AECOM
257 West Genesee Street
Suite 400
Buffalo, NY 14202
www.aecom.com

716 856 5636 tel
716 856 2545 fax

October 19, 2015

Mr. David Szymanski
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue – 3rd Floor
Buffalo, New York 14203

Subject: Groundwater and Surface Water Monitoring Results
August 2015
Mineral Springs Road MGP Site

Dear Mr. Szymanski:

AECOM Technical Services, Inc. (AECOM) has prepared this report on behalf of National Fuel Gas Distribution Corporation (National Fuel) to provide the results of a groundwater and surface water sampling event completed on August 17, 2015 at the Mineral Springs Road Former Manufactured Gas Plant (MGP) Site.

The work at the Mineral Springs site is being conducted under a New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Agreement (number B9-0538-98-08) as described in the Remedial Design, dated February 10, 1999, and the Final Engineering Report, Volume II – Operations and Maintenance (O&M) Plan, dated May 2002.

Summary

A total of 13 groundwater samples and two surface water samples were collected and analyzed this period in accordance with the O&M Plan. Sampling locations are shown on Figure 1. The collected samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica) of Amherst, New York (New York State Department of Health [NYSDOH] Environmental Laboratory Approval Program [ELAP] ID 10026), except for free cyanide analyses which were performed by TestAmerica of Edison, NJ (ELAP ID 11452). Table 1, which is taken from the O&M Plan, summarizes the sampling and analytical requirements for the site. Analytical results are summarized in Table 2.

One upgradient (MW-17), two onsite (MW-12 and MW-16), four downgradient onsite (MW-13, MW-14, MW-22, and MW-23), and two downgradient offsite (MW-20 and MW-21) monitoring wells were sampled for total and free cyanide analyses. Total cyanide concentrations exceeded the NYSDEC Groundwater Standard[1] of 200 micrograms per liter (µg/L) in eight of nine groundwater samples. Free

[1] Reference for NYSDEC groundwater and surface water standards: NYSDEC Technical Operational and Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

cyanide was detected in all nine groundwater samples at concentrations ranging from 5.5 J to 22.3 J µg/L. There is no NYSDEC Groundwater Standard for free cyanide.

One upgradient (MW-17), two downgradient onsite (MW-13 and MW-23), and four onsite (MW-7, MW-10, MW-11A, and MW-19) monitoring wells were sampled for benzene, toluene, ethylbenzene, and xylene (BTEX) and polycyclic aromatic hydrocarbon (PAH) compounds during this event. Concentrations of BTEX and/or PAH compounds exceeded the NYSDEC Standard or Guidance Values in three of the onsite groundwater samples (MW-07, MW-11A, and MW-19).

Two surface water samples (SW-01 and SW-02) were collected for BTEX, PAH, and total and free cyanide analyses. BTEX compounds were not detected in the surface water samples. Three PAH compounds were detected in SW-01: benzo(b)flouranthene at 3.1 µg/L; flouranthene at 3.3 µg/L; and, pyrene at 2.8 J µg/L. A NYSDEC Class D Surface Water Standard is not listed for benzo(b)flouranthene or flouranthene. The pyrene detection was below the NYSDEC Class D Surface Water Guidance Value (no standard is listed) of 42 µg/L. Total cyanide was detected in both surface water samples at a maximum concentration of 160 µg/L, below the NYSDEC Class D Surface Water Standard of 9,000 µg/L. Free cyanide was detected in both surface water samples at a concentration of 7.2 µg/L, below the NYSDEC Class D Surface Water Standard of 22 µg/L.

Depth-to-water measurements were taken from 14 monitoring wells and one surface water location. Table 2 summarizes groundwater elevation data and Figure 1 shows groundwater elevation contours for this sampling event.

Recovery test well (RTW-1) was purged using a centrifugal pump to evaluate for the presence of DNAPL.

Groundwater elevations

The depth-to-water measurements were converted to elevations using reference point elevation data. The elevation data have been used to construct the groundwater elevation contours shown in Figure 1. The elevation data was compared to previous sampling events and show similar elevations and groundwater flow direction. Groundwater flows across the site in a generally west-northwesterly direction.

Sampling and analysis

Thirteen monitoring wells were purged and sampled by an AECOM sampling team during the August 2015 event; sampling locations are shown on Figure 1. The samples were analyzed using the following methods:

BTEX	Method SW846 8260C
PAHs	Method SW846 8270D
Cyanide (total)	Method SW846 9012B

Cyanide (free) Method SW846 9016[2]

Groundwater and surface water sampling and analyses were conducted in accordance with AECOM's Standard Operating Procedures as provided in the project Quality Assurance Plan (QAP) of June 11, 1999. Cyanide samples were protected from light during collection to prevent the dissociation of metal-cyanide compounds, which would artificially elevate free cyanide results. The cyanide samples were also treated with lead carbonate and field filtered using a disposable 1.5 micron filter to remove potential sulfide interferences.

Analytical results and conclusions

Laboratory results are summarized in Table 2. Laboratory reports and chain-of-custody forms are provided as an attachment. Sample locations, sampling objectives, and a discussion of the analytical results for each of the specific areas of interest at the site are provided in the following sections.

The following discussion of results and data summarized in Table 2 reflect AECOM's review of the associated quality assurance/quality control (QA/QC) data (blanks, duplicates, etc.) including any changes to the laboratory-reported data qualifiers, as noted in the QA/QC section of this report.

Upgradient site perimeter

Monitoring well MW-17 is located in the southeast corner of the site to monitor upgradient groundwater quality. The groundwater sample collected from MW-17 was analyzed for BTEX, PAH, and total and free cyanide. No BTEX or PAH compounds were detected. Total cyanide was detected at a concentration of 89 µg/L, below the NYSDEC Groundwater Standard Value of 200 µg/L. Free cyanide was detected at a concentration of 9.5 J µg/L. There is no NYSDEC Groundwater Standard for free cyanide. These cyanide results are consistent with historic data from this well.

Downgradient site perimeter

Monitoring wells MW-20 and MW-21 are located downgradient of the western boundary of the site on Calais Street, and wells MW-13, MW-14, MW-22, and MW-23 are located just inside the northern property boundary near Mineral Springs Road. These six wells monitor groundwater quality downgradient of the site to the north and west. Groundwater samples collected from these six wells were analyzed for total and free cyanide. Groundwater samples from wells MW-13 and MW-23 were also analyzed for BTEX and PAH compounds.

All six wells had total cyanide concentrations above the NYSDEC Groundwater Standard of 200 µg/L. Detected concentrations ranged from 400 µg/L at MW-13 to 990 µg/L at MW-22. Free cyanide was detected in all six wells at concentrations ranging from 5.5 J µg/L at MW-21 to 22.3 J µg/L at MW-23. There is no NYSDEC Groundwater Standard for free cyanide. These analytical results are consistent with the range of concentrations measured in past years.

[2] The analytical method for free cyanide analysis for samples collected at the Mineral Springs Road MGP Site was changed from ASTM Method D4282 to USEPA Method SW846 Method 9016. NYSDEC was notified of this change in a letter from AECOM dated April 15, 2013.

On-site purifier residuals impacted areas

Monitoring wells MW-12 and MW-16 monitor groundwater quality at locations of known subsurface deposits of purifier box residuals. These deposits were remediated by capping. Groundwater samples from these two wells were analyzed for total and free cyanide.

Both wells had a total cyanide groundwater concentration above the NYSDEC Groundwater Standard of 200 µg/L. Total cyanide concentrations were reported as 890 µg/L at MW-12 and 1,500 µg/L at MW-16. Free cyanide concentrations were reported as 9.1 J µg/L at MW-12 and 20.4 J µg/L at MW-16. There is no NYSDEC Groundwater Standard for free cyanide.

These results were compared with historical data from these two wells. The comparison indicates that the most recent analytical results for MW-12 are consistent with past results. The analytical results for MW-16 are similar to the previous sampling event; and will continue to be monitored for observable trends in cyanide concentrations.

On-site hydrocarbon NAPL impacted areas

Monitoring wells MW-07, MW-10, MW-11A, and MW-19 monitor on-site groundwater quality downgradient of subsurface soils impacted with hydrocarbon NAPL. Samples from these wells were analyzed for BTEX and PAH compounds.

BTEX compounds were not detected at MW-10. BTEX compounds were detected above the NYSDEC Groundwater Standards in MW-07, MW-11A, and MW-19. Concentrations of BTEX compounds were consistent with historical analytical data.

PAH compound naphthalene was detected in MW-07 and MW-19 above the NYSDEC Groundwater Standard of 10 µg/L, and acenaphthene was detected in MW-07 above the NYSDEC Groundwater Standard of 20 µg/L. Concentrations measured were consistent with analytical results obtained in past years.

Surface water

Two surface water samples, SW-01 and SW-02, were collected from the NYSDEC Class D Stream running along the south side of the site. These surface water sampling locations monitor the effectiveness of the Eastern Drainage Ditch Cap and also monitor the concentrations of constituents of concern in surface water downstream of the Mineral Springs site. The collected samples were analyzed for BTEX and PAH compounds, as well as for total and free cyanide.

BTEX compounds were not detected in either surface water sample. Three PAH compounds were detected in SW-01: benzo(b)flouranthene at 3.1 µg/L; flouranthene at 3.3 µg/L; and, pyrene at 2.8 J µg/L. A NYSDEC Class D Surface Water Standard is not listed for benzo(b)flouranthene or flouranthene. The pyrene detection was below the NYSDEC Class D Surface Water Guidance Value (no standard is listed) of 42 µg/L.

Total cyanide was detected in SW-01 and SW-02 at a concentration of 5.2 J and 160 µg/L, respectively, which was less than the NYSDEC Class D Stream Standard of 9,000 µg/L.

Free cyanide was detected in both samples at a concentration of 7.2 J µg/L, below the NYSDEC Class D Stream Standard of 22 µg/L.

Quality Assurance / Quality Control (QA/QC) samples

QA/QC samples were collected during the sampling event to meet the requirements of the Final Engineering Report, Volume II – Operations and Maintenance Plan (May 2002). Sample bottles were provided by TestAmerica Laboratories of Buffalo, New York. Some sample bottles contained chemical preservatives to stabilize the sample, depending on the analysis being performed. These chemical preservatives raise or lower the pH. All samples were received at the laboratory within the acceptable pH range and within the optimal temperature range of 4° C (degrees Celsius) ± 2° C.

An equipment (rinsate) blank was prepared using analyte free blank water supplied by the analytical laboratory. All downhole tubing used to collect groundwater samples is dedicated to, and stored within, each well. Therefore, the equipment blank was collected by running the blank water through the silicone and polyethylene pump tubing at the peristaltic pump head. No target compounds or analytes were detected in the equipment blank, except for free cyanide at a concentration of 8.5 µg/L. All samples were affected. This result is problematic because no total cyanide was detected in the equipment blank. The equipment blank sample was reanalyzed for free cyanide beyond the holding time and the result was non-detect at 5.0 µg/L. As a result, all free cyanide results were positive and were qualified "J," as estimated concentrations.

A trip blank sample was prepared by the laboratory and was stored in the sample cooler throughout the sampling event and during transportation back to the laboratory. The trip blank was analyzed for BTEX compounds. No BTEX compounds were detected in the trip blank.

No analytes or compounds were detected in the associated laboratory method blanks. All laboratory control sample (i.e., blank spike) recoveries were within the statistically calculated quality control limits.

A blind field duplicate sample was collected from MW-23. The duplicate sample from MW-23 was submitted for BTEX, PAH, free cyanide and total cyanide analyses. All duplicate sample results were within the acceptance limits as defined by the QAP except for free cyanide. Free cyanide was detected in the parent sample MW-23 at 22.3 µg/L, and was detected at 11.2 µg/L in the field duplicate sample. The difference between the free cyanide concentration in MW-23 and the field duplicate was greater than two times the reporting limit. The free cyanide results for all samples were qualified "J," as estimated concentrations, because of field sampling/laboratory imprecision and/or sample heterogeneity.

Sample MW-12 was processed as a matrix spike/matrix spike duplicate sample for free cyanide to assess the effects of matrix on the analysis. The free cyanide spike recoveries and the relative percent difference were within the laboratory-generated statistical limits.

DNAPL recovery test well (RTW-1)

On August 17, 2015, the Recovery System at RTW-1 was operated to assess whether DNAPL had accumulated since the April 2015 sampling event. Approximately two liters of water were pumped out. The water contained only trace DNAPL in the form of "blebs", visually estimated to be less than 1% of total volume.

If you have any questions or comments, please do not hesitate to call me at (716) 923-1113.

Sincerely yours,

Tamara M. Raby

Tamara Raby
Project Manager

Randolph West, P.E
Project Engineer

Encl: Water Sampling Summary (Table 1)
Laboratory Results Summary (Table 2)
Groundwater Elevation Contours (Figure 1)
Laboratory Reports

cc: B. Walker – National Fuel
T. Alexander – National Fuel
S. McLaughlin – NYSDOH
R. West – AECOM

TABLES

Table 1
Water Sampling Summary Table
Mineral Springs Road MGP Site, August 2015

Location	Cyanide, Total	Cyanide, Free	BTEX	PAHs	Water Elevation	Benchmark Elevation
	USEPA SW846 9012B	USEPA SW846 9016	USEPA SW846 8260B	USEPA SW846 8270D		(top of PVC casing)
Upgradient Site Perimeter						
MW-17	x	x	x	x	x	587.28
Downgradient Site Perimeter						
MW-13	x	x	annually	annually	x	591.85
MW-14	x	x			x	589.53
MW-15					x	590.93
MW-20	x	x			x	587.06
MW-21	x	x			x	587.84
MW-22	x	x			x	592.50
MW-23	x	x	annually	annually	x	589.28
Onsite Purifier Residuals Impacted Areas						
MW-12	x	x			x	591.40
MW-16	x	x			x	588.99
Onsite Hydrocarbon Impacted Areas						
MW-07			x	x	x	587.01
MW-10			x	x	x	587.61
MW-11A			x	x	x	589.78
MW-19			x	x	x	589.83
Onsite Surface Water						
SW-01	x	x	x	x	x	top of headwall = 587.0
SW-02	x	x	x	x		
QA/QC Samples (frequency)						
Trip Blank			x			(one per shipment)
Field Duplicate	x	x	x	x		(one per event)
Equipment Blank	x	x	x	x		(one per event)
DNAPL Recovery						
RTW-1						(purge well of accumulated DNAPL)
Total	13	13	10 or 12	9 or 11	15	
Container, Preservative	250 mL plastic, NaOH	250 mL plastic amber, NaOH	40 mL VOA vial, HCl (x3)	250 mL glass amber, NP (x2)		

Note: Sample methods and containers have been updated to the most current information. Benchmark elevations have been updated to reflect the 2007 survey, except for MW-20, which was resurveyed in August 2009 due to a repair.

Table 2
Groundwater and Surface Water Monitoring Results
Mineral Springs Road MGP Site

August 2015

PARAMETER		GROUNDWATER														SURFACE WATER			Quality Assurance / Quality Control		
Sample ID :	*Groundwater*	MW-07	MW-10	MW-11A	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-19	MW-20	MW-21	MW-22	MW-23	*Class D Stream*	SW-01	SW-02	TB	EB	MW-23 Dup
Sample Date :	*Standard* (1)	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15	*Standard* (1)	08/17/15	08/17/15	08/17/15	08/17/15	08/17/15
BTEX (µg/L)																					
Benzene	**1**	1,100	1.0 U	12	---	0.91 J	---	---	---	1.0 U	5,400	---	---	---	1.0 U	**10**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	**5**	30	1.0 U	1.0 U	---	1.0 U	---	---	---	1.0 U	100 U	---	---	---	1.0 U	**6,000**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	**5**	1,600	1.0 U	1.0 U	---	1.0 U	---	---	---	1.0 U	430	---	---	---	1.0 U	**150** *	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (sum of isomers)	**5 (each)**	1,200	2.0 U	1.4 J	---	2.0 U	---	---	---	2.0 U	200 U	---	---	---	2.0 U	**590** *	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
BTEX total	---	3,930	1.0	13.4	---	0.91	---	---	---	nd	5,830	---	---	---	nd	---	nd	nd	nd	nd	nd
PAHs (µg/L)																					
Acenaphthene	**20** *	120	0.50 U	3.4	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**48** *	0.52 U	2.9 U	---	0.51 U	0.50 U
Acenaphthylene	**NL** *	52 U	0.50 U	1.8	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
Anthracene	**50** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**35** *	0.52 U	2.9 U	---	0.51 U	0.50 U
Benzo(a)anthracene	**0.002** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**0.23** *	0.52 U	2.9 U	---	0.51 U	0.50 U
Benzo(a)pyrene	**NL**	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**0.0012** *	0.52 U	2.9 U	---	0.51 U	0.50 U
Benzo(b)fluoranthene	**0.002** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	3.1	---	0.51 U	0.50 U
Benzo(g,h,i)perylene	**NL**	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
Benzo(k)fluoranthene	**0.002** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
Chrysene	**0.002** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
Dibenz(a,h)anthracene	**NL**	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
Fluoranthene	**50** *	52 U	0.50 U	0.70	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	3.3	---	0.51 U	0.50 U
Fluorene	**50** *	52 U	0.50 U	0.64	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**4.8** *	0.52 U	2.9 U	---	0.51 U	0.50 U
Indeno(1,2,3-cd)pyrene	**0.002** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
Naphthalene	**10** *	3,000	1.0	1.2	---	0.50 U	---	---	---	0.52 U	5,700	---	---	---	0.51 U	**110** *	0.52 U	2.9 U	---	0.51 U	0.50 U
Phenanthrene	**50** *	52 U	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.52	**45** *	0.52 U	2.9 U	---	0.51 U	0.38 J
Pyrene	**50** *	52 U	0.50 U	1.0	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**42** *	0.52 U	2.8 J	---	0.51 U	0.50 U
2-Methylnaphthalene	**NL**	250	0.50 U	0.59 U	---	0.50 U	---	---	---	0.52 U	240 U	---	---	---	0.51 U	**NL**	0.52 U	2.9 U	---	0.51 U	0.50 U
PAHs total	---	3,370	1.0	8.74	---	nd	---	---	---	nd	5,700	---	---	---	0.52	---	nd	6.4	---	nd	0.38
CYANIDE (µg/L)																					
Cyanide, total	**200**	---	---	---	890	400	740	---	1,500	89	---	640	440	990	480	**9,000**	5.2 J	160	---	10 U	470
Cyanide, free	**NL**	---	---	---	9.1 J	7.4 J	5.7 J	---	20.4 J	9.5 J	---	5.9 J	5.5 J	6.5 J	22.3 J	**22**	7.2 J	7.2 J	---	8.5	11.2 J
Water Elevation (feet)	**NL**	580.15	581.86	580.63	579.87	578.35	577.63	579.34	580.49	580.46	580.04	580.04	576.89	579.53	577.75	**NL**	581.23 (2)	---	---	---	---

Notes:

NL Not listed

nd Not detected above method detection limit

--- Not analyzed

BTEX benzene, toluene, ethylbenzene, and xylene

PAH polycyclic aromatic hydrocarbon

µg/L micrograms per liter

TB Trip Blank

EB Equipment Blank

(1) NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1)

(2) Groundwater elevation for surface water location SW-1 was not used in the generation of groundwater contours. The water level at this location was artificially high due to the collection of debris in front of the culvert grate.

* Groundwater or Surface Water Guidance Value (no Standard value listed)

Concentrations exceeding NYSDEC regulatory standard or guidance value.

J Indicates laboratory estimated value

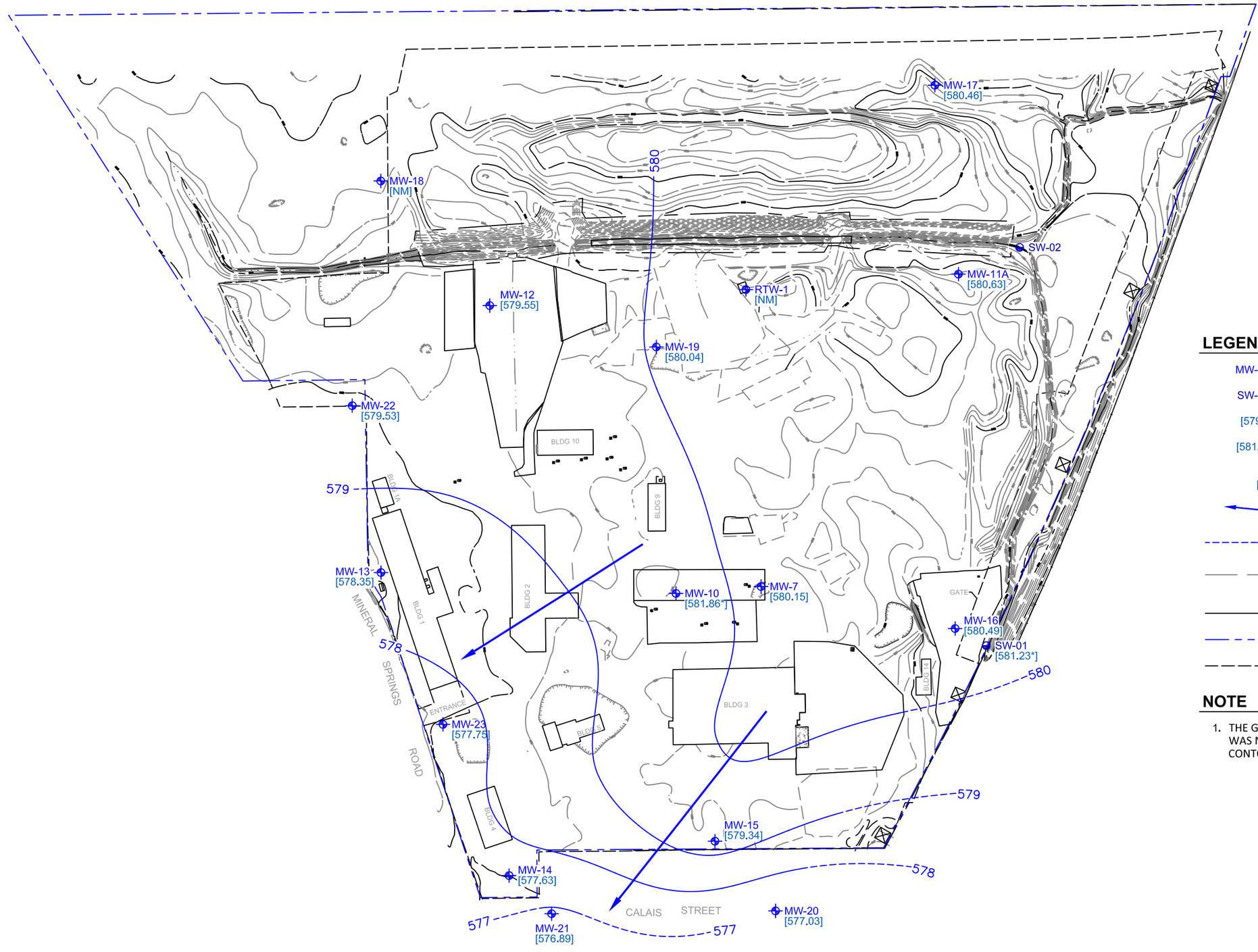
U Analyte was not detected above the reporting limit.

UJ Reporting limit may be inaccuate or imprecise

J- Indicates estimated value, possibly biased low

J+ Indicates estimated value, possibly biased high

FIGURE



LEGEND

MW-7	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
[579.61]	GROUNDWATER ELEVATION (ft. MSL)
[581.35*]	GROUNDWATER ELEVATION (ft.MSL) NOT USED TO CONTOUR
[NM]	NOT MEASURED
	GENERALIZED GROUNDWATER FLOW DIRECTION
	GROUNDWATER ELEVATION CONTOUR (ft. MSL) (DASHED WHERE INFERRED)
	GROUND SURFACE ELEVATION CONTOUR INTERVAL: 1'
	CURRENT SITE FEATURE
	PROPERTY BOUNDARY
	FENCE LINE

NOTE

1. THE GROUNDWATER ELEVATION FOR MONITORING WELL MW-10 WAS NOT USED IN THE GENERATION OF GROUNDWATER CONTOURS.

0 125 250 500

SCALE IN FEET

AECOM

NATIONAL FUEL GAS
MINERAL SPRINGS ROAD MGP SITE
60343307-100

GROUNDWATER ELEVATION CONTOURS AUGUST 2015

DATE: 08/2015 | DRWN: HAP | **FIGURE 1**

LABORATORY ANALYTICAL RESULTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-85729-1
Client Project/Site: AECOM, Mineral Springs
Sampling Event: Semi Annual Sampling (August)

For:
AECOM, Inc.
257 West Genesse St.
Suite 400
Buffalo, New York 14202-2657

Attn: Tami Raby

Authorized for release by:
8/28/2015 5:59:12 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Definitions/Glossary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

General Chemistry

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

Glossary

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

Job ID: 480-85729-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-85729-1

Comments
No additional comments.

Receipt
The samples were received on 8/17/2015 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.8º C, 2.0º C and 2.2º C.

GC/MS VOA
Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-07 081715 (480-85729-14) and MW-19 081715 (480-85729-17). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D_LL_PAH: The following sample was diluted due to the nature of the sample matrix: SW-02 081715 (480-85729-13). Elevated reporting limits (RLs) are provided.

Method(s) 8270D_LL_PAH: The following samples required a dilution to bring the concentration of target analytes within the calibration range: MW-07 081715 (480-85729-14) and MW-19 081715 (480-85729-17). Because of these dilutions, the surrogate spike concentration in the samples were reduced to a level where the recovery calculation does not provide useful information. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 480-259375.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-12 081715 — Lab Sample ID: 480-85729-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.89		0.050	0.025	mg/L	5		9012B	Total/NA
Cyanide, Free	9.1		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-14 081715 — Lab Sample ID: 480-85729-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.74		0.050	0.025	mg/L	5		9012B	Total/NA
Cyanide, Free	5.7		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-16 081715 — Lab Sample ID: 480-85729-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	1.5		0.10	0.050	mg/L	10		9012B	Total/NA
Cyanide, Free	20.4		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-20 081715 — Lab Sample ID: 480-85729-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.64		0.050	0.025	mg/L	5		9012B	Total/NA
Cyanide, Free	5.9		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-21 081715 — Lab Sample ID: 480-85729-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.44		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	5.5		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-22 081715 — Lab Sample ID: 480-85729-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.99		0.050	0.025	mg/L	5		9012B	Total/NA
Cyanide, Free	6.5		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-13 081715 — Lab Sample ID: 480-85729-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.91	J	1.0	0.41	ug/L	1		8260C	Total/NA
Cyanide, Total	0.40		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	7.4		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-17 081715 — Lab Sample ID: 480-85729-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.089		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	9.5		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-23 081715 — Lab Sample ID: 480-85729-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.52		0.51	0.38	ug/L	1		8270D_LL_PAH	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-23 081715 (Continued) — Lab Sample ID: 480-85729-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.48		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	22.3		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: EB 081715 — Lab Sample ID: 480-85729-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Free	8.5		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-73 081715 — Lab Sample ID: 480-85729-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.38	J	0.50	0.38	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	0.47		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	11.2		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: SW-01 081715 — Lab Sample ID: 480-85729-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0052	J	0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	7.2		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: SW-02 081715 — Lab Sample ID: 480-85729-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(b)fluoranthene	3.1		2.9	1.7	ug/L	5		8270D_LL_PAH	Total/NA
Fluoranthene	3.3		2.9	2.1	ug/L	5		8270D_LL_PAH	Total/NA
Pyrene	2.8	J	2.9	2.1	ug/L	5		8270D_LL_PAH	Total/NA
Cyanide, Total	0.16		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	7.2		5.0	0.61	ug/L	1		9016	Total/NA

Client Sample ID: MW-07 081715 — Lab Sample ID: 480-85729-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1100		20	8.2	ug/L	20		8260C	Total/NA
Ethylbenzene	1600		20	15	ug/L	20		8260C	Total/NA
Toluene	30		20	10	ug/L	20		8260C	Total/NA
Xylenes, Total	1200		40	13	ug/L	20		8260C	Total/NA
2-Methylnaphthalene	250		52	39	ug/L	100		8270D_LL_PAH	Total/NA
Acenaphthene	120		52	31	ug/L	100		8270D_LL_PAH	Total/NA
Naphthalene	3000		52	44	ug/L	100		8270D_LL_PAH	Total/NA

Client Sample ID: MW-10 081715 — Lab Sample ID: 480-85729-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	1.0		0.50	0.42	ug/L	1		8270D_LL_PAH	Total/NA

Client Sample ID: MW-11A 081715 — Lab Sample ID: 480-85729-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	12		1.0	0.41	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-11A 081715 (Continued) — Lab Sample ID: 480-85729-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	1.4	J	2.0	0.66	ug/L	1		8260C	Total/NA
Acenaphthene	3.4		0.59	0.35	ug/L	1		8270D_LL_PAH	Total/NA
Acenaphthylene	1.8		0.59	0.40	ug/L	1		8270D_LL_PAH	Total/NA
Fluoranthene	0.70		0.59	0.43	ug/L	1		8270D_LL_PAH	Total/NA
Fluorene	0.64		0.59	0.44	ug/L	1		8270D_LL_PAH	Total/NA
Naphthalene	1.2		0.59	0.50	ug/L	1		8270D_LL_PAH	Total/NA
Pyrene	1.0		0.59	0.43	ug/L	1		8270D_LL_PAH	Total/NA

Client Sample ID: MW-19 081715 — Lab Sample ID: 480-85729-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5400		100	41	ug/L	100		8260C	Total/NA
Ethylbenzene	430		100	74	ug/L	100		8260C	Total/NA
Naphthalene	5700		240	200	ug/L	500		8270D_LL_PAH	Total/NA

Client Sample ID: TB 081715 — Lab Sample ID: 480-85729-18

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-12 081715
Date Collected: 08/17/15 16:45
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-1
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.89		0.050	0.025	mg/L		08/21/15 14:35	08/22/15 10:20	5
Cyanide, Free	9.1		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-14 081715
Date Collected: 08/17/15 09:50
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-2
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.74		0.050	0.025	mg/L		08/21/15 14:35	08/22/15 10:21	5
Cyanide, Free	5.7		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-16 081715
Date Collected: 08/17/15 11:15
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-3
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.5		0.10	0.050	mg/L		08/21/15 14:35	08/22/15 10:23	10
Cyanide, Free	20.4		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-20 081715
Date Collected: 08/17/15 11:35
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-4
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.64		0.050	0.025	mg/L		08/21/15 14:35	08/22/15 10:24	5
Cyanide, Free	5.9		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-21 081715
Date Collected: 08/17/15 12:25
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-5
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.44		0.010	0.0050	mg/L		08/22/15 11:20	08/24/15 09:58	1
Cyanide, Free	5.5		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-22 081715
Date Collected: 08/17/15 15:20
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-6
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.99		0.050	0.025	mg/L		08/22/15 11:20	08/24/15 10:50	5
Cyanide, Free	6.5		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client Sample ID: MW-13 081715

Date Collected: 08/17/15 15:30
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-7
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.91**	**J**	1.0	0.41	ug/L			08/20/15 10:31	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 10:31	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 10:31	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 10:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*66 - 137*		*08/20/15 10:31*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*08/20/15 10:31*	*1*
Toluene-d8 (Surr)	*100*		*71 - 126*		*08/20/15 10:31*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*08/20/15 10:31*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 11:23	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 11:23	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/19/15 08:33	08/20/15 11:23	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/19/15 08:33	08/20/15 11:23	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/19/15 08:33	08/20/15 11:23	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 11:23	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 11:23	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 11:23	1
Benzo(k)fluoranthene	0.50	U	0.50	0.086	ug/L		08/19/15 08:33	08/20/15 11:23	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/19/15 08:33	08/20/15 11:23	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 11:23	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 11:23	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 11:23	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/19/15 08:33	08/20/15 11:23	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/19/15 08:33	08/20/15 11:23	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 11:23	1
Pyrene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*48 - 120*	*08/19/15 08:33*	*08/20/15 11:23*	*1*
Nitrobenzene-d5	*93*		*46 - 120*	*08/19/15 08:33*	*08/20/15 11:23*	*1*
p-Terphenyl-d14	*87*		*24 - 136*	*08/19/15 08:33*	*08/20/15 11:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.40**		0.010	0.0050	mg/L		08/22/15 11:20	08/24/15 10:01	1
Cyanide, Free	**7.4**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-17 081715
Date Collected: 08/17/15 14:20
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-8
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 10:59	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 10:59	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 10:59	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*08/20/15 10:59*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*08/20/15 10:59*	*1*
Toluene-d8 (Surr)	*101*		*71 - 126*		*08/20/15 10:59*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*08/20/15 10:59*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.52	U	0.52	0.40	ug/L		08/19/15 08:33	08/20/15 11:53	1
Acenaphthene	0.52	U	0.52	0.31	ug/L		08/19/15 08:33	08/20/15 11:53	1
Acenaphthylene	0.52	U	0.52	0.36	ug/L		08/19/15 08:33	08/20/15 11:53	1
Anthracene	0.52	U	0.52	0.41	ug/L		08/19/15 08:33	08/20/15 11:53	1
Benzo(a)anthracene	0.52	U	0.52	0.42	ug/L		08/19/15 08:33	08/20/15 11:53	1
Benzo(a)pyrene	0.52	U	0.52	0.35	ug/L		08/19/15 08:33	08/20/15 11:53	1
Benzo(b)fluoranthene	0.52	U	0.52	0.31	ug/L		08/19/15 08:33	08/20/15 11:53	1
Benzo(g,h,i)perylene	0.52	U	0.52	0.39	ug/L		08/19/15 08:33	08/20/15 11:53	1
Benzo(k)fluoranthene	0.52	U	0.52	0.089	ug/L		08/19/15 08:33	08/20/15 11:53	1
Chrysene	0.52	U	0.52	0.34	ug/L		08/19/15 08:33	08/20/15 11:53	1
Dibenz(a,h)anthracene	0.52	U	0.52	0.35	ug/L		08/19/15 08:33	08/20/15 11:53	1
Fluoranthene	0.52	U	0.52	0.38	ug/L		08/19/15 08:33	08/20/15 11:53	1
Fluorene	0.52	U	0.52	0.39	ug/L		08/19/15 08:33	08/20/15 11:53	1
Indeno(1,2,3-cd)pyrene	0.52	U	0.52	0.46	ug/L		08/19/15 08:33	08/20/15 11:53	1
Naphthalene	0.52	U	0.52	0.44	ug/L		08/19/15 08:33	08/20/15 11:53	1
Phenanthrene	0.52	U	0.52	0.40	ug/L		08/19/15 08:33	08/20/15 11:53	1
Pyrene	0.52	U	0.52	0.38	ug/L		08/19/15 08:33	08/20/15 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*48 - 120*	*08/19/15 08:33*	*08/20/15 11:53*	*1*
Nitrobenzene-d5	*89*		*46 - 120*	*08/19/15 08:33*	*08/20/15 11:53*	*1*
p-Terphenyl-d14	*83*		*24 - 136*	*08/19/15 08:33*	*08/20/15 11:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.089**		0.010	0.0050	mg/L		08/22/15 11:20	08/24/15 10:03	1
Cyanide, Free	**9.5**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-23 081715
Date Collected: 08/17/15 10:05
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-9
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 11:26	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 11:26	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 11:26	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 11:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*66 - 137*		*08/20/15 11:26*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*08/20/15 11:26*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 11:26*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*08/20/15 11:26*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.51	U	0.51	0.38	ug/L		08/19/15 08:33	08/20/15 12:23	1
Acenaphthene	0.51	U	0.51	0.30	ug/L		08/19/15 08:33	08/20/15 12:23	1
Acenaphthylene	0.51	U	0.51	0.34	ug/L		08/19/15 08:33	08/20/15 12:23	1
Anthracene	0.51	U	0.51	0.39	ug/L		08/19/15 08:33	08/20/15 12:23	1
Benzo(a)anthracene	0.51	U	0.51	0.40	ug/L		08/19/15 08:33	08/20/15 12:23	1
Benzo(a)pyrene	0.51	U	0.51	0.33	ug/L		08/19/15 08:33	08/20/15 12:23	1
Benzo(b)fluoranthene	0.51	U	0.51	0.30	ug/L		08/19/15 08:33	08/20/15 12:23	1
Benzo(g,h,i)perylene	0.51	U	0.51	0.37	ug/L		08/19/15 08:33	08/20/15 12:23	1
Benzo(k)fluoranthene	0.51	U	0.51	0.086	ug/L		08/19/15 08:33	08/20/15 12:23	1
Chrysene	0.51	U	0.51	0.32	ug/L		08/19/15 08:33	08/20/15 12:23	1
Dibenz(a,h)anthracene	0.51	U	0.51	0.33	ug/L		08/19/15 08:33	08/20/15 12:23	1
Fluoranthene	0.51	U	0.51	0.36	ug/L		08/19/15 08:33	08/20/15 12:23	1
Fluorene	0.51	U	0.51	0.37	ug/L		08/19/15 08:33	08/20/15 12:23	1
Indeno(1,2,3-cd)pyrene	0.51	U	0.51	0.44	ug/L		08/19/15 08:33	08/20/15 12:23	1
Naphthalene	0.51	U	0.51	0.42	ug/L		08/19/15 08:33	08/20/15 12:23	1
Phenanthrene	**0.52**		0.51	0.38	ug/L		08/19/15 08:33	08/20/15 12:23	1
Pyrene	0.51	U	0.51	0.36	ug/L		08/19/15 08:33	08/20/15 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*48 - 120*	*08/19/15 08:33*	*08/20/15 12:23*	*1*
Nitrobenzene-d5	*81*		*46 - 120*	*08/19/15 08:33*	*08/20/15 12:23*	*1*
p-Terphenyl-d14	*85*		*24 - 136*	*08/19/15 08:33*	*08/20/15 12:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.48**		0.010	0.0050	mg/L		08/25/15 19:25	08/26/15 11:06	1
Cyanide, Free	**22.3**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: EB 081715

Date Collected: 08/17/15 14:00
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 11:54	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 11:54	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 11:54	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*66 - 137*		*08/20/15 11:54*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*08/20/15 11:54*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 11:54*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 140*		*08/20/15 11:54*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.51	U	0.51	0.39	ug/L		08/19/15 08:33	08/20/15 12:53	1
Acenaphthene	0.51	U	0.51	0.31	ug/L		08/19/15 08:33	08/20/15 12:53	1
Acenaphthylene	0.51	U	0.51	0.35	ug/L		08/19/15 08:33	08/20/15 12:53	1
Anthracene	0.51	U	0.51	0.40	ug/L		08/19/15 08:33	08/20/15 12:53	1
Benzo(a)anthracene	0.51	U	0.51	0.41	ug/L		08/19/15 08:33	08/20/15 12:53	1
Benzo(a)pyrene	0.51	U	0.51	0.34	ug/L		08/19/15 08:33	08/20/15 12:53	1
Benzo(b)fluoranthene	0.51	U	0.51	0.31	ug/L		08/19/15 08:33	08/20/15 12:53	1
Benzo(g,h,i)perylene	0.51	U	0.51	0.38	ug/L		08/19/15 08:33	08/20/15 12:53	1
Benzo(k)fluoranthene	0.51	U	0.51	0.087	ug/L		08/19/15 08:33	08/20/15 12:53	1
Chrysene	0.51	U	0.51	0.33	ug/L		08/19/15 08:33	08/20/15 12:53	1
Dibenz(a,h)anthracene	0.51	U	0.51	0.34	ug/L		08/19/15 08:33	08/20/15 12:53	1
Fluoranthene	0.51	U	0.51	0.37	ug/L		08/19/15 08:33	08/20/15 12:53	1
Fluorene	0.51	U	0.51	0.38	ug/L		08/19/15 08:33	08/20/15 12:53	1
Indeno(1,2,3-cd)pyrene	0.51	U	0.51	0.45	ug/L		08/19/15 08:33	08/20/15 12:53	1
Naphthalene	0.51	U	0.51	0.43	ug/L		08/19/15 08:33	08/20/15 12:53	1
Phenanthrene	0.51	U	0.51	0.39	ug/L		08/19/15 08:33	08/20/15 12:53	1
Pyrene	0.51	U	0.51	0.37	ug/L		08/19/15 08:33	08/20/15 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*48 - 120*	*08/19/15 08:33*	*08/20/15 12:53*	*1*
Nitrobenzene-d5	*86*		*46 - 120*	*08/19/15 08:33*	*08/20/15 12:53*	*1*
p-Terphenyl-d14	*102*		*24 - 136*	*08/19/15 08:33*	*08/20/15 12:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/25/15 19:25	08/26/15 11:07	1
Cyanide, Free	**8.5**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-73 081715
Date Collected: 08/17/15 08:00
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-11
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 12:21	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 12:21	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 12:21	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*08/20/15 12:21*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*08/20/15 12:21*	*1*
Toluene-d8 (Surr)	*100*		*71 - 126*		*08/20/15 12:21*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*08/20/15 12:21*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 13:23	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 13:23	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/19/15 08:33	08/20/15 13:23	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/19/15 08:33	08/20/15 13:23	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/19/15 08:33	08/20/15 13:23	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 13:23	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 13:23	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 13:23	1
Benzo(k)fluoranthene	0.50	U	0.50	0.084	ug/L		08/19/15 08:33	08/20/15 13:23	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/19/15 08:33	08/20/15 13:23	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 13:23	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 13:23	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 13:23	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/19/15 08:33	08/20/15 13:23	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/19/15 08:33	08/20/15 13:23	1
Phenanthrene	**0.38**	**J**	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 13:23	1
Pyrene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*48 - 120*	*08/19/15 08:33*	*08/20/15 13:23*	*1*
Nitrobenzene-d5	*71*		*46 - 120*	*08/19/15 08:33*	*08/20/15 13:23*	*1*
p-Terphenyl-d14	*73*		*24 - 136*	*08/19/15 08:33*	*08/20/15 13:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.47**		0.010	0.0050	mg/L		08/25/15 19:25	08/26/15 11:08	1
Cyanide, Free	**11.2**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: SW-01 081715
Date Collected: 08/17/15 10:15
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-12
Matrix: Surface Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 12:49	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 12:49	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 12:49	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*66 - 137*		*08/20/15 12:49*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*08/20/15 12:49*	*1*
Toluene-d8 (Surr)	*101*		*71 - 126*		*08/20/15 12:49*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*08/20/15 12:49*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.52	U	0.52	0.39	ug/L		08/19/15 08:33	08/20/15 13:53	1
Acenaphthene	0.52	U	0.52	0.31	ug/L		08/19/15 08:33	08/20/15 13:53	1
Acenaphthylene	0.52	U	0.52	0.35	ug/L		08/19/15 08:33	08/20/15 13:53	1
Anthracene	0.52	U	0.52	0.40	ug/L		08/19/15 08:33	08/20/15 13:53	1
Benzo(a)anthracene	0.52	U	0.52	0.41	ug/L		08/19/15 08:33	08/20/15 13:53	1
Benzo(a)pyrene	0.52	U	0.52	0.34	ug/L		08/19/15 08:33	08/20/15 13:53	1
Benzo(b)fluoranthene	0.52	U	0.52	0.31	ug/L		08/19/15 08:33	08/20/15 13:53	1
Benzo(g,h,i)perylene	0.52	U	0.52	0.38	ug/L		08/19/15 08:33	08/20/15 13:53	1
Benzo(k)fluoranthene	0.52	U	0.52	0.088	ug/L		08/19/15 08:33	08/20/15 13:53	1
Chrysene	0.52	U	0.52	0.33	ug/L		08/19/15 08:33	08/20/15 13:53	1
Dibenz(a,h)anthracene	0.52	U	0.52	0.34	ug/L		08/19/15 08:33	08/20/15 13:53	1
Fluoranthene	0.52	U	0.52	0.37	ug/L		08/19/15 08:33	08/20/15 13:53	1
Fluorene	0.52	U	0.52	0.38	ug/L		08/19/15 08:33	08/20/15 13:53	1
Indeno(1,2,3-cd)pyrene	0.52	U	0.52	0.45	ug/L		08/19/15 08:33	08/20/15 13:53	1
Naphthalene	0.52	U	0.52	0.43	ug/L		08/19/15 08:33	08/20/15 13:53	1
Phenanthrene	0.52	U	0.52	0.39	ug/L		08/19/15 08:33	08/20/15 13:53	1
Pyrene	0.52	U	0.52	0.37	ug/L		08/19/15 08:33	08/20/15 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*48 - 120*	*08/19/15 08:33*	*08/20/15 13:53*	*1*
Nitrobenzene-d5	*84*		*46 - 120*	*08/19/15 08:33*	*08/20/15 13:53*	*1*
p-Terphenyl-d14	*72*		*24 - 136*	*08/19/15 08:33*	*08/20/15 13:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0052**	**J**	0.010	0.0050	mg/L		08/25/15 19:25	08/26/15 11:10	1
Cyanide, Free	**7.2**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: SW-02 081715
Date Collected: 08/17/15 12:20
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-13
Matrix: Surface Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 13:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 13:16	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 13:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*66 - 137*		*08/20/15 13:16*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*08/20/15 13:16*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 13:16*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*08/20/15 13:16*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	2.9	U	2.9	2.2	ug/L		08/19/15 08:33	08/20/15 14:23	5
Acenaphthene	2.9	U	2.9	1.7	ug/L		08/19/15 08:33	08/20/15 14:23	5
Acenaphthylene	2.9	U	2.9	2.0	ug/L		08/19/15 08:33	08/20/15 14:23	5
Anthracene	2.9	U	2.9	2.2	ug/L		08/19/15 08:33	08/20/15 14:23	5
Benzo(a)anthracene	2.9	U	2.9	2.3	ug/L		08/19/15 08:33	08/20/15 14:23	5
Benzo(a)pyrene	2.9	U	2.9	1.9	ug/L		08/19/15 08:33	08/20/15 14:23	5
Benzo(b)fluoranthene	**3.1**		2.9	1.7	ug/L		08/19/15 08:33	08/20/15 14:23	5
Benzo(g,h,i)perylene	2.9	U	2.9	2.1	ug/L		08/19/15 08:33	08/20/15 14:23	5
Benzo(k)fluoranthene	2.9	U	2.9	0.49	ug/L		08/19/15 08:33	08/20/15 14:23	5
Chrysene	2.9	U	2.9	1.8	ug/L		08/19/15 08:33	08/20/15 14:23	5
Dibenz(a,h)anthracene	2.9	U	2.9	1.9	ug/L		08/19/15 08:33	08/20/15 14:23	5
Fluoranthene	**3.3**		2.9	2.1	ug/L		08/19/15 08:33	08/20/15 14:23	5
Fluorene	2.9	U	2.9	2.1	ug/L		08/19/15 08:33	08/20/15 14:23	5
Indeno(1,2,3-cd)pyrene	2.9	U	2.9	2.5	ug/L		08/19/15 08:33	08/20/15 14:23	5
Naphthalene	2.9	U	2.9	2.4	ug/L		08/19/15 08:33	08/20/15 14:23	5
Phenanthrene	2.9	U	2.9	2.2	ug/L		08/19/15 08:33	08/20/15 14:23	5
Pyrene	**2.8**	**J**	2.9	2.1	ug/L		08/19/15 08:33	08/20/15 14:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*48 - 120*	*08/19/15 08:33*	*08/20/15 14:23*	*5*
Nitrobenzene-d5	*71*		*46 - 120*	*08/19/15 08:33*	*08/20/15 14:23*	*5*
p-Terphenyl-d14	*63*		*24 - 136*	*08/19/15 08:33*	*08/20/15 14:23*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.16**		0.010	0.0050	mg/L		08/24/15 19:50	08/25/15 12:34	1
Cyanide, Free	**7.2**		5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-07 081715
Date Collected: 08/17/15 09:00
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-14
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1100**		20	8.2	ug/L			08/20/15 13:43	20
Ethylbenzene	**1600**		20	15	ug/L			08/20/15 13:43	20
Toluene	**30**		20	10	ug/L			08/20/15 13:43	20
Xylenes, Total	**1200**		40	13	ug/L			08/20/15 13:43	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*08/20/15 13:43*	*20*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*08/20/15 13:43*	*20*
Toluene-d8 (Surr)	*100*		*71 - 126*		*08/20/15 13:43*	*20*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*08/20/15 13:43*	*20*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	**250**		52	39	ug/L		08/19/15 08:33	08/20/15 14:53	100
Acenaphthene	**120**		52	31	ug/L		08/19/15 08:33	08/20/15 14:53	100
Acenaphthylene	52	U	52	35	ug/L		08/19/15 08:33	08/20/15 14:53	100
Anthracene	52	U	52	40	ug/L		08/19/15 08:33	08/20/15 14:53	100
Benzo(a)anthracene	52	U	52	41	ug/L		08/19/15 08:33	08/20/15 14:53	100
Benzo(a)pyrene	52	U	52	34	ug/L		08/19/15 08:33	08/20/15 14:53	100
Benzo(b)fluoranthene	52	U	52	31	ug/L		08/19/15 08:33	08/20/15 14:53	100
Benzo(g,h,i)perylene	52	U	52	38	ug/L		08/19/15 08:33	08/20/15 14:53	100
Benzo(k)fluoranthene	52	U	52	8.8	ug/L		08/19/15 08:33	08/20/15 14:53	100
Chrysene	52	U	52	33	ug/L		08/19/15 08:33	08/20/15 14:53	100
Dibenz(a,h)anthracene	52	U	52	34	ug/L		08/19/15 08:33	08/20/15 14:53	100
Fluoranthene	52	U	52	37	ug/L		08/19/15 08:33	08/20/15 14:53	100
Fluorene	52	U	52	38	ug/L		08/19/15 08:33	08/20/15 14:53	100
Indeno(1,2,3-cd)pyrene	52	U	52	46	ug/L		08/19/15 08:33	08/20/15 14:53	100
Naphthalene	**3000**		52	44	ug/L		08/19/15 08:33	08/20/15 14:53	100
Phenanthrene	52	U	52	39	ug/L		08/19/15 08:33	08/20/15 14:53	100
Pyrene	52	U	52	37	ug/L		08/19/15 08:33	08/20/15 14:53	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*48 - 120*	*08/19/15 08:33*	*08/20/15 14:53*	*100*
Nitrobenzene-d5	*75*		*46 - 120*	*08/19/15 08:33*	*08/20/15 14:53*	*100*
p-Terphenyl-d14	*85*		*24 - 136*	*08/19/15 08:33*	*08/20/15 14:53*	*100*

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-10 081715
Date Collected: 08/17/15 08:25
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-15
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 14:11	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 14:11	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 14:11	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*66 - 137*		*08/20/15 14:11*	*1*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*08/20/15 14:11*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 14:11*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*08/20/15 14:11*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 15:23	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 15:23	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/19/15 08:33	08/20/15 15:23	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/19/15 08:33	08/20/15 15:23	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/19/15 08:33	08/20/15 15:23	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 15:23	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 15:23	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 15:23	1
Benzo(k)fluoranthene	0.50	U	0.50	0.084	ug/L		08/19/15 08:33	08/20/15 15:23	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/19/15 08:33	08/20/15 15:23	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 15:23	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 15:23	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 15:23	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/19/15 08:33	08/20/15 15:23	1
Naphthalene	**1.0**		0.50	0.42	ug/L		08/19/15 08:33	08/20/15 15:23	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 15:23	1
Pyrene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*48 - 120*	*08/19/15 08:33*	*08/20/15 15:23*	*1*
Nitrobenzene-d5	*91*		*46 - 120*	*08/19/15 08:33*	*08/20/15 15:23*	*1*
p-Terphenyl-d14	*87*		*24 - 136*	*08/19/15 08:33*	*08/20/15 15:23*	*1*

Client Sample ID: MW-11A 081715

Date Collected: 08/17/15 12:40
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-16
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**12**		1.0	0.41	ug/L			08/20/15 14:39	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 14:39	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 14:39	1
Xylenes, Total	**1.4**	**J**	2.0	0.66	ug/L			08/20/15 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*66 - 137*		*08/20/15 14:39*	*1*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*08/20/15 14:39*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 14:39*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*08/20/15 14:39*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.59	U	0.59	0.45	ug/L		08/19/15 08:33	08/20/15 15:53	1
Acenaphthene	**3.4**		0.59	0.35	ug/L		08/19/15 08:33	08/20/15 15:53	1
Acenaphthylene	**1.8**		0.59	0.40	ug/L		08/19/15 08:33	08/20/15 15:53	1
Anthracene	0.59	U	0.59	0.46	ug/L		08/19/15 08:33	08/20/15 15:53	1
Benzo(a)anthracene	0.59	U	0.59	0.47	ug/L		08/19/15 08:33	08/20/15 15:53	1
Benzo(a)pyrene	0.59	U	0.59	0.39	ug/L		08/19/15 08:33	08/20/15 15:53	1
Benzo(b)fluoranthene	0.59	U	0.59	0.35	ug/L		08/19/15 08:33	08/20/15 15:53	1
Benzo(g,h,i)perylene	0.59	U	0.59	0.44	ug/L		08/19/15 08:33	08/20/15 15:53	1
Benzo(k)fluoranthene	0.59	U	0.59	0.10	ug/L		08/19/15 08:33	08/20/15 15:53	1
Chrysene	0.59	U	0.59	0.38	ug/L		08/19/15 08:33	08/20/15 15:53	1
Dibenz(a,h)anthracene	0.59	U	0.59	0.39	ug/L		08/19/15 08:33	08/20/15 15:53	1
Fluoranthene	**0.70**		0.59	0.43	ug/L		08/19/15 08:33	08/20/15 15:53	1
Fluorene	**0.64**		0.59	0.44	ug/L		08/19/15 08:33	08/20/15 15:53	1
Indeno(1,2,3-cd)pyrene	0.59	U	0.59	0.52	ug/L		08/19/15 08:33	08/20/15 15:53	1
Naphthalene	**1.2**		0.59	0.50	ug/L		08/19/15 08:33	08/20/15 15:53	1
Phenanthrene	0.59	U	0.59	0.45	ug/L		08/19/15 08:33	08/20/15 15:53	1
Pyrene	**1.0**		0.59	0.43	ug/L		08/19/15 08:33	08/20/15 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*48 - 120*	*08/19/15 08:33*	*08/20/15 15:53*	*1*
Nitrobenzene-d5	*91*		*46 - 120*	*08/19/15 08:33*	*08/20/15 15:53*	*1*
p-Terphenyl-d14	*84*		*24 - 136*	*08/19/15 08:33*	*08/20/15 15:53*	*1*

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-19 081715
Date Collected: 08/17/15 17:00
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-17
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**5400**		100	41	ug/L			08/20/15 15:06	100
Ethylbenzene	**430**		100	74	ug/L			08/20/15 15:06	100
Toluene	100	U	100	51	ug/L			08/20/15 15:06	100
Xylenes, Total	200	U	200	66	ug/L			08/20/15 15:06	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*08/20/15 15:06*	*100*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*08/20/15 15:06*	*100*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 15:06*	*100*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*08/20/15 15:06*	*100*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	240	U	240	190	ug/L		08/19/15 08:33	08/20/15 16:23	500
Acenaphthene	240	U	240	150	ug/L		08/19/15 08:33	08/20/15 16:23	500
Acenaphthylene	240	U	240	170	ug/L		08/19/15 08:33	08/20/15 16:23	500
Anthracene	240	U	240	190	ug/L		08/19/15 08:33	08/20/15 16:23	500
Benzo(a)anthracene	240	U	240	200	ug/L		08/19/15 08:33	08/20/15 16:23	500
Benzo(a)pyrene	240	U	240	160	ug/L		08/19/15 08:33	08/20/15 16:23	500
Benzo(b)fluoranthene	240	U	240	150	ug/L		08/19/15 08:33	08/20/15 16:23	500
Benzo(g,h,i)perylene	240	U	240	180	ug/L		08/19/15 08:33	08/20/15 16:23	500
Benzo(k)fluoranthene	240	U	240	41	ug/L		08/19/15 08:33	08/20/15 16:23	500
Chrysene	240	U	240	160	ug/L		08/19/15 08:33	08/20/15 16:23	500
Dibenz(a,h)anthracene	240	U	240	160	ug/L		08/19/15 08:33	08/20/15 16:23	500
Fluoranthene	240	U	240	180	ug/L		08/19/15 08:33	08/20/15 16:23	500
Fluorene	240	U	240	180	ug/L		08/19/15 08:33	08/20/15 16:23	500
Indeno(1,2,3-cd)pyrene	240	U	240	210	ug/L		08/19/15 08:33	08/20/15 16:23	500
Naphthalene	**5700**		240	200	ug/L		08/19/15 08:33	08/20/15 16:23	500
Phenanthrene	240	U	240	190	ug/L		08/19/15 08:33	08/20/15 16:23	500
Pyrene	240	U	240	180	ug/L		08/19/15 08:33	08/20/15 16:23	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*48 - 120*	*08/19/15 08:33*	*08/20/15 16:23*	*500*
Nitrobenzene-d5	*54*		*46 - 120*	*08/19/15 08:33*	*08/20/15 16:23*	*500*
p-Terphenyl-d14	*88*		*24 - 136*	*08/19/15 08:33*	*08/20/15 16:23*	*500*

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: TB 081715
Date Collected: 08/17/15 00:00
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 15:34	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 15:34	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 15:34	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*66 - 137*		*08/20/15 15:34*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*08/20/15 15:34*	*1*
Toluene-d8 (Surr)	*103*		*71 - 126*		*08/20/15 15:34*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*08/20/15 15:34*	*1*

Surrogate Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)	(60-140)
480-85729-7	MW-13 081715	96	106	100	111
480-85729-8	MW-17 081715	95	110	101	110
480-85729-9	MW-23 081715	92	108	102	109
480-85729-11	MW-73 081715	95	107	100	111
480-85729-14	MW-07 081715	95	111	100	111
480-85729-15	MW-10 081715	94	109	102	112
480-85729-16	MW-11A 081715	94	112	102	110
480-85729-17	MW-19 081715	91	112	102	110

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)	(60-140)
480-85729-12	SW-01 081715	92	105	101	111
480-85729-13	SW-02 081715	93	110	102	111

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)	(60-140)
480-85729-10	EB 081715	94	108	102	113
480-85729-18	TB 081715	93	110	103	109
LCS 480-259537/4	Lab Control Sample	96	111	100	110
MB 480-259537/6	Method Blank	95	110	102	108

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Surrogate Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-85729-7	MW-13 081715	80	93	87
480-85729-8	MW-17 081715	79	89	83
480-85729-9	MW-23 081715	75	81	85
480-85729-11	MW-73 081715	64	71	73
480-85729-14	MW-07 081715	89	75	85
480-85729-15	MW-10 081715	78	91	87
480-85729-16	MW-11A 081715	79	91	84
480-85729-17	MW-19 081715	112	54	88

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-85729-12	SW-01 081715	75	84	72
480-85729-13	SW-02 081715	67	71	63

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-85729-10	EB 081715	79	86	102
LCS 480-259375/2-A	Lab Control Sample	84	97	98
LCSD 480-259375/3-A	Lab Control Sample Dup	82	93	103
MB 480-259375/1-A	Method Blank	96	86	96

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-259537/6
Matrix: Water
Analysis Batch: 259537

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			08/20/15 09:53	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			08/20/15 09:53	1
Toluene	1.0	U	1.0	0.51	ug/L			08/20/15 09:53	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			08/20/15 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*08/20/15 09:53*	*1*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*08/20/15 09:53*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*08/20/15 09:53*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*08/20/15 09:53*	*1*

Lab Sample ID: LCS 480-259537/4
Matrix: Water
Analysis Batch: 259537

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.5		ug/L		98	71 - 124
Ethylbenzene	25.0	22.6		ug/L		90	77 - 123
Toluene	25.0	23.3		ug/L		93	80 - 122
Xylenes, Total	50.0	48.0		ug/L		96	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*66 - 137*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*
Toluene-d8 (Surr)	*100*		*71 - 126*
Dibromofluoromethane (Surr)	*110*		*60 - 140*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Lab Sample ID: MB 480-259375/1-A
Matrix: Water
Analysis Batch: 259604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259375

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 09:53	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 09:53	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/19/15 08:33	08/20/15 09:53	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/19/15 08:33	08/20/15 09:53	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/19/15 08:33	08/20/15 09:53	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 09:53	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/19/15 08:33	08/20/15 09:53	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 09:53	1
Benzo(k)fluoranthene	0.50	U	0.50	0.085	ug/L		08/19/15 08:33	08/20/15 09:53	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/19/15 08:33	08/20/15 09:53	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/19/15 08:33	08/20/15 09:53	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 09:53	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/19/15 08:33	08/20/15 09:53	1

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH (Continued)

Lab Sample ID: MB 480-259375/1-A
Matrix: Water
Analysis Batch: 259604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259375

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/19/15 08:33	08/20/15 09:53	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/19/15 08:33	08/20/15 09:53	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/19/15 08:33	08/20/15 09:53	1
Pyrene	0.50	U	0.50	0.36	ug/L		08/19/15 08:33	08/20/15 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*48 - 120*	*08/19/15 08:33*	*08/20/15 09:53*	*1*
Nitrobenzene-d5	*86*		*46 - 120*	*08/19/15 08:33*	*08/20/15 09:53*	*1*
p-Terphenyl-d14	*96*		*24 - 136*	*08/19/15 08:33*	*08/20/15 09:53*	*1*

Lab Sample ID: LCS 480-259375/2-A
Matrix: Water
Analysis Batch: 259604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259375

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	16.0	13.5		ug/L		84	48 - 120
Acenaphthene	16.0	14.1		ug/L		88	60 - 120
Acenaphthylene	16.0	13.7		ug/L		86	63 - 120
Anthracene	16.0	14.7		ug/L		92	69 - 131
Benzo(a)anthracene	16.0	15.7		ug/L		98	62 - 142
Benzo(a)pyrene	16.0	16.1		ug/L		100	46 - 156
Benzo(b)fluoranthene	16.0	14.9		ug/L		93	50 - 149
Benzo(g,h,i)perylene	16.0	15.4		ug/L		96	34 - 189
Benzo(k)fluoranthene	16.0	15.4		ug/L		96	47 - 147
Chrysene	16.0	15.6		ug/L		98	69 - 140
Dibenz(a,h)anthracene	16.0	15.2		ug/L		95	35 - 176
Fluoranthene	16.0	15.2		ug/L		95	67 - 133
Fluorene	16.0	14.3		ug/L		89	66 - 129
Indeno(1,2,3-cd)pyrene	16.0	15.3		ug/L		96	57 - 161
Naphthalene	16.0	13.8		ug/L		86	48 - 120
Phenanthrene	16.0	15.1		ug/L		94	67 - 130
Pyrene	16.0	15.3		ug/L		95	58 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*48 - 120*
Nitrobenzene-d5	*97*		*46 - 120*
p-Terphenyl-d14	*98*		*24 - 136*

Lab Sample ID: LCSD 480-259375/3-A
Matrix: Water
Analysis Batch: 259604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259375

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	16.0	13.2		ug/L		83	48 - 120	2	21
Acenaphthene	16.0	14.2		ug/L		89	60 - 120	1	24
Acenaphthylene	16.0	14.9		ug/L		93	63 - 120	8	18
Anthracene	16.0	14.5		ug/L		91	69 - 131	1	15
Benzo(a)anthracene	16.0	15.3		ug/L		96	62 - 142	2	15

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH (Continued)

Lab Sample ID: LCSD 480-259375/3-A
Matrix: Water
Analysis Batch: 259604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259375

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo(a)pyrene			16.0	15.5		ug/L		97	46 - 156	4	15
Benzo(b)fluoranthene			16.0	15.2		ug/L		95	50 - 149	2	15
Benzo(g,h,i)perylene			16.0	15.4		ug/L		96	34 - 189	0	15
Benzo(k)fluoranthene			16.0	14.5		ug/L		90	47 - 147	6	22
Chrysene			16.0	15.1		ug/L		94	69 - 140	4	15
Dibenz(a,h)anthracene			16.0	15.9		ug/L		99	35 - 176	4	15
Fluoranthene			16.0	16.0		ug/L		100	67 - 133	5	15
Fluorene			16.0	14.3		ug/L		89	66 - 129	0	15
Indeno(1,2,3-cd)pyrene			16.0	15.8		ug/L		99	57 - 161	3	15
Naphthalene			16.0	13.6		ug/L		85	48 - 120	1	29
Phenanthrene			16.0	15.4		ug/L		96	67 - 130	2	15
Pyrene			16.0	16.8		ug/L		105	58 - 136	10	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*48 - 120*
Nitrobenzene-d5	*93*		*46 - 120*
p-Terphenyl-d14	*103*		*24 - 136*

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-259937/1-A
Matrix: Water
Analysis Batch: 259961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/21/15 14:35	08/22/15 09:27	1

Lab Sample ID: LCS 480-259937/2-A
Matrix: Water
Analysis Batch: 259961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259937

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total			0.250	0.250		mg/L		100	90 - 110

Lab Sample ID: LCS 480-259937/3-A
Matrix: Water
Analysis Batch: 259961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259937

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total			0.100	0.104		mg/L		104	90 - 110

Lab Sample ID: MB 480-259988/1-A
Matrix: Water
Analysis Batch: 260089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259988

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/22/15 11:20	08/24/15 09:35	1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCS 480-259988/2-A
Matrix: Water
Analysis Batch: 260089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.387		mg/L		97	90 - 110

Lab Sample ID: LCS 480-259988/3-A
Matrix: Water
Analysis Batch: 260089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.226		mg/L		90	90 - 110

Lab Sample ID: LCS 480-259988/4-A
Matrix: Water
Analysis Batch: 260089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0984		mg/L		98	90 - 110

Lab Sample ID: MB 480-260186/1-A
Matrix: Water
Analysis Batch: 260329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260186

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/24/15 19:50	08/25/15 12:21	1

Lab Sample ID: LCS 480-260186/2-A
Matrix: Water
Analysis Batch: 260329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260186

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.248		mg/L		99	90 - 110

Lab Sample ID: LCS 480-260186/3-A
Matrix: Water
Analysis Batch: 260329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260186

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.101		mg/L		101	90 - 110

Lab Sample ID: MB 480-260397/1-A
Matrix: Water
Analysis Batch: 260544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260397

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/25/15 19:25	08/26/15 10:53	1

Lab Sample ID: LCS 480-260397/2-A
Matrix: Water
Analysis Batch: 260544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.253		mg/L		101	90 - 110

Lab Sample ID: LCS 480-260397/4-A
Matrix: Water
Analysis Batch: 260544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0927		mg/L		93	90 - 110

Lab Sample ID: LCSD 480-260397/3-A
Matrix: Water
Analysis Batch: 260544

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 260397

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.250	0.243		mg/L		97	90 - 110	4	15

Method: 9016 - Cyanide, Free

Lab Sample ID: MB 460-318821/1-A
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 318821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	5.0	U	5.0	0.61	ug/L		08/26/15 01:30	08/26/15 02:55	1

Lab Sample ID: LCS 460-318821/2-A
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 318821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Free	50.0	43.68		ug/L		87	72 - 110

Lab Sample ID: 480-85729-1 MS
Matrix: Ground Water
Analysis Batch: 318822

Client Sample ID: MW-12 081715
Prep Type: Total/NA
Prep Batch: 318821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Free	9.1		50.0	50.51		ug/L		83	56 - 111

Lab Sample ID: 480-85729-1 MSD
Matrix: Ground Water
Analysis Batch: 318822

Client Sample ID: MW-12 081715
Prep Type: Total/NA
Prep Batch: 318821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Free	9.1		50.0	51.79		ug/L		85	56 - 111	3	12

Lab Sample ID: DLCK 460-318822/10
Matrix: Water
Analysis Batch: 318822

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

Analyte	Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Free	2.00	1.77	J	ug/L		89	50 - 150

GC/MS VOA

Analysis Batch: 259537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-7	MW-13 081715	Total/NA	Ground Water	8260C	
480-85729-8	MW-17 081715	Total/NA	Ground Water	8260C	
480-85729-9	MW-23 081715	Total/NA	Ground Water	8260C	
480-85729-10	EB 081715	Total/NA	Water	8260C	
480-85729-11	MW-73 081715	Total/NA	Ground Water	8260C	
480-85729-12	SW-01 081715	Total/NA	Surface Water	8260C	
480-85729-13	SW-02 081715	Total/NA	Surface Water	8260C	
480-85729-14	MW-07 081715	Total/NA	Ground Water	8260C	
480-85729-15	MW-10 081715	Total/NA	Ground Water	8260C	
480-85729-16	MW-11A 081715	Total/NA	Ground Water	8260C	
480-85729-17	MW-19 081715	Total/NA	Ground Water	8260C	
480-85729-18	TB 081715	Total/NA	Water	8260C	
LCS 480-259537/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-259537/6	Method Blank	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 259375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-7	MW-13 081715	Total/NA	Ground Water	3510C	
480-85729-8	MW-17 081715	Total/NA	Ground Water	3510C	
480-85729-9	MW-23 081715	Total/NA	Ground Water	3510C	
480-85729-10	EB 081715	Total/NA	Water	3510C	
480-85729-11	MW-73 081715	Total/NA	Ground Water	3510C	
480-85729-12	SW-01 081715	Total/NA	Surface Water	3510C	
480-85729-13	SW-02 081715	Total/NA	Surface Water	3510C	
480-85729-14	MW-07 081715	Total/NA	Ground Water	3510C	
480-85729-15	MW-10 081715	Total/NA	Ground Water	3510C	
480-85729-16	MW-11A 081715	Total/NA	Ground Water	3510C	
480-85729-17	MW-19 081715	Total/NA	Ground Water	3510C	
LCS 480-259375/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-259375/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-259375/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 259604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-7	MW-13 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-8	MW-17 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-9	MW-23 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-10	EB 081715	Total/NA	Water	8270D_LL_PAH	259375
480-85729-11	MW-73 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-12	SW-01 081715	Total/NA	Surface Water	8270D_LL_PAH	259375
480-85729-13	SW-02 081715	Total/NA	Surface Water	8270D_LL_PAH	259375
480-85729-14	MW-07 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-15	MW-10 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-16	MW-11A 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
480-85729-17	MW-19 081715	Total/NA	Ground Water	8270D_LL_PAH	259375
LCS 480-259375/2-A	Lab Control Sample	Total/NA	Water	8270D_LL_PAH	259375
LCSD 480-259375/3-A	Lab Control Sample Dup	Total/NA	Water	8270D_LL_PAH	259375
MB 480-259375/1-A	Method Blank	Total/NA	Water	8270D_LL_PAH	259375

General Chemistry

Prep Batch: 259937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-1	MW-12 081715	Total/NA	Ground Water	9012B	
480-85729-2	MW-14 081715	Total/NA	Ground Water	9012B	
480-85729-3	MW-16 081715	Total/NA	Ground Water	9012B	
480-85729-4	MW-20 081715	Total/NA	Ground Water	9012B	
LCS 480-259937/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-259937/3-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-259937/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 259961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-259937/2-A	Lab Control Sample	Total/NA	Water	9012B	259937
LCS 480-259937/3-A	Lab Control Sample	Total/NA	Water	9012B	259937
MB 480-259937/1-A	Method Blank	Total/NA	Water	9012B	259937

Analysis Batch: 259963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-1	MW-12 081715	Total/NA	Ground Water	9012B	259937
480-85729-2	MW-14 081715	Total/NA	Ground Water	9012B	259937
480-85729-3	MW-16 081715	Total/NA	Ground Water	9012B	259937
480-85729-4	MW-20 081715	Total/NA	Ground Water	9012B	259937

Prep Batch: 259988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-5	MW-21 081715	Total/NA	Ground Water	9012B	
480-85729-6	MW-22 081715	Total/NA	Ground Water	9012B	
480-85729-7	MW-13 081715	Total/NA	Ground Water	9012B	
480-85729-8	MW-17 081715	Total/NA	Ground Water	9012B	
LCS 480-259988/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-259988/3-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-259988/4-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-259988/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 260089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-5	MW-21 081715	Total/NA	Ground Water	9012B	259988
480-85729-7	MW-13 081715	Total/NA	Ground Water	9012B	259988
480-85729-8	MW-17 081715	Total/NA	Ground Water	9012B	259988
LCS 480-259988/2-A	Lab Control Sample	Total/NA	Water	9012B	259988
LCS 480-259988/3-A	Lab Control Sample	Total/NA	Water	9012B	259988
LCS 480-259988/4-A	Lab Control Sample	Total/NA	Water	9012B	259988
MB 480-259988/1-A	Method Blank	Total/NA	Water	9012B	259988

Analysis Batch: 260093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-6	MW-22 081715	Total/NA	Ground Water	9012B	259988

Prep Batch: 260186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-13	SW-02 081715	Total/NA	Surface Water	9012B	
LCS 480-260186/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-260186/3-A	Lab Control Sample	Total/NA	Water	9012B	

General Chemistry (Continued)

Prep Batch: 260186 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-260186/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 260329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-13	SW-02 081715	Total/NA	Surface Water	9012B	260186
LCS 480-260186/2-A	Lab Control Sample	Total/NA	Water	9012B	260186
LCS 480-260186/3-A	Lab Control Sample	Total/NA	Water	9012B	260186
MB 480-260186/1-A	Method Blank	Total/NA	Water	9012B	260186

Prep Batch: 260397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-9	MW-23 081715	Total/NA	Ground Water	9012B	
480-85729-10	EB 081715	Total/NA	Water	9012B	
480-85729-11	MW-73 081715	Total/NA	Ground Water	9012B	
480-85729-12	SW-01 081715	Total/NA	Surface Water	9012B	
LCS 480-260397/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-260397/4-A	Lab Control Sample	Total/NA	Water	9012B	
LCSD 480-260397/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	
MB 480-260397/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 260544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-9	MW-23 081715	Total/NA	Ground Water	9012B	260397
480-85729-10	EB 081715	Total/NA	Water	9012B	260397
480-85729-11	MW-73 081715	Total/NA	Ground Water	9012B	260397
480-85729-12	SW-01 081715	Total/NA	Surface Water	9012B	260397
LCS 480-260397/2-A	Lab Control Sample	Total/NA	Water	9012B	260397
LCS 480-260397/4-A	Lab Control Sample	Total/NA	Water	9012B	260397
LCSD 480-260397/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	260397
MB 480-260397/1-A	Method Blank	Total/NA	Water	9012B	260397

Prep Batch: 318821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-1	MW-12 081715	Total/NA	Ground Water	9016	
480-85729-1 MS	MW-12 081715	Total/NA	Ground Water	9016	
480-85729-1 MSD	MW-12 081715	Total/NA	Ground Water	9016	
480-85729-2	MW-14 081715	Total/NA	Ground Water	9016	
480-85729-3	MW-16 081715	Total/NA	Ground Water	9016	
480-85729-4	MW-20 081715	Total/NA	Ground Water	9016	
480-85729-5	MW-21 081715	Total/NA	Ground Water	9016	
480-85729-6	MW-22 081715	Total/NA	Ground Water	9016	
480-85729-7	MW-13 081715	Total/NA	Ground Water	9016	
480-85729-8	MW-17 081715	Total/NA	Ground Water	9016	
480-85729-9	MW-23 081715	Total/NA	Ground Water	9016	
480-85729-10	EB 081715	Total/NA	Water	9016	
480-85729-11	MW-73 081715	Total/NA	Ground Water	9016	
480-85729-12	SW-01 081715	Total/NA	Surface Water	9016	
480-85729-13	SW-02 081715	Total/NA	Surface Water	9016	
LCS 460-318821/2-A	Lab Control Sample	Total/NA	Water	9016	
MB 460-318821/1-A	Method Blank	Total/NA	Water	9016	

General Chemistry (Continued)

Analysis Batch: 318822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-85729-1	MW-12 081715	Total/NA	Ground Water	9016	318821
480-85729-1 MS	MW-12 081715	Total/NA	Ground Water	9016	318821
480-85729-1 MSD	MW-12 081715	Total/NA	Ground Water	9016	318821
480-85729-2	MW-14 081715	Total/NA	Ground Water	9016	318821
480-85729-3	MW-16 081715	Total/NA	Ground Water	9016	318821
480-85729-4	MW-20 081715	Total/NA	Ground Water	9016	318821
480-85729-5	MW-21 081715	Total/NA	Ground Water	9016	318821
480-85729-6	MW-22 081715	Total/NA	Ground Water	9016	318821
480-85729-7	MW-13 081715	Total/NA	Ground Water	9016	318821
480-85729-8	MW-17 081715	Total/NA	Ground Water	9016	318821
480-85729-9	MW-23 081715	Total/NA	Ground Water	9016	318821
480-85729-10	EB 081715	Total/NA	Water	9016	318821
480-85729-11	MW-73 081715	Total/NA	Ground Water	9016	318821
480-85729-12	SW-01 081715	Total/NA	Surface Water	9016	318821
480-85729-13	SW-02 081715	Total/NA	Surface Water	9016	318821
DLCK 460-318822/10	Lab Control Sample	Total/NA	Water	9016	
LCS 460-318821/2-A	Lab Control Sample	Total/NA	Water	9016	318821
MB 460-318821/1-A	Method Blank	Total/NA	Water	9016	318821

Client Sample ID: MW-12 081715

Lab Sample ID: 480-85729-1

Date Collected: 08/17/15 16:45

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			259937	08/21/15 14:35	NDB	TAL BUF
Total/NA	Analysis	9012B		5	259963	08/22/15 10:20	NCH	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-14 081715

Lab Sample ID: 480-85729-2

Date Collected: 08/17/15 09:50

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			259937	08/21/15 14:35	NDB	TAL BUF
Total/NA	Analysis	9012B		5	259963	08/22/15 10:21	NCH	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-16 081715

Lab Sample ID: 480-85729-3

Date Collected: 08/17/15 11:15

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			259937	08/21/15 14:35	NDB	TAL BUF
Total/NA	Analysis	9012B		10	259963	08/22/15 10:23	NCH	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-20 081715

Lab Sample ID: 480-85729-4

Date Collected: 08/17/15 11:35

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			259937	08/21/15 14:35	NDB	TAL BUF
Total/NA	Analysis	9012B		5	259963	08/22/15 10:24	NCH	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-21 081715

Lab Sample ID: 480-85729-5

Date Collected: 08/17/15 12:25

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			259988	08/22/15 11:20	NDB	TAL BUF
Total/NA	Analysis	9012B		1	260089	08/24/15 09:58	KMF	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI

Lab Chronicle

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-21 081715

Date Collected: 08/17/15 12:25
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-22 081715

Date Collected: 08/17/15 15:20
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			259988	08/22/15 11:20	NDB	TAL BUF
Total/NA	Analysis	9012B		5	260093	08/24/15 10:50	KMF	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-13 081715

Date Collected: 08/17/15 15:30
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 10:31	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 11:23	PJQ	TAL BUF
Total/NA	Prep	9012B			259988	08/22/15 11:20	NDB	TAL BUF
Total/NA	Analysis	9012B		1	260089	08/24/15 10:01	KMF	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-17 081715

Date Collected: 08/17/15 14:20
Date Received: 08/17/15 18:15

Lab Sample ID: 480-85729-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 10:59	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 11:53	PJQ	TAL BUF
Total/NA	Prep	9012B			259988	08/22/15 11:20	NDB	TAL BUF
Total/NA	Analysis	9012B		1	260089	08/24/15 10:03	KMF	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-23 081715

Lab Sample ID: 480-85729-9

Date Collected: 08/17/15 10:05

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 11:26	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 12:23	PJQ	TAL BUF
Total/NA	Prep	9012B			260397	08/25/15 19:25	MGH	TAL BUF
Total/NA	Analysis	9012B		1	260544	08/26/15 11:06	EGS	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: EB 081715

Lab Sample ID: 480-85729-10

Date Collected: 08/17/15 14:00

Matrix: Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 11:54	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 12:53	PJQ	TAL BUF
Total/NA	Prep	9012B			260397	08/25/15 19:25	MGH	TAL BUF
Total/NA	Analysis	9012B		1	260544	08/26/15 11:07	EGS	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-73 081715

Lab Sample ID: 480-85729-11

Date Collected: 08/17/15 08:00

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 12:21	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 13:23	PJQ	TAL BUF
Total/NA	Prep	9012B			260397	08/25/15 19:25	MGH	TAL BUF
Total/NA	Analysis	9012B		1	260544	08/26/15 11:08	EGS	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: SW-01 081715

Lab Sample ID: 480-85729-12

Date Collected: 08/17/15 10:15

Matrix: Surface Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 12:49	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 13:53	PJQ	TAL BUF
Total/NA	Prep	9012B			260397	08/25/15 19:25	MGH	TAL BUF

Client Sample ID: SW-01 081715

Lab Sample ID: 480-85729-12
Date Collected: 08/17/15 10:15
Matrix: Surface Water
Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	260544	08/26/15 11:10	EGS	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: SW-02 081715

Lab Sample ID: 480-85729-13
Date Collected: 08/17/15 12:20
Matrix: Surface Water
Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 13:16	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		5	259604	08/20/15 14:23	PJQ	TAL BUF
Total/NA	Prep	9012B			260186	08/24/15 19:50	MGH	TAL BUF
Total/NA	Analysis	9012B		1	260329	08/25/15 12:34	EGS	TAL BUF
Total/NA	Prep	9016			318821	08/26/15 01:30	PXP	TAL EDI
Total/NA	Analysis	9016		1	318822	08/26/15 02:55	PXP	TAL EDI

Client Sample ID: MW-07 081715

Lab Sample ID: 480-85729-14
Date Collected: 08/17/15 09:00
Matrix: Ground Water
Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	259537	08/20/15 13:43	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		100	259604	08/20/15 14:53	PJQ	TAL BUF

Client Sample ID: MW-10 081715

Lab Sample ID: 480-85729-15
Date Collected: 08/17/15 08:25
Matrix: Ground Water
Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 14:11	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 15:23	PJQ	TAL BUF

Client Sample ID: MW-11A 081715

Lab Sample ID: 480-85729-16
Date Collected: 08/17/15 12:40
Matrix: Ground Water
Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 14:39	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF

Lab Chronicle

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Client Sample ID: MW-11A 081715

Lab Sample ID: 480-85729-16

Date Collected: 08/17/15 12:40

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D_LL_PAH		1	259604	08/20/15 15:53	PJQ	TAL BUF

Client Sample ID: MW-19 081715

Lab Sample ID: 480-85729-17

Date Collected: 08/17/15 17:00

Matrix: Ground Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	259537	08/20/15 15:06	GTG	TAL BUF
Total/NA	Prep	3510C			259375	08/19/15 08:33	RJS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		500	259604	08/20/15 16:23	PJQ	TAL BUF

Client Sample ID: TB 081715

Lab Sample ID: 480-85729-18

Date Collected: 08/17/15 00:00

Matrix: Water

Date Received: 08/17/15 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	259537	08/20/15 15:34	GTG	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15
New Jersey	NELAP	2	12028	06-30-15 *
New York	NELAP	2	11452	03-31-16
Pennsylvania	NELAP	3	68-00522	02-28-16
Rhode Island	State Program	1	LAO00132	12-30-15
USDA	Federal		NJCA-003-08	04-04-17

* Certification renewal pending - certification considered valid.

Method Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D_LL_PAH	Semivolatile Organic Compounds (GC/MS) Low level PAH	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
9016	Cyanide, Free	SW846	TAL EDI

Protocol References:

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: AECOM, Inc.
Project/Site: AECOM, Mineral Springs

TestAmerica Job ID: 480-85729-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-85729-1	MW-12 081715	Ground Water	08/17/15 16:45	08/17/15 18:15
480-85729-2	MW-14 081715	Ground Water	08/17/15 09:50	08/17/15 18:15
480-85729-3	MW-16 081715	Ground Water	08/17/15 11:15	08/17/15 18:15
480-85729-4	MW-20 081715	Ground Water	08/17/15 11:35	08/17/15 18:15
480-85729-5	MW-21 081715	Ground Water	08/17/15 12:25	08/17/15 18:15
480-85729-6	MW-22 081715	Ground Water	08/17/15 15:20	08/17/15 18:15
480-85729-7	MW-13 081715	Ground Water	08/17/15 15:30	08/17/15 18:15
480-85729-8	MW-17 081715	Ground Water	08/17/15 14:20	08/17/15 18:15
480-85729-9	MW-23 081715	Ground Water	08/17/15 10:05	08/17/15 18:15
480-85729-10	EB 081715	Water	08/17/15 14:00	08/17/15 18:15
480-85729-11	MW-73 081715	Ground Water	08/17/15 08:00	08/17/15 18:15
480-85729-12	SW-01 081715	Surface Water	08/17/15 10:15	08/17/15 18:15
480-85729-13	SW-02 081715	Surface Water	08/17/15 12:20	08/17/15 18:15
480-85729-14	MW-07 081715	Ground Water	08/17/15 09:00	08/17/15 18:15
480-85729-15	MW-10 081715	Ground Water	08/17/15 08:25	08/17/15 18:15
480-85729-16	MW-11A 081715	Ground Water	08/17/15 12:40	08/17/15 18:15
480-85729-17	MW-19 081715	Ground Water	08/17/15 17:00	08/17/15 18:15
480-85729-18	TB 081715	Water	08/17/15 00:00	08/17/15 18:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: E. LAITY	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-70942-10188.1
Client Contact: Tamara Raby	Phone: 716-831-3312	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 2
Company: AECOM, Inc.				Job #:
Address: 1001 West Seneca Street Suite 204	Due Date Requested:			
City: Ithaca	TAT Requested (days): STD			
State, Zip: NY, 14850				
Phone:	PO #: Purchase Order not required			
Email: Tamara.Raby@aecom.com	WO #:			
Project Name: AECOM, Mineral Springs/ Event Desc: Semi Annual Sampling (Au	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

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

Other:

480-85729 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	9012A - Cyanide, Total	8270C_LL_PAH - PAH - 8270	8260B - BTEX - 8260	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	N	B	N	A	X	
MW-12	8/17/15	1645	G	Water			1	1				
MW-14	8/17/15	9:50	G	Water			1	1				
MW-16	8/17/15	11:15	G	Water			1	1				
MW-20	8/17/15	11:35	G	Water			1	1				
MW-21	8/17/15	12:25	G	Water			1	1				
MW-22	8/17/15	15:20	G	Water			1	1				
MW-13	8/17/15	15:30	G	Water			1	1	2	3		
MW-17	8/17/15	14:20	G	Water			1	1	2	3		
MW-23	8/17/15	10:05	G	Water			1	1	2	3		
EB	8/17/15	14:00	G	Water			1	1	2	3		
MW-73	8/17/15	8:00	G	Water			1	1	2	3		

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 8/17/15 1815	Company: AECOM	Received by: [signature]	Date/Time: 8/17/15 1815	Company: TA Buffalo
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.0, 2.2, 1.8 #1		

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: E. LAITY	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-70942-10188.2
Client Contact: Tamara Raby	Phone: 716-531-3312	E-Mail: john.schove@testamericainc.com		Page: Page 2 of 2
Company: AECOM, Inc.				Job #:
Address: 1001 West Seneca Street Suite 204	Due Date Requested:			
City: Ithaca	TAT Requested (days): STD			
State, Zip: NY, 14850				
Phone:	PO #: Purchase Order not required			
Email: Tamara.Raby@aecom.com	WO #:			
Project Name: AECOM, Mineral Springs/ Event Desc: Semi Annual Sampling (Au	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	9012A - Cyanide, Total	8270C_LL_PAH - PAH - 8270	8260B - BTEX - 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	A		
				Water								
SW-01	8-17-15	10:15	G	Water			1	1	2	3		
SW-02	8-17-15	12:20	G	Water			1	1	2	3		
MW-07	8-17-15	9:00	G	Water					2	3		
MW-10	8-17-15	8:25	G	Water					2	3		
MW-11A	8-17-15	12:40	G	Water					2	3		
MW-19	8-17-15	1700	G	Water					2	3		
TB	8-17-15	—	TRIP	Water						2		
				Water								
				Water								

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 8/17/15 1815	Company AECOM	Received by:	Date/Time: 8/17/15 1815	Company TA BUFFALO	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.0, 2.2, 1.8

Page 46 of 50

8/28/2015

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

8/28/2015

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-25407.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 480-85729-1
Address: 777 New Durham Road,	Due Date Requested: 8/27/2015			Preservation Codes:
City: Edison	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: AECOM, Mineral Springs	Project #: 48008324			
Site: AECOM, Mineral Springs	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016/9018_Prep Cyanide, Free	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-12 (480-85729-1)	8/17/15	16:45 Eastern		Water			X	1	
MW-14 (480-85729-2)	8/17/15	09:50 Eastern		Water			X	1	
MW-16 (480-85729-3)	8/17/15	11:15 Eastern		Water			X	1	
MW-20 (480-85729-4)	8/17/15	11:35 Eastern		Water			X	1	
MW-21 (480-85729-5)	8/17/15	12:25 Eastern		Water			X	1	
MW-22 (480-85729-6)	8/17/15	15:20 Eastern		Water			X	1	
MW-13 (480-85729-7)	8/17/15	15:30 Eastern		Water			X	1	
MW-17 (480-85729-8)	8/17/15	14:20 Eastern		Water			X	1	
MW-23 (480-85729-9)	8/17/15	10:05 Eastern		Water			X	1	
EB (480-85729-10)	8/17/15	14:00 Eastern		Water			X	1	
MW-73 (480-85729-11)	8/17/15	08:00 Eastern		Water			X	1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: Cameron Wallace	Date/Time: 8/18/15 1700	Company TAL	Received by:	Date/Time:	Company
Relinquished by: FedEx	Date/Time: 8/19/15 1000	Company	Received by: Sam Joyce	Date/Time: 8/19/15 1000	Company TA Edison
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 05#65165		Cooler Temperature(s) °C and Other Remarks: 1.4/3.4°C IR#5		

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

8/28/2015

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-25407.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 480-85729-1
Address: 777 New Durham Road,	Due Date Requested: 8/27/2015			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: AECOM, Mineral Springs	Project #: 48008324			
Site: AECOM, Mineral Springs	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016/9016_Prep Cyanide, Free	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SW-01 (480-85729-12)	8/17/15	10:15 Eastern		Water			X	1	
SW-02 (480-85729-13)	8/17/15	12:20 Eastern		Water			X	1	

Possible Hazard Identification
Unconfirmed

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: Cameron Wallace	Date/Time: 8/18/15 1700	Company TAS	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 8/19/15 1000	Company	Received by:	Date/Time: 8/19/15 1000	Company TA Edison
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: CS# 65165	Cooler Temperature(s) °C and Other Remarks: 1.4/3.4°C IR#5

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-85729-1

Login Number: 85729
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-85729-1

Login Number: 85729
List Number: 2
Creator: Villadarez, Gerson Timothy S

List Source: TestAmerica Edison
List Creation: 08/19/15 12:17 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	651651
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C IR #5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	False	