

AECOM 100 Corporate Parkway Suite 341 Amherst, NY 14226 www.aecom.com 716 836 4506 tel 716 834 8785 fax

May 25, 2012

Mr. David Szymanski Project Manager New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway, 11th Floor Albany, NY 12233-7011

#### Subject: Groundwater and Surface Water Monitoring Results April 2012 Mineral Springs Road MGP Site

Dear Mr. Szymanski:

This report provides the results of a groundwater and surface water sampling event completed by AECOM Technical Services, Inc. (AECOM) on April 18 and 19, 2012, at the Mineral Springs Road former manufactured gas plant (MGP) site in West Seneca (Buffalo), New York.

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 as specified in the O&M Plan. Sampling locations are shown on the attached figure. The collected samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica) of Pittsburgh, Pennsylvania (New York State Department of Health [NYSDOH] Environmental Laboratory Approval Program [ELAP] ID 11182), 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.

Consistent with the O&M Plan, four onsite (MW-7, MW-10, MW-11A, and MW-19) and one upgradient (MW-17) monitoring wells were sampled for benzene, ethylbenzene, toluene, and xylene (BTEX) and polycyclic aromatic hydrocarbon (PAH) compounds during this event. Concentrations of BTEX and/or PAH compounds exceeded NYSDEC standard or guidance values in three of the onsite groundwater samples (MW-07, MW-11A, and MW-19).

One upgradient (MW-17), two onsite (MW-12 and MW-16), four downgradient onsite (MW-13, -14, -22, and -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<sup>1</sup> Groundwater Standard of 200 micrograms per liter ( $\mu$ g/L) in eight of nine groundwater samples. Free cyanide was detected in all nine groundwater samples at concentrations ranging from 0.87 J to 10  $\mu$ g/L. There is no NYSDEC Groundwater Standard for free cyanide.

Two onsite surface water samples (SW-01 and SW-02) were collected for BTEX, PAH, and total and free cyanide analyses. BTEX and PAH compounds were not detected in the surface water samples. Total cyanide was detected in both surface water samples at a maximum concentration of 45  $\mu$ g/L, below the NYSDEC Class D surface water standard of 9,000  $\mu$ g/L. Free cyanide was detected in both samples at a maximum concentration of 11  $\mu$ g/L, below the NYSDEC Class D Surface Water Standard of 22  $\mu$ g/L.

A total of 13 depth-to-water measurements were taken (including one surface water measurement and 12 groundwater measurements). The groundwater measurement from monitoring well MW-15 was inadvertently not collected during this round of measurements. Table 2 summarizes groundwater elevation data and Figure 1 shows groundwater elevation contours for this sampling event.

On April 18, 2012, AECOM also attempted to pump non-aqueous phase liquid (NAPL) from the dense non-aqueous phase liquid (DNAPL) recovery test well with minimal results.

# **Groundwater elevations**

Depth-to-water measurements were collected at 12 monitoring wells and converted to elevations using reference point elevation data. The data have been used to construct the groundwater contours shown in the attached figure. A review of similar information from recent years shows that the groundwater flow direction during this event remained similar to previous sampling events. Groundwater flows onto the site from the south and east, and continues across the site in a generally west-northwesterly direction.

# Sampling and analysis

Thirteen monitoring wells were purged and sampled by an AECOM sampling team this event; sampling locations are shown on the attached figure. The samples were analyzed using the following methods:

BTEX	Method SW846 8260B
PAHs	Method SW846 8270C
Cyanide (total)	Method SW846 9012A
Cyanide (free)	Method ASTM D4282-02

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-

<sup>&</sup>lt;sup>1</sup> 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 compounds, which would artificially elevate free cyanide results. The cyanide samples were also treated with lead carbonate and field filtered 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 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 210  $\mu$ g/L, above the NYSDEC Groundwater Standard value of 200  $\mu$ g/L. Free cyanide was detected at a concentration of 0.98 J  $\mu$ g/L. 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. Groundwater samples collected from these six wells were analyzed for total and free cyanide.

Five of the six wells had total cyanide concentrations above the NYSDEC Groundwater Standard of 200  $\mu$ g/L. Detected concentrations ranged from 10  $\mu$ g/L at MW-13 to 1,000  $\mu$ g/L at MW-22. Free cyanide was detected in all six wells at concentrations ranging from 0.87 J to 5.5  $\mu$ g/L. These analytical results are consistent with the range of concentrations measured in past years.

# 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 of the wells had a total cyanide groundwater concentration above the NYSDEC Groundwater Standard of 200  $\mu$ g/L. Total cyanide concentrations were reported as 670  $\mu$ g/L at MW-12 and 840  $\mu$ g/L at MW-16. Free cyanide was detected in MW-12 at 10  $\mu$ g/L and in MW-16 at 9.5  $\mu$ g/L.

These results were compared with historic data from these two wells. The comparison indicates that the most recent analytical results are consistent with past results.



# **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 detected above NYSDEC Groundwater Standards in MW-7, MW-11A, and MW-19. BTEX compounds were not detected at MW-10. Concentrations of BTEX compounds were consistent with historical analytical data.

PAH compounds were detected above NYSDEC Groundwater Standards in MW-07 and MW-19. PAH compounds were detected in MW-11A at concentrations below NYSDEC Groundwater Standards. Concentrations measured were generally 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, PAH compounds, and total and free cyanide.

BTEX and PAH compounds were not detected in either surface water sample.

Total cyanide was detected in SW-01 at a concentration of 16  $\mu$ g/L and in SW-02 at a concentration of 45  $\mu$ g/L, below the NYSDEC Class D Stream Standard of 9,000  $\mu$ g/L.

Free cyanide was detected in SW-01 at a concentration of 1.5 J  $\mu$ g/L and in SW-02 at a concentration of 11  $\mu$ g/L, below the NYSDEC Class D Stream Standard of 22  $\mu$ g/L.

# Quality Assurance / Quality Control (QA/QC) samples

Quality assurance/quality control samples were collected during the sampling event to meet the requirements of the Final Engineering Report – Volume II – Operations and Maintenance Plan (May 2002).

An equipment 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. Toluene and free cyanide were detected in the equipment blank associated with the monitoring well samples at concentrations of 0.16 J and 1.2 J  $\mu$ g/L, respectively; all other compounds were non-detect.

Toluene was not detected in the laboratory method blank or in the trip blank. Toluene was detected in one monitoring well sample (MW-07) at a concentration of 77 J  $\mu$ g/L (and in the duplicate sample at 59 J  $\mu$ g/L). AECOM discussed the equipment blank results with the laboratory, which reviewed the analytical documentation. No unusual circumstances were noted and toluene was not detected in the laboratory quality assurance samples. After accounting for the 80X dilution factor, the toluene concentration in the field sample was more than 5X the concentration in the equipment blank.



Therefore, consistent with USEPA Region 2 data validation standard operating procedures (SOPs), no qualification of the sample result is required. We also note that the sample was significantly less than the groundwater and surface water standards, for this reason, the equipment blank results do not indicate a significant issue with the usability of the groundwater sample data.

In addition to the equipment blank, free cyanide was also detected in all wells where samples were analyzed for total cyanide. Free cyanide is not a common laboratory contaminant. AECOM discussed the blank results with the laboratory, which reviewed the analytical documentation. Two issues came to light regarding the free cyanide blank results.

- Free cyanide was detected in one associated continuing calibration blank within the analytical run at a concentration of 2 μg/L. The source of this positive result was determined to be either laboratory contamination or instrument related (e.g., elevated spectrophotometer baseline). The laboratory appended a "^" flag to indicate the affected results.
- 2. Sample MW-12-041812 was chosen by the laboratory to be the quality control check sample for the batch. That is, the matrix spike/matrix spike duplicate (MS/MSD) sample used to evaluate the effects of matrix on the free cyanide analyses. The MS and MSD recoveries were high, at 125% and 138%. The MSD recovery exceeded the upper limit of 130% indicating a high bias attributable to matrix interference.

Given this information, all positive free cyanide results must be considered as estimated concentrations (i.e., qualified "J") because of high bias attributable to matrix effects and high instrument bias.

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.

Duplicate samples were collected from MW-07 and MW-16. The duplicate sample from MW-07 was submitted for BTEX and PAH analyses. The duplicate sample from MW-16 was submitted for total and free cyanide analyses. All duplicate sample results were within the acceptance limits as defined by the QAP except for free cyanide analyses for samples MW-16/MW-116 where the relative percent difference (RPD) was greater than 20%, at 50%. All free cyanide results must be considered as estimated concentrations (i.e., qualified "J") because of imprecision attributable to matrix effects.

Sample bottles were provided by TestAmerica Laboratories of Pittsburgh, Pennsylvania. Some sample bottles contained chemical preservatives to stabilize the sample, depending on the analysis being performed. These 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)  $\pm$  2° C.

# DNAPL recovery test well (RTW-1)

On April 18, 2012, the Recovery System at RTW-1 was operated to assess whether DNAPL had accumulated since the August 2011 sampling event. Approximately two liters of water were pumped out. The water contained only trace NAPL in the form of "blebs", visually estimated to be less than 1% of total volume.



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If you have any questions or comments, please do not hesitate to call me at (716) 836-4506 ext. 14.

Sincerely yours,

Jamara M. Raby

Tamara Raby Geologist Project Manager

Thomas P. Clark, P.E Project Engineer

- Encl: Groundwater Elevation Contours (Figure 1) Water Sampling Summary (Table 1) Laboratory Results Summary (Table 2) Laboratory Reports
- cc: C. Burke NFG T. Alexander – NFG S. Messier – NYSDOH R. Kennedy – Hogdson Russ LLP T. Clark, AECOM

TABLES

		Water S Mineral Sp	Table Sampling S rings Road N	1 ummary Ta IGP Site, Apri	ible il 2012	
Location	Cyanide, Total	Cyanide, Free	BTEX	PAHs	Water Elevation	Benchmark Elevation
	USEPA SW846 9012A	ASTM D4282-02	USEPA SW846 8260B	USEPA SW846 8270C		(top of PVC casing)
Upgradient Sit	te Perimeter					
MW-17	Х	х	Х	Х	Х	587.28
Downgradient	Site Perimet	ter				
MW-13	Х	х	annually	annually	Х	591.85
MW-14	Х	х			Х	589.81
MW-15					Х	590.93
MW-20	Х	х			Х	587.30
MW-21	Х	х			Х	587.88
MW-22	Х	х			Х	592.50
MW-23	Х	Х	annually	annually	Х	589.28
Onsite Purifie	r Residuals I	mpacted Areas	5			
MW-12	Х	х			Х	591.40
MW-16	Х	х			Х	588.99
Onsite Hydroc	carbon Impac	ted Areas				
MW-07			Х	Х	Х	587.26
MW-10			Х	Х	Х	587.61
MW-11			Х	Х	Х	590.03
MW-19			Х	Х	Х	589.83
Onsite Surface	e Water					
SW-01	Х	х	Х	Х	Х	top of headwall = 587.0
SW-02	Х	х	Х	Х		
QA/QC Sampl	es (frequenc	cy)				
Trip Blank			Х			(one per shipment)
Field Duplicate	Х	х	Х	Х		(one per event)
Equipment Blank	Х	x	Х	Х		(one per event)
DNAPL Recov RTW-1	very				(purge well	of accumulated DNAPL)
Total	13	13	10 or 12	9 or 11	15	
Container, Preservative	500 ml plastic, NaOH	1 L plastic amber, NaOH	40 mL VOA vial, HCl (x2)	1 L glass amber, NP (x2)		

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

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PARAMETER							GF			<b>xprn</b> 20						su	RFACE WATE	R	Qu	ality Assurance	e / Quality Cont	rol
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	тв	EB	MW-07 Dup	MW-16 Dup
Sample Date :	Standard <sup>(1)</sup>	04/18/12	04/18/12	04/18/12	04/18/12	04/19/12	04/19/12		04/19/12	04/18/12	04/18/12	04/18/12	04/19/12	04/18/12	04/18/12	Standard <sup>(1)</sup>	04/19/12	04/18/12	04/18/12	04/18/12	04/18/12	04/18/12
BTEX (µg/L)																						
Benzene	1	690	nd	31						nd	3800					10	nd	nd	nd	nd	540	nd
Toluene	5	77 J	nd	nd						nd	nd					6000	nd	nd	nd	0.16 J	59 J	nd
Ethylbenzene	5	1000	nd	7.1						nd	190 J					150 *	nd	nd	nd	nd	810	nd
Xylene (sum of isomers)	5 (each)	660	nd	4.3						nd	nd					590 *	nd	nd	nd	nd	520	nd
BTEX total		2427	nd	42.4						nd	3990						nd	nd	nd	nd	1929	nd
PAHs (µg/L)																						
Naphthalene	10 *	1700	nd	nd						nd	3200					110 *	nd	nd		nd	2300	nd
Acenaphthylene	NL *	nd	nd	1.3 J						nd	nd					NL	nd	nd		nd	nd	nd
Acenaphthene	20 *	64	nd	2.0 J						nd	nd					48 *	nd	nd		nd	75	nd
Fluorene	50 *	11	nd	nd						nd	nd					4.8 *	nd	nd		nd	13	nd
Phenanthrene	50 *	11	nd	nd						nd	nd					45 *	nd	nd		nd	13	nd
Anthracene	50 *	1.5 J	nd	nd						nd	nd					35 *	nd	nd		nd	2.0	nd
Fluoranthene	50 *	nd	nd	nd						nd	nd					NL	nd	nd		nd	nd	nd
Pyrene	50 *	nd	nd	nd						nd	nd					42 *	nd	nd		nd	nd	nd
Benzo(a)anthracene	0.002 *	nd	nd	nd						nd	nd					0.23 *	nd	nd		nd	nd	nd
Chrysene	0.002 *	nd	nd	nd						nd	nd					NL	nd	nd		nd	nd	nd
Benzo(b)fluoranthene	0.002 *	nd	nd	nd						nd	nd					NL	nd	nd		nd .	nd	nd
Benzo(k)fluoranthene	0.002 *	nd	nd	nd						nd	nd					NL	nd	nd		nd .	nd	nd
Benzo(a)pyrene	NL	nd	nd	nd						nd	nd					0.0012 *	nd	nd		nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.002 *	nd	nd	nd						nd	nd					NL	nd	nd		nd	nd	nd
Dibenz(a,h)anthracene	NL NL	nd	nd	nd						nd	nd					NL	nd	nd		nd	nd	nd
Benzo(g,h,i)perylene	NL	nd nd	nd	nd nd						nd	nd					NL NL	nd	nd nd		nd nd	nd	nd nd
2-Methylnaphthalene	NL	nu	na	nu						nd	nd					NL	nu	na		nu	nd	nu
PAHs total		1787.5	nd	3.3						nd	3200						nd	nd		nd	2403	nd
			i d	0.0						iid.	3200						iid.	iid		10	2400	iid iid
CYANIDE (µg/L)																						
Cyanide, total	200				670	10	610		840	210		790	480	1,000	220	9,000	16	45		nd		730
Cyanide, free	NL				10 J	0.87 J	1.7 J		9.5 J	0.98 J		2.2 J	1.6 J	5.5 J	2.4	J 22	1.5 J	11 .	J	1.2 J		5.7 J
Water Elevation (feet)	NL	581.56	581.05	582.07	580.82	579.09	577.85		582.00	581.93	581.21	578.45	577.09	580.56	578.03	NL	581.6					

Notes: NL Not listed

nd Not detected above method detection limit

--- Not analyzed

TB Trip Blank

EB Equipment Blank

J Indicates laboratory estimated value

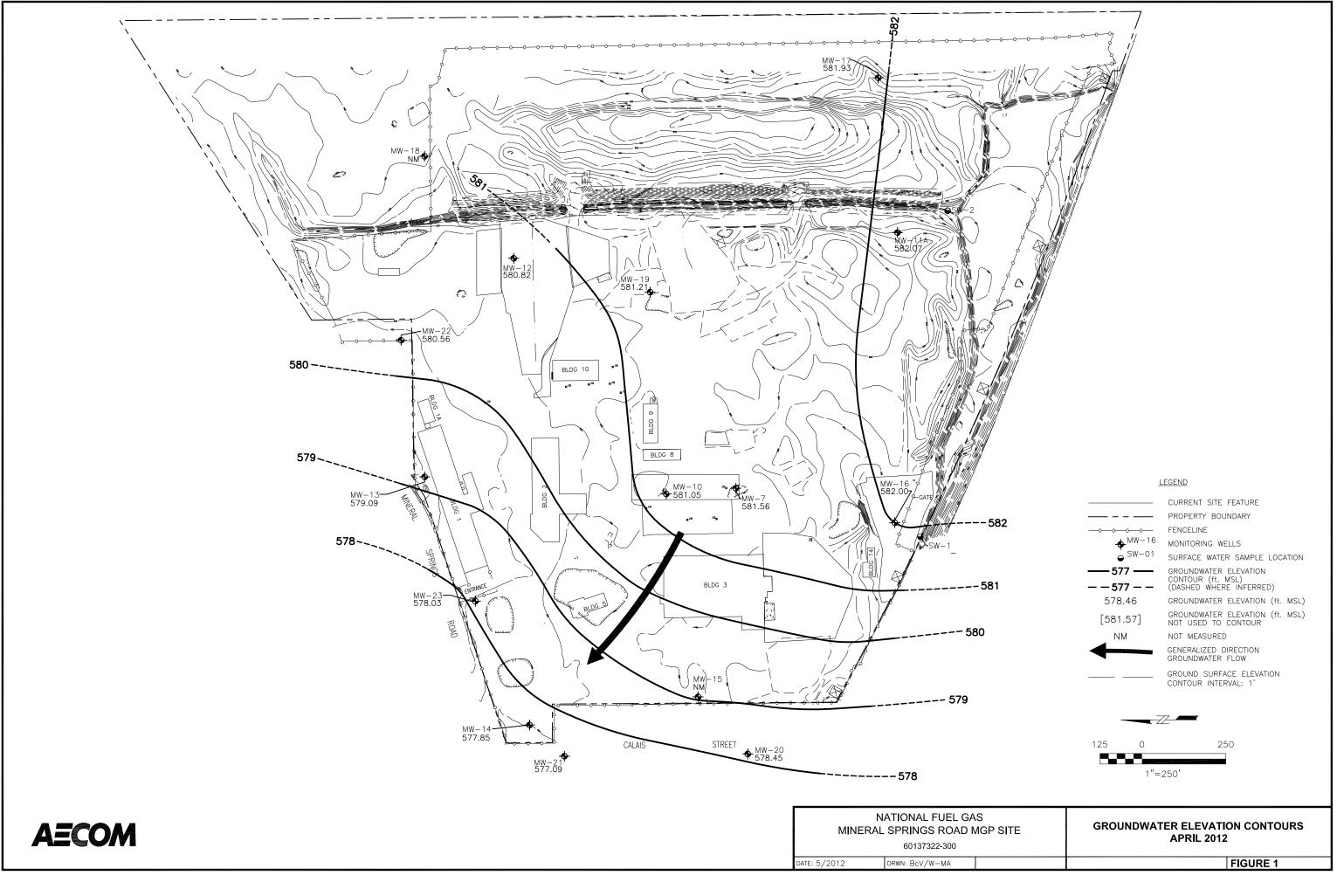
B The compound was detected in the associated method blank.

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

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

Concentrations exceeding NYSDEC regulatory standard or guidance value

FIGURE



LABORATORY ANALYTICAL RESULTS



THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

# TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh 301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Tel: (412)963-7058

TestAmerica Job ID: 180-10000-1 Client Project/Site: AECOM, Mineral Springs

# For:

AECOM, Inc. 1001 West Seneca Street Suite 204 Ithaca, New York 14850

Attn: Ms. Helen Jones

Whitney Xitai,

Authorized for release by: 5/8/2012 6:06:58 PM

Whitney Ritari Project Manager I whitney.ritari@testamericainc.com

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

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

..... Links **Review your project** results through **Total**Access Have a Question? Ask-The Expert Visit us at: www.testamericainc.com

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#### Job ID: 180-10000-1

#### Laboratory: TestAmerica Pittsburgh

#### Narrative

Job Narrative 180-10000-1

#### Receipt

The samples were received on 4/20/2012 9:15 AM; the samples arrived in good conditions, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.60 C, 2.80 C, 3.00 C and 3.30 C.

#### GC/MS VOA

Method 8260B: The following samples were diluted due to the abundance of target analytes: DUPLICATE-041812 (180-10000-14), MW-07-041812 (180-10000-1), and MW-19-041812 (180-10000-9). Elevated reporting limits (RLs) are provided. Batch #34171.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

Method 8270C: The following samples were diluted due to the abundance of target analytes: MW-07-041812 (180-10000-1), DUPLICATE-041812 (180-10000-14), and MW-19-041812 (180-10000-9). Elevated reporting limits (RLs) are provided. The following sample was diluted due to the nature of the sample matrix: MW-07-041812 (180-10000-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **General Chemistry**

Method 335.4: The following samples were diluted due to the abundance of target analytes: MW-12-041812 (180-10000-4), MW-20-041812 (180-10000-10), MW-22-041812 (180-10000-12), MW-116-041912 (180-10000-15), MW-14-041912 (180-10000-6), and MW-16-041912 (180-10000-7). Elevated reporting limits (RLs) are provided.

Method 9016: The concentration of the CCB is at the RL of 2 ppb therefore, the data is flagged. The matrix spike (MS) recovery for batch 11160 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

## Qualifiers

GC	2M/	VO	Δ
		•••	~

GC/MS VOA		
Qualifier	Qualifier Description	
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	i VOA	
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
E	Result exceeded calibration range.	
General Che	emistry	
Qualifier	Qualifier Description	3
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	9
F	MS or MSD exceeds the control limits	4
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
<del>¢</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis	1
%D	Percent Recovery	

%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# **Certification Summary**

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

aboratory	Authority	Program	EPA Region	Certification ID
estAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
estAmerica Pittsburgh	California	NELAC	9	4224CA
estAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
estAmerica Pittsburgh	Florida	NELAC	4	E871008
estAmerica Pittsburgh	Illinois	NELAC	5	002602
estAmerica Pittsburgh	Kansas	NELAC	7	E-10350
estAmerica Pittsburgh	L-A-B	DoD ELAP		L2314
estAmerica Pittsburgh	Louisiana	NELAC	6	04041
estAmerica Pittsburgh	New Hampshire	NELAC	1	203011
estAmerica Pittsburgh	New Jersey	NELAC	2	PA005
estAmerica Pittsburgh	New York	NELAC	2	11182
estAmerica Pittsburgh	North Carolina DENR	State Program	4	434
estAmerica Pittsburgh	Pennsylvania	NELAC	3	02-00416
estAmerica Pittsburgh	Pennsylvania	State Program	3	02-416
estAmerica Pittsburgh	South Carolina	State Program	4	89014002
estAmerica Pittsburgh	USDA	Federal		P330-10-00139
estAmerica Pittsburgh	USDA	Federal		P-Soil-01
estAmerica Pittsburgh	Utah	NELAC	8	STLP
estAmerica Pittsburgh	Virginia	NELAC	3	460189
estAmerica Pittsburgh	West Virginia DEP	State Program	3	142
estAmerica Pittsburgh	Wisconsin	State Program	5	998027800
estAmerica Edison	Connecticut	State Program	1	PH-0200
estAmerica Edison	DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A
estAmerica Edison	New Jersey	NELAC	2	12028
estAmerica Edison	New York	NELAC	2	11452
estAmerica Edison	Pennsylvania	NELAC	3	68-00522
estAmerica Edison	Rhode Island	State Program	1	LAO00132
estAmerica Edison	USDA	Federal		NJCA-003-08

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# Sample Summary

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

TestAmerica Job ID: 180-10000-1

_ab Sample ID	Client Sample ID	Matrix	Collected	Received
180-10000-1	MW-07-041812	Water	04/18/12 11:00	04/20/12 09:15
180-10000-2	MW-10-041812	Water	04/18/12 11:00	04/20/12 09:15
180-10000-3	MW-11A-041812	Water	04/18/12 12:00	04/20/12 09:15
180-10000-4	MW-12-041812	Water	04/18/12 14:45	04/20/12 09:15
80-10000-5	MW-13-041912	Water	04/19/12 10:45	04/20/12 09:1
80-10000-6	MW-14-041912	Water	04/19/12 10:45	04/20/12 09:1
80-10000-7	MW-16-041912	Water	04/19/12 09:30	04/20/12 09:1
80-10000-8	MW-17-041812	Water	04/18/12 13:00	04/20/12 09:1
80-10000-9	MW-19-041812	Water	04/18/12 13:45	04/20/12 09:1
80-10000-10	MW-20-041812	Water	04/18/12 16:10	04/20/12 09:1
80-10000-11	MW-21-041912	Water	04/19/12 09:40	04/20/12 09:1
80-10000-12	MW-22-041812	Water	04/18/12 16:15	04/20/12 09:1
80-10000-13	MW-23-041812	Water	04/18/12 12:30	04/20/12 09:1
80-10000-14	DUPLICATE-041812	Water	04/18/12 09:00	04/20/12 09:1
80-10000-15	MW-116-041912	Water	04/19/12 09:25	04/20/12 09:1
80-10000-16	SW-01-041912	Water	04/19/12 09:40	04/20/12 09:1
80-10000-17	SW-02-041812	Water	04/18/12 11:45	04/20/12 09:1
80-10000-18	TRIP BLANK-041812	Water	04/18/12 00:00	04/20/12 09:1
180-10000-19	RINSE BLANK-041812	Water	04/18/12 12:45	04/20/12 09:1

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

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Nethod	Method Description	Protocol	Laboratory
3260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT
3270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PIT
35.4	Cyanide, Total	MCAWW	TAL PIT
9016	Cyanide, Free	SW846	TAL EDI

#### Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900 TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# **Client Sample Results**

Client Sample ID: MW-07-041812

# Lab Sample ID: 180-10000-1 Matrix: Water

8

Date Collected: 04/18/12	11:00		
Date Received: 04/20/12	09:15		
Method: 8260B - Volatile	e Organic Compounds	(GC/MS)	
Analyte	Result	Qualifier	RL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	690		80	8.4	ug/L			04/25/12 14:20	80
Ethylbenzene	1000		80	18	ug/L			04/25/12 14:20	80
Toluene	77	J	80	12	ug/L			04/25/12 14:20	80
Xylenes, Total	660		240	39	ug/L			04/25/12 14:20	80
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135					04/25/12 14:20	80
Toluene-d8 (Surr)	100		71 - 118					04/25/12 14:20	80
4-Bromofluorobenzene (Surr)	92		70 - 118					04/25/12 14:20	80
Dibromofluoromethane (Surr)	112		70 - 128					04/25/12 14:20	80

Method: 8270C - Semivolatile Or	ganic Compounds (GC/MS)
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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	64		1.9	0.14	ug/L		04/23/12 08:51	04/24/12 15:14	1
Acenaphthene	86		19	1.4	ug/L		04/23/12 08:51	04/26/12 22:41	10
Acenaphthylene	ND		1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:14	1
Acenaphthylene	ND		19	1.5	ug/L		04/23/12 08:51	04/26/12 22:41	10
Anthracene	1.5	J	1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:14	1
Anthracene	2.7	J	19	1.5	ug/L		04/23/12 08:51	04/26/12 22:41	10
Benzo[a]anthracene	ND		1.9	0.14	ug/L		04/23/12 08:51	04/24/12 15:14	1
Benzo[a]anthracene	ND		19	1.4	ug/L		04/23/12 08:51	04/26/12 22:41	10
Benzo[a]pyrene	ND		1.9	0.13	ug/L		04/23/12 08:51	04/24/12 15:14	1
Benzo[a]pyrene	ND		19	1.3	ug/L		04/23/12 08:51	04/26/12 22:41	10
Benzo[b]fluoranthene	ND		1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:14	1
Benzo[b]fluoranthene	ND		19	1.5	ug/L		04/23/12 08:51	04/26/12 22:41	10
Benzo[g,h,i]perylene	ND		1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:14	1
Benzo[g,h,i]perylene	ND		19	1.5	ug/L		04/23/12 08:51	04/26/12 22:41	10
Benzo[k]fluoranthene	ND		1.9	0.53	ug/L		04/23/12 08:51	04/24/12 15:14	1
Benzo[k]fluoranthene	ND		19	5.3	ug/L		04/23/12 08:51	04/26/12 22:41	10
Chrysene	ND		1.9	0.13	ug/L		04/23/12 08:51	04/24/12 15:14	1
Chrysene	ND		19	1.3	ug/L		04/23/12 08:51	04/26/12 22:41	10
Dibenz(a,h)anthracene	ND		1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:14	1
Dibenz(a,h)anthracene	ND		19	1.5	ug/L		04/23/12 08:51	04/26/12 22:41	10
Fluoranthene	ND		1.9	0.16	ug/L		04/23/12 08:51	04/24/12 15:14	1
Fluoranthene	ND		19	1.6	ug/L		04/23/12 08:51	04/26/12 22:41	10
Fluorene	11		1.9	0.21	ug/L		04/23/12 08:51	04/24/12 15:14	1
Fluorene	18	J	19	2.1	ug/L		04/23/12 08:51	04/26/12 22:41	10
Indeno[1,2,3-cd]pyrene	ND		1.9	0.19	ug/L		04/23/12 08:51	04/24/12 15:14	1
Indeno[1,2,3-cd]pyrene	ND		19	1.9	ug/L		04/23/12 08:51	04/26/12 22:41	10
Naphthalene	1000	E	1.9	0.13	ug/L		04/23/12 08:51	04/24/12 15:14	1
Naphthalene	1700		19	1.3	ug/L		04/23/12 08:51	04/26/12 22:41	10
Phenanthrene	11		1.9	0.41	ug/L		04/23/12 08:51	04/24/12 15:14	1
Phenanthrene	15	J	19	4.1	ug/L		04/23/12 08:51	04/26/12 22:41	10
Pyrene	ND		1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:14	1
Pyrene	ND		19	1.5	ug/L		04/23/12 08:51	04/26/12 22:41	10

# Client Sample ID: MW-10-041812 Date Collected: 04/18/12 11:00

Date Received: 04/20/12 09:15

Method: 8260B - Volatile Orga	nic Compounds (	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.11	ug/L			04/25/12 14:43	1
Ethylbenzene	ND		1.0	0.23	ug/L			04/25/12 14:43	1
Toluene	ND		1.0	0.15	ug/L			04/25/12 14:43	1
Xylenes, Total	ND		3.0	0.49	ug/L			04/25/12 14:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		64 - 135			-		04/25/12 14:43	1
Toluene-d8 (Surr)	103		71 - 118					04/25/12 14:43	1
4-Bromofluorobenzene (Surr)	89		70_118					04/25/12 14:43	1
Dibromofluoromethane (Surr)	112		70 - 128					04/25/12 14:43	1

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	1.9	0.14	ug/L		04/23/12 08:51	04/24/12 15:36	1
Acenaphthylene	ND	1.9	0.14	ug/L		04/23/12 08:51	04/24/12 15:36	1
Anthracene	ND	1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:36	1
Benzo[a]anthracene	ND	1.9	0.14	ug/L		04/23/12 08:51	04/24/12 15:36	1
Benzo[a]pyrene	ND	1.9	0.13	ug/L		04/23/12 08:51	04/24/12 15:36	1
Benzo[b]fluoranthene	ND	1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:36	1
Benzo[g,h,i]perylene	ND	1.9	0.14	ug/L		04/23/12 08:51	04/24/12 15:36	1
Benzo[k]fluoranthene	ND	1.9	0.52	ug/L		04/23/12 08:51	04/24/12 15:36	1
Chrysene	ND	1.9	0.13	ug/L		04/23/12 08:51	04/24/12 15:36	1
Dibenz(a,h)anthracene	ND	1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:36	1
Fluoranthene	ND	1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:36	1
Fluorene	ND	1.9	0.21	ug/L		04/23/12 08:51	04/24/12 15:36	1
Indeno[1,2,3-cd]pyrene	ND	1.9	0.19	ug/L		04/23/12 08:51	04/24/12 15:36	1
Naphthalene	ND	1.9	0.13	ug/L		04/23/12 08:51	04/24/12 15:36	1
Phenanthrene	ND	1.9	0.41	ug/L		04/23/12 08:51	04/24/12 15:36	1
Pyrene	ND	1.9	0.15	ug/L		04/23/12 08:51	04/24/12 15:36	1

#### Client Sample ID: MW-11A-041812 Date Collected: 04/18/12 12:00

#### Date Received: 04/20/12 09:15

Analyte	rganic Compounds ( Result	Qualifier	RL	мы	Unit	D	Prepared	Analvzed	Dil Fac
							Tieparea		
Benzene	31		1.0	0.11	ug/L			04/25/12 15:07	
Ethylbenzene	7.1		1.0	0.23	ug/L			04/25/12 15:07	
Toluene	ND		1.0	0.15	ug/L			04/25/12 15:07	1
Xylenes, Total	4.3		3.0	0.49	ug/L			04/25/12 15:07	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		04/25/12 15:07	1
Toluene-d8 (Surr)	103		71 _ 118		04/25/12 15:07	1
4-Bromofluorobenzene (Surr)	98		70 _ 118		04/25/12 15:07	1
Dibromofluoromethane (Surr)	108		70 - 128		04/25/12 15:07	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2.0	J	2.2	0.16	ug/L		04/23/12 08:51	04/24/12 15:59	1
Acenaphthylene	1.3	J	2.2	0.17	ug/L		04/23/12 08:51	04/24/12 15:59	1
Anthracene	ND		2.2	0.17	ug/L		04/23/12 08:51	04/24/12 15:59	1

TestAmerica Job ID: 180-10000-1

Lab Sample ID: 180-10000-2

Matrix: Water

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Lab Sample ID: 180-10000-3 Matrix: Water

#### Client Sample ID: MW-11A-041812 Date Collected: 04/18/12 12:00 Date Received: 04/20/12 09:15

# Lab Sample ID: 180-10000-3 Matrix: Water

Lab Sample ID: 180-10000-5

Lab Sample ID: 180-10000-6

Matrix: Water

Matrix: Water

Water

5 6

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		2.2	0.16	ug/L		04/23/12 08:51	04/24/12 15:59	1
Benzo[a]pyrene	ND		2.2	0.15	ug/L		04/23/12 08:51	04/24/12 15:59	1
Benzo[b]fluoranthene	ND		2.2	0.17	ug/L		04/23/12 08:51	04/24/12 15:59	1
Benzo[g,h,i]perylene	ND		2.2	0.16	ug/L		04/23/12 08:51	04/24/12 15:59	1
Benzo[k]fluoranthene	ND		2.2	0.59	ug/L		04/23/12 08:51	04/24/12 15:59	1
Chrysene	ND		2.2	0.15	ug/L		04/23/12 08:51	04/24/12 15:59	1
Dibenz(a,h)anthracene	ND		2.2	0.17	ug/L		04/23/12 08:51	04/24/12 15:59	1
Fluoranthene	ND		2.2	0.18	ug/L		04/23/12 08:51	04/24/12 15:59	1
Fluorene	ND		2.2	0.23	ug/L		04/23/12 08:51	04/24/12 15:59	1
Indeno[1,2,3-cd]pyrene	ND		2.2	0.22	ug/L		04/23/12 08:51	04/24/12 15:59	1
Naphthalene	ND		2.2	0.15	ug/L		04/23/12 08:51	04/24/12 15:59	1
Phenanthrene	ND		2.2	0.46	ug/L		04/23/12 08:51	04/24/12 15:59	1
Pyrene	ND		2.2	0.17	ug/L		04/23/12 08:51	04/24/12 15:59	1
lient Sample ID: MW-12-041812							Lab Sam	ple ID: 180-1	0000-4
Date Collected: 04/18/12 14:45								Matrix	: Water
ate Received: 04/20/12 09:15									

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.67		0.10	0.016	mg/L		05/01/12 10:05	05/01/12 14:21	10
Cyanide, Free	10	^	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

#### Client Sample ID: MW-13-041912

Date Collected: 04/19/12 10:45

Date Received: 04/20/12 09:15

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010		0.010	0.0016	mg/L		05/03/12 08:25	05/03/12 10:37	1
Cyanide, Free	0.87	J ^	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

# Client Sample ID: MW-14-041912

Date Collected: 04/19/12 10:45

Date	Recei	ved:	04/20/	12	09:1	5

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.61		0.10	0.016	mg/L		05/03/12 08:25	05/03/12 11:02	10
Cyanide, Free	1.7	J ^	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1
Client Sample ID: MW-16	-041912						Lab Sam	ple ID: 180-1	0000-7
Date Collected: 04/19/12 09:30								Matrix	: Water
Date Received: 04/20/12 09:15									

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.84		0.10	0.016	mg/L		05/03/12 08:25	05/03/12 11:02	10
Cyanide, Free	9.5		2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

# Client Sample ID: MW-17-041812 Date Collected: 04/18/12 13:00

Date Received: 04/20/12 09:15

Dibromofluoromethane (Surr)

Method: 8260B - Volatile Orga		• •							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.11	ug/L			04/25/12 15:31	1
Ethylbenzene	ND		1.0	0.23	ug/L			04/25/12 15:31	1
Toluene	ND		1.0	0.15	ug/L			04/25/12 15:31	1
Xylenes, Total	ND		3.0	0.49	ug/L			04/25/12 15:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		64 - 135			-		04/25/12 15:31	1
Toluene-d8 (Surr)	102		71 - 118					04/25/12 15:31	1
4-Bromofluorobenzene (Surr)	89		70 - 118					04/25/12 15:31	1

70 - 128

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

113

0.98 J^

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.3	0.17	ug/L		04/23/12 08:51	04/24/12 16:21	1
Acenaphthylene	ND		2.3	0.18	ug/L		04/23/12 08:51	04/24/12 16:21	1
Anthracene	ND		2.3	0.18	ug/L		04/23/12 08:51	04/24/12 16:21	1
Benzo[a]anthracene	ND		2.3	0.17	ug/L		04/23/12 08:51	04/24/12 16:21	1
Benzo[a]pyrene	ND		2.3	0.16	ug/L		04/23/12 08:51	04/24/12 16:21	1
Benzo[b]fluoranthene	ND		2.3	0.18	ug/L		04/23/12 08:51	04/24/12 16:21	1
Benzo[g,h,i]perylene	ND		2.3	0.18	ug/L		04/23/12 08:51	04/24/12 16:21	1
Benzo[k]fluoranthene	ND		2.3	0.64	ug/L		04/23/12 08:51	04/24/12 16:21	1
Chrysene	ND		2.3	0.16	ug/L		04/23/12 08:51	04/24/12 16:21	1
Dibenz(a,h)anthracene	ND		2.3	0.18	ug/L		04/23/12 08:51	04/24/12 16:21	1
Fluoranthene	ND		2.3	0.19	ug/L		04/23/12 08:51	04/24/12 16:21	1
Fluorene	ND		2.3	0.25	ug/L		04/23/12 08:51	04/24/12 16:21	1
Indeno[1,2,3-cd]pyrene	ND		2.3	0.23	ug/L		04/23/12 08:51	04/24/12 16:21	1
Naphthalene	ND		2.3	0.16	ug/L		04/23/12 08:51	04/24/12 16:21	1
Phenanthrene	ND		2.3	0.50	ug/L		04/23/12 08:51	04/24/12 16:21	1
Pyrene	ND		2.3	0.18	ug/L		04/23/12 08:51	04/24/12 16:21	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.21		0.010	0.0016	mg/L		05/01/12 10:05	05/01/12 13:40	1

2.0

0.54 ug/L

#### Client Sample ID: MW-19-041812

Date Collected: 04/18/12 13:45

Date Received: 04/20/12 09:15

Cyanide, Free

Method: 8260B - Volatile Organ	nic Compounds (	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3800		250	26	ug/L			04/25/12 15:54	250
Ethylbenzene	190	J	250	57	ug/L			04/25/12 15:54	250
Toluene	ND		250	38	ug/L			04/25/12 15:54	250
Xylenes, Total	ND		750	120	ug/L			04/25/12 15:54	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		64 - 135			-		04/25/12 15:54	250
Toluene-d8 (Surr)	99		71 - 118					04/25/12 15:54	250
4-Bromofluorobenzene (Surr)	87		70_118					04/25/12 15:54	250
Dibromofluoromethane (Surr)	107		70 - 128					04/25/12 15:54	250

# 05/01/12 10:05 05/01/12 13:40 1 04/26/12 06:00 04/26/12 12:00 1

# Lab Sample ID: 180-10000-9 Matrix: Water

Lab Sample ID: 180-10000-8

04/25/12 15:31

Matrix: Water

# 3 4 5 6

10

1

8

1.0

#### Client Sample ID: MW-19-041812 Date Collected: 04/18/12 13:45 Date Received: 04/20/12 09:15

Analyte

Acenaphthene

Acenaphthylene

# Lab Sample ID: 180-10000-9 Matrix: Water

Analyzed

04/24/12 16:43

04/24/12 16:43

Dil Fac

1

1

8
9

			•			
Anthracene	ND	2.3	0.18 ug/L	04/23/12 08:51 04/24/1	12 16:43 1	
Benzo[a]anthracene	ND	2.3	0.17 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Benzo[a]pyrene	ND	2.3	0.15 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Benzo[b]fluoranthene	ND	2.3	0.18 ug/L	04/23/12 08:51 04/24/*	12 16:43 1	
Benzo[g,h,i]perylene	ND	2.3	0.17 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Benzo[k]fluoranthene	ND	2.3	0.63 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Chrysene	ND	2.3	0.16 ug/L	04/23/12 08:51 04/24/*	12 16:43 1	
Dibenz(a,h)anthracene	ND	2.3	0.18 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Fluoranthene	ND	2.3	0.19 ug/L	04/23/12 08:51 04/24/*	12 16:43 1	
Fluorene	ND	2.3	0.25 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Indeno[1,2,3-cd]pyrene	ND	2.3	0.23 ug/L	04/23/12 08:51 04/24/	12 16:43 1	
Naphthalene	1700 E	2.3	0.16 ug/L	04/23/12 08:51 04/24/*	12 16:43 1	
Phenanthrene	ND	2.3	0.49 ug/L	04/23/12 08:51 04/24/1	12 16:43 1	
Pyrene	ND	2.3	0.18 ug/L	04/23/12 08:51 04/24/	12 16:43 1	

RL

2.3

2.3

MDL Unit

0.17 ug/L

0.17 ug/L

D

Prepared

04/23/12 08:51

04/23/12 08:51

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS) - DL

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Result Qualifier

ND

ND

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	46	3.3	ug/L		04/23/12 08:51	04/25/12 19:28	20
Acenaphthylene	ND	46	3.5	ug/L		04/23/12 08:51	04/25/12 19:28	20
Anthracene	ND	46	3.5	ug/L		04/23/12 08:51	04/25/12 19:28	20
Benzo[a]anthracene	ND	46	3.4	ug/L		04/23/12 08:51	04/25/12 19:28	20
Benzo[a]pyrene	ND	46	3.1	ug/L		04/23/12 08:51	04/25/12 19:28	20
Benzo[b]fluoranthene	ND	46	3.6	ug/L		04/23/12 08:51	04/25/12 19:28	20
Benzo[g,h,i]perylene	ND	46	3.5	ug/L		04/23/12 08:51	04/25/12 19:28	20
Benzo[k]fluoranthene	ND	46	13	ug/L		04/23/12 08:51	04/25/12 19:28	20
Chrysene	ND	46	3.2	ug/L		04/23/12 08:51	04/25/12 19:28	20
Dibenz(a,h)anthracene	ND	46	3.6	ug/L		04/23/12 08:51	04/25/12 19:28	20
Fluoranthene	ND	46	3.7	ug/L		04/23/12 08:51	04/25/12 19:28	20
Fluorene	ND	46	5.0	ug/L		04/23/12 08:51	04/25/12 19:28	20
Indeno[1,2,3-cd]pyrene	ND	46	4.6	ug/L		04/23/12 08:51	04/25/12 19:28	20
Naphthalene	3200	46	3.2	ug/L		04/23/12 08:51	04/25/12 19:28	20
Phenanthrene	ND	46	9.8	ug/L		04/23/12 08:51	04/25/12 19:28	20
Pyrene	ND	46	3.6	ug/L		04/23/12 08:51	04/25/12 19:28	20

#### Client Sample ID: MW-20-041812

Date Collected: 04/18/12 16:10

	Date	<b>Received:</b>	04/20/12	09:15
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General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.79	-	0.10	0.016	mg/L		05/01/12 10:05	05/01/12 14:21	10
Cyanide, Free	2.2	۸	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

#### Client Sample ID: MW-21-041912 Lab Sample ID: 180-10000-11 Date Collected: 04/19/12 09:40 Matrix: Water Date Received: 04/20/12 09:15 **General Chemistry** Analyte **Result Qualifier** RL MDL Unit D Prepared Analyzed Dil Fac 0.010 0.0016 mg/L 05/03/12 08:25 05/03/12 10:37 Cyanide, Total 0.48 1

TestAmerica Pittsburgh 5/8/2012

Lab Sample ID: 180-10000-10

Matrix: Water

# **Client Sample Results**

ent: AECOM, Inc. oject/Site: AECOM, Mineral Spring		Onent	Sample F	toounto	•		TostAmori	ica Job ID: 180-	10000 1
	js						Testamen	-ייסו .עו מסך Ca	10000-1
lient Sample ID: MW-21-041	912						Lab Samp	le ID: 180-10	000-11
ate Collected: 04/19/12 09:40							•		k: Water
ate Received: 04/20/12 09:15									
General Chemistry (Continued)									
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	1.6	J	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1
lient Sample ID: MW-22-041	812						Lab Samp	le ID: 180-10	000-12
ate Collected: 04/18/12 16:15									c: Water
ate Received: 04/20/12 09:15									
General Chemistry									
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.0	_	0.10	0.016	0	_	05/01/12 10:05	05/01/12 14:21	10
Cyanide, Free	5.5	^	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1
Client Sample ID: MW-23-041	812						Lab Samp	le ID: 180-10	000-13
ate Collected: 04/18/12 12:30								Matrix	k: Water
ate Received: 04/20/12 09:15									
General Chemistry	Booult	0	ופ		11 14	<b>D</b>	Deserved	Analyzad	
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.22		0.010	0.0016	•		05/01/12 10:05	05/01/12 13:48	1
Cyanide, Free	2.4	^	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1
Client Sample ID: DUPLICATE Pate Collected: 04/18/12 09:00 Pate Received: 04/20/12 09:15								Matrix	
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic									000-14 c: Water
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte	Result	(GC/MS) Qualifier	RL		Unit	<u>D</u>	Prepared	Analyzed	c: Water
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene	Result 540		80	8.4	ug/L	D		Analyzed 04/25/12 16:18	c: Water Dil Fac
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene	Result 540 810	Qualifier	80 80	8.4 18	ug/L ug/L	D		Analyzed 04/25/12 16:18 04/25/12 16:18	<b>Dil Fac</b> 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene	Result 540 810 59	Qualifier	80 80 80	8.4 18 12	ug/L ug/L ug/L	D		Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	<b>C: Water</b> Dil Fac 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene	Result 540 810	Qualifier	80 80	8.4 18 12	ug/L ug/L	D		Analyzed 04/25/12 16:18 04/25/12 16:18	c: Water Dil Fac
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene	Result 540 810 59	Qualifier	80 80 80	8.4 18 12	ug/L ug/L ug/L	D		Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	<b>C: Water</b> Dil Fac 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total	Result 540 810 59 520	Qualifier	80 80 80 240	8.4 18 12	ug/L ug/L ug/L	D	Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	<b>Dil Fac</b> 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate	Result 540 810 59 520 %Recovery	Qualifier	80 80 80 240 Limits	8.4 18 12	ug/L ug/L ug/L	<u>D</u>	Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 Analyzed	C: Water
Aate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr)	Result           540           810           59           520           %Recovery           115	Qualifier	80 80 240 <i>Limits</i> 64 - 135	8.4 18 12	ug/L ug/L ug/L	D	Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 Analyzed 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 <i>Dil Fac</i> 80 80 80 80
Aate Collected: 04/18/12 09:00 (ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr)	Result           540           810           59           520           %Recovery           115           104	Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118	8.4 18 12	ug/L ug/L ug/L	D	Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 Analyzed 04/25/12 16:18 04/25/12 16:18	<b>C: Water</b> Dil Fac 80 80 80 <i>Dil Fac</i> 80
Aate Collected: 04/18/12 09:00 (ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr)	Result           540           810           59           520           %Recovery           115           104           96           111	Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118	8.4 18 12	ug/L ug/L ug/L	D	Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	<b>C: Water</b> Dil Fac 80 80 80 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compound	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128	8.4 18 12 39	ug/L ug/L ug/L ug/L		Prepared Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compour           Result	Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 RL	8.4 18 12 39 MDL	ug/L ug/L ug/L ug/L	D	Prepared Prepared Prepared	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compour           Result           75	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9	8.4 18 12 39 <b>MDL</b> 0.14	ug/L ug/L ug/L ug/L Unit ug/L		Prepared Prepared Prepared 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	Dil Fac           00
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15	ug/L ug/L ug/L ug/L ug/L ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15	ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compour           Result           75           ND           2.0           ND	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.14	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared           Prepared           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compound           Result           75           ND           2.0           ND           ND	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.15 0.14 0.13	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND           ND           ND           ND           ND	Qualifier J Qualifier	80 80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.14 0.13 0.15	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06	C: Water Dil Fac 80 80 00 00 00 00 00 00 00 00
A cenaphthene A cenaphthene A cenaphthylene Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[g,h,i]perylene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND           ND           ND           ND           ND           ND	Qualifier J Qualifier	80 80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.14 0.13 0.15 0.15 0.15	Unit Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L		Prepared           Prepared           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND           ND           ND           ND           ND           ND           ND	Qualifier J Qualifier	80 80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.14 0.13 0.15 0.15 0.15 0.53	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
A cenaphthene A cenaphthene A cenaphthylene Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[g,h,i]perylene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND           ND           ND           ND           ND           ND	Qualifier J Qualifier	80 80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared           Prepared           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06	C: Water Dil Fac 80 80 80 80 00 00 00 00 00 00
A te Collected: 04/18/12 09:00 (ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[g,h,i]perylene Benzo[k]fluoranthene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND           ND           ND           ND           ND           ND           ND	Qualifier J Qualifier	80 80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared           Prepared           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51           04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06 04/24/12 17:06	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[k]fluoranthene Chrysene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND           ND           ND           ND           ND           ND           ND	Qualifier J Qualifier	80 80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.13 0.13 0.15	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/2	C: Water Dil Fac 80 80 80 80 80 80 80 80 80 80
ate Collected: 04/18/12 09:00 ate Received: 04/20/12 09:15 Method: 8260B - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Method: 8270C - Semivolatile Org Analyte Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[b]fluoranthene Benzo[k]fluoranthene Chrysene Dibenz(a,h)anthracene	Result           540           810           59           520           %Recovery           115           104           96           111           ganic Compout           Result           75           ND           2.0           ND           ND	Qualifier J Qualifier	80 80 240 <i>Limits</i> 64 - 135 71 - 118 70 - 118 70 - 128 <b>RL</b> 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	8.4 18 12 39 <b>MDL</b> 0.14 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	ug/L           ug/L		Prepared Prepared 04/23/12 08:51 04/23/12 08:51	Analyzed 04/25/12 16:18 04/25/12 16:18 04/24/12 17:06 04/24/12 17:06 04/2	C: Water Dil Fac 80 80 80 <i>Dil Fac</i> 80 80 80 80 80 80 80 80 80 80 80 80 80

#### Client Sample ID: DUPLICATE-041812 Date Collected: 04/18/12 09:00 Date Received: 04/20/12 09:15

Date Received: 04/20/12 09:15

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1300	E	1.9	0.13	ug/L		04/23/12 08:51	04/24/12 17:06	1
Phenanthrene	13		1.9	0.41	ug/L		04/23/12 08:51	04/24/12 17:06	1
Pyrene	ND		1.9	0.15	ug/L		04/23/12 08:51	04/24/12 17:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	88		38	2.8	ug/L		04/23/12 08:51	04/25/12 19:51	20
Acenaphthylene	ND		38	2.9	ug/L		04/23/12 08:51	04/25/12 19:51	20
Anthracene	ND		38	3.0	ug/L		04/23/12 08:51	04/25/12 19:51	20
Benzo[a]anthracene	ND		38	2.8	ug/L		04/23/12 08:51	04/25/12 19:51	20
Benzo[a]pyrene	ND		38	2.6	ug/L		04/23/12 08:51	04/25/12 19:51	20
Benzo[b]fluoranthene	ND		38	3.0	ug/L		04/23/12 08:51	04/25/12 19:51	20
Benzo[g,h,i]perylene	ND		38	2.9	ug/L		04/23/12 08:51	04/25/12 19:51	20
Benzo[k]fluoranthene	ND		38	11	ug/L		04/23/12 08:51	04/25/12 19:51	20
Chrysene	ND		38	2.7	ug/L		04/23/12 08:51	04/25/12 19:51	20
Dibenz(a,h)anthracene	ND		38	3.0	ug/L		04/23/12 08:51	04/25/12 19:51	20
Fluoranthene	ND		38	3.1	ug/L		04/23/12 08:51	04/25/12 19:51	20
Fluorene	16	J	38	4.2	ug/L		04/23/12 08:51	04/25/12 19:51	20
Indeno[1,2,3-cd]pyrene	ND		38	3.8	ug/L		04/23/12 08:51	04/25/12 19:51	20
Naphthalene	2300		38	2.7	ug/L		04/23/12 08:51	04/25/12 19:51	20
Phenanthrene	17	J	38	8.2	ug/L		04/23/12 08:51	04/25/12 19:51	20
Pyrene	ND		38	3.0	ug/L		04/23/12 08:51	04/25/12 19:51	20

#### Client Sample ID: MW-116-041912

Date Collected: 04/19/12 09:25

Date Received: 04/20/12 09:15

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.73		0.10	0.016	mg/L		05/03/12 08:25	05/03/12 11:07	10
Cyanide, Free	5.7		2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

#### Client Sample ID: SW-01-041912

Date Collected: 04/19/12 09:40

#### Date Received: 04/20/12 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.11	ug/L			04/25/12 16:41	1
Ethylbenzene	ND		1.0	0.23	ug/L			04/25/12 16:41	1
Toluene	ND		1.0	0.15	ug/L			04/25/12 16:41	1
Xylenes, Total	ND		3.0	0.49	ug/L			04/25/12 16:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		64 - 135					04/25/12 16:41	1
Toluene-d8 (Surr)	101		71 - 118					04/25/12 16:41	1
4-Bromofluorobenzene (Surr)	98		70 - 118					04/25/12 16:41	1
Dibromofluoromethane (Surr)	116		70 - 128					04/25/12 16:41	1
Method: 8270C - Semivolatile	Organic Compou	nds (GC/M	5)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.0	0.15	ua/L		04/23/12 08:51	04/24/12 17:28	1

Matrix:	Water	

Matrix: Water

Lab Sample ID: 180-10000-15

Lab Sample ID: 180-10000-16

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#### Client Sample ID: SW-01-041912 Date Collected: 04/19/12 09:40 Date Received: 04/20/12 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Acenaphthylene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Anthracene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Benzo[a]anthracene	ND		2.0	0.15	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Benzo[a]pyrene	ND		2.0	0.14	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Benzo[b]fluoranthene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Benzo[g,h,i]perylene	ND		2.0	0.15	ug/L		04/23/12 08:51	04/24/12 17:28	1	8
Benzo[k]fluoranthene	ND		2.0	0.56	ug/L		04/23/12 08:51	04/24/12 17:28	1	U
Chrysene	ND		2.0	0.14	ug/L		04/23/12 08:51	04/24/12 17:28	1	0
Dibenz(a,h)anthracene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 17:28	1	Э
Fluoranthene	ND		2.0	0.17	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Fluorene	ND		2.0	0.22	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Indeno[1,2,3-cd]pyrene	ND		2.0	0.20	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Naphthalene	ND		2.0	0.14	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Phenanthrene	ND		2.0	0.44	ug/L		04/23/12 08:51	04/24/12 17:28	1	
Pyrene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 17:28	1	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.016		0.010	0.0016	mg/L		05/03/12 08:25	05/03/12 10:44	1
Cyanide, Free	1.5	J	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

# Client Sample ID: SW-02-041812

# Date Collected: 04/18/12 11:45

Date Received: 04/20/12 09:15

Analyte	Result Qualifier	· RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.0	0.11	ug/L			04/25/12 17:05	1
Ethylbenzene	ND	1.0	0.23	ug/L			04/25/12 17:05	1
Toluene	ND	1.0	0.15	ug/L			04/25/12 17:05	1
Xylenes, Total	ND	3.0	0.49	ug/L			04/25/12 17:05	1
Surrogate	%Recovery Qualifie	r Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117	64 _ 135			-		04/25/12 17:05	1

1,2-Dichloroethane-d4 (Surr)	117	64 - 135	04/25/12 17:05	1
Toluene-d8 (Surr)	102	71 - 118	04/25/12 17:05	1
4-Bromofluorobenzene (Surr)	91	70 - 118	04/25/12 17:05	1
Dibromofluoromethane (Surr)	115	70 - 128	04/25/12 17:05	1

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

method. 02100 - Ochnyolathe Orga	ne oompou								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.0	0.15	ug/L		04/23/12 08:53	04/24/12 17:51	1
Acenaphthylene	ND		2.0	0.15	ug/L		04/23/12 08:53	04/24/12 17:51	1
Anthracene	ND		2.0	0.16	ug/L		04/23/12 08:53	04/24/12 17:51	1
Benzo[a]anthracene	ND		2.0	0.15	ug/L		04/23/12 08:53	04/24/12 17:51	1
Benzo[a]pyrene	ND		2.0	0.14	ug/L		04/23/12 08:53	04/24/12 17:51	1
Benzo[b]fluoranthene	ND		2.0	0.16	ug/L		04/23/12 08:53	04/24/12 17:51	1
Benzo[g,h,i]perylene	ND		2.0	0.15	ug/L		04/23/12 08:53	04/24/12 17:51	1
Benzo[k]fluoranthene	ND		2.0	0.55	ug/L		04/23/12 08:53	04/24/12 17:51	1
Chrysene	ND		2.0	0.14	ug/L		04/23/12 08:53	04/24/12 17:51	1
Dibenz(a,h)anthracene	ND		2.0	0.16	ug/L		04/23/12 08:53	04/24/12 17:51	1
Fluoranthene	ND		2.0	0.16	ug/L		04/23/12 08:53	04/24/12 17:51	1
Fluorene	ND		2.0	0.22	ug/L		04/23/12 08:53	04/24/12 17:51	1

# Lab Sample ID: 180-10000-17 Matrix: Water

## Lab Sample ID: 180-10000-16 Matrix: Water

atrix: water

# **Client Sample Results**

# Client Sample ID: SW-02-041812

Date Collected: 04/18/12 11:45 Date Received: 04/20/12 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		2.0	0.20	ug/L		04/23/12 08:53	04/24/12 17:51	1
Naphthalene	ND		2.0	0.14	ug/L		04/23/12 08:53	04/24/12 17:51	1
Phenanthrene	ND		2.0	0.43	ug/L		04/23/12 08:53	04/24/12 17:51	1
Pyrene	ND		2.0	0.16	ug/L		04/23/12 08:53	04/24/12 17:51	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.045		0.010	0.0016	mg/L		05/01/12 10:05	05/01/12 13:48	1
Cyanide, Free	11	^	2.0	0.54	ua/l		04/26/12 06:00	04/26/12 12:00	1

# Client Sample ID: TRIP BLANK-041812

Date Collected: 04/18/12 00:00

Date	Received:	04/20/12	09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac				
ND	1.0	0.11 ug/L		04/25/12 17:29	1				
ND	1.0	0.23 ug/L		04/25/12 17:29	1				
ND	1.0	0.15 ug/L		04/25/12 17:29	1				
ND	3.0	0.49 ug/L		04/25/12 17:29	1				
	ND ND ND	Result         Qualifier         RL           ND         1.0           ND         1.0           ND         1.0           ND         1.0	Result         Qualifier         RL         MDL         Unit           ND         1.0         0.11         ug/L           ND         1.0         0.23         ug/L           ND         1.0         0.15         ug/L	ResultQualifierRLMDLUnitDPreparedND1.00.11ug/L0.11ug/L0.11ug/L0.11	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           ND         1.0         0.11         ug/L         04/25/12 17:29         04/25/12 17:29           ND         1.0         0.23         ug/L         04/25/12 17:29           ND         1.0         0.15         ug/L         04/25/12 17:29				

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114	64 - 135		04/25/12 17:29	1
Toluene-d8 (Surr)	100	71_118		04/25/12 17:29	1
4-Bromofluorobenzene (Surr)	82	70_118		04/25/12 17:29	1
Dibromofluoromethane (Surr)	115	70 - 128		04/25/12 17:29	1

#### Client Sample ID: RINSE BLANK-041812 Date Collected: 04/18/12 12:45

#### Date Received: 04/20/12 09:15

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.11	ug/L			04/25/12 09:57	1
Ethylbenzene	ND		1.0	0.23	ug/L			04/25/12 09:57	1
Toluene	0.16	J	1.0	0.15	ug/L			04/25/12 09:57	1
Xylenes, Total	ND		3.0	0.49	ug/L			04/25/12 09:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		64 _ 135			-		04/25/12 09:57	1
Toluene-d8 (Surr)	105		71_118					04/25/12 09:57	1
4-Bromofluorobenzene (Surr)	83		70 - 118					04/25/12 09:57	1
Dibromofluoromethane (Surr)	117		70 - 128					04/25/12 09:57	1

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.9	0.14	ug/L		04/23/12 08:53	04/24/12 18:14	1
Acenaphthylene	ND		1.9	0.15	ug/L		04/23/12 08:53	04/24/12 18:14	1
Anthracene	ND		1.9	0.15	ug/L		04/23/12 08:53	04/24/12 18:14	1
Benzo[a]anthracene	ND		1.9	0.14	ug/L		04/23/12 08:53	04/24/12 18:14	1
Benzo[a]pyrene	ND		1.9	0.13	ug/L		04/23/12 08:53	04/24/12 18:14	1
Benzo[b]fluoranthene	ND		1.9	0.15	ug/L		04/23/12 08:53	04/24/12 18:14	1

TestAmerica Job ID: 180-10000-1

Lab Sample ID: 180-10000-17

Lab Sample ID: 180-10000-18

Matrix: Water

Matrix: Water

# 2 3 4 5 6 7

8

# Lab Sample ID: 180-10000-19

Matrix: Water

# Client Sample ID: RINSE BLANK-041812 Date Collected: 04/18/12 12:45

TestAmerica Job ID: 180-10000-1

# Lab Sample ID: 180-10000-19 Matrix: Water

Date Received: 04/20/12 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		1.9	0.15	ug/L		04/23/12 08:53	04/24/12 18:14	1
Benzo[k]fluoranthene	ND		1.9	0.53	ug/L		04/23/12 08:53	04/24/12 18:14	1
Chrysene	ND		1.9	0.13	ug/L		04/23/12 08:53	04/24/12 18:14	1
Dibenz(a,h)anthracene	ND		1.9	0.15	ug/L		04/23/12 08:53	04/24/12 18:14	1
Fluoranthene	ND		1.9	0.16	ug/L		04/23/12 08:53	04/24/12 18:14	1
Fluorene	ND		1.9	0.21	ug/L		04/23/12 08:53	04/24/12 18:14	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.19	ug/L		04/23/12 08:53	04/24/12 18:14	1
Naphthalene	ND		1.9	0.13	ug/L		04/23/12 08:53	04/24/12 18:14	1
Phenanthrene	ND		1.9	0.41	ug/L		04/23/12 08:53	04/24/12 18:14	1
Pyrene	ND		1.9	0.15	ug/L		04/23/12 08:53	04/24/12 18:14	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0016	mg/L		05/01/12 10:05	05/01/12 13:48	1
Cyanide, Free	1.2	J۸	2.0	0.54	ug/L		04/26/12 06:00	04/26/12 12:00	1

8

Lab Sample ID: MB 180-34171/4

Matrix: Water

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 34171

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

MB MB Result Qualifier

ND

ND

ND

ND

**Client Sample ID: Method Blank** 

Analyzed

04/25/12 08:59

04/25/12 08:59

04/25/12 08:59

04/25/12 08:59

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Type: Total/NA

Q

# Dil Fac 1 1 1 1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		64 - 135		04/25/12 08:59	1
Toluene-d8 (Surr)	98		71 - 118		04/25/12 08:59	1
4-Bromofluorobenzene (Surr)	93		70 - 118		04/25/12 08:59	1
Dibromofluoromethane (Surr)	113		70 - 128		04/25/12 08:59	1

RL

1.0

1.0

1.0

3.0

MDL Unit

0.11 ug/L

0.23 ug/L

0.15 ug/L

0.49 ug/L

D

Prepared

#### Lab Sample ID: LCS 180-34171/7 Matrix: Water

Wallix. Waler	
Analysis Batch: 34171	

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	10.0	10.5		ug/L		105	80 - 120	 
Ethylbenzene	10.0	10.0		ug/L		100	72 _ 126	
Toluene	10.0	10.7		ug/L		107	80 - 123	
Xylenes, Total	30.0	30.9		ug/L		103	76 <sub>-</sub> 128	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			64 - 135
Toluene-d8 (Surr)	106		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	107		70 - 128

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-33897/1-A Matrix: Water Analysis Batch: 34141	мв	МВ					Client Sa	mple ID: Metho Prep Type: T Prep Batch	otal/NA
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.0	0.14	ug/L		04/23/12 08:51	04/24/12 12:16	1
Acenaphthylene	ND		2.0	0.15	ug/L		04/23/12 08:51	04/24/12 12:16	1
Anthracene	ND		2.0	0.15	ug/L		04/23/12 08:51	04/24/12 12:16	1
Benzo[a]anthracene	ND		2.0	0.15	ug/L		04/23/12 08:51	04/24/12 12:16	1
Benzo[a]pyrene	ND		2.0	0.13	ug/L		04/23/12 08:51	04/24/12 12:16	1
Benzo[b]fluoranthene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 12:16	1
Benzo[g,h,i]perylene	ND		2.0	0.15	ug/L		04/23/12 08:51	04/24/12 12:16	1
Benzo[k]fluoranthene	ND		2.0	0.55	ug/L		04/23/12 08:51	04/24/12 12:16	1
Chrysene	ND		2.0	0.14	ug/L		04/23/12 08:51	04/24/12 12:16	1
Dibenz(a,h)anthracene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 12:16	1
Fluoranthene	ND		2.0	0.16	ug/L		04/23/12 08:51	04/24/12 12:16	1
Fluorene	ND		2.0	0.22	ug/L		04/23/12 08:51	04/24/12 12:16	1
Indeno[1,2,3-cd]pyrene	ND		2.0	0.20	ug/L		04/23/12 08:51	04/24/12 12:16	1
Naphthalene	ND		2.0	0.14	ug/L		04/23/12 08:51	04/24/12 12:16	1
Phenanthrene	ND		2.0	0.43	ug/L		04/23/12 08:51	04/24/12 12:16	1

# Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-33897/1-A Matrix: Water											Client S	ample ID: Meth Prep Type:	
Analysis Batch: 34141												Prep Bate	h: 33897
	MB	MB											
Analyte	Result	Qualifier		RL		MDL	Unit		D	P	repared	Analyzed	Dil Fac
Pyrene	ND			2.0		0.16	ug/L			04/2	3/12 08:51	04/24/12 12:16	1
Lab Sample ID: LCS 180-33897/2-A Matrix: Water Analysis Batch: 34141									С	lient	Sample	ID: Lab Contro Prep Type: Prep Bate	Total/NA
			Spike		LCS	LCS						%Rec.	
Analyte			Added		Result	Qual	ifier	Unit		D	%Rec	Limits	

**QC Sample Results** 

Acenaphthylene	200	179	ug/L	90	40 - 113	
Anthracene	200	174	ug/L	87	37 - 108	
Benzo[a]anthracene	200	160	ug/L	80	40 - 103	
Benzo[a]pyrene	200	171	ug/L	86	37 - 105	
Benzo[b]fluoranthene	200	165	ug/L	83	35 - 100	
Benzo[g,h,i]perylene	200	168	ug/L	84	31 - 118	
Benzo[k]fluoranthene	200	169	ug/L	85	37 _ 108	
Chrysene	200	157	ug/L	79	39 - 103	
Dibenz(a,h)anthracene	200	181	ug/L	91	32 _ 117	
Fluoranthene	200	170	ug/L	85	35 <sub>-</sub> 111	
Fluorene	200	178	ug/L	89	39 - 107	
Indeno[1,2,3-cd]pyrene	200	173	ug/L	86	32 _ 116	
Naphthalene	200	152	ug/L	76	35 - 98	
Phenanthrene	200	176	ug/L	88	34 - 107	
Pyrene	200	176	ug/L	88	36 - 115	

#### Lab Sample ID: LCSD 180-33897/3-A Matrix: Water Analysis Batch: 34141

#### Client Sample ID: Lab Control Sample Dup

#### Prep Type: Total/NA Prep Batch: 33897

Analysis Batch: 34141							Prep	Batch:	33897
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene		159		ug/L		79	39 _ 106	6	32
Acenaphthylene	200	177		ug/L		88	40 _ 113	2	33
Anthracene	200	173		ug/L		86	37 - 108	1	40
Benzo[a]anthracene	200	171		ug/L		85	40 - 103	7	33
Benzo[a]pyrene	200	185		ug/L		92	37 _ 105	8	35
Benzo[b]fluoranthene	200	185		ug/L		92	35 _ 100	11	44
Benzo[g,h,i]perylene	200	177		ug/L		89	31 _ 118	5	45
Benzo[k]fluoranthene	200	168		ug/L		84	37 - 108	1	42
Chrysene	200	161		ug/L		81	39 - 103	2	38
Dibenz(a,h)anthracene	200	189		ug/L		94	32 - 117	4	43
Fluoranthene	200	160		ug/L		80	35 _ 111	6	43
Fluorene	200	173		ug/L		87	39 _ 107	3	33
Indeno[1,2,3-cd]pyrene	200	180		ug/L		90	32 - 116	4	45
Naphthalene	200	163		ug/L		81	35 - 98	7	39
Phenanthrene	200	168		ug/L		84	34 - 107	5	34
Pyrene	200	179		ug/L		89	36 _ 115	1	38

RL

0.010

MDL Unit

0.0016 mg/L

MB MB Result Qualifier

ND

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 180-34695/5-A

Lab Sample ID: HLCS 180-34695/2-A

Lab Sample ID: LCS 180-34695/3-A

Lab Sample ID: LCSD 180-34695/4-A

Lab Sample ID: LLCS 180-34695/1-A

Matrix: Water

Analyte

Analyte Cyanide, Total

Analyte Cyanide, Total

Analyte Cyanide, Total

Analyte

Cyanide, Total

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Analysis Batch: 34746

Analyzed

Prep Type: Total/NA

9

# **Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 34695 Dil Fac 05/01/12 10:05 05/01/12 13:40 1 Client Sample ID: Lab Control Sample

3469	Batch:	Prep						
		%Rec.				HLCS	HLCS	Spike
		Limits	%Rec	D	Unit	Qualifier	Result	Added
		90 - 110	100		mg/L		0.249	0.250
ampl	ontrol Sa	ID: Lab Co	Sample	Client				
tal/N/	ype: Tot	Prep T						
3469	Batch:	Prep						
		%Rec.				LCS	LCS	Spike
		Limits	%Rec	D	Unit	Qualifier	Result	Added
tal/N/	ype: Tot		100 nple ID: I	ent Sam	mg/L		0.201	0.200
tal/N/		_ab Contro Prep T		ent Sam	mg/L	LCSD	0.201 LCSD	0.200 Spike
tal/N/ 3469	ype: Tot	₋ab Contro Prep T Prep		ent Sam	mg/L	LCSD Qualifier	LCSD	
tal/N/ 3469 RP	ype: Tot Batch: 3	_ab Contro Prep T Prep %Rec.	nple ID: I		mg/L		LCSD	Spike
tal/N/ 3469 RP Lim 2	ype: Tot Batch: 3 	_ab Contro Prep T Prep %Rec. Limits	<b>%Rec</b> 102	D	mg/L Clic		LCSD Result	Spike
tal/N/ 3469 RP Lim 2 ampl	ype: Tot Batch: 3 	Lab Contro Prep T Prep %Rec. Limits 90 - 110	<b>%Rec</b> 102	D	mg/L Clic		LCSD Result	Spike
tal/N/ 3469 RP Lim 2 ampl tal/N/	ype: Tot Batch: 3 RPD 1 ontrol Sa	Lab Contro Prep T Prep %Rec. Limits 90 - 110 ID: Lab Co Prep T	<b>%Rec</b> 102	D	mg/L Clic		LCSD Result	Spike
tal/N/ 3469 RP Lim 2 ampl tal/N/	ype: Tot Batch: 3 RPD 1 ontrol Sa ype: Tot	Lab Contro Prep T Prep %Rec. Limits 90 - 110 ID: Lab Co Prep T	<b>%Rec</b> 102	D	mg/L Clic	Qualifier	LCSD Result	Spike
tal/N/ 3469 RP Lim 2 ampl tal/N/	ype: Tot Batch: 3 RPD 1 ontrol Sa ype: Tot	Lab Contro Prep T Prep %Rec. Limits 90 - 110 ID: Lab Co Prep T Prep	<b>%Rec</b> 102	D	mg/L Clic	Qualifier	LCSD Result 0.203	Spike Added 0.200

D

Prepared

Cyanide, Total			0.0500		0.0471			mg/L		94	90 - 110	
Lab Sample ID: MB 180-34954/5-A										Client S	ample ID: Meth	od Blank
Matrix: Water											Prep Type:	Total/NA
Analysis Batch: 35025											Prep Bato	h: 34954
	МВ	МВ										
Analyte	Result	Qualifier		RL		MDL	Unit		D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND			0.010	0.	0016	mg/L		05	6/03/12 08:25	05/03/12 10:37	1
Lab Sample ID: HLCS 180-34954/2-A									Clie	nt Sample	ID: Lab Contro	Sample
Matrix: Water											Prep Type:	Total/NA
Analysis Batch: 35025											Prep Bato	
			Spike		HLCS	HLCS	;				%Rec.	
Analyte			Added		Result	Quali	fier	Unit	D	%Rec	Limits	
Cyanide, Total			0.250		0.247			mg/L		99	90 - 110	
									0			
Lab Sample ID: LCS 180-34954/3-A									Cile	nt Sample	ID: Lab Contro	

Matrix: Water							Prep T	ype: Total/NA
Analysis Batch: 35025							Prep	Batch: 34954
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyanide, Total	0.200	0.186		mg/L		93	90 - 110	

Matrix: Water

# 1 2 3 4 5 6 7 8 9 10 11 12

Method: 335.4 - Cyanide, Total (Continued)

_ Lab Sample ID: LCSD 180-34954/4-/	<b>4</b>								С	lient Sa	am	ple ID: L	ab Control	Sampl	e Dup
Matrix: Water													Prep Ty		
Analysis Batch: 35025													Prep E		
-				Spike		LCSD	LCSD	)					%Rec.		RPD
Analyte				Added		Result	Quali	fier	Unit	[	C	%Rec	Limits	RPD	Limi
Cyanide, Total				0.200		0.187			mg/L			94	90 - 110	0	20
- Lab Sample ID: LLCS 180-34954/1-4	4									Clie	nt	Sample	ID: Lab Cor	trol S	ample
Matrix: Water													Prep Ty	be: To	tal/NA
Analysis Batch: 35025													Prep E	atch:	3495
				Spike		LLCS	LLCS	;					%Rec.		
Analyte				Added		Result	Quali	fier	Unit	[	D	%Rec	Limits		
Cyanide, Total				0.0500		0.0493			mg/L			99	90 - 110		
Method: 9016 - Cyanide, Free															
Lab Sample ID: MB 460-111156/1-A												Client Sa	ample ID: M	ethod	Blanl
Matrix: Water													Prep Ty		
Analysis Batch: 111160													Prep Ba		
-		MB MB													
Analyte	R	lesult Quali	ifier		RL		MDL	Unit		D	Pı	repared	Analyzed	I	Dil Fa
Cyanide, Free		ND			2.0		0.54	ug/L		04	4/20	6/12 06:00	04/26/12 12	:00	
- Lab Sample ID: LCS 460-111156/2-4	4									Clie	nt	Sample	ID: Lab Cor	trol S	ample
Matrix: Water													Prep Ty	be: To	tal/N/
Analysis Batch: 111160													Prep Ba	tch: 1	1115
				Spike		LCS	LCS						%Rec.		
Analyte				Added		Result	Quali	fier	Unit		כ	%Rec	Limits		
Cyanide, Free				50.0		40.3			ug/L			81	70 - 130		
-															
Lab Sample ID: 180-10000-4 MS											C	Client Sa	mple ID: MV	V-12-0	41812
Lab Sample ID: 180-10000-4 MS Matrix: Water											(	Client Sa	mple ID: MV Prep Ty		
the second s											(	Client Sa		be: To	tal/NA
Matrix: Water	Sample	Sample		Spike		MS	MS				(	Client Sa	Prep Ty	be: To	tal/NA
Matrix: Water		Qualifier		Spike Added		MS Result 79.4	Quali	fier	Unit	I	0	%Rec	Prep Ty Prep Ba	be: To	tal/NA

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Cyanide, Free	10	٨	50.0	79.4	F	ug/L		138	70 - 130		
Γ											
Lab Sample ID: 180-10000-4 MSI	)							Client Sa	ample ID: N	/W-12-0	41812
Matrix: Water									Prep T	ype: To	tal/NA
Analysis Batch: 111160									Prep I	Batch: 1	11156
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Free	10	٨	50.0	73.0		ug/L		125	70 - 130	8	20
Lab Sample ID: DLCK 460-11116	0/10 DLCK	C C					Client	Sample	ID: Lab Co	ontrol S	ample

# Prep Type: Total/NA

Analysis Batch: 111160								
	Spike	DLCK	DLCK				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyanide, Free	2.00	2.50		ug/L		125	50 _ 150	

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

TestAmerica Job ID: 180-10000-1

# GC/MS VOA

#### Analysis Batch: 34171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
180-10000-1	MW-07-041812	Total/NA	Water	8260B	
180-10000-2	MW-10-041812	Total/NA	Water	8260B	
180-10000-3	MW-11A-041812	Total/NA	Water	8260B	
180-10000-8	MW-17-041812	Total/NA	Water	8260B	
180-10000-9	MW-19-041812	Total/NA	Water	8260B	
180-10000-14	DUPLICATE-041812	Total/NA	Water	8260B	
180-10000-16	SW-01-041912	Total/NA	Water	8260B	
180-10000-17	SW-02-041812	Total/NA	Water	8260B	
180-10000-18	TRIP BLANK-041812	Total/NA	Water	8260B	
180-10000-19	RINSE BLANK-041812	Total/NA	Water	8260B	
-CS 180-34171/7	Lab Control Sample	Total/NA	Water	8260B	
VB 180-34171/4	Method Blank	Total/NA	Water	8260B	

#### GC/MS Semi VOA

#### Prep Batch: 33897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-1	MW-07-041812	Total/NA	Water	3520C	
180-10000-2	MW-10-041812	Total/NA	Water	3520C	
180-10000-3	MW-11A-041812	Total/NA	Water	3520C	
180-10000-8	MW-17-041812	Total/NA	Water	3520C	
180-10000-9	MW-19-041812	Total/NA	Water	3520C	
180-10000-9 - DL	MW-19-041812	Total/NA	Water	3520C	
180-10000-14	DUPLICATE-041812	Total/NA	Water	3520C	
180-10000-14 - DL	DUPLICATE-041812	Total/NA	Water	3520C	
180-10000-16	SW-01-041912	Total/NA	Water	3520C	
180-10000-17	SW-02-041812	Total/NA	Water	3520C	
180-10000-19	RINSE BLANK-041812	Total/NA	Water	3520C	
LCS 180-33897/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 180-33897/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 180-33897/1-A	Method Blank	Total/NA	Water	3520C	

#### Analysis Batch: 34141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-1	MW-07-041812	Total/NA	Water	8270C	33897
180-10000-2	MW-10-041812	Total/NA	Water	8270C	33897
180-10000-3	MW-11A-041812	Total/NA	Water	8270C	33897
180-10000-8	MW-17-041812	Total/NA	Water	8270C	33897
180-10000-9	MW-19-041812	Total/NA	Water	8270C	33897
180-10000-14	DUPLICATE-041812	Total/NA	Water	8270C	33897
180-10000-16	SW-01-041912	Total/NA	Water	8270C	33897
180-10000-17	SW-02-041812	Total/NA	Water	8270C	33897
180-10000-19	RINSE BLANK-041812	Total/NA	Water	8270C	33897
LCS 180-33897/2-A	Lab Control Sample	Total/NA	Water	8270C	33897
LCSD 180-33897/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	33897
MB 180-33897/1-A	Method Blank	Total/NA	Water	8270C	33897

#### Analysis Batch: 34262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-9 - DL	MW-19-041812	Total/NA	Water	8270C	33897
180-10000-14 - DL	DUPLICATE-041812	Total/NA	Water	8270C	33897

#### GC/MS Semi VOA (Continued)

#### Analysis Batch: 34378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-1	MW-07-041812	Total/NA	Water	8270C	33897

## **General Chemistry**

#### Prep Batch: 34695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-4	MW-12-041812	Total/NA	Water	Distill/CN	
180-10000-8	MW-17-041812	Total/NA	Water	Distill/CN	
180-10000-10	MW-20-041812	Total/NA	Water	Distill/CN	
180-10000-12	MW-22-041812	Total/NA	Water	Distill/CN	
180-10000-13	MW-23-041812	Total/NA	Water	Distill/CN	
180-10000-17	SW-02-041812	Total/NA	Water	Distill/CN	
180-10000-19	RINSE BLANK-041812	Total/NA	Water	Distill/CN	
HLCS 180-34695/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 180-34695/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 180-34695/4-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
LLCS 180-34695/1-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 180-34695/5-A	Method Blank	Total/NA	Water	Distill/CN	

#### Analysis Batch: 34746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-4	MW-12-041812	Total/NA	Water	335.4	34695
180-10000-8	MW-17-041812	Total/NA	Water	335.4	34695
180-10000-10	MW-20-041812	Total/NA	Water	335.4	34695
180-10000-12	MW-22-041812	Total/NA	Water	335.4	34695
180-10000-13	MW-23-041812	Total/NA	Water	335.4	34695
180-10000-17	SW-02-041812	Total/NA	Water	335.4	34695
180-10000-19	RINSE BLANK-041812	Total/NA	Water	335.4	34695
HLCS 180-34695/2-A	Lab Control Sample	Total/NA	Water	335.4	34695
LCS 180-34695/3-A	Lab Control Sample	Total/NA	Water	335.4	34695
LCSD 180-34695/4-A	Lab Control Sample Dup	Total/NA	Water	335.4	34695
LLCS 180-34695/1-A	Lab Control Sample	Total/NA	Water	335.4	34695
MB 180-34695/5-A	Method Blank	Total/NA	Water	335.4	34695

#### Prep Batch: 34954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-5	MW-13-041912	Total/NA	Water	Distill/CN	
180-10000-6	MW-14-041912	Total/NA	Water	Distill/CN	
180-10000-7	MW-16-041912	Total/NA	Water	Distill/CN	
180-10000-11	MW-21-041912	Total/NA	Water	Distill/CN	
180-10000-15	MW-116-041912	Total/NA	Water	Distill/CN	
180-10000-16	SW-01-041912	Total/NA	Water	Distill/CN	
HLCS 180-34954/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 180-34954/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 180-34954/4-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
LLCS 180-34954/1-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 180-34954/5-A	Method Blank	Total/NA	Water	Distill/CN	

#### Analysis Batch: 35025

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
180-10000-5	MW-13-041912	Total/NA	Water	335.4	34954
180-10000-6	MW-14-041912	Total/NA	Water	335.4	34954

TestAmerica Job ID: 180-10000-1

# **General Chemistry (Continued)**

# Analysis Batch: 35025 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-7	MW-16-041912	Total/NA	Water	335.4	34954
180-10000-11	MW-21-041912	Total/NA	Water	335.4	34954
180-10000-15	MW-116-041912	Total/NA	Water	335.4	34954
180-10000-16	SW-01-041912	Total/NA	Water	335.4	34954
HLCS 180-34954/2-A	Lab Control Sample	Total/NA	Water	335.4	34954
LCS 180-34954/3-A	Lab Control Sample	Total/NA	Water	335.4	34954
LCSD 180-34954/4-A	Lab Control Sample Dup	Total/NA	Water	335.4	34954
LLCS 180-34954/1-A	Lab Control Sample	Total/NA	Water	335.4	34954
MB 180-34954/5-A	Method Blank	Total/NA	Water	335.4	34954

#### Prep Batch: 111156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-4	MW-12-041812	Total/NA	Water	9016	
180-10000-4 MS	MW-12-041812	Total/NA	Water	9016	
180-10000-4 MSD	MW-12-041812	Total/NA	Water	9016	
180-10000-5	MW-13-041912	Total/NA	Water	9016	
180-10000-6	MW-14-041912	Total/NA	Water	9016	
180-10000-7	MW-16-041912	Total/NA	Water	9016	
180-10000-8	MW-17-041812	Total/NA	Water	9016	
180-10000-10	MW-20-041812	Total/NA	Water	9016	
180-10000-11	MW-21-041912	Total/NA	Water	9016	
180-10000-12	MW-22-041812	Total/NA	Water	9016	
180-10000-13	MW-23-041812	Total/NA	Water	9016	
180-10000-15	MW-116-041912	Total/NA	Water	9016	
180-10000-16	SW-01-041912	Total/NA	Water	9016	
180-10000-17	SW-02-041812	Total/NA	Water	9016	
180-10000-19	RINSE BLANK-041812	Total/NA	Water	9016	
LCS 460-111156/2-A	Lab Control Sample	Total/NA	Water	9016	
MB 460-111156/1-A	Method Blank	Total/NA	Water	9016	

#### Analysis Batch: 111160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-10000-4	MW-12-041812	Total/NA	Water	9016	111156
180-10000-4 MS	MW-12-041812	Total/NA	Water	9016	111156
180-10000-4 MSD	MW-12-041812	Total/NA	Water	9016	111156
180-10000-5	MW-13-041912	Total/NA	Water	9016	111156
180-10000-6	MW-14-041912	Total/NA	Water	9016	111156
180-10000-7	MW-16-041912	Total/NA	Water	9016	111156
180-10000-8	MW-17-041812	Total/NA	Water	9016	111156
180-10000-10	MW-20-041812	Total/NA	Water	9016	111156
180-10000-11	MW-21-041912	Total/NA	Water	9016	111156
180-10000-12	MW-22-041812	Total/NA	Water	9016	111156
180-10000-13	MW-23-041812	Total/NA	Water	9016	111156
180-10000-15	MW-116-041912	Total/NA	Water	9016	111156
180-10000-16	SW-01-041912	Total/NA	Water	9016	111156
180-10000-17	SW-02-041812	Total/NA	Water	9016	111156
180-10000-19	RINSE BLANK-041812	Total/NA	Water	9016	111156
DLCK 460-111160/10 DLCK	Lab Control Sample	Total/NA	Water	9016	
LCS 460-111156/2-A	Lab Control Sample	Total/NA	Water	9016	111156
MB 460-111156/1-A	Method Blank	Total/NA	Water	9016	111156

TAL-0018 (1008)								©2006, TosuAmorica Laboratohtes, Inc. /All rights reserved.	
Date/Time:	Company:		Received in Laboratory by:		Date/Time:		Company:	Relinquished by:	
Date/Time:	Company:		Received by:	11.10	Date/Time:	Ecòn	Company:	Relinquished by:	
	For Months	posal By Lab Archive For	Sample Disposal ( A tee may be assessed in Return to Client Disp	Sample Dispose	Unknown	Poison B	Skin Irritant	Special Instructions/QC Requirements & Comments:	
				C	×	01:91 -	4/18/12	MW-20-041812	
		XX	2		×	1345	4/18/12	218140 - 61 - MW	< <
		XXXX	2 2	3	×	1300	4/12	MW-17-041812	হ
		XX	2		×	930	21/19/12	MW - 16 - 041912	<
		XX	2		*	- 10:45	4/19/12	MW - 14 - 041912	<
		××	2		*	1045	04/19/12	216160 - 91 - MW	<
		XX	2		×	21445-	4/18/12/445	1 mw - 12 - 041812	. <
		XX	2	2	×.	1200	4/17/12	MW-11A - 041812	K
		×. ×	7	3	×	1100	4/18/12	218140 - 01 - MM	<
		XX	2	US US	×	11,00	4/18/12	2181ho - 40 - mW	<
Sample Specific Notes / Special Instructions:		Pillepied S Compose BTEX PAHS Total FREE	NaOH ZnAc/ NaOH Unpres Other:	H2SO4 HNO3 HC1	Aqueous . Sediment Solid Other:	Sample Time	Sample Date	Sample Identification	
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Jab/SDG No.		Grabed u le chd N C	☐ 2 days	ПП		king No:	Shipping/Tracking No:	40-025	
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		C. A  7.92	from below	TAT if different from below				Phone: 716 - 836 - 4506	
For lab use only	na	5	Analysis Turnaround Time		A Trnarg, Raby C	C@Not Fuel i com		nerst, NV	
1_ of <u>Z</u> , cocs	8505 ~	$\begin{pmatrix} Telephone: \\ (412) & 963 \end{pmatrix}$	36 45-66	(716) 836	716-536-4506	1552 - 128 ::	Telephone: 716 - 8:	100 Corposite Pluny Ste 341	
COC No:	n lar	Lab Contact: Dq.v.e. Duin	Reiby	Site Contact: Tamara		T Series	Client Project Manager: Ch ei rlet Burke National Fyel	AECOM	
TestAmerica Laboratories, Inc	·	Other	RCRA	I NPDES	*	ttory program:	Keguia	Client Contact	
HESTAMETICO			]	of Custod	Chain PITTS	atory location:	TestAmerica Laboratory location:	-	
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Relinquished by:	Relinquished by:	Possible Hazard Identification	AINSE DIGNE OUBIC	Icnk 1	SW - 02 - 041812	5W-01-041912	MW - 116 - 041912	Duplicate - 041812	MW - 23 - 041812	MW- 22 - 04/8/2	mw-a1 - 04/912	Sample Identification	002 - 520 06 #01	[11] Neral	N-958-4	Ĩ.	100 Corporate Ptwy ste34	Address	Client Contact	TestA
Company:	Company: Company:	Skin Irritant 🔲 Poison B	4/18/1 - 1/8/1	1/18/12	y/18/12 ilys	4/11/1× 940	4/17/12 925	02;6 21/81/h	4/18/12 12:30	4/Kg/12 1615	4/19/12 940	Sample Date Sample Time A		Shipping/Tracking No:	Method of Shipment/Carrier:	gra, Rapy	716 - 836			TestAmerica Laboratory location:
Date/Time:	Date/Time:	Unknown Sample Dispo	> 		× 	(j)	×	X 3	×	×	×	Aqueous Sediment Solid Other: H2SO4 HNO3 HC1				C 98 COM. Con Analysis Turnarou Un BUS days) TAT ir different from below	-42-06 (716) (716) 83	<u>↓</u> "		Chain of Custody Record
Received in Laboratory by:	Received by; Received by;	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Return to Clicat Disposal By Lab Archive For Archive For		× × >		2 2 X	2					NaOH ZnAc/ NaOH Unpres Other: Filtered S Composit BTEX	e=C/Gr - 10w	ab=G level	eks eks SZGOB		11) 705 14	AMA KA RABY Dqu		N GH
Company:	Company: Company:	ined longer than 1 month)		<	XXX	X X Y	XX	× 	××	× ×	XX	PAHS Total Free	(sc)	V 90	IZA		8526- 696 (21h)	ave Jun 19p.		
Date/Time:	Date/Time: $\frac{1}{2}$ Date/Time: Date/Time:	Months										Sample Specific Notes / Special Instructions:		Job/SDG No.	Tap bickob Tap bickob Tap area a second	For lab user only	<u>2</u> of <u>2</u> cocs	COC No:	TestAmerica Laboratories, Inc.	TestAmerica

5/8/2012

TAL-0018 (1008)

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11

Temperature readings: \_

# Login Container Summary Report

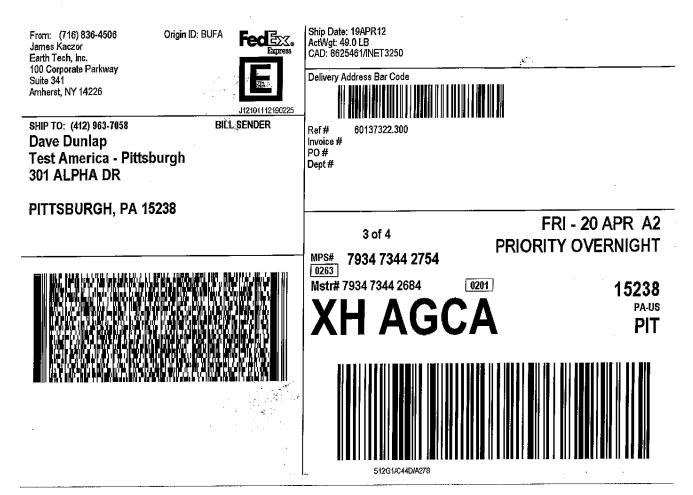
180-10000

Client Sample ID	Lab ID	Container Type	<u>Container</u> <u>pH</u>	Preservative Added (mls)	<u>Lot #</u>
MW-07-041812	180-10000-A-1	Amber Glass 1 liter - unpreserved	· · · · ·		·
MW-07-041812	180-10000-B-1	Amber Glass 1 liter - unpreserved	· · <u> </u>		
MW-07-041812	180-10000-C-1	Voa Vial 40ml - Hydrochloric Acid	α. <u>.</u>	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
MW-07-041812	180-10000-D-1	Voa Vial 40ml - Hydrochloric Acid	<u> </u>	<u> </u>	
MW-07-041812	180-10000-E-1	Voa Vial 40ml - Hydrochloric Acid	4		. <u> </u>
MW-10-041812	180-10000-A-2	Amber Glass 1 liter - unpreserved			
MW-10-041812	180-10000-В-2	Amber Glass 1 liter - unpreserved			·
MW-10-041812	180-10000-C-2	Voa Vial 40ml - Hydrochloric Acid	<u>p</u>		<b>_</b>
MW-10-041812	180-10000-D-2	Voa Vial 40ml - Hydrochloric Acid			· · · ·
MW-10-041812	180-10000-Е-2	Voa Vial 40ml - Hydrochloric Acid	$\checkmark$	. <u> </u>	
MW-11A-041812	180-10000-A-3	Amber Glass 1 liter - unpreserved	·		· .
MW-11A-041812	180-10000-В-3	Amber Glass 1 liter - unpreserved	· ·		
MW-11A-041812	180-10000-C-3	Voa Vial 40ml - Hydrochloric Acid	P		
MW-11A-041812	180-10000-D-3	Voa Vial 40ml - Hydrochloric Acid	· <u> </u>	<u> </u>	· .
MW-11A-041812	180-10000-Е-3	Voa Vial 40ml - Hydrochloric Acid	2	. <u></u>	·
MW-12-041812	180-10000-A-4	Amber Plastic 250mL - NaOH	5		
MW-12-041812	180-10000-В-4	Amber Plastic 250mL - NaOH	· ]		
MW-13-041912	180-10000-A-5	Amber Plastic 250mL - NaOH	· <u>].</u>		
MW-13-041912	180-10000-B-5	Amber Plastic 250mL - NaOH	· [		
MW-14-041912	180-10000-A-6	Amber Plastic 250mL - NaOH	<u> </u>		<u> </u>
MW-14-041912	180-10000-В-6	Amber Plastic 250mL - NaOH	ļ	<u> </u>	
MW-16-041912	180-10000-A-7	Amber Plastic 250mL - NaOH	<u> </u>	<u> </u>	
MW-16-041912	180-10000-В-7	Amber Plastic 250mL - NaOH	$\overline{\Psi}$		
MW-17-041812	180-10000-A-8	Amber Glass 1 liter - unpreserved		<u> </u>	
MW-17-041812	180-10000-B-8	Amber Glass 1 liter - unpreserved	· <u></u>		
MW-17-041812	180-10000-C-8	Amber Plastic 250mL - NaOH	12		·····
MW-17-041812	180-10000-D-8	Amber Plastic 250mL - NaOH	12	. <u></u>	
MW-17-041812	180-10000-Е-8	Voa Vial 40ml - Hydrochloric Acid	P		·
MW-17-041812	180-10000-F-8	Voa Vial 40ml - Hydrochloric Acid	· ·		, <u> </u>
MW-17-041812	180-10000-G-8	Voa Vial 40ml - Hydrochloric Acid	4		. · · ·
MW-19-041812	180-10000-A-9	Amber Glass 1 liter - unpreserved	•	· ·	<u> </u>
MW-19-041812	180-10000-В-9	Amber Glass 1 liter - unpreserved	· · · <u>· · · ·</u>	·	<u> </u>
MW-19-041812	180-10000-C-9	Voa Vial 40ml - Hydrochloric Acid			
MW-19-041812	180-10000-D-9	Voa Vial 40ml - Hydrochloric Acid	· · ·		·
MW-19-041812	180-10000-Е-9	Voa Vial 40ml - Hydrochloric Acid	*	·	
MW-20-041812	180-10000-A-10	Amber Plastic 250mL - NaOH	$\mathcal{L}$		

Page 1 of 3

Client Sample ID	<u>Lab ID</u>	Container Type	<u>Container</u> <u>pH</u>	<u>Preservative</u> Added (mls)	Lot #	1
MW-20-041812	180-10000-B-10	Amber Plastic 250mL - NaOH	R		· ·	
MW-21-041912	180-10000-A-11	Amber Plastic 250mL - NaOH	$\frac{1}{1}$		<u>.</u>	3
MW-21-041912	180-10000-В-11	Amber Plastic 250mL - NaOH				4
MW-22-041912 MW-22-041812	180-10000-A-12	Amber Plastic 250mL - NaOH				-
MW-22-041812	180-10000-В-12	Amber Plastic 250mL - NaOH				5
MW-23-041812	180-10000-A-13	Amber Plastic 250mL - NaOH	+		· · · · · · ·	6
MW-23-041812	180-10000-A-13	Amber Plastic 250mL - NaOH	at a			-7
DUPLICATE-041812	180-10000-A-14	Amber Glass 1 liter - unpreserved			· · · · · · · · ·	
DUPLICATE-041812	180-10000-А-14 180-10000-В-14	Amber Glass 1 liter - unpreserved	<u> </u>			8
· · · · ·	180-10000-C-14	Voa Vial 40ml - Hydrochloric Acid	0	· · · · · · · · · · · · · · · · · · ·	·	0
DUPLICATE-041812	180-10000-C-14	Voa Vial 40ml - Hydrochloric Acid	ć			. 9
DUPLICATE 041812	180-10000-E-14	Voa Vial 40ml - Hydrochloric Acid				10
DUPLICATE-041812		Amber Plastic 250mL - NaOH			· · · ·	44
MW-116-041912	180-10000-A-15	Amber Plastic 250mL - NaOH	R		<u> </u>	
MW-116-041912	180-10000-B-15	·	<u>,</u> _		<u></u>	12
SW-01041912	180-10000-A-16	Amber Glass 1 liter - unpreserved			<u></u>	
SW-01041912	180-10000-B-16	Amber Glass 1 liter - unpreserved	17		·	
SW-01041912	180-10000-C-16	Amber Plastic 250mL - NaOH	12			
SW-01041912	180-10000-D-16	Amber Plastic 250mL - NaOH	~			
SW-01041912	180-10000-E-16	Voa Vial 40ml - Hydrochloric Acid		<u> </u>		
SW-01041912	180-10000-F-16	Voa Vial 40ml - Hydrochloric Acid		· ·		
SW-01041912	180-10000-G-16	Voa Vial 40ml - Hydrochloric Acid	<u>4</u>	<u> </u>		
SW-02041812	180-10000-A-17	Amber Glass 1 liter - unpreserved			<u>.</u>	
SW-02041812	180-10000-B-17	Amber Glass 1 liter - unpreserved				:
SW-02041812	180-10000-C-17	Amber Plastic 250mL - NaOH	<u>R</u> .			
SW-02041812	180-10000-D-17	Amber Plastic 250mL - NaOH	12		· · · · · · · · · · · · · · · · · · ·	
SW-02041812	180-10000-Е-17	Voa Vial 40ml - Hydrochloric Acid	<u> </u>			
SW-02041812	180-10000-F-17	Voa Vial 40ml - Hydrochloric Acid	+	<u> </u>	· · ·	
SW-02041812	180-10000-G-17	Voa Vial 40ml - Hydrochloric Acid	4		·	
TRIP BLANK-041812	180-10000-A-18	Voa Vial 40ml - Hydrochloric Acid	<b> </b>			
TRIP BLANK-041812	180-10000-В-18	Voa Vial 40ml - Hydrochloric Acid	$\downarrow$			ĺ
TRIP BLANK-041812	180-10000-C-18	Voa Vial 40ml - Hydrochloric Acid	¥ 			
RINSE BLANK-041812	180-10000-A-19	Amber Glass 1 liter - unpreserved	<u> </u>		· ·	ļ
RINSE BLANK-041812	180-10000- <b>B-1</b> 9	Amber Glass 1 liter - unpreserved	<u> </u>	. <u> </u>		
RINSE BLANK-041812	180-10000-C-19	Amber Plastic 250mL - NaOH	<u>12</u>	· <u>· · · · · · · · · · · · · · · · · · </u>	<u> </u>	
RINSE BLANK-041812	180-10000-D-19	Amber Plastic 250mL - NaOH	51	· · ·		· [
RINSE BLANK-041812	180-10000-E-19	Voa Vial 40ml - Hydrochloric Acid	<u>f</u>			
RINSE BLANK-041812	180-10000-F-19	Voa Vial 40ml - Hydrochloric Acid			<u>.</u>	
RINSE BLANK-041812	180-10000-G-19	Voa Vial 40ml - Hydrochloric Acid	+			

4/19/29/8/2012



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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

https://www.fedex.com/shipping/html/en//Print

From: (716) 836-4506 James Kaczor Earth Tech, Inc. 100 Corporate Parkway Suite 341 Amherst, NY 14226	Ship Date: 19APR12 ActWg: 49.0 LB CAD: 8625461/INET3250 Delivery Address Bar Code
SHIP TO: (412) 963-7058 BILL SENDER	Ref# 60137322.300
Dave Dunlap Test America - Pittsburgh 301 ALPHA DR	Invoice # PO # Dept #
PITTSBURGH, PA 15238	
	4 of 4 MPS# 7934 7344 2835 FRI - 20 APR A2 PRIORITY OVERNIGHT
an a	Mstr# 7934 7344 2684 0201 15238
	XHAGCA PIT
	512G1/C44D/k278

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https://www.fedex.com/shipping/html/en//PrintbErame.htmb

4/19/29/2/2012

From: (716) 836-4506 James Kaczor Earth Tech, Inc. 100 Corporate Parkway Suite 341 Amherst, NY 14226 SHIP TO: (412) 963-7058 BILL SENDER	Ship Date: 19APR12 ActWgt: 49.0 LB CAD: 8625461/INET3250 Delivery Address Bar Code		
Dave Dunlap Test America - Pittsburgh 301 ALPHA DR	Ref # 60137322.300 Invoice # PO # Dept #		
PITTSBURGH, PA 15238	FRI - 20 APR A2		
	2 of 4 MPS# 7934 7344 2651 0263 PRIORITY OVERNIGHT		
	Mstr# 7934 7344 2684 0201 15238 XHAGCA PIT		
	512G1/C44D/A278		

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# Login Sample Receipt Checklist

#### Client: AECOM, Inc.

#### Login Number: 10000 List Number: 1

Creator: Gamber, Tom

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Pittsburgh

Client: AECOM, Inc.

#### Login Number: 10000 List Number: 1 Creator: Villadarez, Gerson Timothy S

Job Number: 180-10000-1

List Source: TestAmerica Edison

List Creation: 04/23/12 12:16 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	1.1°C IR#50
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?	False	
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.	N/A	
Multiphasic samples are not present.	True	

TestAmerica Pittsburgh

Samples do not require splitting or compositing.

Residual Chlorine Checked.

True

N/A

# Login Sample Receipt Checklist

#### Client: AECOM, Inc.

#### Login Number: 10000 List Number: 1

Creator: Gamber, Tom

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Pittsburgh