SUNSHINE CANYON LANDFILL

April 21, 2014

Dr. Wen Yang
Chief, Land Disposal Unit
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

RE: Sunshine Canyon Landfill, File No. 58-076
Notice of Violation dated March 25, 2014

Dear Dr. Yang:

This letter is in response to the RWQCB Notice of Violation (NOV) dated March 25, 2014 related to conditions following the storm event of February 27- March 1, 2014. Each of the four conditions cited in the letter are addressed below. In addition, recent pictures of the areas discussed are included in Attachment A.

1. *Stormwater was observed ponded behind the recently completed Cell CC-3A against slopes consisting of municipal solid waste (MSW) and the landfill liner system. The pond was estimated to be approximately 30 feet by 100 feet in size at the time of inspection. However, based on the fresh high-water marks left on the slopes, the pond was much larger earlier in the week. This is a violation of Sections E.2 and E.3 of the WDRs.*

Response: Removal of water from the Cell CC-3A Sedimentation Basin commenced on March 3rd approximately 48 hours after the storm event ended. Pumping of this water was substantially complete by March 7th; some residual water remained which could not be pumped out due to the high silt content. From March 11- 18, work in this area was conducted as the area dried out and it was safe for heavy equipment to enter this area.

Samples of this water were collected immediately and sent to a laboratory for testing. The report of laboratory analysis of the stormwater is included in Attachment B.

2. *At the southern portion of Cell CC-3A, along the base of the side-slope liner, the protective soil layer placed over the liner and daily cover soil placed over MSW had been washed away by stormwater flows, leaving MSW exposed to air and in direct contact with the geotextile layer of the liner system. There was also evidence indicating that wastes*

discharged in the area had been washed away by stormwater flows. This is a violation of Section E.3 of the WDRs and Discharge Prohibition A.2 of the General Industrial Stormwater Permit.

Response: Cleanup of this area began on March 11 after the ground surface was sufficiently dry to allow access by heavy equipment. The work was completed on March 17, 2014 by a contractor working under the supervision of our engineering consultant, A-Mehr, Inc. The Construction Quality Assurance Report prepared by A-Mehr, Inc. dated March 20, 2014 was submitted to the LA RWQCB by Sunshine Canyon Landfill on March 21, 2014. A copy of this report is included in Attachment C. In the future, any stormwater flow lines over the refuse will be lined with geomembrane liner to prevent such washouts.

3. *Significant erosion damage to the storm drain channel was observed along the main access road, where stormwater flow had torn the geomembrane liner of the channel, scoured gullies beneath the channel, and damaged the hauling road. This is a violation of Sections K.I and K.4 of the WDRs.*

Response: Following the storm event, repairs to the damaged plastic-lined storm drain channel along the main access road commenced on March 11, 2014 as soon as it was safe for heavy equipment to access these areas. Sections of the plastic channel that are interim in nature (less than one rainfall season in place and/or will be taken out of service by capital projects relating to liner development within the next 2-3 years) were replaced in kind with new sections of 60-mil geomembrane. The sections of channel that are not interim (as defined previously) are currently being improved as follows:

- Removal of all damaged liner material (completed);
- Grading of channels (completed);
- Permanent improvements consisting of the installation of reinforced concrete side walls and asphalt pavement invert. All sections of channel are being designed to conform to Section K.1.c for the WDRs. This work is expected to be completed by mid-May;

- Silt fence along the channels will be installed as soon as the improvements are completed.

The improvements to the interim portions of the damaged channel were completed on March 26, 2014. The improvements to the portions of the damaged channel which are considered not interim are expected to be completed by mid- to late-May. We will notify you at completion or if there are any delays in this work.

4. *Following the storm, you did not report the violations of the WDRs to the Regional Board. This is in violation of Section E.I4 of the WDRs.*

Response: This oversight is acknowledged and actions to ensure this does not occur again have been taken by training appropriate site personnel of this requirement in our Waste Discharge Requirements.

Please do not hesitate to contact me at (818) 362-2075 or pcosta@republicservices.com if you have any questions.

Sincerely,

Patti K. Costa

Patti K. Costa, P.E.
Environmental Manager

Cc: Mr. Gerry Villalobos, SCL LEA Program Manager
Mr. David Thompson, SCL LEA
Mr. Harold Barber, Republic Services
Mr. Michael Stewart, Republic Services
Mr. Dave Hauser, Republic Services
Ms. Ly Lam, City of Los Angeles
Mr. Nick Hendricks, City of Los Angeles
Ms. Maria Masis, County of Los Angeles
Ms. Emiko Thompson, County of Los Angeles, Department of Public Works
Mr. Wayde Hunter, SCL CAC
Ms. Becky Bendikson, SCL CAC

ATTACHMENT A

Figure 1 – Interim Drainage Below Scalehouse Area –

Damaged liner removed, channel graded and new 60-mil liner material installed

Figure 2 – Interim Drainage Below Scalehouse Area =

Damaged liner removed, channel graded and new 60-mil liner material installed

Figure 3 - CC-3A Sed Basin

Figure 4 - Grading of New Drainage for Installation of Concrete-Lined Channel Along Haul Road

ATTACHMENT B

Geo-Logic ASSOCIATES

April 21, 2014
GLA JN 2014.0011

Republic Services, Inc.
c/o Sunshine Canyon Landfill
14747 San Fernando Road
Sylmar, California 91342

Attention: Mr. Achaya Kelapanda

EVALUATION OF CC-3A SED BASIN STORMWATER CHEMISTRY
SUNSHINE CANYON LANDFILL, LOS ANGELES COUNTY, CALIFORNIA

Geo-Logic Associates (GLA) is pleased to present this letter to Sunshine Canyon Landfill evaluating the stormwater chemistry results from the CC-3A Sed Basin at Sunshine Canyon Landfill. Following heavy rains in late February, stormwater accumulated in this basin at the site. On March 6, 2014, GLA collected representative samples from the accumulated water. The stormwater chemistry results for the CC-3A Sed Basin sample are presented below and are compared to the most recent leachate chemistry data for the site.

Analyte	Units	Stormwater Sample CC-3A Sed Basin 3/6/2014	Leachate Values CA-L, Leachate, LR-2R October 15, 2013	Stormwater Benchmark Value
General Chemistry Parameters:				
Alkalinity, total	mg/L	84	1300-2900	No Value
Ammonia-Nitrogen	mg/L	2.7	46-240	19
Bicarbonate	mg/L	84	1300-2900	No Value
Bromide	mg/L	1.3	7.4j – 28	No Value
Carbon Dioxide, free	mg/L	12	140 - 350	No Value
Chemical Oxygen Demand	mg/L	10	340 – 1100	120
Chloride	mg/L	22	600 – 2300	860
Fluoride	mg/L	2.1j	Not Detected	1.8
Nitrate as N	mg/L	1.4	Not Analyzed	0.68 (Nitrate+Nitrite)
Sulfate	mg/L	1800	180 – 3700	No Value
Sulfide	mg/L	0.020	0.10 – 0.89	No Value
Total Organic Carbon	mg/L	12	130 – 440	No Value
Total Dissolved Solids	mg/L	2900	5400 – 8100	No Value
Metals:				
Boron	mg/L	0.39	6.0 – 10	No Value
Calcium	mg/L	220	240 – 250	No Value
Iron	mg/L	2.9	1.5 – 39	1.0
Magnesium	mg/L	190	210 – 670	No Value
Manganese	mg/L	5.3	0.14 – 1.5	1.0
Potassium	mg/L	10	100 – 270	No Value
Sodium	mg/L	330	1000 - 1600	No Value

Volatile Organic Compounds (8260):				
Acetone	µg/L	9.0j	ND – 16	No Value
Benzene	µg/L	Not Detected	2.3 – 5.9	10
t-Butanol	µg/L	Not Detected	450 – 1300	No Value
Chorobenzene	µg/L	Not Detected	ND – 26	No Value
1,2-Dichlorobenzene	µg/L	Not Detected	ND – 11	No Value
1,3-Dichlorobenzene	µg/L	Not Detected	ND – 0.32j	No Value
1,4-Dichlorobenzene	µg/L	Not Detected	3.3 – 12	No Value
1,2-Dichloroethane	µg/L	Not Detected	ND – 2.3	No Value
cis-1,2-Dichloroethene	µg/L	Not Detected	ND – 2.6	No Value
Ethylbenzene	µg/L	Not Detected	ND – 0.73	3100
MTBE	µg/L	Not Detected	0.43j – 1.5j	No Value
Naphthalene	µg/L	Not Detected	ND – 4.8	No Value
Tetrahydrofuran	µg/L	Not Detected	ND – 110	No Value
Toluene	µg/L	Not Detected	ND – 0.70	No Value
o-Xylenes	µg/L	Not Detected	ND – 0.40j	No Value
p+m-Xylenes	µg/L	Not Detected	ND – 0.63j	No Value
Semivolatile Organic Compounds (8270C):				
1,4-Dioxane	µg/L	0.55j	14 – 110	No Value
1,4-Dichlorobenzene	µg/L	Not Detected	1.7 – 8.2	No Value
Benzoic Acid	µg/L	Not Detected	ND – 37	No Value
1,2-Dichlorobenzene	µg/L	Not Detected	ND – 6.8	No Value

Notes: mg/L = milligrams per liter. µg/L = micrograms per liter.
Shaded cells indicate that an analyte was not detected. Value listed is the Method Detection Limit.
A "j" indicates that a value is an estimated trace concentration.

As shown above, the stormwater sample chemistry is measurably different than the most recent leachate chemistry data, particularly with respect to alkalinity, bicarbonate, carbon dioxide, chemical oxygen demand, chloride, boron, potassium, sodium, and organic constituent concentrations. As a result, it is reasonable to conclude that the liquids that accumulated in the CC-3A Sed Basin have not been measurably affected by landfill leachate. Furthermore, with the exception of the nitrate as nitrogen, fluoride (an estimate trace value), total iron, and total manganese concentrations, the measured concentrations of monitoring parameters in the CC-3A Sed Basin sample were below their applicable stormwater benchmark values established in R4-2011-0052.

GLA appreciates the opportunity to provide services to Sunshine Canyon Landfill. If you have questions regarding this proposal, please do not hesitate to call me at (858) 451-1136.

Geo-Logic Associates, Inc.

John M. Hower

John M. Hower, PG, CEG
Supervising Geologist

Attachment: TestAmerica Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-72417-1
Client Project/Site: Republic sunshine canyon
Revision: 2

For:
Geo-Logic Associates
11415 West Bernardo Court
Suite 200
San Diego, California 92127

Attn: John Hower

Authorized for release by:
3/17/2014 6:03:01 PM

Rossina Tomova, Project Manager I
(949)261-1022
rossina.tomova@testamericainc.com

Table of Contents

Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-72417-1	CC-3A Sed Basin	Water	03/06/14 11:30	03/06/14 18:43
440-72417-2	Southwest Sed Basin	Water	03/06/14 11:20	03/06/14 18:43
440-72417-3	Outfall	Water	03/06/14 11:45	03/06/14 18:43
440-72417-4	Duplicate	Water	03/06/14 00:01	03/06/14 18:43
440-72417-5	Trip Blank	Water	03/06/14 00:01	03/06/14 18:43
440-72417-6	Field Blank	Water	03/06/14 00:01	03/06/14 18:43

Job ID: 440-72417-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-72417-1

Comments
No additional comments.

Receipt
The samples were received on 3/6/2014 6:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 167652.

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

HPLC
Method(s) 300.0: The following sample(s) was diluted for bromide and fluoride due to the nature of the sample matrix: Duplicate (440-72417-4), Lower Lake (440-72417-2), Outfall (440-72417-3), Upper Lake (440-72417-1). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for chloride in batch 167089 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No other analytical or quality issues were noted.

Metals
Method(s) 6010B: The method blank for batch 167479 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank. Duplicate (440-72417-4), Lower Lake (440-72417-2), Outfall (440-72417-3), Upper Lake (440-72417-1)

No other analytical or quality issues were noted.

General Chemistry
Method(s) SM 5310C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 167709 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 S2 D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 440-167816 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No other analytical or quality issues were noted.

Organic Prep
Method(s) 3520C: Elevated reporting limits are provided for the following sample(s) due to insufficient sample provided: Duplicate (440-72417-4).

No other analytical or quality issues were noted.

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

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: CC-3A Sed Basin
Date Collected: 03/06/14 11:30
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Acrolein	ND		50	2.5	ug/L			03/07/14 11:56	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 11:56	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 11:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 11:49	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 11:49	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 11:49	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 11:49	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 11:49	1
Acetone	**9.0**	**J**	10	4.5	ug/L			03/07/14 11:49	1
Acetonitrile	ND		20	10	ug/L			03/07/14 11:49	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 11:49	1
Bromoform	ND		1.0	0.25	ug/L			03/07/14 11:49	1
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 11:49	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 11:49	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 11:49	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 11:49	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 11:49	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 11:49	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 11:49	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 11:49	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: CC-3A Sed Basin
Date Collected: 03/06/14 11:30
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 11:49	1
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Propionitrile	ND		20	10	ug/L			03/07/14 11:49	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 11:49	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 11:49	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 11:49	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 11:49	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 11:49	1
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 11:49	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 11:49	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			03/07/14 11:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 11:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Silanol, trimethyl-	*11*	*T J N*	*ug/L*		*5.16*	*1066-40-6*		*03/07/14 11:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*80 - 128*		*03/07/14 11:56*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*03/07/14 11:56*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*03/07/14 11:49*	*1*
4-Bromofluorobenzene (Surr)	*112*		*80 - 120*		*03/07/14 11:49*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*03/07/14 11:56*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*03/07/14 11:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.55**	**J**	0.96	0.48	ug/L		03/08/14 20:53	03/11/14 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*48*		*30 - 120*	*03/08/14 20:53*	*03/11/14 16:10*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		2.5	1.3	mg/L			03/06/14 21:46	5
Nitrate as N	**1.4**		0.55	0.28	mg/L			03/06/14 21:46	5
Chloride	**22**		2.5	1.3	mg/L			03/06/14 21:46	5
Fluoride	**2.1**	**J**	2.5	1.3	mg/L			03/06/14 21:46	5

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1800**		100	50	mg/L			03/06/14 22:01	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**10**		0.50	0.25	mg/L		03/07/14 14:54	03/07/14 21:49	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: CC-3A Sed Basin

Lab Sample ID: 440-72417-1

Date Collected: 03/06/14 11:30

Matrix: Water

Date Received: 03/06/14 18:43

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.3		0.020	0.0070	mg/L		03/07/14 14:54	03/07/14 21:49	1
Magnesium	190		0.020	0.010	mg/L		03/07/14 14:54	03/07/14 21:49	1
Iron	2.9		0.040	0.020	mg/L		03/07/14 14:54	03/07/14 21:49	1
Sodium	330		0.50	0.25	mg/L		03/07/14 14:54	03/07/14 21:49	1
Calcium	220	B	0.10	0.050	mg/L		03/07/14 14:54	03/07/14 21:49	1
Boron	0.39		0.050	0.025	mg/L		03/07/14 14:54	03/07/14 21:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	2.7		0.20	0.10	mg/L		03/07/14 11:12	03/07/14 16:09	1
Chemical Oxygen Demand	ND		20	10	mg/L			03/07/14 20:42	1
Total Dissolved Solids	2900		20	10	mg/L			03/07/14 08:00	1
Total Sulfide	ND		0.050	0.020	mg/L			03/10/14 11:46	1
Total Organic Carbon	12		0.10	0.050	mg/L			03/09/14 07:59	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	84		4.0	4.0	mg/L			03/07/14 09:24	1
Bicarbonate Alkalinity as CaCO3	84		4.0	4.0	mg/L			03/07/14 09:24	1
Carbon Dioxide, Free	12		2.0	2.0	mg/L			03/07/14 17:45	1

Client Sample ID: Southwest Sed Basin

Lab Sample ID: 440-72417-2

Date Collected: 03/06/14 11:20

Matrix: Water

Date Received: 03/06/14 18:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Acrolein	ND		50	2.5	ug/L			03/07/14 10:25	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 10:25	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 12:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 12:17	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 12:17	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 12:17	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 12:17	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 12:17	1
Acetone	27		10	4.5	ug/L			03/07/14 12:17	1
Acetonitrile	ND		20	10	ug/L			03/07/14 12:17	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 12:17	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Southwest Sed Basin
Date Collected: 03/06/14 11:20
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0	0.25	ug/L			03/07/14 12:17	1
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 12:17	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 12:17	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 12:17	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 12:17	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 12:17	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 12:17	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 12:17	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 12:17	1
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Propionitrile	ND		20	10	ug/L			03/07/14 12:17	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 12:17	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 12:17	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 12:17	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 12:17	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 12:17	1
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 12:17	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 12:17	1
2-Butanone (MEK)	**8.2**		5.0	2.5	ug/L			03/07/14 12:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 12:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Acetaldehyde	*37*	*T J N*	*ug/L*		*2.78*	*75-07-0*		*03/07/14 12:17*	*1*
Ethanol	*510*		*ug/L*		*3.38*	*64-17-5*		*03/07/14 12:17*	*1*
Silanol, trimethyl-	*18*	*T J N*	*ug/L*		*5.16*	*1066-40-6*		*03/07/14 12:17*	*1*
Tert-amyl methyl ether	*0.40*	*J*	*ug/L*		*7.29*	*994-05-8*		*03/07/14 12:17*	*1*

Client Sample ID: Southwest Sed Basin

Lab Sample ID: 440-72417-2

Date Collected: 03/06/14 11:20

Matrix: Water

Date Received: 03/06/14 18:43

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*80 - 128*		*03/07/14 10:25*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*03/07/14 10:25*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*03/07/14 12:17*	*1*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*		*03/07/14 12:17*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*03/07/14 10:25*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*03/07/14 12:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.1	0.53	ug/L		03/08/14 20:53	03/11/14 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*56*		*30 - 120*	*03/08/14 20:53*	*03/11/14 16:31*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.64**	**J**	1.0	0.50	mg/L			03/06/14 23:19	2
Nitrate as N	**0.58**		0.22	0.11	mg/L			03/06/14 23:19	2
Chloride	**76**		50	25	mg/L			03/06/14 23:35	100
Fluoride	**1.6**		1.0	0.50	mg/L			03/06/14 23:19	2
Sulfate	**1400**		50	25	mg/L			03/06/14 23:35	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**7.0**		0.50	0.25	mg/L		03/07/14 14:54	03/07/14 21:51	1
Manganese	**7.3**		0.020	0.0070	mg/L		03/07/14 14:54	03/07/14 21:51	1
Magnesium	**170**		0.020	0.010	mg/L		03/07/14 14:54	03/07/14 21:51	1
Iron	**8.3**		0.040	0.020	mg/L		03/07/14 14:54	03/07/14 21:51	1
Sodium	**110**		0.50	0.25	mg/L		03/07/14 14:54	03/07/14 21:51	1
Calcium	**230**	**B**	0.10	0.050	mg/L		03/07/14 14:54	03/07/14 21:51	1
Boron	**0.21**		0.050	0.025	mg/L		03/07/14 14:54	03/07/14 21:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**1.8**		0.20	0.10	mg/L		03/07/14 11:12	03/07/14 16:09	1
Chemical Oxygen Demand	**27**		20	10	mg/L			03/07/14 20:42	1
Total Dissolved Solids	**2200**		20	10	mg/L			03/07/14 08:00	1
Total Sulfide	ND		0.050	0.020	mg/L			03/10/14 11:46	1
Total Organic Carbon	**14**		0.10	0.050	mg/L			03/09/14 08:22	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			03/07/14 09:30	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			03/07/14 09:30	1
Carbon Dioxide, Free	**21**		2.0	2.0	mg/L			03/07/14 17:45	1

Client Sample ID: Outfall

Lab Sample ID: 440-72417-3

Date Collected: 03/06/14 11:45

Matrix: Water

Date Received: 03/06/14 18:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 12:45	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Outfall
Date Collected: 03/06/14 11:45
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Acrolein	ND		50	2.5	ug/L			03/07/14 12:26	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 12:26	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 12:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 12:45	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 12:45	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 12:45	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 12:45	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 12:45	1
Acetone	**23**		10	4.5	ug/L			03/07/14 12:45	1
Acetonitrile	ND		20	10	ug/L			03/07/14 12:45	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 12:45	1
Bromoform	ND		1.0	0.25	ug/L			03/07/14 12:45	1
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 12:45	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 12:45	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 12:45	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 12:45	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 12:45	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 12:45	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 12:45	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 12:45	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Outfall
Date Collected: 03/06/14 11:45
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Propionitrile	ND		20	10	ug/L			03/07/14 12:45	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 12:45	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 12:45	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 12:45	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 12:45	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 12:45	1
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 12:45	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 12:45	1
2-Butanone (MEK)	**7.4**		5.0	2.5	ug/L			03/07/14 12:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 12:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Acetaldehyde	*25*	*T J N*	*ug/L*		*2.78*	*75-07-0*		*03/07/14 12:45*	*1*
Ethanol	*380*		*ug/L*		*3.39*	*64-17-5*		*03/07/14 12:45*	*1*
Silanol, trimethyl-	*2.7*	*T J N*	*ug/L*		*5.16*	*1066-40-6*		*03/07/14 12:45*	*1*
Tert-amyl methyl ether	*0.41*	*J*	*ug/L*		*7.29*	*994-05-8*		*03/07/14 12:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 128*		*03/07/14 12:26*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*03/07/14 12:26*	*1*
Toluene-d8 (Surr)	*112*		*80 - 128*		*03/07/14 12:45*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*03/07/14 12:45*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*03/07/14 12:26*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*03/07/14 12:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.95	0.47	ug/L		03/08/14 20:53	03/11/14 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*60*		*30 - 120*	*03/08/14 20:53*	*03/11/14 16:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.66**	**J**	1.0	0.50	mg/L			03/06/14 23:50	2
Nitrate as N	**0.57**		0.22	0.11	mg/L			03/06/14 23:50	2
Chloride	**77**		50	25	mg/L			03/07/14 00:05	100
Fluoride	**1.3**		1.0	0.50	mg/L			03/06/14 23:50	2
Sulfate	**1400**		50	25	mg/L			03/07/14 00:05	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**7.3**		0.50	0.25	mg/L		03/07/14 14:55	03/07/14 21:53	1
Manganese	**7.8**		0.020	0.0070	mg/L		03/07/14 14:55	03/07/14 21:53	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Outfall

Lab Sample ID: 440-72417-3

Date Collected: 03/06/14 11:45
Matrix: Water
Date Received: 03/06/14 18:43

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	180		0.020	0.010	mg/L		03/07/14 14:55	03/07/14 21:53	1
Iron	7.1		0.040	0.020	mg/L		03/07/14 14:55	03/07/14 21:53	1
Sodium	120		0.50	0.25	mg/L		03/07/14 14:55	03/07/14 21:53	1
Calcium	260	B	0.10	0.050	mg/L		03/07/14 14:55	03/07/14 21:53	1
Boron	0.23		0.050	0.025	mg/L		03/07/14 14:55	03/07/14 21:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	1.5		0.20	0.10	mg/L		03/07/14 11:12	03/07/14 16:09	1
Chemical Oxygen Demand	39		20	10	mg/L			03/07/14 20:42	1
Total Dissolved Solids	2300		20	10	mg/L			03/07/14 08:00	1
Total Sulfide	ND		0.050	0.020	mg/L			03/10/14 11:46	1
Total Organic Carbon	17		0.10	0.050	mg/L			03/09/14 10:36	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	4.1		4.0	4.0	mg/L			03/07/14 09:36	1
Bicarbonate Alkalinity as CaCO3	4.1		4.0	4.0	mg/L			03/07/14 09:36	1
Carbon Dioxide, Free	8.8		2.0	2.0	mg/L			03/07/14 17:45	1

Client Sample ID: Duplicate

Lab Sample ID: 440-72417-4

Date Collected: 03/06/14 00:01
Matrix: Water
Date Received: 03/06/14 18:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Acrolein	ND		50	2.5	ug/L			03/07/14 12:56	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 12:56	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 13:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 13:13	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 13:13	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 13:13	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 13:13	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 13:13	1
Acetone	26		10	4.5	ug/L			03/07/14 13:13	1
Acetonitrile	ND		20	10	ug/L			03/07/14 13:13	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 13:13	1
Bromoform	ND		1.0	0.25	ug/L			03/07/14 13:13	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Duplicate
Date Collected: 03/06/14 00:01
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 13:13	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 13:13	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 13:13	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 13:13	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 13:13	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 13:13	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 13:13	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 13:13	1
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Propionitrile	ND		20	10	ug/L			03/07/14 13:13	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 13:13	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 13:13	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 13:13	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 13:13	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 13:13	1
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 13:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 13:13	1
2-Butanone (MEK)	**7.2**		5.0	2.5	ug/L			03/07/14 13:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 13:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Acetaldehyde	*28*	*T J N*	*ug/L*		*2.79*	*75-07-0*		*03/07/14 13:13*	*1*
Ethanol	*500*		*ug/L*		*3.38*	*64-17-5*		*03/07/14 13:13*	*1*
Silanol, trimethyl-	*4.3*	*T J N*	*ug/L*		*5.16*	*1066-40-6*		*03/07/14 13:13*	*1*
Tert-amyl methyl ether	*0.42*	*J*	*ug/L*		*7.29*	*994-05-8*		*03/07/14 13:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 128*		*03/07/14 12:56*	*1*

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Duplicate

Lab Sample ID: 440-72417-4

Date Collected: 03/06/14 00:01

Matrix: Water

Date Received: 03/06/14 18:43

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*03/07/14 12:56*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*03/07/14 13:13*	*1*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*		*03/07/14 13:13*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*03/07/14 12:56*	*1*
Dibromofluoromethane (Surr)	*109*		*76 - 132*		*03/07/14 13:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.3	0.64	ug/L		03/08/14 20:53	03/11/14 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	*57*		*30 - 120*	*03/08/14 20:53*	*03/11/14 17:14*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.66**	**J**	1.0	0.50	mg/L			03/07/14 00:21	2
Nitrate as N	**0.57**		0.22	0.11	mg/L			03/07/14 00:21	2
Chloride	**74**		50	25	mg/L			03/07/14 00:36	100
Fluoride	**1.4**		1.0	0.50	mg/L			03/07/14 00:21	2
Sulfate	**1400**		50	25	mg/L			03/07/14 00:36	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**7.1**		0.50	0.25	mg/L		03/07/14 14:55	03/07/14 21:55	1
Manganese	**7.7**		0.020	0.0070	mg/L		03/07/14 14:55	03/07/14 21:55	1
Magnesium	**180**		0.020	0.010	mg/L		03/07/14 14:55	03/07/14 21:55	1
Iron	**7.2**		0.040	0.020	mg/L		03/07/14 14:55	03/07/14 21:55	1
Sodium	**120**		0.50	0.25	mg/L		03/07/14 14:55	03/07/14 21:55	1
Calcium	**250**	**B**	0.10	0.050	mg/L		03/07/14 14:55	03/07/14 21:55	1
Boron	**0.23**		0.050	0.025	mg/L		03/07/14 14:55	03/07/14 21:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**1.8**		0.20	0.10	mg/L		03/07/14 11:12	03/07/14 16:09	1
Chemical Oxygen Demand	**50**		20	10	mg/L			03/07/14 20:42	1
Total Dissolved Solids	**2300**		20	10	mg/L			03/07/14 08:00	1
Total Sulfide	ND		0.050	0.020	mg/L			03/10/14 11:46	1
Total Organic Carbon	**14**		0.10	0.050	mg/L			03/09/14 09:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			03/07/14 09:43	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			03/07/14 09:43	1
Carbon Dioxide, Free	**8.8**		2.0	2.0	mg/L			03/07/14 17:45	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-72417-5

Date Collected: 03/06/14 00:01

Matrix: Water

Date Received: 03/06/14 18:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 10:52	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Trip Blank
Date Collected: 03/06/14 00:01
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Acrolein	ND		50	2.5	ug/L			03/07/14 13:26	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 13:26	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 10:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 10:52	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 10:52	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 10:52	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 10:52	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 10:52	1
Acetone	**8.5**	**J**	10	4.5	ug/L			03/07/14 10:52	1
Acetonitrile	ND		20	10	ug/L			03/07/14 10:52	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 10:52	1
Bromoform	ND		1.0	0.25	ug/L			03/07/14 10:52	1
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 10:52	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 10:52	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 10:52	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 10:52	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 10:52	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 10:52	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 10:52	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 10:52	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-72417-5

Date Collected: 03/06/14 00:01

Matrix: Water

Date Received: 03/06/14 18:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Propionitrile	ND		20	10	ug/L			03/07/14 10:52	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 10:52	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 10:52	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 10:52	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 10:52	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 10:52	1
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 10:52	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 10:52	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			03/07/14 10:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 10:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
tert-Butyldimethylsilanol	*29*	*T J N*	*ug/L*		*5.16*	*18173-64-3*		*03/07/14 10:52*	*1*
Tert-amyl methyl ether	*0.41*	*J*	*ug/L*		*7.29*	*994-05-8*		*03/07/14 10:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 128*		*03/07/14 13:26*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*03/07/14 13:26*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*03/07/14 10:52*	*1*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*		*03/07/14 10:52*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*03/07/14 13:26*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*03/07/14 10:52*	*1*

Client Sample ID: Field Blank

Lab Sample ID: 440-72417-6

Date Collected: 03/06/14 00:01

Matrix: Water

Date Received: 03/06/14 18:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Acrolein	ND		50	2.5	ug/L			03/07/14 13:56	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 13:56	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 11:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 11:21	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 11:21	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Field Blank
Date Collected: 03/06/14 00:01
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 11:21	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 11:21	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 11:21	1
Acetone	ND		10	4.5	ug/L			03/07/14 11:21	1
Acetonitrile	ND		20	10	ug/L			03/07/14 11:21	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 11:21	1
Bromoform	ND		1.0	0.25	ug/L			03/07/14 11:21	1
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 11:21	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 11:21	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 11:21	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 11:21	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 11:21	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 11:21	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 11:21	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 11:21	1
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Propionitrile	ND		20	10	ug/L			03/07/14 11:21	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 11:21	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 11:21	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 11:21	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 11:21	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 11:21	1

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Field Blank
Date Collected: 03/06/14 00:01
Date Received: 03/06/14 18:43

Lab Sample ID: 440-72417-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 11:21	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 11:21	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			03/07/14 11:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 11:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Silanol, trimethyl-	*9.8*	*T J N*	*ug/L*		*5.16*	*1066-40-6*		*03/07/14 11:21*	*1*
Tert-amyl methyl ether	*0.41*	*J*	*ug/L*		*7.30*	*994-05-8*		*03/07/14 11:21*	*1*
Cyclotrisiloxane, hexamethyl-	*2.6*	*T J N*	*ug/L*		*9.22*	*541-05-9*		*03/07/14 11:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*80 - 128*		*03/07/14 13:56*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*03/07/14 13:56*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*03/07/14 11:21*	*1*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*03/07/14 11:21*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*03/07/14 13:56*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*03/07/14 11:21*	*1*

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
350.1	Nitrogen, Ammonia	MCAWW	TAL IRV
410.4	COD	MCAWW	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 CO2 C	Free Carbon Dioxide	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5310C	TOC	SM	TAL IRV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: CC-3A Sed Basin

Lab Sample ID: 440-72417-1

Date Collected: 03/06/14 11:30

Matrix: Water

Date Received: 03/06/14 18:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	167326	03/07/14 11:56	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	167320	03/07/14 11:49	YK	TAL IRV
Total/NA	Prep	3520C			1045 mL	1 mL	167652	03/08/14 20:53	HS	TAL IRV
Total/NA	Analysis	8270C		1	1045 mL	1 mL	168117	03/11/14 16:10	AI	TAL IRV
Total/NA	Analysis	300.0		5	5 mL		167088	03/06/14 21:46	NN	TAL IRV
Total/NA	Analysis	300.0		5	5 mL		167089	03/06/14 21:46	NN	TAL IRV
Total/NA	Analysis	300.0	DL	200	5 mL		167089	03/06/14 22:01	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	167479	03/07/14 14:54	JB	TAL IRV
Total Recoverable	Analysis	6010B		1	25 mL	25 mL	167742	03/07/14 21:49	DP	TAL IRV
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	167422	03/07/14 11:12	DC	TAL IRV
Total/NA	Analysis	350.1		1	50 mL	50 mL	167515	03/07/14 16:09	DC	TAL IRV
Total/NA	Analysis	410.4		1	2.5 mL	2.5 mL	167575	03/07/14 20:42	NC	TAL IRV
Total/NA	Analysis	SM 2320B		1			167395	03/07/14 09:24	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	167410	03/07/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1			167545	03/07/14 17:45	BT	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	167816	03/10/14 11:46	ACAN	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	167709	03/09/14 07:59	YZ	TAL IRV

Client Sample ID: Southwest Sed Basin

Lab Sample ID: 440-72417-2

Date Collected: 03/06/14 11:20

Matrix: Water

Date Received: 03/06/14 18:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	167326	03/07/14 10:25	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	167320	03/07/14 12:17	YK	TAL IRV
Total/NA	Prep	3520C			950 mL	1 mL	167652	03/08/14 20:53	HS	TAL IRV
Total/NA	Analysis	8270C		1	950 mL	1 mL	168117	03/11/14 16:31	AI	TAL IRV
Total/NA	Analysis	300.0		2	5 mL		167088	03/06/14 23:19	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL		167089	03/06/14 23:19	NN	TAL IRV
Total/NA	Analysis	300.0		100	5 mL		167089	03/06/14 23:35	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	167479	03/07/14 14:54	JB	TAL IRV
Total Recoverable	Analysis	6010B		1	25 mL	25 mL	167742	03/07/14 21:51	DP	TAL IRV
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	167422	03/07/14 11:12	DC	TAL IRV
Total/NA	Analysis	350.1		1	50 mL	50 mL	167515	03/07/14 16:09	DC	TAL IRV
Total/NA	Analysis	410.4		1	2.5 mL	2.5 mL	167575	03/07/14 20:42	NC	TAL IRV
Total/NA	Analysis	SM 2320B		1			167395	03/07/14 09:30	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	167410	03/07/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1			167545	03/07/14 17:45	BT	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	167816	03/10/14 11:46	ACAN	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	167709	03/09/14 08:22	YZ	TAL IRV

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Outfall

Lab Sample ID: 440-72417-3

Date Collected: 03/06/14 11:45
Matrix: Water
Date Received: 03/06/14 18:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	167326	03/07/14 12:26	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	167320	03/07/14 12:45	YK	TAL IRV
Total/NA	Prep	3520C			1055 mL	1 mL	167652	03/08/14 20:53	HS	TAL IRV
Total/NA	Analysis	8270C		1	1055 mL	1 mL	168117	03/11/14 16:53	AI	TAL IRV
Total/NA	Analysis	300.0		2	5 mL		167088	03/06/14 23:50	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL		167089	03/06/14 23:50	NN	TAL IRV
Total/NA	Analysis	300.0		100	5 mL		167089	03/07/14 00:05	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	167479	03/07/14 14:55	JB	TAL IRV
Total Recoverable	Analysis	6010B		1	25 mL	25 mL	167742	03/07/14 21:53	DP	TAL IRV
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	167422	03/07/14 11:12	DC	TAL IRV
Total/NA	Analysis	350.1		1	50 mL	50 mL	167515	03/07/14 16:09	DC	TAL IRV
Total/NA	Analysis	410.4		1	2.5 mL	2.5 mL	167575	03/07/14 20:42	NC	TAL IRV
Total/NA	Analysis	SM 2320B		1			167395	03/07/14 09:36	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	167410	03/07/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1			167545	03/07/14 17:45	BT	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	167816	03/10/14 11:46	ACAN	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	167709	03/09/14 10:36	YZ	TAL IRV

Client Sample ID: Duplicate

Lab Sample ID: 440-72417-4

Date Collected: 03/06/14 00:01
Matrix: Water
Date Received: 03/06/14 18:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	167326	03/07/14 12:56	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	167320	03/07/14 13:13	YK	TAL IRV
Total/NA	Prep	3520C			780 mL	1 mL	167652	03/08/14 20:53	HS	TAL IRV
Total/NA	Analysis	8270C		1	780 mL	1 mL	168117	03/11/14 17:14	AI	TAL IRV
Total/NA	Analysis	300.0		2	5 mL		167088	03/07/14 00:21	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL		167089	03/07/14 00:21	NN	TAL IRV
Total/NA	Analysis	300.0		100	5 mL		167089	03/07/14 00:36	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	167479	03/07/14 14:55	JB	TAL IRV
Total Recoverable	Analysis	6010B		1	25 mL	25 mL	167742	03/07/14 21:55	DP	TAL IRV
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	167422	03/07/14 11:12	DC	TAL IRV
Total/NA	Analysis	350.1		1	50 mL	50 mL	167515	03/07/14 16:09	DC	TAL IRV
Total/NA	Analysis	410.4		1	2.5 mL	2.5 mL	167575	03/07/14 20:42	NC	TAL IRV
Total/NA	Analysis	SM 2320B		1			167395	03/07/14 09:43	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	167410	03/07/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1			167545	03/07/14 17:45	BT	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	167816	03/10/14 11:46	ACAN	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	167709	03/09/14 09:06	YZ	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Client Sample ID: Trip Blank

Lab Sample ID: 440-72417-5

Date Collected: 03/06/14 00:01
Date Received: 03/06/14 18:43

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	167326	03/07/14 13:26	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	167320	03/07/14 10:52	YK	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-72417-6

Date Collected: 03/06/14 00:01
Date Received: 03/06/14 18:43

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	167326	03/07/14 13:56	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	167320	03/07/14 11:21	YK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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

Lab Sample ID: MB 440-167320/4
Matrix: Water
Analysis Batch: 167320

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			03/07/14 08:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			03/07/14 08:03	1
1,2-Dichlorobenzene	ND		0.50	0.50	ug/L			03/07/14 08:03	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
2,2-Dichloropropane	ND		1.0	0.25	ug/L			03/07/14 08:03	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			03/07/14 08:03	1
2-Hexanone	ND		5.0	2.5	ug/L			03/07/14 08:03	1
Acetone	ND		10	4.5	ug/L			03/07/14 08:03	1
Acetonitrile	ND		20	10	ug/L			03/07/14 08:03	1
Benzene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Allyl chloride	ND		1.0	0.50	ug/L			03/07/14 08:03	1
Bromoform	ND		1.0	0.25	ug/L			03/07/14 08:03	1
Bromomethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Carbon disulfide	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Chlorobenzene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Bromochloromethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Chloroethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Chloroform	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Chloromethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Dibromochloromethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Dibromomethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Bromodichloromethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Dichlorodifluoromethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 08:03	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Iodomethane	ND		2.0	1.0	ug/L			03/07/14 08:03	1
Isobutyl alcohol	ND		20	10	ug/L			03/07/14 08:03	1
m,p-Xylene	ND		1.0	0.50	ug/L			03/07/14 08:03	1
Methylacrylonitrile	ND		2.0	1.0	ug/L			03/07/14 08:03	1
Methyl methacrylate	ND		2.0	1.0	ug/L			03/07/14 08:03	1
Methylene Chloride	ND		2.0	0.88	ug/L			03/07/14 08:03	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Naphthalene	ND		1.0	0.40	ug/L			03/07/14 08:03	1

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

Lab Sample ID: MB 440-167320/4
Matrix: Water
Analysis Batch: 167320

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Propionitrile	ND		20	10	ug/L			03/07/14 08:03	1
Styrene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
t-Butanol	ND		10	5.0	ug/L			03/07/14 08:03	1
Tetrachloroethene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Tetrahydrofuran	ND		10	5.0	ug/L			03/07/14 08:03	1
Toluene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			03/07/14 08:03	1
Trichloroethene	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			03/07/14 08:03	1
Vinyl acetate	ND		2.0	1.0	ug/L			03/07/14 08:03	1
Vinyl chloride	ND		0.50	0.25	ug/L			03/07/14 08:03	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			03/07/14 08:03	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			03/07/14 08:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			03/07/14 08:03	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*03/07/14 08:03*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*03/07/14 08:03*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*03/07/14 08:03*	*1*
Dibromofluoromethane (Surr)	*95*		*76 - 132*		*03/07/14 08:03*	*1*

Lab Sample ID: LCS 440-167320/5
Matrix: Water
Analysis Batch: 167320

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	26.3		ug/L		105	63 - 130
1,1,1,2-Tetrachloroethane	25.0	26.6		ug/L		106	60 - 141
1,1,1-Trichloroethane	25.0	25.9		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	63 - 130
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1-Dichloroethane	25.0	23.9		ug/L		96	64 - 130
1,1-Dichloroethene	25.0	28.8		ug/L		115	70 - 130
1,1-Dichloropropene	25.0	28.0		ug/L		112	70 - 130
1,2,4-Trichlorobenzene	25.0	27.7		ug/L		111	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	29.1		ug/L		116	52 - 140
1,2-Dichlorobenzene	25.0	26.1		ug/L		105	70 - 130
1,2-Dichloroethane	25.0	24.5		ug/L		98	57 - 138
1,2-Dichloropropane	25.0	26.6		ug/L		107	67 - 130
1,3-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichloropropane	25.0	24.1		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	70 - 130

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

Lab Sample ID: LCS 440-167320/5
Matrix: Water
Analysis Batch: 167320

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	26.7		ug/L		107	68 - 141
2-Hexanone	25.0	30.0		ug/L		120	10 - 150
Acetone	25.0	31.0		ug/L		124	10 - 150
Benzene	25.0	24.7		ug/L		99	68 - 130
Bromoform	25.0	27.1		ug/L		108	60 - 148
Bromomethane	25.0	25.4		ug/L		102	64 - 139
Carbon disulfide	25.0	21.6		ug/L		86	52 - 136
Carbon tetrachloride	25.0	28.2		ug/L		113	60 - 150
Chlorobenzene	25.0	24.8		ug/L		99	70 - 130
Bromochloromethane	25.0	24.7		ug/L		99	70 - 130
Chloroethane	25.0	23.9		ug/L		96	64 - 135
Chloroform	25.0	24.1		ug/L		96	70 - 130
Chloromethane	25.0	25.5		ug/L		102	47 - 140
cis-1,2-Dichloroethene	25.0	26.5		ug/L		106	70 - 133
cis-1,3-Dichloropropene	25.0	28.3		ug/L		113	70 - 133
Dibromochloromethane	25.0	26.4		ug/L		106	69 - 145
Dibromomethane	25.0	26.0		ug/L		104	70 - 130
Bromodichloromethane	25.0	26.3		ug/L		105	70 - 132
Dichlorodifluoromethane	25.0	25.2		ug/L		101	29 - 150
Ethylbenzene	25.0	27.2		ug/L		109	70 - 130
m,p-Xylene	50.0	54.9		ug/L		110	70 - 130
Methylene Chloride	25.0	22.5		ug/L		90	52 - 130
Methyl tert-butyl ether	25.0	23.0		ug/L		92	63 - 131
Naphthalene	25.0	29.7		ug/L		119	60 - 140
o-Xylene	25.0	27.8		ug/L		111	70 - 130
Styrene	25.0	27.9		ug/L		112	70 - 134
t-Butanol	125	129		ug/L		103	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	25.8		ug/L		103	70 - 130
trans-1,2-Dichloroethene	25.0	28.3		ug/L		113	70 - 130
trans-1,3-Dichloropropene	25.0	29.1		ug/L		117	70 - 132
Trichloroethene	25.0	26.9		ug/L		108	70 - 130
Trichlorofluoromethane	25.0	32.0		ug/L		128	60 - 150
Vinyl acetate	25.0	21.6		ug/L		87	48 - 140
Vinyl chloride	25.0	25.6		ug/L		102	59 - 133
1,2-Dibromoethane (EDB)	25.0	25.8		ug/L		103	70 - 130
2-Butanone (MEK)	25.0	27.7		ug/L		111	44 - 150
4-Methyl-2-pentanone (MIBK)	25.0	27.8		ug/L		111	59 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*110*		*80 - 128*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

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

Lab Sample ID: LCS 440-167320/6
Matrix: Water
Analysis Batch: 167320

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	111		80 - 128
4-Bromofluorobenzene (Surr)	108		80 - 120
Dibromofluoromethane (Surr)	91		76 - 132

Lab Sample ID: 440-72417-1 MS
Matrix: Water
Analysis Batch: 167320

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		25.0	35.6	F1	ug/L		142	60 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	29.0		ug/L		116	60 - 149
1,1,1-Trichloroethane	ND		25.0	26.5		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	27.2		ug/L		109	63 - 130
1,1,2-Trichloroethane	ND		25.0	28.6		ug/L		114	70 - 130
1,1-Dichloroethane	ND		25.0	25.7		ug/L		103	65 - 130
1,1-Dichloroethene	ND		25.0	36.2	F1	ug/L		145	70 - 130
1,1-Dichloropropene	ND		25.0	28.4		ug/L		114	64 - 130
1,2,4-Trichlorobenzene	ND		25.0	30.1		ug/L		120	60 - 140
1,2-Dibromo-3-Chloropropane	ND		25.0	28.8		ug/L		115	48 - 140
1,2-Dichlorobenzene	ND		25.0	27.6		ug/L		110	70 - 130
1,2-Dichloroethane	ND		25.0	28.0		ug/L		112	56 - 146
1,2-Dichloropropane	ND		25.0	29.0		ug/L		116	69 - 130
1,3-Dichlorobenzene	ND		25.0	26.6		ug/L		106	70 - 130
1,3-Dichloropropane	ND		25.0	26.9		ug/L		107	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.6		ug/L		106	70 - 130
2,2-Dichloropropane	ND		25.0	26.9		ug/L		108	69 - 138
2-Hexanone	ND		25.0	29.2		ug/L		117	10 - 150
Acetone	9.0	J	25.0	36.0		ug/L		108	10 - 150
Benzene	ND		25.0	25.6		ug/L		103	66 - 130
Bromoform	ND		25.0	30.0		ug/L		120	59 - 150
Bromomethane	ND		25.0	26.8		ug/L		107	62 - 131
Carbon disulfide	ND		25.0	22.1		ug/L		88	49 - 140
Carbon tetrachloride	ND		25.0	28.3		ug/L		113	60 - 150
Chlorobenzene	ND		25.0	26.1		ug/L		104	70 - 130
Bromochloromethane	ND		25.0	27.5		ug/L		110	70 - 130
Chloroethane	ND		25.0	23.5		ug/L		94	68 - 130
Chloroform	ND		25.0	25.7		ug/L		103	70 - 130
Chloromethane	ND		25.0	27.1		ug/L		108	39 - 144
cis-1,2-Dichloroethene	ND		25.0	28.1		ug/L		112	70 - 130
cis-1,3-Dichloropropene	ND		25.0	32.4		ug/L		130	70 - 133
Dibromochloromethane	ND		25.0	29.4		ug/L		118	70 - 148
Dibromomethane	ND		25.0	29.1		ug/L		116	70 - 130
Bromodichloromethane	ND		25.0	29.7		ug/L		119	70 - 138
Dichlorodifluoromethane	ND		25.0	25.9		ug/L		104	25 - 142
Ethylbenzene	ND		25.0	27.8		ug/L		111	70 - 130
m,p-Xylene	ND		50.0	57.0		ug/L		114	70 - 133
Methylene Chloride	ND		25.0	25.3		ug/L		101	52 - 130
Methyl tert-butyl ether	ND		25.0	27.8		ug/L		111	70 - 130

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

Lab Sample ID: 440-72417-1 MS
Matrix: Water
Analysis Batch: 167320

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	ND		25.0	31.8		ug/L		127	60 - 140
o-Xylene	ND		25.0	28.9		ug/L		115	70 - 133
Styrene	ND		25.0	30.8		ug/L		123	29 - 150
t-Butanol	ND		125	151		ug/L		121	70 - 130
Tetrachloroethene	ND		25.0	28.2		ug/L		113	70 - 137
Toluene	ND		25.0	27.6		ug/L		110	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.7		ug/L		111	70 - 130
trans-1,3-Dichloropropene	ND		25.0	34.1		ug/L		136	70 - 138
Trichloroethene	ND		25.0	28.4		ug/L		114	70 - 130
Trichlorofluoromethane	ND		25.0	30.4		ug/L		122	60 - 150
Vinyl acetate	ND		25.0	24.9		ug/L		100	23 - 150
Vinyl chloride	ND		25.0	23.6		ug/L		94	50 - 137
1,2-Dibromoethane (EDB)	ND		25.0	28.8		ug/L		115	70 - 131
2-Butanone (MEK)	ND		25.0	25.3		ug/L		101	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		25.0	30.1		ug/L		120	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*110*		*80 - 128*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*76 - 132*

Lab Sample ID: 440-72417-1 MSD
Matrix: Water
Analysis Batch: 167320

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		25.0	38.9	F1	ug/L		156	60 - 130	9	30
1,1,1,2-Tetrachloroethane	ND		25.0	30.2		ug/L		121	60 - 149	4	20
1,1,1-Trichloroethane	ND		25.0	28.7		ug/L		115	70 - 130	8	20
1,1,2,2-Tetrachloroethane	ND		25.0	28.7		ug/L		115	63 - 130	5	30
1,1,2-Trichloroethane	ND		25.0	30.6		ug/L		122	70 - 130	7	25
1,1-Dichloroethane	ND		25.0	26.6		ug/L		106	65 - 130	3	20
1,1-Dichloroethene	ND		25.0	40.2	F1	ug/L		161	70 - 130	11	20
1,1-Dichloropropene	ND		25.0	29.1		ug/L		116	64 - 130	2	20
1,2,4-Trichlorobenzene	ND		25.0	31.4		ug/L		126	60 - 140	4	20
1,2-Dibromo-3-Chloropropane	ND		25.0	30.9		ug/L		124	48 - 140	7	30
1,2-Dichlorobenzene	ND		25.0	29.0		ug/L		116	70 - 130	5	20
1,2-Dichloroethane	ND		25.0	28.9		ug/L		116	56 - 146	3	20
1,2-Dichloropropane	ND		25.0	30.0		ug/L		120	69 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	28.5		ug/L		114	70 - 130	7	20
1,3-Dichloropropane	ND		25.0	28.8		ug/L		115	70 - 130	7	25
1,4-Dichlorobenzene	ND		25.0	27.4		ug/L		110	70 - 130	3	20
2,2-Dichloropropane	ND		25.0	28.8		ug/L		115	69 - 138	7	25
2-Hexanone	ND		25.0	31.9		ug/L		128	10 - 150	9	35
Acetone	9.0	J	25.0	40.2		ug/L		125	10 - 150	11	35
Benzene	ND		25.0	26.7		ug/L		107	66 - 130	4	20
Bromoform	ND		25.0	32.4		ug/L		130	59 - 150	8	25
Bromomethane	ND		25.0	29.0		ug/L		116	62 - 131	8	25

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

Lab Sample ID: 440-72417-1 MSD
Matrix: Water
Analysis Batch: 167320

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon disulfide	ND		25.0	23.4		ug/L		93	49 - 140	5	20
Carbon tetrachloride	ND		25.0	29.1		ug/L		116	60 - 150	3	25
Chlorobenzene	ND		25.0	27.4		ug/L		109	70 - 130	5	20
Bromochloromethane	ND		25.0	29.2		ug/L		117	70 - 130	6	25
Chloroethane	ND		25.0	26.9		ug/L		108	68 - 130	14	25
Chloroform	ND		25.0	27.9		ug/L		112	70 - 130	8	20
Chloromethane	ND		25.0	29.1		ug/L		116	39 - 144	7	25
cis-1,2-Dichloroethene	ND		25.0	30.1		ug/L		120	70 - 130	7	20
cis-1,3-Dichloropropene	ND		25.0	34.6	F1	ug/L		138	70 - 133	7	20
Dibromochloromethane	ND		25.0	31.2		ug/L		125	70 - 148	6	25
Dibromomethane	ND		25.0	30.3		ug/L		121	70 - 130	4	25
Bromodichloromethane	ND		25.0	30.4		ug/L		121	70 - 138	2	20
Dichlorodifluoromethane	ND		25.0	27.8		ug/L		111	25 - 142	7	30
Ethylbenzene	ND		25.0	29.5		ug/L		118	70 - 130	6	20
m,p-Xylene	ND		50.0	58.8		ug/L		118	70 - 133	3	25
Methylene Chloride	ND		25.0	27.3		ug/L		109	52 - 130	8	20
Methyl tert-butyl ether	ND		25.0	30.5		ug/L		122	70 - 130	9	25
Naphthalene	ND		25.0	33.5		ug/L		134	60 - 140	5	30
o-Xylene	ND		25.0	30.2		ug/L		121	70 - 133	4	20
Styrene	ND		25.0	32.3		ug/L		129	29 - 150	5	35
t-Butanol	ND		125	158		ug/L		126	70 - 130	4	25
Tetrachloroethene	ND		25.0	29.5		ug/L		118	70 - 137	5	20
Toluene	ND		25.0	28.8		ug/L		115	70 - 130	4	20
trans-1,2-Dichloroethene	ND		25.0	31.1		ug/L		124	70 - 130	12	20
trans-1,3-Dichloropropene	ND		25.0	36.1	F1	ug/L		145	70 - 138	6	25
Trichloroethene	ND		25.0	28.9		ug/L		115	70 - 130	2	20
Trichlorofluoromethane	ND		25.0	32.0		ug/L		128	60 - 150	5	25
Vinyl acetate	ND		25.0	27.7		ug/L		111	23 - 150	11	30
Vinyl chloride	ND		25.0	25.3		ug/L		101	50 - 137	7	30
1,2-Dibromoethane (EDB)	ND		25.0	31.1		ug/L		124	70 - 131	7	25
2-Butanone (MEK)	ND		25.0	28.4		ug/L		113	48 - 140	11	40
4-Methyl-2-pentanone (MIBK)	ND		25.0	33.1		ug/L		132	52 - 150	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*

Lab Sample ID: MB 440-167326/5
Matrix: Water
Analysis Batch: 167326

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		50	2.5	ug/L			03/07/14 09:25	1
Acrylonitrile	ND		50	1.0	ug/L			03/07/14 09:25	1

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

Lab Sample ID: MB 440-167326/5
Matrix: Water
Analysis Batch: 167326

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*106*		*80 - 128*		*03/07/14 09:25*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*03/07/14 09:25*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*03/07/14 09:25*	*1*

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

Lab Sample ID: MB 440-167652/1-A
Matrix: Water
Analysis Batch: 168117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 167652

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.50	ug/L		03/08/14 20:53	03/11/14 15:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	*43*		*30 - 120*	*03/08/14 20:53*	*03/11/14 15:06*	*1*

Lab Sample ID: LCS 440-167652/2-A
Matrix: Water
Analysis Batch: 168117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 167652

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	0.900	J	ug/L		45	35 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	*43*		*30 - 120*

Lab Sample ID: LCSD 440-167652/3-A
Matrix: Water
Analysis Batch: 168117

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 167652

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	0.835	J	ug/L		42	35 - 120	7	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8 (Surr)	*37*		*30 - 120*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-167088/4
Matrix: Water
Analysis Batch: 167088

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		0.11	0.055	mg/L			03/06/14 12:18	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-167088/2
Matrix: Water
Analysis Batch: 167088

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	1.13	1.08		mg/L		96	90 - 110

Lab Sample ID: MB 440-167089/4
Matrix: Water
Analysis Batch: 167089

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			03/06/14 12:18	1
Chloride	ND		0.50	0.25	mg/L			03/06/14 12:18	1
Fluoride	ND		0.50	0.25	mg/L			03/06/14 12:18	1
Sulfate	ND		0.50	0.25	mg/L			03/06/14 12:18	1

Lab Sample ID: LCS 440-167089/2
Matrix: Water
Analysis Batch: 167089

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.80		mg/L		96	90 - 110
Chloride	5.00	4.57		mg/L		91	90 - 110
Fluoride	5.00	4.88		mg/L		98	90 - 110
Sulfate	5.00	4.87		mg/L		97	90 - 110

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 440-72417-H-1 MS
Matrix: Water
Analysis Batch: 167088

Client Sample ID: 440-72417-H-1 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N - DL	ND		33.9	38.1		mg/L		112	80 - 120

Lab Sample ID: 440-72417-H-1 MSD
Matrix: Water
Analysis Batch: 167088

Client Sample ID: 440-72417-H-1 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N - DL	ND		33.9	38.7		mg/L		114	80 - 120	2	20

Lab Sample ID: 440-72417-1 MS
Matrix: Water
Analysis Batch: 167089

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide - DL	ND		150	169		mg/L		112	80 - 120
Chloride - DL	85		150	201	F1	mg/L		77	80 - 120
Fluoride - DL	ND		150	155		mg/L		103	80 - 120
Sulfate - DL	1800		150	1640	4	mg/L		-92	80 - 120

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

Lab Sample ID: 440-72417-1 MSD
Matrix: Water
Analysis Batch: 167089

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide - DL	ND		150	165		mg/L		110	80 - 120	2	20
Chloride - DL	85		150	202	F1	mg/L		78	80 - 120	0	20
Fluoride - DL	ND		150	155		mg/L		103	80 - 120	0	20
Sulfate - DL	1800		150	1630	4	mg/L		-103	80 - 120	1	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-167479/1-A
Matrix: Water
Analysis Batch: 167742

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 167479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.25	mg/L		03/07/14 14:54	03/07/14 20:49	1
Manganese	ND		0.020	0.0070	mg/L		03/07/14 14:54	03/07/14 20:49	1
Magnesium	ND		0.020	0.010	mg/L		03/07/14 14:54	03/07/14 20:49	1
Iron	ND		0.040	0.020	mg/L		03/07/14 14:54	03/07/14 20:49	1
Sodium	ND		0.50	0.25	mg/L		03/07/14 14:54	03/07/14 20:49	1
Calcium	0.137		0.10	0.050	mg/L		03/07/14 14:54	03/07/14 20:49	1
Boron	ND		0.050	0.025	mg/L		03/07/14 14:54	03/07/14 20:49	1

Lab Sample ID: LCS 440-167479/2-A
Matrix: Water
Analysis Batch: 167742

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 167479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	10.7		mg/L		107	80 - 120
Manganese	1.00	1.04		mg/L		104	80 - 120
Magnesium	5.00	5.32		mg/L		106	80 - 120
Iron	1.00	1.08		mg/L		108	80 - 120
Sodium	10.0	10.5		mg/L		105	80 - 120
Calcium	5.00	5.15		mg/L		103	80 - 120
Boron	1.00	0.985		mg/L		98	80 - 120

Lab Sample ID: 440-71292-H-1-B MS
Matrix: Water
Analysis Batch: 167742

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 167479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2.6		10.0	12.9		mg/L		103	75 - 125
Manganese	0.15		1.00	1.15		mg/L		101	75 - 125
Magnesium	3.9		5.00	8.69		mg/L		95	75 - 125
Iron	3.0		1.00	3.96		mg/L		92	75 - 125
Sodium	21		10.0	29.6		mg/L		91	75 - 125
Calcium	22	B	5.00	26.1	4	mg/L		81	75 - 125
Boron	0.18		1.00	1.14		mg/L		96	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-71292-H-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 167742 — **Prep Batch: 167479**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	2.6		10.0	13.5		mg/L		109	75 - 125	5	20
Manganese	0.15		1.00	1.19		mg/L		105	75 - 125	4	20
Magnesium	3.9		5.00	9.12		mg/L		104	75 - 125	5	20
Iron	3.0		1.00	4.18		mg/L		114	75 - 125	5	20
Sodium	21		10.0	31.2		mg/L		106	75 - 125	5	20
Calcium	22	B	5.00	27.9	4	mg/L		117	75 - 125	7	20
Boron	0.18		1.00	1.20		mg/L		102	75 - 125	5	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-167422/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167498 — **Prep Batch: 167422**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L		03/07/14 11:12	03/07/14 14:35	1

Lab Sample ID: LCS 440-167422/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167498 — **Prep Batch: 167422**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.00	2.00		mg/L		100	90 - 110

Lab Sample ID: 440-71804-B-2-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167515 — **Prep Batch: 167422**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.43		2.00	2.46		mg/L		102	90 - 110

Lab Sample ID: 440-71804-B-2-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167515 — **Prep Batch: 167422**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.43		2.00	2.52		mg/L		105	90 - 110	2	15

Method: 410.4 - COD

Lab Sample ID: MB 440-167575/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167575

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			03/07/14 20:42	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 440-167575/4
Matrix: Water
Analysis Batch: 167575

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	205		mg/L		102	90 - 110		

Lab Sample ID: 440-72417-1 MS
Matrix: Water
Analysis Batch: 167575

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		200	214		mg/L		107	70 - 120		

Lab Sample ID: 440-72417-1 MSD
Matrix: Water
Analysis Batch: 167575

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		200	209		mg/L		105	70 - 120	2	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-167395/3
Matrix: Water
Analysis Batch: 167395

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			03/07/14 08:10	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			03/07/14 08:10	1

Lab Sample ID: LCS 440-167395/2
Matrix: Water
Analysis Batch: 167395

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			86.3	88.7		mg/L		103	90 - 110		

Lab Sample ID: 440-72282-B-1 DU
Matrix: Water
Analysis Batch: 167395

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	120			124		mg/L				0.3	20
Bicarbonate Alkalinity as CaCO3	120			124		mg/L				0.3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-167410/1
Matrix: Water
Analysis Batch: 167410

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			03/07/14 08:00	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 440-167410/2
Matrix: Water
Analysis Batch: 167410

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1020		mg/L		102	90 - 110

Lab Sample ID: 440-72417-1 DU
Matrix: Water
Analysis Batch: 167410

Client Sample ID: CC-3A Sed Basin
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2900		2960		mg/L		2	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-167545/1
Matrix: Water
Analysis Batch: 167545

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			03/07/14 17:45	1

Lab Sample ID: 440-72417-4 DU
Matrix: Water
Analysis Batch: 167545

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbon Dioxide, Free	8.8		8.80		mg/L		0	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-167816/4
Matrix: Water
Analysis Batch: 167816

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Sulfide	ND		0.050	0.020	mg/L			03/10/14 11:46	1

Lab Sample ID: LCS 440-167816/3
Matrix: Water
Analysis Batch: 167816

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.560	0.530		mg/L		95	80 - 120

Lab Sample ID: 440-72358-H-1 MS
Matrix: Water
Analysis Batch: 167816

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	ND		0.560	0.195	F1	mg/L		35	70 - 130

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: 440-72358-H-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.560	0.247	F1	mg/L		44	70 - 130	24	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-167709/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167709

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			03/09/14 07:39	1

Lab Sample ID: LCS 440-167709/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: MRL 440-167709/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167709

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.107	J	mg/L		107	50 - 150

Lab Sample ID: 440-72417-1 MS — **Client Sample ID: CC-3A Sed Basin**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	12		50.0	73.5	F1	mg/L		123	80 - 120

Lab Sample ID: 440-72417-1 MSD — **Client Sample ID: CC-3A Sed Basin**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	12		50.0	73.3	F1	mg/L		123	80 - 120	0	20

GC/MS VOA

Analysis Batch: 167320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	8260B	
440-72417-1 MS	CC-3A Sed Basin	Total/NA	Water	8260B	
440-72417-1 MSD	CC-3A Sed Basin	Total/NA	Water	8260B	
440-72417-2	Southwest Sed Basin	Total/NA	Water	8260B	
440-72417-3	Outfall	Total/NA	Water	8260B	
440-72417-4	Duplicate	Total/NA	Water	8260B	
440-72417-5	Trip Blank	Total/NA	Water	8260B	
440-72417-6	Field Blank	Total/NA	Water	8260B	
LCS 440-167320/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-167320/6	Lab Control Sample	Total/NA	Water	8260B	
MB 440-167320/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 167326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	8260B	
440-72417-2	Southwest Sed Basin	Total/NA	Water	8260B	
440-72417-3	Outfall	Total/NA	Water	8260B	
440-72417-4	Duplicate	Total/NA	Water	8260B	
440-72417-5	Trip Blank	Total/NA	Water	8260B	
440-72417-6	Field Blank	Total/NA	Water	8260B	
MB 440-167326/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 167652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	3520C	
440-72417-2	Southwest Sed Basin	Total/NA	Water	3520C	
440-72417-3	Outfall	Total/NA	Water	3520C	
440-72417-4	Duplicate	Total/NA	Water	3520C	
LCS 440-167652/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-167652/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-167652/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 168117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	8270C	167652
440-72417-2	Southwest Sed Basin	Total/NA	Water	8270C	167652
440-72417-3	Outfall	Total/NA	Water	8270C	167652
440-72417-4	Duplicate	Total/NA	Water	8270C	167652
LCS 440-167652/2-A	Lab Control Sample	Total/NA	Water	8270C	167652
LCSD 440-167652/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	167652
MB 440-167652/1-A	Method Blank	Total/NA	Water	8270C	167652

HPLC/IC

Analysis Batch: 167088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	300.0	
440-72417-2	Southwest Sed Basin	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 167088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-3	Outfall	Total/NA	Water	300.0	
440-72417-4	Duplicate	Total/NA	Water	300.0	
440-72417-H-1 MS - DL	440-72417-H-1 MS	Total/NA	Water	300.0	
440-72417-H-1 MSD - DL	440-72417-H-1 MSD	Total/NA	Water	300.0	
LCS 440-167088/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-167088/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 167089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	300.0	
440-72417-1 - DL	CC-3A Sed Basin	Total/NA	Water	300.0	
440-72417-1 MS - DL	CC-3A Sed Basin	Total/NA	Water	300.0	
440-72417-1 MSD - DL	CC-3A Sed Basin	Total/NA	Water	300.0	
440-72417-2	Southwest Sed Basin	Total/NA	Water	300.0	
440-72417-2	Southwest Sed Basin	Total/NA	Water	300.0	
440-72417-3	Outfall	Total/NA	Water	300.0	
440-72417-3	Outfall	Total/NA	Water	300.0	
440-72417-4	Duplicate	Total/NA	Water	300.0	
440-72417-4	Duplicate	Total/NA	Water	300.0	
LCS 440-167089/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-167089/4	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 167479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-71292-H-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-71292-H-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
440-72417-1	CC-3A Sed Basin	Total Recoverable	Water	3005A	
440-72417-2	Southwest Sed Basin	Total Recoverable	Water	3005A	
440-72417-3	Outfall	Total Recoverable	Water	3005A	
440-72417-4	Duplicate	Total Recoverable	Water	3005A	
LCS 440-167479/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 440-167479/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 167742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-71292-H-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	167479
440-71292-H-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	167479
440-72417-1	CC-3A Sed Basin	Total Recoverable	Water	6010B	167479
440-72417-2	Southwest Sed Basin	Total Recoverable	Water	6010B	167479
440-72417-3	Outfall	Total Recoverable	Water	6010B	167479
440-72417-4	Duplicate	Total Recoverable	Water	6010B	167479
LCS 440-167479/2-A	Lab Control Sample	Total Recoverable	Water	6010B	167479
MB 440-167479/1-A	Method Blank	Total Recoverable	Water	6010B	167479

General Chemistry

Analysis Batch: 167395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72282-B-1 DU	Duplicate	Total/NA	Water	SM 2320B	
440-72417-1	CC-3A Sed Basin	Total/NA	Water	SM 2320B	
440-72417-2	Southwest Sed Basin	Total/NA	Water	SM 2320B	
440-72417-3	Outfall	Total/NA	Water	SM 2320B	
440-72417-4	Duplicate	Total/NA	Water	SM 2320B	
LCS 440-167395/2	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 440-167395/3	Method Blank	Total/NA	Water	SM 2320B	

Analysis Batch: 167410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	SM 2540C	
440-72417-1 DU	CC-3A Sed Basin	Total/NA	Water	SM 2540C	
440-72417-2	Southwest Sed Basin	Total/NA	Water	SM 2540C	
440-72417-3	Outfall	Total/NA	Water	SM 2540C	
440-72417-4	Duplicate	Total/NA	Water	SM 2540C	
LCS 440-167410/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-167410/1	Method Blank	Total/NA	Water	SM 2540C	

Prep Batch: 167422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-71804-B-2-C MS	Matrix Spike	Total/NA	Water	Distill/Ammonia	
440-71804-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/Ammonia	
440-72417-1	CC-3A Sed Basin	Total/NA	Water	Distill/Ammonia	
440-72417-2	Southwest Sed Basin	Total/NA	Water	Distill/Ammonia	
440-72417-3	Outfall	Total/NA	Water	Distill/Ammonia	
440-72417-4	Duplicate	Total/NA	Water	Distill/Ammonia	
LCS 440-167422/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	
MB 440-167422/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 167498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-167422/1-A	Lab Control Sample	Total/NA	Water	350.1	167422
MB 440-167422/2-A	Method Blank	Total/NA	Water	350.1	167422

Analysis Batch: 167515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-71804-B-2-C MS	Matrix Spike	Total/NA	Water	350.1	167422
440-71804-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	167422
440-72417-1	CC-3A Sed Basin	Total/NA	Water	350.1	167422
440-72417-2	Southwest Sed Basin	Total/NA	Water	350.1	167422
440-72417-3	Outfall	Total/NA	Water	350.1	167422
440-72417-4	Duplicate	Total/NA	Water	350.1	167422

Analysis Batch: 167545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	SM 4500 CO2 C	
440-72417-2	Southwest Sed Basin	Total/NA	Water	SM 4500 CO2 C	
440-72417-3	Outfall	Total/NA	Water	SM 4500 CO2 C	
440-72417-4	Duplicate	Total/NA	Water	SM 4500 CO2 C	
440-72417-4 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	
MB 440-167545/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	

General Chemistry (Continued)

Analysis Batch: 167575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	410.4	
440-72417-1 MS	CC-3A Sed Basin	Total/NA	Water	410.4	
440-72417-1 MSD	CC-3A Sed Basin	Total/NA	Water	410.4	
440-72417-2	Southwest Sed Basin	Total/NA	Water	410.4	
440-72417-3	Outfall	Total/NA	Water	410.4	
440-72417-4	Duplicate	Total/NA	Water	410.4	
LCS 440-167575/4	Lab Control Sample	Total/NA	Water	410.4	
MB 440-167575/3	Method Blank	Total/NA	Water	410.4	

Analysis Batch: 167709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72417-1	CC-3A Sed Basin	Total/NA	Water	SM 5310C	
440-72417-1 MS	CC-3A Sed Basin	Total/NA	Water	SM 5310C	
440-72417-1 MSD	CC-3A Sed Basin	Total/NA	Water	SM 5310C	
440-72417-2	Southwest Sed Basin	Total/NA	Water	SM 5310C	
440-72417-3	Outfall	Total/NA	Water	SM 5310C	
440-72417-4	Duplicate	Total/NA	Water	SM 5310C	
LCS 440-167709/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MB 440-167709/8	Method Blank	Total/NA	Water	SM 5310C	
MRL 440-167709/4	Lab Control Sample	Total/NA	Water	SM 5310C	

Analysis Batch: 167816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-72358-H-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-72358-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	
440-72417-1	CC-3A Sed Basin	Total/NA	Water	SM 4500 S2 D	
440-72417-2	Southwest Sed Basin	Total/NA	Water	SM 4500 S2 D	
440-72417-3	Outfall	Total/NA	Water	SM 4500 S2 D	
440-72417-4	Duplicate	Total/NA	Water	SM 4500 S2 D	
LCS 440-167816/3	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
MB 440-167816/4	Method Blank	Total/NA	Water	SM 4500 S2 D	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery exceeds the control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

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.
F1	MS and/or MSD Recovery exceeds the control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Geo-Logic Associates
Project/Site: Republic sunshine canyon

TestAmerica Job ID: 440-72417-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-14
California	LA Cty Sanitation Districts	9	10256	01-31-15
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-23-14 *
Hawaii	State Program	9	N/A	01-29-15 *
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14 *
Northern Mariana Islands	State Program	9	MP0002	01-31-14 *
Oregon	NELAP	10	4005	01-29-15
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013 (0513)

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297

Client Name / Address: GeoLogic Assoc. San Diego

Project / PO Number: Sunshine Stormwater

Project Manager: John Hower

Phone Number:

Sampler: Mark Vincent

Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	SM 4500	350.1/410.4	8260_LL	8270	2320B, 300.0/9056 SM4500	5310C	8260B			Special Instructions
Upper Lake	Water		13	3/6/14	11:30		X	X	X	X	X	X	X			
Lower Lake	Water		13	3/6/14	11:20		X	X	X	X	X	X	X			
Outfall	Water		13	3/6/14	11:45		X	X	X	X	X	X	X			
Duplicate	Water		13	3/6/14			X	X	X	X	X	X	X			
Trip Blank	Water		6						X				X			
Field Blank	Water		6	3/6/14					X				X			

440-72417 Chain of Custody

Relinquished By:	Date / Time:	Received By:	Date / Time:	Turnaround Time: (Check)	
Mark W Vincent	3/6/14 13:38		3-6-14 15:10	same day ____	72 hours ____
Relinquished By:	Date / Time:	Received By:	Date / Time:	24 hours ____	5 days ____
	3-6-14-16:43			48 hours ____	normal ____
Relinquished By:	Date / Time:	Received in Lab By:	Date / Time:	Sample Integrity: (Check)	
			03/06/14 18:43	intact X	on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2 BC-1
2.7c
IR-59

Tomova, Rossina

From: John Hower [jmhower@geo-logic.com]
Sent: Friday, March 14, 2014 4:44 PM
To: Tomova, Rossina
Subject: RE: Final Report Files from 440-72417-1 Republic sunshine canyon

Hi Rossina,

I just received an email from Sunshine Canyon Landfill regarding the stormwater samples we collected and TestAmerica analyzed. Sunshine Canyon would like the sample names changed.

Can you please make the following changes on the subject laboratory report:

Sample "Lower Pond" should be renamed "Southwest Sed Basin"
Sample "Upper Pond" should be renamed "CC-3A Sed Basin"
Sample "Outfall" can remain the same.

Thank you. Have a nice weekend.

John M. Hower, PG, CEG
Supervising Geologist

Geo-Logic Associates
11415 W. Bernardo Court, Suite 200
San Diego, CA 92127
T: (858) 451-1136
F: (858) 451-1087
M: (858) 864-2584
E: jmhower@geo-logic.com

From: Tomova, Rossina [mailto:rossina.tomova@testamericainc.com]
Sent: Wednesday, March 12, 2014 4:16 PM
To: Diane Foster; John Hower; Sarah Battelle
Subject: Final Report Files from 440-72417-1 Republic sunshine canyon

Thank you,

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

ROSSINA D TOMOVA

TestAmerica Irvine
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 949.261.1022

Reference: [128843]
Attachments: 2

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-72417-1

Login Number: 72417

List Source: TestAmerica Irvine

List Number: 1

Creator: Perez, Angel

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

ATTACHMENT C

SUNSHINE CANYON LANDFILL

A REPUBLIC SERVICES COMPANY

March 21, 2014

Dr. Wen Yang
Chief, Land Disposal Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, Californian 90013

RE: Sunshine Canyon Landfill, File No. 58-076
Cell CC-3A, Part 2 Post-Storm Cleanup and Repairs

Dear Dr. Wen,

Attached please find a report prepared by our consultant, A-Mehr, Inc, documenting the cleaning and repairs conducted at the southern end of Cell CC-3A Part 2. These actions were taken after the storm event of February 28 – March 1, 2014 during which time over six (6) inches of rainfall was recorded at Sunshine Canyon Landfill.

The attached report documents the cleanup and repair work conducted from March 11 – 17, 2014 and certifies that no damage to the liner was observed and no liner repair was required. All work was done under the supervision of an A-Mehr, Inc. construction quality assurance (CQA) engineer.

It is important for us to be able to place trash in this portion of the cell for efficient fill placement and continue to improve drainage. We are therefore requesting your approval for waste placement in this area as soon as possible.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Patti K. Costa

Patti K. Costa, P.E.
Environmental Manager
Sunshine Canyon Landfill

Attachment Post-Storm Cleanup and Repair, Cell CC-3A, Part 2, A-Mehr, Inc. March 20, 2014

cc: Gerardo Villalobos, SCL LEA
Wayne Tsuda, SCL LEA
David Thompson, SCL LEA
Dave Hauser, Republic Services, Inc.
Harold Barber, Republic Services, Inc.
Michael Stewart, Republic Services, Inc.

14747 San Fernando Rd., Sylmar, CA 91342 (818) 833-6500 Office (818) 362-5484 Fax

A-Mehr Inc.

Professional Engineers and Scientists Specializing in Landfills

23016 Mill Creek Drive **Phone (949) 206-0157**
Laguna Hills, CA 92653 **Fax (949) 206-9157**

March 20, 2014

Ms. Patti Costa, P.E., Environmental Manager
Sunshine Canyon Landfill
14747 San Fernando Road
Sylmar, California 91342

RE: Post-Storm Cleanup and Repairs, Cell CC-3A, Part 2 Area

Dear Ms. Costa:

Sunshine Canyon Landfill has completed cleaning and repairing the eroded protective soil in the southern end of Cell CC-3A, Part 2 following the storm event of February 28 - March 1, 2014. All work was done under the supervision of an A-Mehr, Inc. construction quality assurance engineer. We certify that no damage to the liner was observed and no liner repair was required. This letter report documents the cleanup and repair work, which occurred from March 11 through March 17, 2014.

Prior to starting the cleanup work, we inspected the area and observed that some protective soil placed over the liner system prior to refuse filling was displaced by storm water near the south end of Cell CC-3A Part 2 (just north of the scalehouse area). Inspection also showed that in some areas the protective geotextile directly below the displaced protective soil was damaged, allowing fine-grained soils to be deposited between the 80-mil HDPE geomembrane liner and the geotextile.

In order to expose areas of displaced protective soil and geotextile, the contractor first removed refuse and protective soil from the affected area. This work was performed under our observation using a backhoe. We confirmed that the work was done without damage to the liner in the area.

After the affected area was exposed, the contractor pulled back the geotextile and removed the fine-grained soils under the geotextile. After the liner surface was cleaned, we inspected the liner and confirmed that the liner was undamaged. Any damaged geotextile was then replaced or repaired by sewing torn pieces and patches as needed. We confirmed that the repaired geotextile is sound and in conformance with original installation requirements.

After all cleaning and repairs were complete, we verbally reported our findings to staff of the Regional Water Quality Board, and then the contractor installed new protective soil in conformance with original construction requirements. Cover soil placement was completed under our supervision on March 17, 2014.

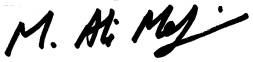
Representative photographs of cleaning and repair work are attached.

Based on our observations, we certify that the liner system in Cell CC-3A, Part 2 has been restored to a condition substantially identical to that described in our Final Report of Construction Quality Assurance dated January 2014.

Any questions regarding this report may be directed to the undersigned at (949) 206-0157.

Respectfully submitted,

A-Mehr, Inc.



M. Ali Mehrazarin, P.E.
Certifying Engineer

Photo 1 - The area was covered with daily cover soil prior to the cleanup and repair work.

Photo 2 - Refuse and protective cover soil were removed from the affected area.

Photo 3 - Some damage was observed to geotextile below the displaced protective soil.

Photo 4 - Fine-grained soils were observed under the geotextile.

Photo 5 - Fine-grained soils were observed under the geotextile.

Photo 6 - Fine-grained soils were removed.

Photo 7 - The liner surface was inspected to confirm that the liner was undamaged.

Photo 8 - The liner surface was inspected to confirm that the liner was undamaged.

Photo 9 - The liner surface was inspected to confirm that the liner was undamaged.

Photo 10 - The geotextile was repaired.

Photo 11 - The protective soil was replaced.

Photo 12 - The protective soil was replaced.