

US EPA ARCHIVE DOCUMENT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica St. Louis  
13715 Rider Trail North  
Earth City, MO 63045  
Tel: (314)298-8566

TestAmerica Job ID: 160-2984-1  
Client Project/Site: West Lake Landfill

For:  
Engineering Management Support, Inc.  
7220 W. Jefferson AVE  
Suite 406  
Lakewood, Colorado 80235

Attn: Mr. Paul Rosasco

*Rhonda Ridenhower*

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Authorized for release by:  
7/30/2013 11:48:20 AM

Rhonda Ridenhower, Customer Service Manager  
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*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.*



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## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Job ID: 160-2984-1**

**Laboratory: TestAmerica St. Louis**

Narrative

### CASE NARRATIVE

**Client: Engineering Management Support, Inc.**

**Project: West Lake Landfill**

**Report Number: 160-2984-1**

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

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

Per client request to report all analytical runs, analyses included in the package that were not used in the final report were re-analyzed due to QC failures in the analytical sequence

#### RECEIPT

The samples were received on 07/12/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

#### VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples S-8 (160-2984-1), PZ-105-SS (160-2984-2), I-62 (160-2984-3), PZ-114-AS (160-2984-4), D-6 (160-2984-5), S-61 (160-2984-6), I-67 (160-2984-7), I-68 (160-2984-8) and DUPLICATE 04 (160-2984-9) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/17/2013.

#### Analytical batch 61405

The continuing calibration verification (CCV) for 1,2-Dichloroethane, 2-Hexanone, 4-Methyl-2-pentane, Acetone, Chloroethane, and Trichlorofluoromethane associated with batch 61405 recovered above the upper control limit. The samples associated with this CCV

## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Job ID: 160-2984-1 (Continued)

#### Laboratory: TestAmerica St. Louis (Continued)

were non-detects or not reported for the affected analytes; therefore, the data have been reported.

The CCV for 1,2-Dichloroethane-d4 (Surr) was outside of the +/- 20 %D but was within the surrogate recovery requirements.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 61405 recovered outside control limits for the following analytes: 1,2-Dichloroethane, 2-Hexanone, Chloroethane, 4-Methyl-2-pentanone, and Methylene chloride. These analytes were biased high in the LCS and were not detected or not reported in the associated samples; therefore, the data have been reported.

The matrix spike and/or matrix spike duplicate (MS/MSD) recoveries for 2-Hexanone and Chloroethane associated with batch 61405 were outside control limits: D-12 (160-3000-8 MS), D-12 (160-3000-8 MSD). These compounds were not detected above the RL in the associated sample..

The following analyte recovered outside control limits for the LCS/LCSD associated with batch 61405: trans-1,2-Dichloroethene. This analyte was not indicative of a systematic problem and was within the Marginal Exceedance Limits; therefore, the results have been reported and qualified. The MS/MSD had acceptable trans-1,2-Dichloroethene recoveries.

No other difficulties were encountered during the VOCs analysis.

All other quality control parameters were within the acceptance limits.

#### **METALS (ICP)-Total and Dissolved**

Samples S-8 (160-2984-1), PZ-105-SS (160-2984-2), I-62 (160-2984-3), PZ-114-AS (160-2984-4), D-6 (160-2984-5), S-61 (160-2984-6), I-67 (160-2984-7), I-68 (160-2984-8) and DUPLICATE 04 (160-2984-9) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/16/2013 and analyzed on 07/17/2013 and 7/18/2013.

#### Analytical batch 61576

The following samples were diluted to bring the concentration of target analytes (calcium, magnesium, sodium, and iron) within the calibration range. Magnesium also interferes with iron: (160-2984-9 MS), (160-2984-9 MSD), (160-2984-9 SD), D-6 (160-2984-5), DUPLICATE 04 (160-2984-9), I-62 (160-2984-3), I-67 (160-2984-7), I-68 (160-2984-8), PZ-105-SS (160-2984-2), PZ-114-AS (160-2984-4), S-61 (160-2984-6), S-8 (160-2984-1). Elevated reporting limits (RLs) are provided.

#### Analytical batch 61388

The following samples were diluted to bring the concentration of target analytes (calcium, magnesium, and sodium) within the calibration range. Magnesium also interferes with iron: (160-2984-9 MS), (160-2984-9 MSD), (160-2984-9 SD), D-6 (160-2984-5), DUPLICATE 04 (160-2984-9), I-62 (160-2984-3), I-67 (160-2984-7), I-68 (160-2984-8), PZ-105-SS (160-2984-2), PZ-114-AS (160-2984-4), S-61 (160-2984-6), S-8 (160-2984-1). Elevated reporting limits (RLs) are provided.

Due to the high concentration of calcium, the matrix spike / matrix spike duplicate (MS/MSD) for batch 60807 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

The initial calibration verification (ICV) for analytical batch 61388 was above the upper control limit for thallium. The affected samples are ND for thallium and the data is reported with this narrative. The data have been qualified and reported.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### **DISSOLVED MERCURY (CVAA)**

Samples S-8 (160-2984-1), PZ-105-SS (160-2984-2), I-62 (160-2984-3), PZ-114-AS (160-2984-4), D-6 (160-2984-5), S-61 (160-2984-6), I-67 (160-2984-7), I-68 (160-2984-8) and DUPLICATE 04 (160-2984-9) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 07/16/2013 and analyzed on 07/17/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

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### Job ID: 160-2984-1 (Continued)

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#### Laboratory: TestAmerica St. Louis (Continued)

##### TOTAL MERCURY

Samples S-8 (160-2984-1), PZ-105-SS (160-2984-2), I-62 (160-2984-3), PZ-114-AS (160-2984-4), D-6 (160-2984-5), S-61 (160-2984-6), I-67 (160-2984-7), I-68 (160-2984-8) and DUPLICATE 04 (160-2984-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 07/16/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

##### ANIONS

Samples S-8 (160-2984-1), PZ-105-SS (160-2984-2), I-62 (160-2984-3), PZ-114-AS (160-2984-4), D-6 (160-2984-5), S-61 (160-2984-6), I-67 (160-2984-7), I-68 (160-2984-8) and DUPLICATE 04 (160-2984-9) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/13/2013 and 07/16/2013.

The following samples were diluted to bring the concentrations of Chloride and Sulfate within the calibration range in IC batch 62159: D-6 (160-2984-5), DUPLICATE 04 (160-2984-9), I-62 (160-2984-3), I-67 (160-2984-7), I-68 (160-2984-8), PZ-105-SS (160-2984-2), PZ-114-AS (160-2984-4), S-61 (160-2984-6), S-8 (160-2984-1). Elevated reporting limits (RLs) are provided.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

##### ALKALINITY

Samples S-8 (160-2984-1), PZ-105-SS (160-2984-2), I-62 (160-2984-3), PZ-114-AS (160-2984-4), D-6 (160-2984-5), S-61 (160-2984-6), I-67 (160-2984-7), I-68 (160-2984-8) and DUPLICATE 04 (160-2984-9) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 07/26/2013.

No other difficulties were encountered during the alkalinity analysis.

All other quality control parameters were within the acceptance limits.

TestAmerica St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045  
 Phone (314) 298-8566 Fax (314) 298-8757

### Chain of Custody Record

TestAmerica

<b>Client Information</b>		Sampler: <u>Herst &amp; Associates, Inc</u>		Lab PM: <u>Ridenhower, Rhonda E</u>		Carrier Tracking No(s):		COC No: <u>160-499-253.1</u>							
Client Contact: <u>Mr. Paul Rosasco</u>		Phone: <u>636-939-9111</u>		E-Mail: <u>rhonda.ridenhower@testamericainc.com</u>				Page: Page 1 of 10							
Company: <u>Engineering Management Support, Inc.</u>				<b>Analysis Requested</b>				Job #:							
Address: <u>7220 W. Jefferson AVE Suite 406</u>		Due Date Requested:						Preservation Codes:		Total Number of containers					
City: <u>Lakewood</u>		TAT Requested (days):		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 310.1 - Alkalinity- 310.0 300 - Anions- 8010C, 7470A 8280C - VOA 8280C - Standard List Disposed - GCPC, 7470A		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)							
State, Zip: <u>CO, 80235</u>		PO #: <u>Purchase Order not required</u>								Special Instructions/Note: Other:					
Phone:		W/O #:													
Email: <u>paulrosasco@emsidenvr.com</u>		Project #: <u>16002280</u>													
Project Name: <u>West Lake Landfill- July</u>		SSOW#:													
Site:															
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=BIOWASTE, AA=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	310.1 - Alkalinity- 310.0	300 - Anions- 8010C, 7470A	8280C - VOA	8280C - Standard List	Disposed - GCPC, 7470A	Total Number of containers	Special Instructions/Note:	
				Preservation Code:		X	X	N	N	D	A	A	D		
<u>S-8</u>		<u>7/12/13</u>	<u>0923</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>P2-105-SS</u>		<u>↑</u>	<u>0942</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>I-62</u>			<u>0956</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>P2-114-A3</u>			<u>1056</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>D-6</u>			<u>1135</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>S-61</u>			<u>1202</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>I-67</u>			<u>1333</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>I-68</u>			<u>1435</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>Duplicate 04</u>			<u>-</u>	<u>G</u>	<u>Water</u>	X	X	X	X	X	X	X	7		
<u>Trip Blank</u>		<u>7/12/13</u>	<u>-</u>	<u>G</u>	<u>Water</u>					X			3		
					<u>Water</u>										
<b>Possible Hazard Identification</b>						<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:									
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:									
Relinquished by: <u>Matt Stewart</u>		Date/Time: <u>7/12/13 1525</u>		Company:		Received by: <u>Wendy</u>		Date/Time: <u>7/12/2013 1525</u>		Company:					
Relinquished by: <u>Wendy</u>		Date/Time: <u>7/12/13 1535</u>		Company:		Received by: <u>Call Clark</u>		Date/Time: <u>7.12.13 1535</u>		Company:					
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:											

## Login Sample Receipt Checklist

Client: Engineering Management Support, Inc.

Job Number: 160-2984-1

**Login Number: 2984**

**List Source: TestAmerica St. Louis**

**List Number: 1**

**Creator: Clarke, Jill C**

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

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# Definitions/Glossary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

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.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

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# Method Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
7470A	Mercury (CVAA)	SW846	TAL SL
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
310.1	Alkalinity	MCAWW	TAL SL

**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 SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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# Sample Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-2984-1	S-8	Water	07/12/13 09:23	07/12/13 15:35
160-2984-2	PZ-105-SS	Water	07/12/13 09:42	07/12/13 15:35
160-2984-3	I-62	Water	07/12/13 09:56	07/12/13 15:35
160-2984-4	PZ-114-AS	Water	07/12/13 10:56	07/12/13 15:35
160-2984-5	D-6	Water	07/12/13 11:35	07/12/13 15:35
160-2984-6	S-61	Water	07/12/13 12:02	07/12/13 15:35
160-2984-7	I-67	Water	07/12/13 13:33	07/12/13 15:35
160-2984-8	I-68	Water	07/12/13 14:35	07/12/13 15:35
160-2984-9	DUPLICATE 04	Water	07/12/13 00:00	07/12/13 15:35

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## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: S-8**

**Lab Sample ID: 160-2984-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	2.9	J B *	20	0.33	ug/L	1		8260C	Total/NA
Arsenic	3.4	J	10	2.0	ug/L	1		6010C	Total/NA
Barium	290		50	4.0	ug/L	1		6010C	Total/NA
Calcium	90000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	95000		10000	1100	ug/L	10		6010C	Total/NA
Iron	750		100	28	ug/L	1		6010C	Total/NA
Lead	1.8	J	10	1.5	ug/L	1		6010C	Total/NA
Magnesium	14000		1000	130	ug/L	1		6010C	Total/NA
Manganese	320		15	3.3	ug/L	1		6010C	Total/NA
Potassium	7000		5000	1700	ug/L	1		6010C	Total/NA
Sodium	21000		1000	320	ug/L	1		6010C	Total/NA
Barium	290		50	4.0	ug/L	1		6010C	Dissolved
Calcium	95000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	97000		5000	530	ug/L	5		6010C	Dissolved
Iron	220		100	28	ug/L	1		6010C	Dissolved
Lead	1.8	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	15000		1000	130	ug/L	1		6010C	Dissolved
Manganese	330		15	3.3	ug/L	1		6010C	Dissolved
Potassium	7300		5000	1700	ug/L	1		6010C	Dissolved
Sodium	21000		1000	320	ug/L	1		6010C	Dissolved
Zinc	6.7	J B	20	5.2	ug/L	1		6010C	Dissolved
Mercury	0.060	J	0.20	0.060	ug/L	1		7470A	Total/NA
Mercury	0.076	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Alkalinity	270	B	5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	31		4.0	0.40	mg/L		20	300.0	Total/NA
Sulfate - DL	23		10	1.0	mg/L		20	300.0	Total/NA

**Client Sample ID: PZ-105-SS**

**Lab Sample ID: 160-2984-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	170		50	4.0	ug/L	1		6010C	Total/NA
Calcium	88000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	97000		10000	1100	ug/L	10		6010C	Total/NA
Iron	270		100	28	ug/L	1		6010C	Total/NA
Lead	1.5	J	10	1.5	ug/L	1		6010C	Total/NA
Magnesium	50000		1000	130	ug/L	1		6010C	Total/NA
Manganese	7.6	J	15	3.3	ug/L	1		6010C	Total/NA
Potassium	2000	J	5000	1700	ug/L	1		6010C	Total/NA
Sodium	61000		1000	320	ug/L	1		6010C	Total/NA
Zinc	20		20	5.2	ug/L	1		6010C	Total/NA
Barium	170		50	4.0	ug/L	1		6010C	Dissolved
Calcium	89000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	98000		5000	530	ug/L	5		6010C	Dissolved
Chromium	9.0	J	10	3.1	ug/L	1		6010C	Dissolved
Iron	210		100	28	ug/L	1		6010C	Dissolved
Lead	1.8	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	48000		1000	130	ug/L	1		6010C	Dissolved
Manganese	6.1	J	15	3.3	ug/L	1		6010C	Dissolved
Potassium	2100	J	5000	1700	ug/L	1		6010C	Dissolved
Sodium	61000		1000	320	ug/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Client Sample ID: PZ-105-SS (Continued)

Lab Sample ID: 160-2984-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	19	J B	20	5.2	ug/L	1		6010C	Dissolved
Mercury	0.098	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Alkalinity	350	B	5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	85		4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	87		10	1.0	mg/L	20		300.0	Total/NA

### Client Sample ID: I-62

Lab Sample ID: 160-2984-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	170	J	200	80	ug/L	1		6010C	Total/NA
Arsenic	12		10	2.0	ug/L	1		6010C	Total/NA
Barium	380		50	4.0	ug/L	1		6010C	Total/NA
Calcium	100000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	130000		10000	1100	ug/L	10		6010C	Total/NA
Iron	7400		100	28	ug/L	1		6010C	Total/NA
Lead	2.9	J	10	1.5	ug/L	1		6010C	Total/NA
Magnesium	29000		1000	130	ug/L	1		6010C	Total/NA
Manganese	500		15	3.3	ug/L	1		6010C	Total/NA
Potassium	6000		5000	1700	ug/L	1		6010C	Total/NA
Sodium	26000		1000	320	ug/L	1		6010C	Total/NA
Zinc	7.8	J	20	5.2	ug/L	1		6010C	Total/NA
Arsenic	11		10	2.0	ug/L	1		6010C	Dissolved
Barium	380		50	4.0	ug/L	1		6010C	Dissolved
Calcium	110000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	120000		5000	530	ug/L	5		6010C	Dissolved
Iron	6700		100	28	ug/L	1		6010C	Dissolved
Lead	2.2	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	29000		1000	130	ug/L	1		6010C	Dissolved
Manganese	490		15	3.3	ug/L	1		6010C	Dissolved
Potassium	6200		5000	1700	ug/L	1		6010C	Dissolved
Sodium	27000		1000	320	ug/L	1		6010C	Dissolved
Zinc	6.4	J B	20	5.2	ug/L	1		6010C	Dissolved
Mercury	0.11	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Nitrate as N	0.0066	J	0.020	0.0040	mg/L	1		300.0	Total/NA
Alkalinity	290	B	5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	53		4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	25		10	1.0	mg/L	20		300.0	Total/NA

### Client Sample ID: PZ-114-AS

Lab Sample ID: 160-2984-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.67	J	5.0	0.28	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	11	J	20	0.39	ug/L	1		8260C	Total/NA
Benzene	4.4	J	5.0	0.25	ug/L	1		8260C	Total/NA
Chlorobenzene	67		5.0	0.38	ug/L	1		8260C	Total/NA
Antimony	7.1	J	10	4.0	ug/L	1		6010C	Total/NA
Arsenic	260		10	2.0	ug/L	1		6010C	Total/NA
Barium	470		50	4.0	ug/L	1		6010C	Total/NA
Calcium	130000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	150000		10000	1100	ug/L	10		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

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## Detection Summary

Client: Engineering Management Support, Inc.  
 Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Client Sample ID: PZ-114-AS (Continued)

### Lab Sample ID: 160-2984-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	73000		100	28	ug/L	1		6010C	Total/NA
Lead	4.4	J	10	1.5	ug/L	1		6010C	Total/NA
Magnesium	40000		1000	130	ug/L	1		6010C	Total/NA
Manganese	1900		15	3.3	ug/L	1		6010C	Total/NA
Potassium	4900	J	5000	1700	ug/L	1		6010C	Total/NA
Sodium	110000	E	1000	320	ug/L	1		6010C	Total/NA
Sodium	110000		10000	3200	ug/L	10		6010C	Total/NA
Antimony	4.7	J	10	4.0	ug/L	1		6010C	Dissolved
Arsenic	270		10	2.0	ug/L	1		6010C	Dissolved
Barium	460		50	4.0	ug/L	1		6010C	Dissolved
Calcium	130000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	150000		5000	530	ug/L	5		6010C	Dissolved
Iron	72000		100	28	ug/L	1		6010C	Dissolved
Lead	4.9	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	40000		1000	130	ug/L	1		6010C	Dissolved
Manganese	2000		15	3.3	ug/L	1		6010C	Dissolved
Potassium	5000		5000	1700	ug/L	1		6010C	Dissolved
Selenium	4.4	J	15	2.7	ug/L	1		6010C	Dissolved
Sodium	100000	E	1000	320	ug/L	1		6010C	Dissolved
Sodium	100000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	6.6	J B	20	5.2	ug/L	1		6010C	Dissolved
Mercury	0.16	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Bromide	0.12	J	0.25	0.025	mg/L	1		300.0	Total/NA
Alkalinity	480	B	5.0	0.54	mg/L	1		310.1	Total/NA
Sulfate - DL	19		10	1.0	mg/L	20		300.0	Total/NA
Chloride - DL2	170		20	2.0	mg/L	100		300.0	Total/NA

### Client Sample ID: D-6

### Lab Sample ID: 160-2984-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	2.6	J *	5.0	0.37	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	11	J	20	0.39	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.40	J	5.0	0.16	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	2.7	J	5.0	0.40	ug/L	1		8260C	Total/NA
Aluminum	170	J	200	80	ug/L	1		6010C	Total/NA
Antimony	4.6	J	10	4.0	ug/L	1		6010C	Total/NA
Arsenic	2.5	J	10	2.0	ug/L	1		6010C	Total/NA
Barium	1300		50	4.0	ug/L	1		6010C	Total/NA
Calcium	180000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	240000		10000	1100	ug/L	10		6010C	Total/NA
Iron	18000		100	28	ug/L	1		6010C	Total/NA
Iron	19000		1000	280	ug/L	10		6010C	Total/NA
Lead	3.2	J	10	1.5	ug/L	1		6010C	Total/NA
Magnesium	60000	E	1000	130	ug/L	1		6010C	Total/NA
Magnesium	64000		10000	1300	ug/L	10		6010C	Total/NA
Manganese	480		15	3.3	ug/L	1		6010C	Total/NA
Nickel	13	J	40	13	ug/L	1		6010C	Total/NA
Potassium	13000		5000	1700	ug/L	1		6010C	Total/NA
Sodium	140000	E	1000	320	ug/L	1		6010C	Total/NA
Sodium	150000		10000	3200	ug/L	10		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

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## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Client Sample ID: D-6 (Continued)

### Lab Sample ID: 160-2984-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	1300		50	4.0	ug/L	1		6010C	Dissolved
Calcium	180000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	220000		5000	530	ug/L	5		6010C	Dissolved
Iron	18000		100	28	ug/L	1		6010C	Dissolved
Iron	18000		500	140	ug/L	5		6010C	Dissolved
Lead	2.8	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	58000	E	1000	130	ug/L	1		6010C	Dissolved
Magnesium	59000		5000	660	ug/L	5		6010C	Dissolved
Manganese	460		15	3.3	ug/L	1		6010C	Dissolved
Nickel	14	J	40	13	ug/L	1		6010C	Dissolved
Potassium	13000		5000	1700	ug/L	1		6010C	Dissolved
Sodium	140000	E	1000	320	ug/L	1		6010C	Dissolved
Sodium	140000		5000	1600	ug/L	5		6010C	Dissolved
Mercury	0.15	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Nitrate as N	0.0056	J	0.020	0.0040	mg/L	1		300.0	Total/NA
Bromide	2.9		0.25	0.025	mg/L	1		300.0	Total/NA
Sulfate	3.3		0.50	0.050	mg/L	1		300.0	Total/NA
Iodide	0.21	J	1.0	0.10	mg/L	1		300.0	Total/NA
Alkalinity	870	B	5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL2	190		20	2.0	mg/L	100		300.0	Total/NA

### Client Sample ID: S-61

### Lab Sample ID: 160-2984-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.54	J	5.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.67	J	5.0	0.28	ug/L	1		8260C	Total/NA
Aluminum	14000		200	80	ug/L	1		6010C	Total/NA
Antimony	6.6	J	10	4.0	ug/L	1		6010C	Total/NA
Arsenic	9.4	J	10	2.0	ug/L	1		6010C	Total/NA
Barium	540		50	4.0	ug/L	1		6010C	Total/NA
Calcium	170000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	210000		10000	1100	ug/L	10		6010C	Total/NA
Chromium	19		10	3.1	ug/L	1		6010C	Total/NA
Cobalt	19	J	50	4.0	ug/L	1		6010C	Total/NA
Copper	13	J	25	4.6	ug/L	1		6010C	Total/NA
Iron	19000		100	28	ug/L	1		6010C	Total/NA
Lead	81		10	1.5	ug/L	1		6010C	Total/NA
Magnesium	46000		1000	130	ug/L	1		6010C	Total/NA
Manganese	960		15	3.3	ug/L	1		6010C	Total/NA
Nickel	59		40	13	ug/L	1		6010C	Total/NA
Potassium	9400		5000	1700	ug/L	1		6010C	Total/NA
Selenium	2.8	J	15	2.7	ug/L	1		6010C	Total/NA
Sodium	8500		1000	320	ug/L	1		6010C	Total/NA
Vanadium	32	J	50	4.1	ug/L	1		6010C	Total/NA
Zinc	77		20	5.2	ug/L	1		6010C	Total/NA
Barium	240		50	4.0	ug/L	1		6010C	Dissolved
Calcium	160000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	180000		5000	530	ug/L	5		6010C	Dissolved
Cobalt	4.1	J	50	4.0	ug/L	1		6010C	Dissolved
Iron	44	J	100	28	ug/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

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## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Client Sample ID: S-61 (Continued)

### Lab Sample ID: 160-2984-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	2.5	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	38000		1000	130	ug/L	1		6010C	Dissolved
Manganese	680		15	3.3	ug/L	1		6010C	Dissolved
Nickel	14	J	40	13	ug/L	1		6010C	Dissolved
Potassium	6200		5000	1700	ug/L	1		6010C	Dissolved
Sodium	7600		1000	320	ug/L	1		6010C	Dissolved
Mercury	0.064	J	0.20	0.060	ug/L	1		7470A	Total/NA
Mercury	0.13	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Alkalinity	510	B	5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	10		4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	93		10	1.0	mg/L	20		300.0	Total/NA

### Client Sample ID: I-67

### Lab Sample ID: 160-2984-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.63	J	5.0	0.40	ug/L	1		8260C	Total/NA
Aluminum	110	J	200	80	ug/L	1		6010C	Total/NA
Antimony	4.0	J	10	4.0	ug/L	1		6010C	Total/NA
Arsenic	4.6	J	10	2.0	ug/L	1		6010C	Total/NA
Barium	280		50	4.0	ug/L	1		6010C	Total/NA
Calcium	200000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	230000		10000	1100	ug/L	10		6010C	Total/NA
Iron	8900		100	28	ug/L	1		6010C	Total/NA
Lead	2.6	J	10	1.5	ug/L	1		6010C	Total/NA
Magnesium	38000		1000	130	ug/L	1		6010C	Total/NA
Manganese	1300		15	3.3	ug/L	1		6010C	Total/NA
Potassium	9000		5000	1700	ug/L	1		6010C	Total/NA
Sodium	54000		1000	320	ug/L	1		6010C	Total/NA
Arsenic	4.9	J	10	2.0	ug/L	1		6010C	Dissolved
Barium	290		50	4.0	ug/L	1		6010C	Dissolved
Calcium	200000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	230000		5000	530	ug/L	5		6010C	Dissolved
Iron	8700		100	28	ug/L	1		6010C	Dissolved
Lead	2.1	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	37000		1000	130	ug/L	1		6010C	Dissolved
Manganese	1400		15	3.3	ug/L	1		6010C	Dissolved
Potassium	9200		5000	1700	ug/L	1		6010C	Dissolved
Sodium	55000		1000	320	ug/L	1		6010C	Dissolved
Mercury	0.13	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Bromide	0.081	J	0.25	0.025	mg/L	1		300.0	Total/NA
Alkalinity	610	B	5.0	0.54	mg/L	1		310.1	Total/NA
Sulfate - DL	96		10	1.0	mg/L	20		300.0	Total/NA
Chloride - DL2	110		20	2.0	mg/L	100		300.0	Total/NA

### Client Sample ID: I-68

### Lab Sample ID: 160-2984-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.6	J	20	0.39	ug/L	1		8260C	Total/NA
Aluminum	14000		200	80	ug/L	1		6010C	Total/NA
Antimony	5.4	J	10	4.0	ug/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis



## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-68 (Continued)**

**Lab Sample ID: 160-2984-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10		10	2.0	ug/L	1		6010C	Total/NA
Barium	510		50	4.0	ug/L	1		6010C	Total/NA
Cadmium	2.1	J	5.0	0.91	ug/L	1		6010C	Total/NA
Calcium	150000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	190000		10000	1100	ug/L	10		6010C	Total/NA
Chromium	24		10	3.1	ug/L	1		6010C	Total/NA
Cobalt	22	J	50	4.0	ug/L	1		6010C	Total/NA
Copper	29		25	4.6	ug/L	1		6010C	Total/NA
Iron	13000		100	28	ug/L	1		6010C	Total/NA
Lead	35		10	1.5	ug/L	1		6010C	Total/NA
Magnesium	47000		1000	130	ug/L	1		6010C	Total/NA
Manganese	1600		15	3.3	ug/L	1		6010C	Total/NA
Nickel	52		40	13	ug/L	1		6010C	Total/NA
Potassium	9000		5000	1700	ug/L	1		6010C	Total/NA
Selenium	3.2	J	15	2.7	ug/L	1		6010C	Total/NA
Sodium	230000	E	1000	320	ug/L	1		6010C	Total/NA
Sodium	240000		10000	3200	ug/L	10		6010C	Total/NA
Vanadium	28	J	50	4.1	ug/L	1		6010C	Total/NA
Zinc	140		20	5.2	ug/L	1		6010C	Total/NA
Arsenic	2.2	J	10	2.0	ug/L	1		6010C	Dissolved
Barium	390		50	4.0	ug/L	1		6010C	Dissolved
Calcium	130000	E	1000	110	ug/L	1		6010C	Dissolved
Calcium	150000		5000	530	ug/L	5		6010C	Dissolved
Cobalt	11	J	50	4.0	ug/L	1		6010C	Dissolved
Iron	130		100	28	ug/L	1		6010C	Dissolved
Lead	2.0	J	10	1.5	ug/L	1		6010C	Dissolved
Magnesium	39000		1000	130	ug/L	1		6010C	Dissolved
Manganese	1500		15	3.3	ug/L	1		6010C	Dissolved
Nickel	24	J	40	13	ug/L	1		6010C	Dissolved
Potassium	6500		5000	1700	ug/L	1		6010C	Dissolved
Sodium	230000	E	1000	320	ug/L	1		6010C	Dissolved
Sodium	240000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	18	J B	20	5.2	ug/L	1		6010C	Dissolved
Mercury	0.15	J	0.20	0.060	ug/L	1		7470A	Total/NA
Mercury	0.13	J B	0.20	0.060	ug/L	1		7470A	Dissolved
Bromide	0.075	J	0.25	0.025	mg/L	1		300.0	Total/NA
Alkalinity	510	B	5.0	0.54	mg/L	1		310.1	Total/NA
Sulfate - DL	52		10	1.0	mg/L	20		300.0	Total/NA
Chloride - DL2	360		20	2.0	mg/L	100		300.0	Total/NA

**Client Sample ID: DUPLICATE 04**

**Lab Sample ID: 160-2984-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	15	J	20	0.39	ug/L	1		8260C	Total/NA
Aluminum	180	J	200	80	ug/L	1		6010C	Total/NA
Antimony	5.1	J	10	4.0	ug/L	1		6010C	Total/NA
Arsenic	13		10	2.0	ug/L	1		6010C	Total/NA
Barium	380		50	4.0	ug/L	1		6010C	Total/NA
Calcium	100000	E	1000	110	ug/L	1		6010C	Total/NA
Calcium	120000		10000	1100	ug/L	10		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

## Detection Summary

Client: Engineering Management Support, Inc.  
 Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: DUPLICATE 04 (Continued)**

**Lab Sample ID: 160-2984-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	7400		100	28	ug/L		1	6010C	Total/NA
Lead	2.3	J	10	1.5	ug/L		1	6010C	Total/NA
Magnesium	29000		1000	130	ug/L		1	6010C	Total/NA
Manganese	500		15	3.3	ug/L		1	6010C	Total/NA
Potassium	6100		5000	1700	ug/L		1	6010C	Total/NA
Sodium	25000		1000	320	ug/L		1	6010C	Total/NA
Zinc	7.6	J	20	5.2	ug/L		1	6010C	Total/NA
Arsenic	11		10	2.0	ug/L		1	6010C	Dissolved
Barium	370		50	4.0	ug/L		1	6010C	Dissolved
Calcium	100000	E	1000	110	ug/L		1	6010C	Dissolved
Calcium	110000		5000	530	ug/L		5	6010C	Dissolved
Iron	6500		100	28	ug/L		1	6010C	Dissolved
Lead	2.0	J	10	1.5	ug/L		1	6010C	Dissolved
Magnesium	28000		1000	130	ug/L		1	6010C	Dissolved
Manganese	470		15	3.3	ug/L		1	6010C	Dissolved
Potassium	6100		5000	1700	ug/L		1	6010C	Dissolved
Sodium	25000		1000	320	ug/L		1	6010C	Dissolved
Mercury	0.12	J B	0.20	0.060	ug/L		1	7470A	Dissolved
Alkalinity	360	B	5.0	0.54	mg/L		1	310.1	Total/NA
Chloride - DL	54		4.0	0.40	mg/L		20	300.0	Total/NA
Sulfate - DL	25		10	1.0	mg/L		20	300.0	Total/NA

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This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: S-8**

**Lab Sample ID: 160-2984-1**

**Date Collected: 07/12/13 09:23**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 10:43	1
1,1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 10:43	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 10:43	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 10:43	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 10:43	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 10:43	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 10:43	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 10:43	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 10:43	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 10:43	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 10:43	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 10:43	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 10:43	1
2-Butanone (MEK)	ND		20	0.39	ug/L			07/17/13 10:43	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 10:43	1
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>2.9</b>	<b>J B *</b>	20	0.33	ug/L			07/17/13 10:43	1
Acetone	ND		20	6.7	ug/L			07/17/13 10:43	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 10:43	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 10:43	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 10:43	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 10:43	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 10:43	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 10:43	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 10:43	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 10:43	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 10:43	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 10:43	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 10:43	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 10:43	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 10:43	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 10:43	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 10:43	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 10:43	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 10:43	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 10:43	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 10:43	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 10:43	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 10:43	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 10:43	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 10:43	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 10:43	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 10:43	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 10:43	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 10:43	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 10:43	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 10:43	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 10:43	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 10:43	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 10:43	1

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TestAmerica St. Louis

# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: S-8**

**Lab Sample ID: 160-2984-1**

**Date Collected: 07/12/13 09:23**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		82 - 132		07/17/13 10:43	1
4-Bromofluorobenzene (Surr)	105		82 - 121		07/17/13 10:43	1
Dibromofluoromethane (Surr)	104		85 - 119		07/17/13 10:43	1
Toluene-d8 (Surr)	105		85 - 115		07/17/13 10:43	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:18	07/18/13 18:53	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Arsenic</b>	<b>3.4</b>	<b>J</b>	10	2.0	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Barium</b>	<b>290</b>		50	4.0	ug/L		07/16/13 14:18	07/18/13 18:53	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 18:53	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Calcium</b>	<b>90000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Calcium</b>	<b>95000</b>		10000	1100	ug/L		07/16/13 14:18	07/18/13 20:31	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 18:53	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 18:53	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Iron</b>	<b>750</b>		100	28	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Lead</b>	<b>1.8</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Magnesium</b>	<b>14000</b>		1000	130	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Manganese</b>	<b>320</b>		15	3.3	ug/L		07/16/13 14:18	07/18/13 18:53	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Potassium</b>	<b>7000</b>		5000	1700	ug/L		07/16/13 14:18	07/18/13 18:53	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 18:53	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 18:53	1
<b>Sodium</b>	<b>21000</b>		1000	320	ug/L		07/16/13 14:18	07/18/13 18:53	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 18:53	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 18:53	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:18	07/18/13 18:53	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:21	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:21	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Barium</b>	<b>290</b>		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:21	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:21	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Calcium</b>	<b>95000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Calcium</b>	<b>97000</b>		5000	530	ug/L		07/16/13 14:09	07/17/13 18:00	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:21	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:21	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Iron</b>	<b>220</b>		100	28	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Lead</b>	<b>1.8</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Magnesium</b>	<b>15000</b>		1000	130	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Manganese</b>	<b>330</b>		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:21	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Potassium</b>	<b>7300</b>		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:21	1

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## Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: S-8**

**Lab Sample ID: 160-2984-1**

Date Collected: 07/12/13 09:23

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:21	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Sodium</b>	<b>21000</b>		1000	320	ug/L		07/16/13 14:09	07/17/13 16:21	1
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:21	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:21	1
<b>Zinc</b>	<b>6.7</b>	<b>J B</b>	20	5.2	ug/L		07/16/13 14:09	07/17/13 16:21	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.060</b>	<b>J</b>	0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:01	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.076</b>	<b>J B</b>	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 11:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 03:15	1
Bromide	ND		0.25	0.025	mg/L			07/13/13 03:15	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 00:09	1
<b>Alkalinity</b>	<b>270</b>	<b>B</b>	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>31</b>		4.0	0.40	mg/L			07/13/13 03:30	20
<b>Sulfate</b>	<b>23</b>		10	1.0	mg/L			07/13/13 03:30	20

**Client Sample ID: PZ-105-SS**

**Lab Sample ID: 160-2984-2**

Date Collected: 07/12/13 09:42

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 11:09	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 11:09	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 11:09	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 11:09	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 11:09	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 11:09	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 11:09	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 11:09	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 11:09	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 11:09	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 11:09	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 11:09	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 11:09	1
2-Butanone (MEK)	ND		20	0.39	ug/L			07/17/13 11:09	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 11:09	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 11:09	1
Acetone	ND		20	6.7	ug/L			07/17/13 11:09	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 11:09	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: PZ-105-SS**

**Lab Sample ID: 160-2984-2**

Date Collected: 07/12/13 09:42

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 11:09	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 11:09	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 11:09	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 11:09	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 11:09	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 11:09	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 11:09	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 11:09	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 11:09	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 11:09	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 11:09	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 11:09	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 11:09	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 11:09	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 11:09	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 11:09	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 11:09	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 11:09	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 11:09	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 11:09	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 11:09	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 11:09	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 11:09	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 11:09	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 11:09	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 11:09	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 11:09	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 11:09	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 11:09	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 11:09	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 11:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		82 - 132		07/17/13 11:09	1
4-Bromofluorobenzene (Surr)	104		82 - 121		07/17/13 11:09	1
Dibromofluoromethane (Surr)	101		85 - 119		07/17/13 11:09	1
Toluene-d8 (Surr)	103		85 - 115		07/17/13 11:09	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:18	07/18/13 18:57	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:18	07/18/13 18:57	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:18	07/18/13 18:57	1
Barium	170		50	4.0	ug/L		07/16/13 14:18	07/18/13 18:57	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 18:57	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 18:57	1
Calcium	88000	E	1000	110	ug/L		07/16/13 14:18	07/18/13 18:57	1
Calcium	97000		10000	1100	ug/L		07/16/13 14:18	07/18/13 20:35	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 18:57	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 18:57	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: PZ-105-SS**

**Lab Sample ID: 160-2984-2**

Date Collected: 07/12/13 09:42

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Iron</b>	<b>270</b>		100	28	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Lead</b>	<b>1.5</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Magnesium</b>	<b>50000</b>		1000	130	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Manganese</b>	<b>7.6</b>	<b>J</b>	15	3.3	ug/L		07/16/13 14:18	07/18/13 18:57	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Potassium</b>	<b>2000</b>	<b>J</b>	5000	1700	ug/L		07/16/13 14:18	07/18/13 18:57	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 18:57	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Sodium</b>	<b>61000</b>		1000	320	ug/L		07/16/13 14:18	07/18/13 18:57	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 18:57	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 18:57	1
<b>Zinc</b>	<b>20</b>		20	5.2	ug/L		07/16/13 14:18	07/18/13 18:57	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:25	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:25	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Barium</b>	<b>170</b>		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:25	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:25	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Calcium</b>	<b>89000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Calcium</b>	<b>98000</b>		5000	530	ug/L		07/16/13 14:09	07/17/13 18:03	5
<b>Chromium</b>	<b>9.0</b>	<b>J</b>	10	3.1	ug/L		07/16/13 14:09	07/17/13 16:25	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:25	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Iron</b>	<b>210</b>		100	28	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Lead</b>	<b>1.8</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Magnesium</b>	<b>48000</b>		1000	130	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Manganese</b>	<b>6.1</b>	<b>J</b>	15	3.3	ug/L		07/16/13 14:09	07/17/13 16:25	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Potassium</b>	<b>2100</b>	<b>J</b>	5000	1700	ug/L		07/16/13 14:09	07/17/13 16:25	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:25	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Sodium</b>	<b>61000</b>		1000	320	ug/L		07/16/13 14:09	07/17/13 16:25	1
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:25	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:25	1
<b>Zinc</b>	<b>19</b>	<b>J B</b>	20	5.2	ug/L		07/16/13 14:09	07/17/13 16:25	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:08	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.098</b>	<b>J B</b>	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 11:57	1

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TestAmerica St. Louis

# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: PZ-105-SS**

**Lab Sample ID: 160-2984-2**

Date Collected: 07/12/13 09:42

Matrix: Water

Date Received: 07/12/13 15:35

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 04:42	1
Bromide	ND		0.25	0.025	mg/L			07/13/13 04:42	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 00:54	1
Alkalinity	350	B	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	85		4.0	0.40	mg/L			07/13/13 04:56	20
Sulfate	87		10	1.0	mg/L			07/13/13 04:56	20

**Client Sample ID: I-62**

**Lab Sample ID: 160-2984-3**

Date Collected: 07/12/13 09:56

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 11:35	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 11:35	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 11:35	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 11:35	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 11:35	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 11:35	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 11:35	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 11:35	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 11:35	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 11:35	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 11:35	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 11:35	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 11:35	1
2-Butanone (MEK)	ND		20	0.39	ug/L			07/17/13 11:35	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 11:35	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 11:35	1
Acetone	ND		20	6.7	ug/L			07/17/13 11:35	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 11:35	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 11:35	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 11:35	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 11:35	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 11:35	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 11:35	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 11:35	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 11:35	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 11:35	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 11:35	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 11:35	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 11:35	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 11:35	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 11:35	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 11:35	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 11:35	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 11:35	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-62**

**Lab Sample ID: 160-2984-3**

**Date Collected: 07/12/13 09:56**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		25	2.3	ug/L			07/17/13 11:35	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 11:35	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 11:35	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 11:35	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 11:35	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 11:35	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 11:35	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 11:35	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 11:35	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 11:35	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 11:35	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 11:35	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 11:35	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 11:35	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 11:35	1

  

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		82 - 132		07/17/13 11:35	1
4-Bromofluorobenzene (Surr)	105		82 - 121		07/17/13 11:35	1
Dibromofluoromethane (Surr)	102		85 - 119		07/17/13 11:35	1
Toluene-d8 (Surr)	101		85 - 115		07/17/13 11:35	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Aluminum</b>	<b>170</b>	<b>J</b>	200	80	ug/L		07/16/13 14:18	07/18/13 19:00	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Arsenic</b>	<b>12</b>		10	2.0	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Barium</b>	<b>380</b>		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:00	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:00	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Calcium</b>	<b>100000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Calcium</b>	<b>130000</b>		10000	1100	ug/L		07/16/13 14:18	07/18/13 20:47	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:00	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:00	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Iron</b>	<b>7400</b>		100	28	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Lead</b>	<b>2.9</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Magnesium</b>	<b>29000</b>		1000	130	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Manganese</b>	<b>500</b>		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:00	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Potassium</b>	<b>6000</b>		5000	1700	ug/L		07/16/13 14:18	07/18/13 19:00	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 19:00	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Sodium</b>	<b>26000</b>		1000	320	ug/L		07/16/13 14:18	07/18/13 19:00	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:00	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 19:00	1
<b>Zinc</b>	<b>7.8</b>	<b>J</b>	20	5.2	ug/L		07/16/13 14:18	07/18/13 19:00	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-62**

**Lab Sample ID: 160-2984-3**

Date Collected: 07/12/13 09:56

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:29	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Arsenic</b>	<b>11</b>		10	2.0	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Barium</b>	<b>380</b>		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:29	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:29	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Calcium</b>	<b>110000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Calcium</b>	<b>120000</b>		5000	530	ug/L		07/16/13 14:09	07/17/13 18:07	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:29	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:29	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Iron</b>	<b>6700</b>		100	28	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Lead</b>	<b>2.2</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Magnesium</b>	<b>29000</b>		1000	130	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Manganese</b>	<b>490</b>		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:29	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Potassium</b>	<b>6200</b>		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:29	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:29	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Sodium</b>	<b>27000</b>		1000	320	ug/L		07/16/13 14:09	07/17/13 16:29	1
Thallium	ND	<sup>^</sup>	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:29	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:29	1
<b>Zinc</b>	<b>6.4</b>	<b>J B</b>	20	5.2	ug/L		07/16/13 14:09	07/17/13 16:29	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:10	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.11</b>	<b>J B</b>	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 11:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Nitrate as N</b>	<b>0.0066</b>	<b>J</b>	0.020	0.0040	mg/L			07/13/13 05:40	1
Bromide	ND		0.25	0.025	mg/L			07/13/13 05:40	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 01:09	1
<b>Alkalinity</b>	<b>290</b>	<b>B</b>	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>53</b>		4.0	0.40	mg/L			07/13/13 05:54	20
<b>Sulfate</b>	<b>25</b>		10	1.0	mg/L			07/13/13 05:54	20

**Client Sample ID: PZ-114-AS**

**Lab Sample ID: 160-2984-4**

Date Collected: 07/12/13 10:56

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 12:01	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: PZ-114-AS**

**Lab Sample ID: 160-2984-4**

**Date Collected: 07/12/13 10:56**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 12:01	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 12:01	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 12:01	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 12:01	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 12:01	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 12:01	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 12:01	1
<b>1,2-Dichlorobenzene</b>	<b>0.67</b>	<b>J</b>	5.0	0.28	ug/L			07/17/13 12:01	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 12:01	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 12:01	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 12:01	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 12:01	1
<b>2-Butanone (MEK)</b>	<b>11</b>	<b>J</b>	20	0.39	ug/L			07/17/13 12:01	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 12:01	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 12:01	1
Acetone	ND		20	6.7	ug/L			07/17/13 12:01	1
<b>Benzene</b>	<b>4.4</b>	<b>J</b>	5.0	0.25	ug/L			07/17/13 12:01	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 12:01	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 12:01	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 12:01	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 12:01	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 12:01	1
<b>Chlorobenzene</b>	<b>67</b>		5.0	0.38	ug/L			07/17/13 12:01	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 12:01	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 12:01	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 12:01	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 12:01	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 12:01	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 12:01	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 12:01	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 12:01	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 12:01	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 12:01	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 12:01	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 12:01	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 12:01	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 12:01	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 12:01	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 12:01	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 12:01	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 12:01	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 12:01	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 12:01	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 12:01	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 12:01	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 12:01	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 12:01	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 12:01	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: PZ-114-AS**

**Lab Sample ID: 160-2984-4**

Date Collected: 07/12/13 10:56

Matrix: Water

Date Received: 07/12/13 15:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		82 - 132		07/17/13 12:01	1
4-Bromofluorobenzene (Surr)	101		82 - 121		07/17/13 12:01	1
Dibromofluoromethane (Surr)	104		85 - 119		07/17/13 12:01	1
Toluene-d8 (Surr)	101		85 - 115		07/17/13 12:01	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Antimony</b>	<b>7.1</b>	<b>J</b>	10	4.0	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Arsenic</b>	<b>260</b>		10	2.0	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Barium</b>	<b>470</b>		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:04	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:04	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Calcium</b>	<b>130000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Calcium</b>	<b>150000</b>		10000	1100	ug/L		07/16/13 14:18	07/18/13 20:51	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:04	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:04	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Iron</b>	<b>73000</b>		100	28	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Lead</b>	<b>4.4</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Magnesium</b>	<b>40000</b>		1000	130	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Manganese</b>	<b>1900</b>		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:04	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Potassium</b>	<b>4900</b>	<b>J</b>	5000	1700	ug/L		07/16/13 14:18	07/18/13 19:04	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 19:04	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Sodium</b>	<b>110000</b>	<b>E</b>	1000	320	ug/L		07/16/13 14:18	07/18/13 19:04	1
<b>Sodium</b>	<b>110000</b>		10000	3200	ug/L		07/16/13 14:18	07/18/13 20:51	10
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:04	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 19:04	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:18	07/18/13 19:04	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Antimony</b>	<b>4.7</b>	<b>J</b>	10	4.0	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Arsenic</b>	<b>270</b>		10	2.0	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Barium</b>	<b>460</b>		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:33	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:33	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Calcium</b>	<b>130000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Calcium</b>	<b>150000</b>		5000	530	ug/L		07/16/13 14:09	07/17/13 18:11	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:33	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:33	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Iron</b>	<b>72000</b>		100	28	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Lead</b>	<b>4.9</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Magnesium</b>	<b>40000</b>		1000	130	ug/L		07/16/13 14:09	07/17/13 16:33	1
<b>Manganese</b>	<b>2000</b>		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:33	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 16:33	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: PZ-114-AS**

**Lab Sample ID: 160-2984-4**

Date Collected: 07/12/13 10:56

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	5000		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:33	1
Selenium	4.4	J	15	2.7	ug/L		07/16/13 14:09	07/17/13 16:33	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:33	1
Sodium	100000	E	1000	320	ug/L		07/16/13 14:09	07/17/13 16:33	1
Sodium	100000		5000	1600	ug/L		07/16/13 14:09	07/17/13 18:11	5
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:33	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:33	1
Zinc	6.6	J B	20	5.2	ug/L		07/16/13 14:09	07/17/13 16:33	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:11	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16	J B	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 12:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 06:08	1
Bromide	0.12	J	0.25	0.025	mg/L			07/13/13 06:08	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 01:24	1
Alkalinity	480	B	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	19		10	1.0	mg/L			07/13/13 06:23	20

**General Chemistry - DL2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		20	2.0	mg/L			07/13/13 06:37	100

**Client Sample ID: D-6**

**Lab Sample ID: 160-2984-5**

Date Collected: 07/12/13 11:35

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 12:27	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 12:27	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 12:27	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 12:27	1
1,1-Dichloroethane	ND		5.0	0.37	ug/L			07/17/13 12:27	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 12:27	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 12:27	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 12:27	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 12:27	1
1,2-Dichloroethane	2.6	J *	5.0	0.37	ug/L			07/17/13 12:27	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 12:27	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 12:27	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 12:27	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: D-6**

**Lab Sample ID: 160-2984-5**

**Date Collected: 07/12/13 11:35**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>2-Butanone (MEK)</b>	<b>11</b>	<b>J</b>	20	0.39	ug/L			07/17/13 12:27	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 12:27	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 12:27	1
Acetone	ND		20	6.7	ug/L			07/17/13 12:27	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 12:27	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 12:27	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 12:27	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 12:27	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 12:27	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 12:27	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 12:27	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 12:27	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 12:27	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 12:27	1
<b>cis-1,2-Dichloroethene</b>	<b>0.40</b>	<b>J</b>	5.0	0.16	ug/L			07/17/13 12:27	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 12:27	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 12:27	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 12:27	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 12:27	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 12:27	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 12:27	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 12:27	1
<b>Methyl tert-butyl ether</b>	<b>2.7</b>	<b>J</b>	5.0	0.40	ug/L			07/17/13 12:27	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 12:27	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 12:27	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 12:27	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 12:27	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 12:27	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 12:27	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 12:27	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 12:27	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 12:27	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 12:27	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 12:27	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 12:27	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		82 - 132		07/17/13 12:27	1
4-Bromofluorobenzene (Surr)	104		82 - 121		07/17/13 12:27	1
Dibromofluoromethane (Surr)	106		85 - 119		07/17/13 12:27	1
Toluene-d8 (Surr)	105		85 - 115		07/17/13 12:27	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Aluminum</b>	<b>170</b>	<b>J</b>	200	80	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Antimony</b>	<b>4.6</b>	<b>J</b>	10	4.0	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Arsenic</b>	<b>2.5</b>	<b>J</b>	10	2.0	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Barium</b>	<b>1300</b>		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:16	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:16	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: D-6**

**Lab Sample ID: 160-2984-5**

Date Collected: 07/12/13 11:35

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Calcium</b>	<b>180000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Calcium</b>	<b>240000</b>		10000	1100	ug/L		07/16/13 14:18	07/18/13 20:54	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:16	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:16	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Iron</b>	<b>18000</b>		100	28	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Iron</b>	<b>19000</b>		1000	280	ug/L		07/16/13 14:18	07/18/13 20:54	10
<b>Lead</b>	<b>3.2</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Magnesium</b>	<b>60000</b>	<b>E</b>	1000	130	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Magnesium</b>	<b>64000</b>		10000	1300	ug/L		07/16/13 14:18	07/18/13 20:54	10
<b>Manganese</b>	<b>480</b>		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Nickel</b>	<b>13</b>	<b>J</b>	40	13	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Potassium</b>	<b>13000</b>		5000	1700	ug/L		07/16/13 14:18	07/18/13 19:16	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 19:16	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Sodium</b>	<b>140000</b>	<b>E</b>	1000	320	ug/L		07/16/13 14:18	07/18/13 19:16	1
<b>Sodium</b>	<b>150000</b>		10000	3200	ug/L		07/16/13 14:18	07/18/13 20:54	10
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:16	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 19:16	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:18	07/18/13 19:16	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:36	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:36	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Barium</b>	<b>1300</b>		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:36	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:36	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Calcium</b>	<b>180000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Calcium</b>	<b>220000</b>		5000	530	ug/L		07/16/13 14:09	07/17/13 18:14	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:36	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:36	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Iron</b>	<b>18000</b>		100	28	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Iron</b>	<b>18000</b>		500	140	ug/L		07/16/13 14:09	07/17/13 18:14	5
<b>Lead</b>	<b>2.8</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Magnesium</b>	<b>58000</b>	<b>E</b>	1000	130	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Magnesium</b>	<b>59000</b>		5000	660	ug/L		07/16/13 14:09	07/17/13 18:14	5
<b>Manganese</b>	<b>460</b>		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Nickel</b>	<b>14</b>	<b>J</b>	40	13	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Potassium</b>	<b>13000</b>		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:36	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:36	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Sodium</b>	<b>140000</b>	<b>E</b>	1000	320	ug/L		07/16/13 14:09	07/17/13 16:36	1
<b>Sodium</b>	<b>140000</b>		5000	1600	ug/L		07/16/13 14:09	07/17/13 18:14	5
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:36	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:36	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:09	07/17/13 16:36	1

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## Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: D-6**

**Lab Sample ID: 160-2984-5**

Date Collected: 07/12/13 11:35

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:13	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15	J B	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 12:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0056	J	0.020	0.0040	mg/L			07/13/13 06:52	1
Bromide	2.9		0.25	0.025	mg/L			07/13/13 06:52	1
Sulfate	3.3		0.50	0.050	mg/L			07/13/13 06:52	1
Iodide	0.21	J	1.0	0.10	mg/L			07/16/13 01:39	1
Alkalinity	870	B	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		20	2.0	mg/L			07/13/13 07:21	100

**Client Sample ID: S-61**

**Lab Sample ID: 160-2984-6**

Date Collected: 07/12/13 12:02

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 12:54	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 12:54	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 12:54	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 12:54	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 12:54	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 12:54	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 12:54	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 12:54	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 12:54	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 12:54	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 12:54	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 12:54	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 12:54	1
2-Butanone (MEK)	ND		20	0.39	ug/L			07/17/13 12:54	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 12:54	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 12:54	1
Acetone	ND		20	6.7	ug/L			07/17/13 12:54	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 12:54	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 12:54	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 12:54	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 12:54	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 12:54	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 12:54	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 12:54	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 12:54	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 12:54	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: S-61**

**Lab Sample ID: 160-2984-6**

**Date Collected: 07/12/13 12:02**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	0.55	ug/L			07/17/13 12:54	1
<b>cis-1,2-Dichloroethene</b>	<b>0.54</b>	<b>J</b>	5.0	0.16	ug/L			07/17/13 12:54	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 12:54	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 12:54	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 12:54	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 12:54	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 12:54	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 12:54	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 12:54	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 12:54	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 12:54	1
Methylene Chloride	ND *		5.0	1.7	ug/L			07/17/13 12:54	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 12:54	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 12:54	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 12:54	1
<b>Tetrachloroethene</b>	<b>0.67</b>	<b>J</b>	5.0	0.28	ug/L			07/17/13 12:54	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 12:54	1
trans-1,2-Dichloroethene	ND *		5.0	0.18	ug/L			07/17/13 12:54	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 12:54	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 12:54	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 12:54	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 12:54	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 12:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		82 - 132		07/17/13 12:54	1
4-Bromofluorobenzene (Surr)	104		82 - 121		07/17/13 12:54	1
Dibromofluoromethane (Surr)	102		85 - 119		07/17/13 12:54	1
Toluene-d8 (Surr)	100		85 - 115		07/17/13 12:54	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Aluminum</b>	<b>14000</b>		200	80	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Antimony</b>	<b>6.6</b>	<b>J</b>	10	4.0	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Arsenic</b>	<b>9.4</b>	<b>J</b>	10	2.0	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Barium</b>	<b>540</b>		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:19	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:19	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Calcium</b>	<b>170000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Calcium</b>	<b>210000</b>		10000	1100	ug/L		07/16/13 14:18	07/18/13 20:58	10
<b>Chromium</b>	<b>19</b>		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Cobalt</b>	<b>19</b>	<b>J</b>	50	4.0	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Copper</b>	<b>13</b>	<b>J</b>	25	4.6	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Iron</b>	<b>19000</b>		100	28	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Lead</b>	<b>81</b>		10	1.5	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Magnesium</b>	<b>46000</b>		1000	130	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Manganese</b>	<b>960</b>		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Nickel</b>	<b>59</b>		40	13	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Potassium</b>	<b>9400</b>		5000	1700	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Selenium</b>	<b>2.8</b>	<b>J</b>	15	2.7	ug/L		07/16/13 14:18	07/18/13 19:19	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: S-61**

**Lab Sample ID: 160-2984-6**

Date Collected: 07/12/13 12:02

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Sodium</b>	<b>8500</b>		1000	320	ug/L		07/16/13 14:18	07/18/13 19:19	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Vanadium</b>	<b>32</b>	<b>J</b>	50	4.1	ug/L		07/16/13 14:18	07/18/13 19:19	1
<b>Zinc</b>	<b>77</b>		20	5.2	ug/L		07/16/13 14:18	07/18/13 19:19	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:40	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:40	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Barium</b>	<b>240</b>		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:40	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:40	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Calcium</b>	<b>160000</b>	<b>E</b>	1000	110	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Calcium</b>	<b>180000</b>		5000	530	ug/L		07/16/13 14:09	07/17/13 18:18	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Cobalt</b>	<b>4.1</b>	<b>J</b>	50	4.0	ug/L		07/16/13 14:09	07/17/13 16:40	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Iron</b>	<b>44</b>	<b>J</b>	100	28	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Lead</b>	<b>2.5</b>	<b>J</b>	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Magnesium</b>	<b>38000</b>		1000	130	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Manganese</b>	<b>680</b>		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Nickel</b>	<b>14</b>	<b>J</b>	40	13	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Potassium</b>	<b>6200</b>		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:40	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:40	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:40	1
<b>Sodium</b>	<b>7600</b>		1000	320	ug/L		07/16/13 14:09	07/17/13 16:40	1
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:40	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:40	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:09	07/17/13 16:40	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.064</b>	<b>J</b>	0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:14	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.13</b>	<b>J B</b>	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 12:07	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 07:35	1
Bromide	ND		0.25	0.025	mg/L			07/13/13 07:35	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 01:54	1
<b>Alkalinity</b>	<b>510</b>	<b>B</b>	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>10</b>		4.0	0.40	mg/L			07/13/13 07:49	20
<b>Sulfate</b>	<b>93</b>		10	1.0	mg/L			07/13/13 07:49	20

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-67**

**Lab Sample ID: 160-2984-7**

**Date Collected: 07/12/13 13:33**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 13:20	1
1,1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 13:20	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 13:20	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 13:20	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 13:20	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 13:20	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 13:20	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 13:20	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 13:20	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 13:20	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 13:20	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 13:20	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 13:20	1
2-Butanone (MEK)	ND		20	0.39	ug/L			07/17/13 13:20	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 13:20	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 13:20	1
Acetone	ND		20	6.7	ug/L			07/17/13 13:20	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 13:20	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 13:20	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 13:20	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 13:20	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 13:20	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 13:20	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 13:20	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 13:20	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 13:20	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 13:20	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 13:20	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 13:20	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 13:20	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 13:20	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 13:20	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 13:20	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 13:20	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 13:20	1
<b>Methyl tert-butyl ether</b>	<b>0.63</b>	<b>J</b>	5.0	0.40	ug/L			07/17/13 13:20	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 13:20	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 13:20	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 13:20	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 13:20	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 13:20	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 13:20	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 13:20	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 13:20	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 13:20	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 13:20	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 13:20	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 13:20	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 13:20	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-67**

**Lab Sample ID: 160-2984-7**

**Date Collected: 07/12/13 13:33**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		82 - 132		07/17/13 13:20	1
4-Bromofluorobenzene (Surr)	107		82 - 121		07/17/13 13:20	1
Dibromofluoromethane (Surr)	103		85 - 119		07/17/13 13:20	1
Toluene-d8 (Surr)	100		85 - 115		07/17/13 13:20	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110	J	200	80	ug/L		07/16/13 14:18	07/18/13 19:23	1
Antimony	4.0	J	10	4.0	ug/L		07/16/13 14:18	07/18/13 19:23	1
Arsenic	4.6	J	10	2.0	ug/L		07/16/13 14:18	07/18/13 19:23	1
Barium	280		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:23	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:23	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:23	1
Calcium	200000	E	1000	110	ug/L		07/16/13 14:18	07/18/13 19:23	1
Calcium	230000		10000	1100	ug/L		07/16/13 14:18	07/18/13 21:02	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:23	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:23	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 19:23	1
Iron	8900		100	28	ug/L		07/16/13 14:18	07/18/13 19:23	1
Lead	2.6	J	10	1.5	ug/L		07/16/13 14:18	07/18/13 19:23	1
Magnesium	38000		1000	130	ug/L		07/16/13 14:18	07/18/13 19:23	1
Manganese	1300		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:23	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 19:23	1
Potassium	9000		5000	1700	ug/L		07/16/13 14:18	07/18/13 19:23	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 19:23	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:23	1
Sodium	54000		1000	320	ug/L		07/16/13 14:18	07/18/13 19:23	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:23	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 19:23	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:18	07/18/13 19:23	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:44	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:44	1
Arsenic	4.9	J	10	2.0	ug/L		07/16/13 14:09	07/17/13 16:44	1
Barium	290		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:44	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:44	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:44	1
Calcium	200000	E	1000	110	ug/L		07/16/13 14:09	07/17/13 16:44	1
Calcium	230000		5000	530	ug/L		07/16/13 14:09	07/17/13 18:29	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:44	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:44	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:44	1
Iron	8700		100	28	ug/L		07/16/13 14:09	07/17/13 16:44	1
Lead	2.1	J	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:44	1
Magnesium	37000		1000	130	ug/L		07/16/13 14:09	07/17/13 16:44	1
Manganese	1400		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:44	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 16:44	1
Potassium	9200		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:44	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-67**

**Lab Sample ID: 160-2984-7**

Date Collected: 07/12/13 13:33

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:44	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:44	1
<b>Sodium</b>	<b>55000</b>		1000	320	ug/L		07/16/13 14:09	07/17/13 16:44	1
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:44	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:44	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:09	07/17/13 16:44	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:16	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.13</b>	<b>J B</b>	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 12:08	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 08:33	1
<b>Bromide</b>	<b>0.081</b>	<b>J</b>	0.25	0.025	mg/L			07/13/13 08:33	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 02:38	1
<b>Alkalinity</b>	<b>610</b>	<b>B</b>	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Sulfate</b>	<b>96</b>		10	1.0	mg/L			07/13/13 08:47	20

**General Chemistry - DL2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>110</b>		20	2.0	mg/L			07/13/13 09:02	100

**Client Sample ID: I-68**

**Lab Sample ID: 160-2984-8**

Date Collected: 07/12/13 14:35

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 13:46	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 13:46	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 13:46	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 13:46	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 13:46	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 13:46	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 13:46	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 13:46	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 13:46	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 13:46	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 13:46	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 13:46	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 13:46	1
<b>2-Butanone (MEK)</b>	<b>3.6</b>	<b>J</b>	20	0.39	ug/L			07/17/13 13:46	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 13:46	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-68**

**Lab Sample ID: 160-2984-8**

**Date Collected: 07/12/13 14:35**

**Matrix: Water**

**Date Received: 07/12/13 15:35**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 13:46	1
Acetone	ND		20	6.7	ug/L			07/17/13 13:46	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 13:46	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 13:46	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 13:46	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 13:46	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 13:46	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 13:46	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 13:46	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 13:46	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 13:46	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 13:46	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 13:46	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 13:46	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 13:46	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 13:46	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 13:46	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 13:46	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 13:46	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 13:46	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 13:46	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 13:46	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 13:46	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 13:46	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 13:46	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 13:46	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 13:46	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 13:46	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 13:46	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 13:46	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 13:46	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 13:46	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 13:46	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		82 - 132		07/17/13 13:46	1
4-Bromofluorobenzene (Surr)	107		82 - 121		07/17/13 13:46	1
Dibromofluoromethane (Surr)	105		85 - 119		07/17/13 13:46	1
Toluene-d8 (Surr)	102		85 - 115		07/17/13 13:46	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		200	80	ug/L		07/16/13 14:18	07/18/13 19:27	1
Antimony	5.4	J	10	4.0	ug/L		07/16/13 14:18	07/18/13 19:27	1
Arsenic	10		10	2.0	ug/L		07/16/13 14:18	07/18/13 19:27	1
Barium	510		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:27	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:27	1
Cadmium	2.1	J	5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:27	1
Calcium	150000	E	1000	110	ug/L		07/16/13 14:18	07/18/13 19:27	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-68**

**Lab Sample ID: 160-2984-8**

Date Collected: 07/12/13 14:35

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190000		10000	1100	ug/L		07/16/13 14:18	07/18/13 21:06	10
Chromium	24		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:27	1
Cobalt	22	J	50	4.0	ug/L		07/16/13 14:18	07/18/13 19:27	1
Copper	29		25	4.6	ug/L		07/16/13 14:18	07/18/13 19:27	1
Iron	13000		100	28	ug/L		07/16/13 14:18	07/18/13 19:27	1
Lead	35		10	1.5	ug/L		07/16/13 14:18	07/18/13 19:27	1
Magnesium	47000		1000	130	ug/L		07/16/13 14:18	07/18/13 19:27	1
Manganese	1600		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:27	1
Nickel	52		40	13	ug/L		07/16/13 14:18	07/18/13 19:27	1
Potassium	9000		5000	1700	ug/L		07/16/13 14:18	07/18/13 19:27	1
Selenium	3.2	J	15	2.7	ug/L		07/16/13 14:18	07/18/13 19:27	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:27	1
Sodium	230000	E	1000	320	ug/L		07/16/13 14:18	07/18/13 19:27	1
Sodium	240000		10000	3200	ug/L		07/16/13 14:18	07/18/13 21:06	10
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:27	1
Vanadium	28	J	50	4.1	ug/L		07/16/13 14:18	07/18/13 19:27	1
Zinc	140		20	5.2	ug/L		07/16/13 14:18	07/18/13 19:27	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 16:48	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 16:48	1
Arsenic	2.2	J	10	2.0	ug/L		07/16/13 14:09	07/17/13 16:48	1
Barium	390		50	4.0	ug/L		07/16/13 14:09	07/17/13 16:48	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 16:48	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 16:48	1
Calcium	130000	E	1000	110	ug/L		07/16/13 14:09	07/17/13 16:48	1
Calcium	150000		5000	530	ug/L		07/16/13 14:09	07/17/13 18:33	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 16:48	1
Cobalt	11	J	50	4.0	ug/L		07/16/13 14:09	07/17/13 16:48	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 16:48	1
Iron	130		100	28	ug/L		07/16/13 14:09	07/17/13 16:48	1
Lead	2.0	J	10	1.5	ug/L		07/16/13 14:09	07/17/13 16:48	1
Magnesium	39000		1000	130	ug/L		07/16/13 14:09	07/17/13 16:48	1
Manganese	1500		15	3.3	ug/L		07/16/13 14:09	07/17/13 16:48	1
Nickel	24	J	40	13	ug/L		07/16/13 14:09	07/17/13 16:48	1
Potassium	6500		5000	1700	ug/L		07/16/13 14:09	07/17/13 16:48	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 16:48	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 16:48	1
Sodium	230000	E	1000	320	ug/L		07/16/13 14:09	07/17/13 16:48	1
Sodium	240000		5000	1600	ug/L		07/16/13 14:09	07/17/13 18:33	5
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 16:48	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 16:48	1
Zinc	18	J B	20	5.2	ug/L		07/16/13 14:09	07/17/13 16:48	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15	J	0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:21	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: I-68**

**Lab Sample ID: 160-2984-8**

Date Collected: 07/12/13 14:35

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	J B	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 12:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 09:16	1
Bromide	0.075	J	0.25	0.025	mg/L			07/13/13 09:16	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 02:53	1
Alkalinity	510	B	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	52		10	1.0	mg/L			07/13/13 09:30	20

**General Chemistry - DL2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		20	2.0	mg/L			07/13/13 09:45	100

**Client Sample ID: DUPLICATE 04**

**Lab Sample ID: 160-2984-9**

Date Collected: 07/12/13 00:00

Matrix: Water

Date Received: 07/12/13 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 14:12	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 14:12	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 14:12	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 14:12	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 14:12	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 14:12	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 14:12	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 14:12	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 14:12	1
1,2-Dichloroethane	ND	*	5.0	0.37	ug/L			07/17/13 14:12	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 14:12	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 14:12	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 14:12	1
<b>2-Butanone (MEK)</b>	<b>15</b>	<b>J</b>	20	0.39	ug/L			07/17/13 14:12	1
2-Hexanone	ND	*	20	0.59	ug/L			07/17/13 14:12	1
4-Methyl-2-pentanone (MIBK)	ND	*	20	0.33	ug/L			07/17/13 14:12	1
Acetone	ND		20	6.7	ug/L			07/17/13 14:12	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 14:12	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 14:12	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 14:12	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 14:12	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 14:12	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 14:12	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 14:12	1
Chloroethane	ND	*	10	0.38	ug/L			07/17/13 14:12	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 14:12	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 14:12	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: DUPLICATE 04**

**Lab Sample ID: 160-2984-9**

Date Collected: 07/12/13 00:00

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 14:12	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 14:12	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 14:12	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 14:12	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 14:12	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 14:12	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 14:12	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 14:12	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 14:12	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 14:12	1
Methylene Chloride	ND	*	5.0	1.7	ug/L			07/17/13 14:12	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 14:12	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 14:12	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 14:12	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 14:12	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 14:12	1
trans-1,2-Dichloroethene	ND	*	5.0	0.18	ug/L			07/17/13 14:12	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 14:12	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 14:12	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 14:12	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 14:12	1
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 14:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	132		82 - 132		07/17/13 14:12	1
4-Bromofluorobenzene (Surr)	109		82 - 121		07/17/13 14:12	1
Dibromofluoromethane (Surr)	109		85 - 119		07/17/13 14:12	1
Toluene-d8 (Surr)	104		85 - 115		07/17/13 14:12	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	180	J	200	80	ug/L		07/16/13 14:18	07/18/13 19:31	1
Antimony	5.1	J	10	4.0	ug/L		07/16/13 14:18	07/18/13 19:31	1
Arsenic	13		10	2.0	ug/L		07/16/13 14:18	07/18/13 19:31	1
Barium	380		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:31	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 19:31	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 19:31	1
Calcium	100000	E	1000	110	ug/L		07/16/13 14:18	07/18/13 19:31	1
Calcium	120000		10000	1100	ug/L		07/16/13 14:18	07/18/13 21:10	10
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 19:31	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 19:31	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 19:31	1
Iron	7400		100	28	ug/L		07/16/13 14:18	07/18/13 19:31	1
Lead	2.3	J	10	1.5	ug/L		07/16/13 14:18	07/18/13 19:31	1
Magnesium	29000		1000	130	ug/L		07/16/13 14:18	07/18/13 19:31	1
Manganese	500		15	3.3	ug/L		07/16/13 14:18	07/18/13 19:31	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 19:31	1
Potassium	6100		5000	1700	ug/L		07/16/13 14:18	07/18/13 19:31	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 19:31	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 19:31	1

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

**Client Sample ID: DUPLICATE 04**

**Lab Sample ID: 160-2984-9**

Date Collected: 07/12/13 00:00

Matrix: Water

Date Received: 07/12/13 15:35

**Method: 6010C - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	25000		1000	320	ug/L		07/16/13 14:18	07/18/13 19:31	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 19:31	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 19:31	1
Zinc	7.6	J	20	5.2	ug/L		07/16/13 14:18	07/18/13 19:31	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 17:00	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 17:00	1
Arsenic	11		10	2.0	ug/L		07/16/13 14:09	07/17/13 17:00	1
Barium	370		50	4.0	ug/L		07/16/13 14:09	07/17/13 17:00	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 17:00	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 17:00	1
Calcium	100000	E	1000	110	ug/L		07/16/13 14:09	07/17/13 17:00	1
Calcium	110000		5000	530	ug/L		07/16/13 14:09	07/17/13 18:37	5
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 17:00	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 17:00	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 17:00	1
Iron	6500		100	28	ug/L		07/16/13 14:09	07/17/13 17:00	1
Lead	2.0	J	10	1.5	ug/L		07/16/13 14:09	07/17/13 17:00	1
Magnesium	28000		1000	130	ug/L		07/16/13 14:09	07/17/13 17:00	1
Manganese	470		15	3.3	ug/L		07/16/13 14:09	07/17/13 17:00	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 17:00	1
Potassium	6100		5000	1700	ug/L		07/16/13 14:09	07/17/13 17:00	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 17:00	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 17:00	1
Sodium	25000		1000	320	ug/L		07/16/13 14:09	07/17/13 17:00	1
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 17:00	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 17:00	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:09	07/17/13 17:00	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 17:23	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	J B	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 12:12	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 09:59	1
Bromide	ND		0.25	0.025	mg/L			07/13/13 09:59	1
Iodide	ND		1.0	0.10	mg/L			07/16/13 03:08	1
Alkalinity	360	B	5.0	0.54	mg/L			07/26/13 09:51	1

**General Chemistry - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54		4.0	0.40	mg/L			07/13/13 10:14	20
Sulfate	25		10	1.0	mg/L			07/13/13 10:14	20

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

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

**Lab Sample ID: MB 160-61405/2**

**Matrix: Water**

**Analysis Batch: 61405**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			07/17/13 08:01	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			07/17/13 08:01	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			07/17/13 08:01	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			07/17/13 08:01	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			07/17/13 08:01	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			07/17/13 08:01	1
1,2-Dibromo-3-Chloropropane	ND		10	1.2	ug/L			07/17/13 08:01	1
1,2-Dibromoethane (EDB)	ND		5.0	0.44	ug/L			07/17/13 08:01	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			07/17/13 08:01	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			07/17/13 08:01	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			07/17/13 08:01	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			07/17/13 08:01	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			07/17/13 08:01	1
2-Butanone (MEK)	ND		20	0.39	ug/L			07/17/13 08:01	1
2-Hexanone	ND		20	0.59	ug/L			07/17/13 08:01	1
4-Methyl-2-pentanone (MIBK)	2.49	J	20	0.33	ug/L			07/17/13 08:01	1
Acetone	ND		20	6.7	ug/L			07/17/13 08:01	1
Benzene	ND		5.0	0.25	ug/L			07/17/13 08:01	1
Bromodichloromethane	ND		5.0	0.25	ug/L			07/17/13 08:01	1
Bromoform	ND		5.0	0.37	ug/L			07/17/13 08:01	1
Bromomethane	ND		10	0.40	ug/L			07/17/13 08:01	1
Carbon disulfide	ND		5.0	0.37	ug/L			07/17/13 08:01	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			07/17/13 08:01	1
Chlorobenzene	ND		5.0	0.38	ug/L			07/17/13 08:01	1
Chloroethane	ND		10	0.38	ug/L			07/17/13 08:01	1
Chloroform	ND		5.0	0.15	ug/L			07/17/13 08:01	1
Chloromethane	ND		10	0.55	ug/L			07/17/13 08:01	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			07/17/13 08:01	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			07/17/13 08:01	1
Cyclohexane	ND		10	0.36	ug/L			07/17/13 08:01	1
Dibromochloromethane	ND		5.0	0.33	ug/L			07/17/13 08:01	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			07/17/13 08:01	1
Ethylbenzene	ND		5.0	0.30	ug/L			07/17/13 08:01	1
Isopropylbenzene	ND		5.0	0.26	ug/L			07/17/13 08:01	1
Methyl acetate	ND		25	2.3	ug/L			07/17/13 08:01	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			07/17/13 08:01	1
Methylcyclohexane	ND		10	0.26	ug/L			07/17/13 08:01	1
Methylene Chloride	ND		5.0	1.7	ug/L			07/17/13 08:01	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			07/17/13 08:01	1
o-Xylene	ND		5.0	0.32	ug/L			07/17/13 08:01	1
Styrene	ND		5.0	0.35	ug/L			07/17/13 08:01	1
Tetrachloroethene	ND		5.0	0.28	ug/L			07/17/13 08:01	1
Toluene	ND		5.0	1.0	ug/L			07/17/13 08:01	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			07/17/13 08:01	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			07/17/13 08:01	1
Trichloroethene	ND		5.0	0.29	ug/L			07/17/13 08:01	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			07/17/13 08:01	1
Vinyl chloride	ND		5.0	0.43	ug/L			07/17/13 08:01	1

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 160-61405/2

Matrix: Water

Analysis Batch: 61405

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		10	0.85	ug/L			07/17/13 08:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	123		82 - 132		07/17/13 08:01	1
4-Bromofluorobenzene (Surr)	106		82 - 121		07/17/13 08:01	1
Dibromofluoromethane (Surr)	102		85 - 119		07/17/13 08:01	1
Toluene-d8 (Surr)	100		85 - 115		07/17/13 08:01	1

Lab Sample ID: LCS 160-61405/4

Matrix: Water

Analysis Batch: 61405

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	53.4		ug/L		107	85 - 115
1,1,2,2-Tetrachloroethane	50.0	52.9		ug/L		106	84 - 115
1,1,2-Trichloroethane	50.0	50.5		ug/L		101	85 - 115
1,1-Dichloroethane	50.0	52.7		ug/L		105	85 - 115
1,1-Dichloroethene	50.0	46.4		ug/L		93	85 - 118
1,2,4-Trichlorobenzene	50.0	44.3		ug/L		89	75 - 124
1,2-Dibromo-3-Chloropropane	50.0	51.6		ug/L		103	71 - 123
1,2-Dibromoethane (EDB)	50.0	45.9		ug/L		92	85 - 115
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	85 - 115
1,2-Dichloroethane	50.0	62.3	*	ug/L		125	79 - 122
1,2-Dichloropropane	50.0	52.5		ug/L		105	85 - 115
1,3-Dichlorobenzene	50.0	49.2		ug/L		98	85 - 115
1,4-Dichlorobenzene	50.0	48.2		ug/L		96	85 - 115
2-Butanone (MEK)	50.0	54.8		ug/L		110	71 - 123
2-Hexanone	50.0	66.2	*	ug/L		132	66 - 121
4-Methyl-2-pentanone (MIBK)	50.0	61.4		ug/L		123	74 - 123
Acetone	50.0	61.9		ug/L		124	51 - 140
Benzene	50.0	48.9		ug/L		98	85 - 115
Bromodichloromethane	50.0	55.2		ug/L		110	85 - 117
Bromoform	50.0	48.3		ug/L		97	85 - 115
Bromomethane	50.0	50.4		ug/L		101	70 - 135
Carbon disulfide	50.0	46.6		ug/L		93	85 - 123
Carbon tetrachloride	50.0	51.4		ug/L		103	85 - 118
Chlorobenzene	50.0	52.0		ug/L		104	85 - 115
Chloroethane	50.0	72.1	*	ug/L		144	75 - 125
Chloroform	50.0	51.7		ug/L		103	85 - 115
Chloromethane	50.0	49.3		ug/L		99	73 - 132
cis-1,2-Dichloroethene	50.0	44.7		ug/L		89	85 - 115
cis-1,3-Dichloropropene	50.0	52.8		ug/L		106	85 - 127
Cyclohexane	50.0	48.3		ug/L		97	73 - 115
Dibromochloromethane	50.0	47.1		ug/L		94	85 - 115
Dichlorodifluoromethane	50.0	49.9		ug/L		100	62 - 115
Ethylbenzene	50.0	56.7		ug/L		113	85 - 115
Isopropylbenzene	50.0	51.8		ug/L		104	85 - 124
Methyl acetate	250	256		ug/L		102	73 - 135

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 160-61405/4**

**Matrix: Water**

**Analysis Batch: 61405**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	52.3		ug/L		105	73 - 115
Methylcyclohexane	50.0	56.5		ug/L		113	85 - 134
Methylene Chloride	50.0	42.4		ug/L		85	84 - 115
m-Xylene & p-Xylene	50.0	54.9		ug/L		110	85 - 115
o-Xylene	50.0	51.2		ug/L		102	85 - 115
Styrene	50.0	53.0		ug/L		106	85 - 115
Tetrachloroethene	50.0	44.8		ug/L		90	85 - 115
Toluene	50.0	48.9		ug/L		98	85 - 115
trans-1,2-Dichloroethene	50.0	41.1	*	ug/L		82	85 - 115
trans-1,3-Dichloropropene	50.0	51.6		ug/L		103	85 - 123
Trichloroethene	50.0	49.2		ug/L		98	85 - 115
Trichlorofluoromethane	50.0	54.9		ug/L		110	85 - 116
Vinyl chloride	50.0	45.8		ug/L		92	68 - 133
Xylenes, Total	100	106		ug/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	126		82 - 132
4-Bromofluorobenzene (Surr)	101		82 - 121
Dibromofluoromethane (Surr)	95		85 - 119
Toluene-d8 (Surr)	98		85 - 115

**Lab Sample ID: LCSD 160-61405/5**

**Matrix: Water**

**Analysis Batch: 61405**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	52.2		ug/L		104	85 - 115	2	20
1,1,1,2-Tetrachloroethane	50.0	55.5		ug/L		111	84 - 115	5	20
1,1,2-Trichloroethane	50.0	52.9		ug/L		106	85 - 115	5	20
1,1-Dichloroethane	50.0	50.1		ug/L		100	85 - 115	5	20
1,1-Dichloroethene	50.0	43.5		ug/L		87	85 - 118	7	20
1,2,4-Trichlorobenzene	50.0	45.0		ug/L		90	75 - 124	2	20
1,2-Dibromo-3-Chloropropane	50.0	48.5		ug/L		97	71 - 123	6	20
1,2-Dibromoethane (EDB)	50.0	51.5		ug/L		103	85 - 115	11	20
1,2-Dichlorobenzene	50.0	51.2		ug/L		102	85 - 115	0	20
1,2-Dichloroethane	50.0	57.9		ug/L		116	79 - 122	7	20
1,2-Dichloropropane	50.0	49.8		ug/L		100	85 - 115	5	20
1,3-Dichlorobenzene	50.0	50.1		ug/L		100	85 - 115	2	20
1,4-Dichlorobenzene	50.0	51.5		ug/L		103	85 - 115	7	20
2-Butanone (MEK)	50.0	53.1		ug/L		106	71 - 123	3	20
2-Hexanone	50.0	67.6	*	ug/L		135	66 - 121	2	20
4-Methyl-2-pentanone (MIBK)	50.0	64.8	*	ug/L		130	74 - 123	5	20
Acetone	50.0	57.8		ug/L		116	51 - 140	7	20
Benzene	50.0	49.9		ug/L		100	85 - 115	2	20
Bromodichloromethane	50.0	53.9		ug/L		108	85 - 117	2	20
Bromoform	50.0	50.9		ug/L		102	85 - 115	5	20
Bromomethane	50.0	46.5		ug/L		93	70 - 135	8	20
Carbon disulfide	50.0	45.0		ug/L		90	85 - 123	3	20

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 160-61405/5

Matrix: Water

Analysis Batch: 61405

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
Carbon tetrachloride	50.0	49.8		ug/L		100	85 - 118	3	20	
Chlorobenzene	50.0	50.0		ug/L		100	85 - 115	4	20	
Chloroethane	50.0	65.8	*	ug/L		132	75 - 125	9	20	
Chloroform	50.0	52.0		ug/L		104	85 - 115	1	20	
Chloromethane	50.0	46.1		ug/L		92	73 - 132	7	20	
cis-1,2-Dichloroethene	50.0	44.1		ug/L		88	85 - 115	1	20	
cis-1,3-Dichloropropene	50.0	50.0		ug/L		100	85 - 127	6	20	
Cyclohexane	50.0	50.7		ug/L		101	73 - 115	5	20	
Dibromochloromethane	50.0	50.0		ug/L		100	85 - 115	6	20	
Dichlorodifluoromethane	50.0	46.4		ug/L		93	62 - 115	7	20	
Ethylbenzene	50.0	54.4		ug/L		109	85 - 115	4	20	
Isopropylbenzene	50.0	52.3		ug/L		105	85 - 124	1	20	
Methyl acetate	250	266		ug/L		106	73 - 135	4	20	
Methyl tert-butyl ether	50.0	50.7		ug/L		101	73 - 115	3	20	
Methylcyclohexane	50.0	53.0		ug/L		106	85 - 134	6	20	
Methylene Chloride	50.0	41.5	*	ug/L		83	84 - 115	2	20	
m-Xylene & p-Xylene	50.0	51.4		ug/L		103	85 - 115	7	20	
o-Xylene	50.0	50.7		ug/L		101	85 - 115	1	20	
Styrene	50.0	50.5		ug/L		101	85 - 115	5	20	
Tetrachloroethene	50.0	46.7		ug/L		93	85 - 115	4	20	
Toluene	50.0	49.7		ug/L		99	85 - 115	2	20	
trans-1,2-Dichloroethene	50.0	40.3	*	ug/L		81	85 - 115	2	20	
trans-1,3-Dichloropropene	50.0	52.2		ug/L		104	85 - 123	1	20	
Trichloroethene	50.0	50.3		ug/L		101	85 - 115	2	20	
Trichlorofluoromethane	50.0	51.1		ug/L		102	85 - 116	7	20	
Vinyl chloride	50.0	45.6		ug/L		91	68 - 133	0	20	
Xylenes, Total	100	102		ug/L		102	70 - 130	4	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	117		82 - 132
4-Bromofluorobenzene (Surr)	100		82 - 121
Dibromofluoromethane (Surr)	99		85 - 119
Toluene-d8 (Surr)	99		85 - 115

### Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-60807/1-A

Matrix: Water

Analysis Batch: 61388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60807

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		200	80	ug/L		07/16/13 14:09	07/17/13 15:27	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:09	07/17/13 15:27	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:09	07/17/13 15:27	1
Barium	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 15:27	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:09	07/17/13 15:27	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:09	07/17/13 15:27	1
Calcium	ND		1000	110	ug/L		07/16/13 14:09	07/17/13 15:27	1

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 160-60807/1-A

Matrix: Water

Analysis Batch: 61388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60807

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium	ND		10	3.1	ug/L		07/16/13 14:09	07/17/13 15:27	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:09	07/17/13 15:27	1
Copper	ND		25	4.6	ug/L		07/16/13 14:09	07/17/13 15:27	1
Iron	ND		100	28	ug/L		07/16/13 14:09	07/17/13 15:27	1
Lead	ND		10	1.5	ug/L		07/16/13 14:09	07/17/13 15:27	1
Magnesium	ND		1000	130	ug/L		07/16/13 14:09	07/17/13 15:27	1
Manganese	ND		15	3.3	ug/L		07/16/13 14:09	07/17/13 15:27	1
Nickel	ND		40	13	ug/L		07/16/13 14:09	07/17/13 15:27	1
Potassium	ND		5000	1700	ug/L		07/16/13 14:09	07/17/13 15:27	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:09	07/17/13 15:27	1
Silver	ND		10	6.0	ug/L		07/16/13 14:09	07/17/13 15:27	1
Sodium	ND		1000	320	ug/L		07/16/13 14:09	07/17/13 15:27	1
Thallium	ND	^	20	4.0	ug/L		07/16/13 14:09	07/17/13 15:27	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:09	07/17/13 15:27	1
Zinc	7.10	J	20	5.2	ug/L		07/16/13 14:09	07/17/13 15:27	1

Lab Sample ID: LCS 160-60807/2-A

Matrix: Water

Analysis Batch: 61388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60807

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aluminum	10000	9750		ug/L		98	80 - 120
Antimony	500	517		ug/L		103	80 - 120
Arsenic	1000	1040		ug/L		104	80 - 120
Barium	1000	1010		ug/L		101	80 - 120
Beryllium	1000	1010		ug/L		101	80 - 120
Cadmium	1000	1050		ug/L		105	80 - 120
Calcium	10000	10700		ug/L		107	80 - 120
Chromium	1000	1070		ug/L		107	80 - 120
Cobalt	1000	1090		ug/L		109	80 - 120
Copper	1000	1050		ug/L		105	80 - 120
Iron	10000	10100		ug/L		101	80 - 120
Lead	1000	1100		ug/L		110	80 - 120
Magnesium	10000	10200		ug/L		102	80 - 120
Manganese	1000	1010		ug/L		101	80 - 120
Nickel	1000	1090		ug/L		109	80 - 120
Potassium	10000	9870		ug/L		99	80 - 120
Selenium	1000	1040		ug/L		104	80 - 120
Silver	100	93.7		ug/L		94	80 - 120
Sodium	10000	9900		ug/L		99	80 - 120
Thallium	200	233	^	ug/L		117	80 - 120
Vanadium	1000	994		ug/L		99	80 - 120
Zinc	1000	1050		ug/L		105	80 - 120

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 160-60809/1-A

Matrix: Water

Analysis Batch: 61576

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	80	ug/L		07/16/13 14:18	07/18/13 17:59	1
Antimony	ND		10	4.0	ug/L		07/16/13 14:18	07/18/13 17:59	1
Arsenic	ND		10	2.0	ug/L		07/16/13 14:18	07/18/13 17:59	1
Barium	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 17:59	1
Beryllium	ND		5.0	0.61	ug/L		07/16/13 14:18	07/18/13 17:59	1
Cadmium	ND		5.0	0.91	ug/L		07/16/13 14:18	07/18/13 17:59	1
Calcium	ND		1000	110	ug/L		07/16/13 14:18	07/18/13 17:59	1
Chromium	ND		10	3.1	ug/L		07/16/13 14:18	07/18/13 17:59	1
Cobalt	ND		50	4.0	ug/L		07/16/13 14:18	07/18/13 17:59	1
Copper	ND		25	4.6	ug/L		07/16/13 14:18	07/18/13 17:59	1
Iron	ND		100	28	ug/L		07/16/13 14:18	07/18/13 17:59	1
Lead	ND		10	1.5	ug/L		07/16/13 14:18	07/18/13 17:59	1
Magnesium	ND		1000	130	ug/L		07/16/13 14:18	07/18/13 17:59	1
Manganese	ND		15	3.3	ug/L		07/16/13 14:18	07/18/13 17:59	1
Nickel	ND		40	13	ug/L		07/16/13 14:18	07/18/13 17:59	1
Potassium	ND		5000	1700	ug/L		07/16/13 14:18	07/18/13 17:59	1
Selenium	ND		15	2.7	ug/L		07/16/13 14:18	07/18/13 17:59	1
Silver	ND		10	6.0	ug/L		07/16/13 14:18	07/18/13 17:59	1
Sodium	ND		1000	320	ug/L		07/16/13 14:18	07/18/13 17:59	1
Thallium	ND		20	4.0	ug/L		07/16/13 14:18	07/18/13 17:59	1
Vanadium	ND		50	4.1	ug/L		07/16/13 14:18	07/18/13 17:59	1
Zinc	ND		20	5.2	ug/L		07/16/13 14:18	07/18/13 17:59	1

Lab Sample ID: LCS 160-60809/2-A

Matrix: Water

Analysis Batch: 61576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	9930		ug/L		99	80 - 120
Antimony	500	534		ug/L		107	80 - 120
Arsenic	1000	1050		ug/L		105	80 - 120
Barium	1000	1030		ug/L		103	80 - 120
Beryllium	1000	1040		ug/L		104	80 - 120
Cadmium	1000	1070		ug/L		107	80 - 120
Calcium	10000	10600		ug/L		106	80 - 120
Chromium	1000	1090		ug/L		109	80 - 120
Cobalt	1000	1100		ug/L		110	80 - 120
Copper	1000	1070		ug/L		107	80 - 120
Iron	10000	10500		ug/L		105	80 - 120
Lead	1000	1120		ug/L		112	80 - 120
Magnesium	10000	10400		ug/L		104	80 - 120
Manganese	1000	1040		ug/L		104	80 - 120
Nickel	1000	1100		ug/L		110	80 - 120
Potassium	10000	10100		ug/L		101	80 - 120
Selenium	1000	1060		ug/L		106	80 - 120
Silver	100	89.3		ug/L		89	80 - 120
Sodium	10000	9830		ug/L		98	80 - 120
Thallium	200	235		ug/L		118	80 - 120

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 160-60809/2-A

Matrix: Water

Analysis Batch: 61576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	1000	1010		ug/L		101	80 - 120
Zinc	1000	1070		ug/L		107	80 - 120

Lab Sample ID: 160-2984-9 MS

Matrix: Water

Analysis Batch: 61576

Client Sample ID: DUPLICATE 04

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	180	J	10000	10200		ug/L		100	75 - 125
Antimony	5.1	J	500	517		ug/L		102	75 - 125
Arsenic	13		1000	1030		ug/L		102	75 - 125
Barium	380		1000	1400		ug/L		103	75 - 125
Beryllium	ND		1000	1040		ug/L		104	75 - 125
Cadmium	ND		1000	1020		ug/L		102	75 - 125
Calcium	100000	E	10000	110000	E 4	ug/L		84	75 - 125
Chromium	ND		1000	1040		ug/L		104	75 - 125
Cobalt	ND		1000	1010		ug/L		101	75 - 125
Copper	ND		1000	1010		ug/L		101	75 - 125
Iron	7400		10000	17500		ug/L		101	75 - 125
Lead	2.3	J	1000	1040		ug/L		104	75 - 125
Magnesium	29000		10000	38600		ug/L		98	75 - 125
Manganese	500		1000	1510		ug/L		100	75 - 125
Nickel	ND		1000	1020		ug/L		102	75 - 125
Potassium	6100		10000	16300		ug/L		102	75 - 125
Selenium	ND		1000	1030		ug/L		103	75 - 125
Silver	ND		100	84.5		ug/L		85	75 - 125
Sodium	25000		10000	34900		ug/L		95	75 - 125
Thallium	ND		200	213		ug/L		106	75 - 125
Vanadium	ND		1000	996		ug/L		100	75 - 125
Zinc	7.6	J	1000	1030		ug/L		103	75 - 125

Lab Sample ID: 160-2984-9 MS

Matrix: Water

Analysis Batch: 61576

Client Sample ID: DUPLICATE 04

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	120000		10000	127000	4	ug/L		110	75 - 125

Lab Sample ID: 160-2984-9 MSD

Matrix: Water

Analysis Batch: 61576

Client Sample ID: DUPLICATE 04

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aluminum	180	J	10000	10300		ug/L		101	75 - 125	1	20
Antimony	5.1	J	500	530		ug/L		105	75 - 125	3	20
Arsenic	13		1000	1060		ug/L		105	75 - 125	3	20
Barium	380		1000	1420		ug/L		104	75 - 125	1	20
Beryllium	ND		1000	1050		ug/L		105	75 - 125	1	20
Cadmium	ND		1000	1040		ug/L		104	75 - 125	2	20

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-2984-9 MSD

Matrix: Water

Analysis Batch: 61576

Client Sample ID: DUPLICATE 04

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Calcium	100000	E	10000	112000	E 4	ug/L		98	75 - 125	1	20
Chromium	ND		1000	1050		ug/L		105	75 - 125	1	20
Cobalt	ND		1000	1040		ug/L		104	75 - 125	3	20
Copper	ND		1000	1030		ug/L		103	75 - 125	3	20
Iron	7400		10000	17700		ug/L		103	75 - 125	1	20
Lead	2.3	J	1000	1060		ug/L		106	75 - 125	2	20
Magnesium	29000		10000	38900		ug/L		101	75 - 125	1	20
Manganese	500		1000	1520		ug/L		102	75 - 125	1	20
Nickel	ND		1000	1040		ug/L		104	75 - 125	2	20
Potassium	6100		10000	16400		ug/L		104	75 - 125	1	20
Selenium	ND		1000	1060		ug/L		106	75 - 125	2	20
Silver	ND		100	85.6		ug/L		86	75 - 125	1	20
Sodium	25000		10000	35100		ug/L		98	75 - 125	1	20
Thallium	ND		200	217		ug/L		108	75 - 125	2	20
Vanadium	ND		1000	1010		ug/L		101	75 - 125	1	20
Zinc	7.6	J	1000	1060		ug/L		105	75 - 125	2	20

Lab Sample ID: 160-2984-9 MSD

Matrix: Water

Analysis Batch: 61576

Client Sample ID: DUPLICATE 04

Prep Type: Total/NA

Prep Batch: 60809

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Calcium	120000		10000	127000	4	ug/L		105	75 - 125	0	20

Lab Sample ID: 160-2984-9 MS

Matrix: Water

Analysis Batch: 61388

Client Sample ID: DUPLICATE 04

Prep Type: Dissolved

Prep Batch: 60807

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Aluminum	ND		10000	9830		ug/L		98	75 - 125		
Antimony	ND		500	527		ug/L		105	75 - 125		
Arsenic	11		1000	1070		ug/L		106	75 - 125		
Barium	370		1000	1410		ug/L		104	75 - 125		
Beryllium	ND		1000	1020		ug/L		102	75 - 125		
Cadmium	ND		1000	1040		ug/L		104	75 - 125		
Calcium	100000	E	10000	113000	E 4	ug/L		104	75 - 125		
Chromium	ND		1000	1050		ug/L		105	75 - 125		
Cobalt	ND		1000	1040		ug/L		104	75 - 125		
Copper	ND		1000	1030		ug/L		103	75 - 125		
Iron	6500		10000	16900		ug/L		104	75 - 125		
Lead	2.0	J	1000	1070		ug/L		107	75 - 125		
Magnesium	28000		10000	38500		ug/L		101	75 - 125		
Manganese	470		1000	1480		ug/L		101	75 - 125		
Nickel	ND		1000	1050		ug/L		105	75 - 125		
Potassium	6100		10000	16800		ug/L		107	75 - 125		
Selenium	ND		1000	1070		ug/L		107	75 - 125		
Silver	ND		100	90.7		ug/L		91	75 - 125		
Sodium	25000		10000	35300		ug/L		100	75 - 125		
Thallium	ND	^	200	216	^	ug/L		108	75 - 125		

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-2984-9 MS

Matrix: Water

Analysis Batch: 61388

Client Sample ID: DUPLICATE 04

Prep Type: Dissolved

Prep Batch: 60807

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vanadium	ND		1000	974		ug/L		97	75 - 125	
Zinc	ND		1000	1050		ug/L		105	75 - 125	

Lab Sample ID: 160-2984-9 MS

Matrix: Water

Analysis Batch: 61388

Client Sample ID: DUPLICATE 04

Prep Type: Dissolved

Prep Batch: 60807

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Calcium	110000		10000	124000	4	ug/L		104	75 - 125	

Lab Sample ID: 160-2984-9 MSD

Matrix: Water

Analysis Batch: 61388

Client Sample ID: DUPLICATE 04

Prep Type: Dissolved

Prep Batch: 60807

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
Aluminum	ND		10000	9600		ug/L		96	75 - 125	2	20	
Antimony	ND		500	510		ug/L		102	75 - 125	3	20	
Arsenic	11		1000	1030		ug/L		102	75 - 125	4	20	
Barium	370		1000	1380		ug/L		101	75 - 125	2	20	
Beryllium	ND		1000	995		ug/L		99	75 - 125	3	20	
Cadmium	ND		1000	1010		ug/L		101	75 - 125	4	20	
Calcium	100000	E	10000	112000	E 4	ug/L		87	75 - 125	2	20	
Chromium	ND		1000	1010		ug/L		101	75 - 125	4	20	
Cobalt	ND		1000	1000		ug/L		100	75 - 125	3	20	
Copper	ND		1000	994		ug/L		99	75 - 125	3	20	
Iron	6500		10000	16400		ug/L		99	75 - 125	3	20	
Lead	2.0	J	1000	1030		ug/L		103	75 - 125	4	20	
Magnesium	28000		10000	37500		ug/L		91	75 - 125	3	20	
Manganese	470		1000	1450		ug/L		98	75 - 125	2	20	
Nickel	ND		1000	1010		ug/L		101	75 - 125	4	20	
Potassium	6100		10000	16300		ug/L		101	75 - 125	3	20	
Selenium	ND		1000	1030		ug/L		103	75 - 125	4	20	
Silver	ND		100	87.1		ug/L		87	75 - 125	4	20	
Sodium	25000		10000	34900		ug/L		97	75 - 125	1	20	
Thallium	ND	^	200	210	^	ug/L		105	75 - 125	3	20	
Vanadium	ND		1000	951		ug/L		95	75 - 125	2	20	
Zinc	ND		1000	1020		ug/L		102	75 - 125	3	20	

Lab Sample ID: 160-2984-9 MSD

Matrix: Water

Analysis Batch: 61388

Client Sample ID: DUPLICATE 04

Prep Type: Dissolved

Prep Batch: 60807

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
Calcium	110000		10000	126000	4	ug/L		127	75 - 125	2	20	

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-60789/1-A

Matrix: Water

Analysis Batch: 60965

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		07/16/13 12:16	07/16/13 16:54	1

Lab Sample ID: LCS 160-60789/2-A

Matrix: Water

Analysis Batch: 60965

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.66		ug/L		113	80 - 120

Lab Sample ID: 160-2984-1 MS

Matrix: Water

Analysis Batch: 60965

Client Sample ID: S-8

Prep Type: Total/NA

Prep Batch: 60789

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.060	J	5.00	5.14		ug/L		103	80 - 120

Lab Sample ID: 160-2984-1 MSD

Matrix: Water

Analysis Batch: 60965

Client Sample ID: S-8

Prep Type: Total/NA

Prep Batch: 60789

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.060	J	5.00	5.22		ug/L		104	80 - 120	2	20

Lab Sample ID: MB 160-60793/1-A

Matrix: Water

Analysis Batch: 61008

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60793

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.117	J	0.20	0.060	ug/L		07/16/13 12:23	07/17/13 11:47	1

Lab Sample ID: LCS 160-60793/2-A

Matrix: Water

Analysis Batch: 61008

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.51		ug/L		110	80 - 120

Lab Sample ID: 160-2984-1 MS

Matrix: Water

Analysis Batch: 61008

Client Sample ID: S-8

Prep Type: Dissolved

Prep Batch: 60793

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.076	J B	5.00	5.33		ug/L		105	80 - 120

Lab Sample ID: 160-2984-1 MSD

Matrix: Water

Analysis Batch: 61008

Client Sample ID: S-8

Prep Type: Dissolved

Prep Batch: 60793

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.076	J B	5.00	5.49		ug/L		108	80 - 120	3	20

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 160-60823/9**

**Matrix: Water**

**Analysis Batch: 60823**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodide	ND		1.0	0.10	mg/L			07/15/13 15:13	1

**Lab Sample ID: LCS 160-60823/10**

**Matrix: Water**

**Analysis Batch: 60823**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodide	4.00	4.07		mg/L		102	90 - 110

**Lab Sample ID: 160-2984-1 MS**

**Matrix: Water**

**Analysis Batch: 60823**

**Client Sample ID: S-8**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodide	ND		4.00	4.06		mg/L		102	90 - 110

**Lab Sample ID: 160-2984-1 DU**

**Matrix: Water**

**Analysis Batch: 60823**

**Client Sample ID: S-8**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iodide	ND			ND		mg/L		NC	20

**Lab Sample ID: MB 160-62159/60**

**Matrix: Water**

**Analysis Batch: 62159**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			07/13/13 02:47	1
Chloride	ND		0.20	0.020	mg/L			07/13/13 02:47	1
Bromide	ND		0.25	0.025	mg/L			07/13/13 02:47	1
Sulfate	ND		0.50	0.050	mg/L			07/13/13 02:47	1

**Lab Sample ID: LCS 160-62159/61**

**Matrix: Water**

**Analysis Batch: 62159**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.400	0.414		mg/L		104	90 - 110
Chloride	2.00	2.01		mg/L		100	90 - 110
Bromide	2.00	1.93		mg/L		96	90 - 110
Sulfate	8.00	7.72		mg/L		97	90 - 110

**Lab Sample ID: 160-2984-1 MS**

**Matrix: Water**

**Analysis Batch: 62159**

**Client Sample ID: S-8**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		0.400	0.402		mg/L		101	90 - 110

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-2984-1 MS  
Matrix: Water  
Analysis Batch: 62159

Client Sample ID: S-8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		2.00	2.09		mg/L		104	90 - 110

Lab Sample ID: 160-2984-1 DU  
Matrix: Water  
Analysis Batch: 62159

Client Sample ID: S-8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	ND		ND		mg/L		NC	20
Bromide	ND		ND		mg/L		NC	20

### Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 160-2984-1 MS  
Matrix: Water  
Analysis Batch: 62159

Client Sample ID: S-8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	31		40.0	71.0		mg/L		99	90 - 110
Sulfate - DL	23		80.0	99.2		mg/L		96	90 - 110

Lab Sample ID: 160-2984-1 DU  
Matrix: Water  
Analysis Batch: 62159

Client Sample ID: S-8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	31		31.1		mg/L		0.9	20
Sulfate - DL	23		22.1		mg/L		2	20

### Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-63159/1  
Matrix: Water  
Analysis Batch: 63159

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.250	J	1.3	0.14	mg/L			07/26/13 09:51	1

Lab Sample ID: LCS 160-63159/3  
Matrix: Water  
Analysis Batch: 63159

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	384		mg/L		96	90 - 110

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: LLCS 160-63159/2

Matrix: Water

Analysis Batch: 63159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	192		mg/L		96	90 - 110

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# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## GC/MS VOA

### Analysis Batch: 61405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	8260C	
160-2984-2	PZ-105-SS	Total/NA	Water	8260C	
160-2984-3	I-62	Total/NA	Water	8260C	
160-2984-4	PZ-114-AS	Total/NA	Water	8260C	
160-2984-5	D-6	Total/NA	Water	8260C	
160-2984-6	S-61	Total/NA	Water	8260C	
160-2984-7	I-67	Total/NA	Water	8260C	
160-2984-8	I-68	Total/NA	Water	8260C	
160-2984-9	DUPLICATE 04	Total/NA	Water	8260C	
LCS 160-61405/4	Lab Control Sample	Total/NA	Water	8260C	
LCS D 160-61405/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-61405/2	Method Blank	Total/NA	Water	8260C	

## Metals

### Prep Batch: 60789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	7470A	
160-2984-1 MS	S-8	Total/NA	Water	7470A	
160-2984-1 MSD	S-8	Total/NA	Water	7470A	
160-2984-2	PZ-105-SS	Total/NA	Water	7470A	
160-2984-3	I-62	Total/NA	Water	7470A	
160-2984-4	PZ-114-AS	Total/NA	Water	7470A	
160-2984-5	D-6	Total/NA	Water	7470A	
160-2984-6	S-61	Total/NA	Water	7470A	
160-2984-7	I-67	Total/NA	Water	7470A	
160-2984-8	I-68	Total/NA	Water	7470A	
160-2984-9	DUPLICATE 04	Total/NA	Water	7470A	
LCS 160-60789/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-60789/1-A	Method Blank	Total/NA	Water	7470A	

### Prep Batch: 60793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Dissolved	Water	7470A	
160-2984-1 MS	S-8	Dissolved	Water	7470A	
160-2984-1 MSD	S-8	Dissolved	Water	7470A	
160-2984-2	PZ-105-SS	Dissolved	Water	7470A	
160-2984-3	I-62	Dissolved	Water	7470A	
160-2984-4	PZ-114-AS	Dissolved	Water	7470A	
160-2984-5	D-6	Dissolved	Water	7470A	
160-2984-6	S-61	Dissolved	Water	7470A	
160-2984-7	I-67	Dissolved	Water	7470A	
160-2984-8	I-68	Dissolved	Water	7470A	
160-2984-9	DUPLICATE 04	Dissolved	Water	7470A	
LCS 160-60793/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-60793/1-A	Method Blank	Total/NA	Water	7470A	

### Prep Batch: 60807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Dissolved	Water	3010A	

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# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Metals (Continued)

### Prep Batch: 60807 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-2	PZ-105-SS	Dissolved	Water	3010A	
160-2984-3	I-62	Dissolved	Water	3010A	
160-2984-4	PZ-114-AS	Dissolved	Water	3010A	
160-2984-5	D-6	Dissolved	Water	3010A	
160-2984-6	S-61	Dissolved	Water	3010A	
160-2984-7	I-67	Dissolved	Water	3010A	
160-2984-8	I-68	Dissolved	Water	3010A	
160-2984-9	DUPLICATE 04	Dissolved	Water	3010A	
160-2984-9 MS	DUPLICATE 04	Dissolved	Water	3010A	
160-2984-9 MSD	DUPLICATE 04	Dissolved	Water	3010A	
LCS 160-60807/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-60807/1-A	Method Blank	Total/NA	Water	3010A	

### Prep Batch: 60809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	3010A	
160-2984-2	PZ-105-SS	Total/NA	Water	3010A	
160-2984-3	I-62	Total/NA	Water	3010A	
160-2984-4	PZ-114-AS	Total/NA	Water	3010A	
160-2984-5	D-6	Total/NA	Water	3010A	
160-2984-6	S-61	Total/NA	Water	3010A	
160-2984-7	I-67	Total/NA	Water	3010A	
160-2984-8	I-68	Total/NA	Water	3010A	
160-2984-9	DUPLICATE 04	Total/NA	Water	3010A	
160-2984-9 MS	DUPLICATE 04	Total/NA	Water	3010A	
160-2984-9 MSD	DUPLICATE 04	Total/NA	Water	3010A	
LCS 160-60809/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-60809/1-A	Method Blank	Total/NA	Water	3010A	

### Analysis Batch: 60965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	7470A	60789
160-2984-1 MS	S-8	Total/NA	Water	7470A	60789
160-2984-1 MSD	S-8	Total/NA	Water	7470A	60789
160-2984-2	PZ-105-SS	Total/NA	Water	7470A	60789
160-2984-3	I-62	Total/NA	Water	7470A	60789
160-2984-4	PZ-114-AS	Total/NA	Water	7470A	60789
160-2984-5	D-6	Total/NA	Water	7470A	60789
160-2984-6	S-61	Total/NA	Water	7470A	60789
160-2984-7	I-67	Total/NA	Water	7470A	60789
160-2984-8	I-68	Total/NA	Water	7470A	60789
160-2984-9	DUPLICATE 04	Total/NA	Water	7470A	60789
LCS 160-60789/2-A	Lab Control Sample	Total/NA	Water	7470A	60789
MB 160-60789/1-A	Method Blank	Total/NA	Water	7470A	60789

### Analysis Batch: 61008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Dissolved	Water	7470A	60793
160-2984-1 MS	S-8	Dissolved	Water	7470A	60793
160-2984-1 MSD	S-8	Dissolved	Water	7470A	60793
160-2984-2	PZ-105-SS	Dissolved	Water	7470A	60793

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# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Metals (Continued)

### Analysis Batch: 61008 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-3	I-62	Dissolved	Water	7470A	60793
160-2984-4	PZ-114-AS	Dissolved	Water	7470A	60793
160-2984-5	D-6	Dissolved	Water	7470A	60793
160-2984-6	S-61	Dissolved	Water	7470A	60793
160-2984-7	I-67	Dissolved	Water	7470A	60793
160-2984-8	I-68	Dissolved	Water	7470A	60793
160-2984-9	DUPLICATE 04	Dissolved	Water	7470A	60793
LCS 160-60793/2-A	Lab Control Sample	Total/NA	Water	7470A	60793
MB 160-60793/1-A	Method Blank	Total/NA	Water	7470A	60793

### Analysis Batch: 61388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Dissolved	Water	6010C	60807
160-2984-1	S-8	Dissolved	Water	6010C	60807
160-2984-2	PZ-105-SS	Dissolved	Water	6010C	60807
160-2984-2	PZ-105-SS	Dissolved	Water	6010C	60807
160-2984-3	I-62	Dissolved	Water	6010C	60807
160-2984-3	I-62	Dissolved	Water	6010C	60807
160-2984-4	PZ-114-AS	Dissolved	Water	6010C	60807
160-2984-4	PZ-114-AS	Dissolved	Water	6010C	60807
160-2984-5	D-6	Dissolved	Water	6010C	60807
160-2984-5	D-6	Dissolved	Water	6010C	60807
160-2984-6	S-61	Dissolved	Water	6010C	60807
160-2984-6	S-61	Dissolved	Water	6010C	60807
160-2984-7	I-67	Dissolved	Water	6010C	60807
160-2984-7	I-67	Dissolved	Water	6010C	60807
160-2984-8	I-68	Dissolved	Water	6010C	60807
160-2984-8	I-68	Dissolved	Water	6010C	60807
160-2984-9	DUPLICATE 04	Dissolved	Water	6010C	60807
160-2984-9	DUPLICATE 04	Dissolved	Water	6010C	60807
160-2984-9 MS	DUPLICATE 04	Dissolved	Water	6010C	60807
160-2984-9 MS	DUPLICATE 04	Dissolved	Water	6010C	60807
160-2984-9 MSD	DUPLICATE 04	Dissolved	Water	6010C	60807
160-2984-9 MSD	DUPLICATE 04	Dissolved	Water	6010C	60807
LCS 160-60807/2-A	Lab Control Sample	Total/NA	Water	6010C	60807
MB 160-60807/1-A	Method Blank	Total/NA	Water	6010C	60807

### Analysis Batch: 61576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	6010C	60809
160-2984-1	S-8	Total/NA	Water	6010C	60809
160-2984-2	PZ-105-SS	Total/NA	Water	6010C	60809
160-2984-2	PZ-105-SS	Total/NA	Water	6010C	60809
160-2984-3	I-62	Total/NA	Water	6010C	60809
160-2984-3	I-62	Total/NA	Water	6010C	60809
160-2984-4	PZ-114-AS	Total/NA	Water	6010C	60809
160-2984-4	PZ-114-AS	Total/NA	Water	6010C	60809
160-2984-5	D-6	Total/NA	Water	6010C	60809
160-2984-5	D-6	Total/NA	Water	6010C	60809
160-2984-6	S-61	Total/NA	Water	6010C	60809
160-2984-6	S-61	Total/NA	Water	6010C	60809

TestAmerica St. Louis

# QC Association Summary

Client: Engineering Management Support, Inc.  
 Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## Metals (Continued)

### Analysis Batch: 61576 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-7	I-67	Total/NA	Water	6010C	60809
160-2984-7	I-67	Total/NA	Water	6010C	60809
160-2984-8	I-68	Total/NA	Water	6010C	60809
160-2984-8	I-68	Total/NA	Water	6010C	60809
160-2984-9	DUPLICATE 04	Total/NA	Water	6010C	60809
160-2984-9	DUPLICATE 04	Total/NA	Water	6010C	60809
160-2984-9 MS	DUPLICATE 04	Total/NA	Water	6010C	60809
160-2984-9 MS	DUPLICATE 04	Total/NA	Water	6010C	60809
160-2984-9 MSD	DUPLICATE 04	Total/NA	Water	6010C	60809
160-2984-9 MSD	DUPLICATE 04	Total/NA	Water	6010C	60809
LCS 160-60809/2-A	Lab Control Sample	Total/NA	Water	6010C	60809
MB 160-60809/1-A	Method Blank	Total/NA	Water	6010C	60809

## General Chemistry

### Analysis Batch: 60823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	300.0	
160-2984-1 DU	S-8	Total/NA	Water	300.0	
160-2984-1 MS	S-8	Total/NA	Water	300.0	
160-2984-2	PZ-105-SS	Total/NA	Water	300.0	
160-2984-3	I-62	Total/NA	Water	300.0	
160-2984-4	PZ-114-AS	Total/NA	Water	300.0	
160-2984-5	D-6	Total/NA	Water	300.0	
160-2984-6	S-61	Total/NA	Water	300.0	
160-2984-7	I-67	Total/NA	Water	300.0	
160-2984-8	I-68	Total/NA	Water	300.0	
160-2984-9	DUPLICATE 04	Total/NA	Water	300.0	
LCS 160-60823/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-60823/9	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 62159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	300.0	
160-2984-1 - DL	S-8	Total/NA	Water	300.0	
160-2984-1 DU	S-8	Total/NA	Water	300.0	
160-2984-1 DU - DL	S-8	Total/NA	Water	300.0	
160-2984-1 MS	S-8	Total/NA	Water	300.0	
160-2984-1 MS - DL	S-8	Total/NA	Water	300.0	
160-2984-2	PZ-105-SS	Total/NA	Water	300.0	
160-2984-2 - DL	PZ-105-SS	Total/NA	Water	300.0	
160-2984-3	I-62	Total/NA	Water	300.0	
160-2984-3 - DL	I-62	Total/NA	Water	300.0	
160-2984-4	PZ-114-AS	Total/NA	Water	300.0	
160-2984-4 - DL	PZ-114-AS	Total/NA	Water	300.0	
160-2984-4 - DL2	PZ-114-AS	Total/NA	Water	300.0	
160-2984-5	D-6	Total/NA	Water	300.0	
160-2984-5 - DL2	D-6	Total/NA	Water	300.0	
160-2984-6	S-61	Total/NA	Water	300.0	
160-2984-6 - DL	S-61	Total/NA	Water	300.0	

TestAmerica St. Louis

# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

## General Chemistry (Continued)

### Analysis Batch: 62159 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-7	I-67	Total/NA	Water	300.0	
160-2984-7 - DL	I-67	Total/NA	Water	300.0	
160-2984-7 - DL2	I-67	Total/NA	Water	300.0	
160-2984-8	I-68	Total/NA	Water	300.0	
160-2984-8 - DL	I-68	Total/NA	Water	300.0	
160-2984-8 - DL2	I-68	Total/NA	Water	300.0	
160-2984-9	DUPLICATE 04	Total/NA	Water	300.0	
160-2984-9 - DL	DUPLICATE 04	Total/NA	Water	300.0	
LCS 160-62159/61	Lab Control Sample	Total/NA	Water	300.0	
MB 160-62159/60	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 63159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2984-1	S-8	Total/NA	Water	310.1	
160-2984-2	PZ-105-SS	Total/NA	Water	310.1	
160-2984-3	I-62	Total/NA	Water	310.1	
160-2984-4	PZ-114-AS	Total/NA	Water	310.1	
160-2984-5	D-6	Total/NA	Water	310.1	
160-2984-6	S-61	Total/NA	Water	310.1	
160-2984-7	I-67	Total/NA	Water	310.1	
160-2984-8	I-68	Total/NA	Water	310.1	
160-2984-9	DUPLICATE 04	Total/NA	Water	310.1	
LCS 160-63159/3	Lab Control Sample	Total/NA	Water	310.1	
LLCS 160-63159/2	Lab Control Sample	Total/NA	Water	310.1	
MB 160-63159/1	Method Blank	Total/NA	Water	310.1	

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# Surrogate Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-2984-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE	BFB	DBFM	TOL
		(82-132)	(82-121)	(85-119)	(85-115)
160-2984-1	S-8	122	105	104	105
160-2984-2	PZ-105-SS	116	104	101	103
160-2984-3	I-62	117	105	102	101
160-2984-4	PZ-114-AS	125	101	104	101
160-2984-5	D-6	121	104	106	105
160-2984-6	S-61	119	104	102	100
160-2984-7	I-67	121	107	103	100
160-2984-8	I-68	119	107	105	102
160-2984-9	DUPLICATE 04	132	109	109	104
LCS 160-61405/4	Lab Control Sample	126	101	95	98
LCSD 160-61405/5	Lab Control Sample Dup	117	100	99	99
MB 160-61405/2	Method Blank	123	106	102	100

### Surrogate Legend

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

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