time Facility; Athens, Georgia.

Well	Screen Interval (ft bgs)	Date	TCE	trans- 1,2 DCE	cis- 1,2 DCE	1,1 DCE	1,1 DCA	1,1,1 TCA	1,1,2 TCA	PCE	CA	MeCl	VC
MW-1S	4-14	Nov-96	<5	NA	NA	<5	<5	<5	<5	<5	<5	<5	<2
		Feb-98	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2
		Mar-00	<5	NA	NA	<5	<5	<5	<5	<5	<10	<5	<2
		Dec-07	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2
		Mar-10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Nov-10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-1I	19.5-24.5	Nov-96	<5	NA	NA	<5	<5	<5	<5	<5	<5	<5	<2
		Feb-98	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2
		Mar-00	<5	NA	NA	<5	<5	<5	<5	<5	<10	<5	<2
		Dec-07	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2
		Mar-10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Nov-10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Dec-11	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-2S	9.5-19.5	Nov-96	260	NA	NA	<5	<5	<5	<5	<5	<5	9	19
		Feb-98	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2
		Mar-00	<5	NA	NA	<5	<5	<5	<5	<5	<5	<5	<2
		Mar-07	1.7	<0.2	<0.2	<0.3	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
		May-09	6	NA	<1	NA	NA	NA	NA	NA	NA	NA	<1
		Mar-10	3.6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Jun-10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Sep-10	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Nov-10	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
		Aug-11	128	<1	48					<1	<1	<1	2.6
MW-2I	76-86	Nov-96	4200	NA	NA	8	<5	<5	<5	3-J	<5	8	2-J
		Feb-98	26000	<500	<500	<500	<500	<500	<500	<500	<500	<500	<200
		Mar-00	18000	NA	NA	<1000	<1000	<1000	<1000	<1000	<2000	<1000	<400
		Aug-02	12000	NA	NA	<500	<500	<500	<500	<500	<1000	<500	<200
		Mar-07	5613	<24	155	<26	<15	<12	<16	<23	<20	24.1	<28
		May-09	8700	NA	403	NA	NA	NA	NA	NA	NA	NA	<100
		Mar-10	8370	21.1	487	<100	<100	<100	<100	<100	<100	<100	<100
		Jun-10	8800	<100	488	<100	<100	<100	<100	<100	<100	<200	<100
		Sep-10	9900	<200	631	<200	<200	<200	<200	<200	<400	<1000	<200
		Nov-10	8540	<100	659	<100	<100	<100	<100	<100	<200	<500	<100
		Aug-11	10600	16	711					1.5			1.5
MW-2D	211-226	Feb-98	6.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Mar-00	<5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Mar-07	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		May-09	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
		Mar-10	17	<1	<1	<1	<1	<1	<1	<1	<2	<2	<1

Appendix C. Summary of VOC Concentrations in Groundwater. General Time Facility; Athens, Georgia.

[illegible]

Appendix C. Summary of VOC Concentrations in Groundwater. General Time Facility; Athens, Georgia.

[illegible]

Appendix C. Summary of VOC Concentrations in Groundwater. General Time Facility; Athens, Georgia.

Well	Screen Interval (ft bgs)	Date	TCE	trans- 1,2 DCE	cis- 1,2 DCE	1,1 DCE	1,1 DCA	1,1,1 TCA	1,1,2 TCA	PCE	CA	MeCl	VC
		Aug-11	188	<1	198					<1			37
RW-2		May-09	52.7	NA	2.8	NA	NA	NA	NA	NA	NA	NA	<1
		Mar-10	37	<1	8	<1	<1	<1	<1	<1	<2	<2	<1
		Jun-10	29	<1	2	<1	<1	<1	<1	<1	<2	<2	<1
		Sep-10	40	<1	3	<1	<1	<1	<1	<1	<2	<2	<1
		Nov-10	41										1
		Aug-11	36	3	<1					<1			
RW-3		Aug-11	655	8220	24					2			178
RW-4		Aug-11	<1	92	6					<2			<2
16I		Aug-11	19700	24	8220					2			178
16D		Aug-11	91	<1	27					<1			<1

trans -1,2-DCE = Trans-1,2-Dichloroethene

cis 1,2-DCE = cis-1,2-Dichloroethene

Total 1,2-DCE = total 1,2-Dichloroethene

1,1-DCE = 1,1-Dichloroethene

1,1-DCA = 1,1-Dichloroethane

1,1,1-TCA = 1,1,1-Trichloroethane

1,1,2-TCA = 1,1,2-Trichloroethane

PCE = Tetrachloroethane

CA = Chloromethane

MeCl = Methylene Chloride

VC = Vinyl Chloride

ft bgs = Feet Below Ground Surface.

APPENDIX D

LABOR SUMMARY

TABULATED MONTHLY SUMMARY OF HOURS INVOICED BY HALEY & ALDRICH

Period: July 2015-October 2015

General Time Corporation - Athens, GA

Voluntary Remediation Program (HSI# 10355)

Month-Year	Hours	Type Service	Description
July-15	7.75	Support	Project Management
	7.00	PG	Project Management
August-15	4.00	Support	Project Management
September-15	67.50	Support	Sample Collection
	28.25	Support	Progress Report
	6.25	PG	Progress Report
	5.00	Support	Project Management
October-15	63.00	Support	Progress Report
	6.00	PG	Progress Report
	7.00	Support	Project Management

Note: This summary does not reflect time invested by Carpenter Technology and other contractors in evaluating site conditions and remedial options.